INITIAL SITE SAMPLING REPORT
MERCHANTS METALS
Statesville, Iredell County, North Carolina

ESI Project ER10-125.01
February 11, 2011

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NCDENR MRO IHSB

FOR

MMI Products, Inc.
400 N. Sam Houston Parkway E
Suite 1200
Houston, Texas 77060

BY

ENVIRONMENTAL SERVICES, INC.
524 S. New Hope Road
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1.0 Title Page

Date: February 2011
***Property* Name: Merchants Metals Facility**
***Property* Location: 165 Fanjoy Road**
Nearest City/Town: Statesville
County: Iredell

Owner Information:	Merchants Metals 400 N. Sam Houston Parkway E Houston, TX 77060
Facility Information:	Merchants Metals 165 Fanjoy Road Statesville, NC 28625 (704) 872-0926
Consultant/Contractor	Michael Burns, P.G. Environmental Services, Inc. 524 S. New Hope Road Raleigh, NC 27610 (919) 212-1760

I, Michael Burns a Professional Engineer/Licensed Geologist (circle one) for Environmental Services, Inc., do certify that the information contained in this report is correct and accurate to the best of my knowledge.

(Seal)

NORTH CAROLINA LICENSED SEAL 1645 GEOLOGIST MICHAEL JAMES BURNS

2-11-11

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2.0 Introduction

Environmental Services, Inc. (ESI) has completed the Initial Site Sampling Report (IISR) for the Merchants Metals facility (hereafter referred to as the *property*) located at 165 Fanjoy Road in Statesville, Iredell County, North Carolina (**Figure 1**). The ISSR has been prepared in general accordance with the North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management, Hazardous Waste Section: *Generator Closure Guidelines* (Guidelines) dated June 18, 2008. This ISSR has been prepared to provide information concerning the *property*, previous investigations, receptors, and background sampling results. The report follows as close as reasonably possible the outline described in the Guidelines. Tabulated summaries of information and data (as well as appropriate figures) are provided.

3.0 Merchants Metals Facility Description

The *property* is located at 165 Fanjoy Road in Statesville, Iredell County, North Carolina (**Figure 1**). The *property* is situated about 600 feet northwest of the intersection of US Highway 70 (Salisbury Highway) and Fanjoy Road. Based on Iredell County tax records, the *property* is identified as parcel ID No. 4753879727 and has an area of approximately 22 acres. Merchants Metals is listed as the current owner with a purchase date of January 21, 1982 from Joy Areas Farm, LTD (a limited partnership owned by John A. Fanjoy, Weldon S. Fanjoy and Thomas A. Fanjoy). The *property* is located at 35°47'47.71"N latitude and 80°49'25.49"W longitude (center of *property*).

The Merchants Metals facility manufactures various types of metal fencing beginning with the raw materials and ending with the finished product. The facility has been in operation since the early 1980s. The *property* development consists of a main office/manufacturing building located in the eastern portion of the *property* near Fanjoy Road. A former galvanizing building (currently empty) is located about 50 feet to the west of the main building. The remainder of the developed portion of the *property* consists of asphalt paved storage areas, loading and unloading areas, and storage buildings of various sizes. The western portion of the *property* is undeveloped wooded land. There is a significant down slope from the developed portion to the undeveloped portion of up to 30 feet in some areas. The slope is due to fill being placed on the *property* during development. The *property* is supplied with public water and sewer. There is an unused septic tank located northwest of the main building and an unused drinking water well in the northern portion of the *property*. An unnamed tributary of Fourth Creek is located in the western portion of the *property*. The unnamed

tributary apparently originates southwest of the *property* near the eastern edge of a closed Iredell County C&D landfill and to the south near the Accuma Corp. parcel.

3.1 Adjacent Properties

There are three parcels located to the north of the *property*, two of which are owned by Wanda and Kimber Haneline with the remaining parcel being owned by Douglas Haneline. These parcels are a mixture of a residential development and undeveloped wooded land. The parcel located to the east across Fanjoy Road is owned by Joy Acres Farm, LTD and is a mixture of wooded land and agricultural fields. The parcel to the southeast across Fanjoy Road is owned by Iredell Fiber, Inc. and is industrially developed. The parcels located to the south and southwest are owned by Accuma Corp. The Accuma Corp. parcel to the south is industrially developed and the parcel to the southwest is a mixture of wooded land and agricultural fields. The parcel located to the west is owned by Iredell County and consists of closed construction and demolition (C&D) landfills (Phase I and II) and four phases of the Iredell County Municipal Solid Waste Landfill (MSWLF).

4.0 Galvanizing Process

As mentioned in Section 3.0, there is a vacant galvanizing building located to the west of the main building. Beginning in the 1980s, fencing fabric was processed through this area of the facility to apply a galvanized coating for rust protection. The "hot-dip" galvanizing process included surface preparation of the material starting with a caustic cleaning dip tank (7,000 gallon steel tank) containing an alkali solution, followed by a clean water rinse in a steel 3,500 gallon steel tank, then "pickling" by immersing the fencing fabric in a fiberglass-lined concrete 8,000 gallon hydrochloric acid (HCL) tank to remove impurities. Following the surface preparation, the fencing products were galvanized by immersing them in molten zinc bath (4,000 gallon steel kettle) with a flux of zinc ammonium chloride floating on the surface, run through three water cooling tanks (600 gallons steel each), and then sealed using a chromic acid solution (1% acid, 99% water). The fence fabric was then run through the process a second time. It was during the second run that zinc accumulated in the HCL tank. All tanks were above ground.

In late 2009, all of the tanks were removed and the HCL dip tank was observed to be in degraded condition. Merchants Metals contracted Terracon to mobilize to the facility to observe the tank conditions and to perform preliminary assessment activities. The following section describes the assessment activities performed by Terracon.

5.0 Environmental Investigation Summary

5.1 Terracon November 2009 Assessment Activities

On November 17, 2009, Terracon completed a subsurface assessment to evaluate the area beneath the degraded former HCL dip tank. Terracon cored through the concrete slab in six locations (B-1 through B-6) within the former HCL dip tank. According to information provided to Merchants Metals by Terracon, the concrete at the bottom of the former HCL tank consisted of a 4-inch layer of concrete, a thin layer of fiberglass and another 4-inch layer of concrete (floor slab). After coring through the bottom of the tank, hand auger borings were advanced in each area to a maximum depth of five feet below the lower concrete slab. Soil samples were collected from each soil boring at one foot and four feet for laboratory analyses for pH, cadmium, chromium, lead, and zinc. The results of the laboratory analyses indicated concentrations of zinc in all of the samples that exceeded the Hazardous Waste Section, Soil Screening Level (SSL) of 500 milligrams per kilogram (mg/Kg). None of the zinc concentrations detected exceeded the Residential Risk-Based Cleanup Level (RRBCL) of 23,000 mg/Kg. Cadmium concentrations exceeded the SSL of 0.95 mg/Kg in sample B-1 @ 4' (2.1 mg/Kg), B-2 @ 1' (4.5 mg/Kg), B-2 @ 4' (2.3 mg/Kg), B-3 @ 4' (4.2 mg/Kg), B-4 @ 1' (3.5 mg/Kg), B-4 @ 4' (2.1 mg/Kg), B-5 @ 4' (2.6 mg/Kg), B-6 @ 1' (2.5 mg/Kg), and B-6 @ 4' (2.0 mg/Kg). None of the cadmium concentrations exceeded the RRBCL of 37 mg/Kg. Total chromium concentrations exceeded the SSL of 27.2 mg/Kg in the samples collected from B-2 @ 1' (70 mg/Kg), B-2 @ 4' (27.4 mg/Kg), B-4 @ 1' (64.2 mg/Kg) and B-6 @ 1' (40.2 mg/Kg). None of the total chromium concentrations exceeded the RRBCL of 210 mg/Kg. None of the total lead concentrations exceeded either the SSL of 270 mg/Kg or the RRBCL of 400 mg/Kg. The pH data indicated acidic soil conditions in each of the soil samples; however, the pH analyses were performed beyond the laboratory holding time. Terracon also advanced a background soil boring (BG-1) on the east side of the main building. The background soil data is discussed in Section 5.4.

5.2 Terracon January 2010 Assessment Activities

In January 2010, Terracon completed a "Limited Site Investigation" that included advancing 11 soil borings (B-1A, B-4A, B-5A, B-7 through B-14) and four background soil borings (BG-2 through BG-5). Soil borings B-1A, B-4A and B-5A were offset soil borings of the November 2009 borings B-1, B-4 and B-5, respectively. Soil boring B-1A was advanced to 27 feet below the ground surface (bgs), B-4A was advanced to 46 feet bgs, and B-5A was advanced to 26 feet bgs. Soil borings B-7 (22 feet bgs), B-8 (20 feet bgs), B-10 (10 feet bgs), B-11 (20 feet bgs) and B-14 (15 feet bgs) were advanced within the galvanizing building. Soil borings B-9 (25 feet bgs) and B-12 (20 feet bgs) were advanced on the west side of the galvanizing building and soil boring B-14 (15 feet bgs) was advanced on the east side of the galvanizing building.

As part of the January 2010 assessment, Terracon collected soil samples at various intervals at each soil boring for field screening for pH. Based on information provided by Terracon, it was their conclusion that elevated zinc concentrations were related to highly acidic soil conditions. Based on the pH values in each soil sample measured, Terracon selected at least one soil sample from each soil boring for laboratory analyses for cadmium, chromium, lead and zinc. The laboratory results for the samples collected in January 2010 are as follows:

Former HCL Tank

- B-1A (2 samples analyzed) - Zinc concentrations exceeded the SSL in the sample collected from 10 feet bgs (pH = 3.4) and at 27 feet bgs (pH = 3.4). The sample from 27 feet was at boring termination, so the vertical extent of zinc impact is not defined in this area. Cadmium concentrations exceeded the SSL only the 10 foot bgs sample. None of the other concentrations met or exceeded the applicable SSL.
- B-4A (5 samples analyzed) – Zinc and cadmium concentrations exceeded the SSLs in the samples collected at 7 feet bgs (pH = 3.0) and 16 feet bgs (pH = 3.2). No concentrations above the SSLs were detected in the samples analyzed from 20 feet, 32 feet and 46 feet bgs (pH = 5.1, 5.6 and 5.7). As such, it appears that the cadmium and zinc impact extends to between 16 feet bgs and 20 feet bgs. None of the other concentrations met or exceeded the applicable SSL.
- B-5A (2 samples analyzed) – Zinc impact above the SSL was detected in the samples analyzed from 16 feet bgs (pH = 3.4) and 26 feet bgs (pH = 3.4). A cadmium concentration above the SSL was detected in the sample collected at 16 feet bgs. The vertical extent of zinc impact has not been defined at this location. None of the other concentrations met or exceeded the applicable SSL.

Other Samples Within The Galvanizing Building

- B-7 (2 samples analyzed) – Zinc and cadmium concentrations were detected above the SSLs in the samples collected at 7 feet bgs (pH = 3.3). No concentrations at or above the SSLs were detected in the sample analyzed from 22 feet bgs (pH = 5.5).
- B-8 (2 samples analyzed) – Zinc and cadmium concentrations were detected above the SSLs in the samples collected at 10 feet bgs (pH = 3.7). The other soil samples submitted for laboratory analyses (20 feet bgs) did not indicate any concentrations that met or exceeded the applicable SSL (pH = 5.6).
- B-10 (1 sample analyzed) – Cadmium was detected in the soil sample collected from 10 feet bgs (pH = 5.5). No other concentrations met or exceeded the applicable SSL.
- B-11 (2 samples analyzed) – Zinc exceeded the SSL in the sample collected at 10 feet bgs (pH = 4.1). No other concentrations detected in the 10 foot sample met or exceeded the applicable SSL. None of the concentrations detected in the 20 foot sample met or exceeded the applicable SSL (pH = 5.4).
- B-14 (2 samples analyzed) - Zinc and cadmium concentrations were detected above the SSLs in the samples collected at 7 feet bgs (pH = 4.0). No other concentrations detected in the 7 foot sample met or exceeded the applicable SSL. The other soil samples submitted for laboratory analyses (15 feet bgs) did not indicate any concentrations that met or exceeded the applicable SSL (pH = 5.4).

Upgradient of Galvanizing Building

- B-13 (1 sample analyzed) – None of the concentrations detected in the sample analyzed from 10 feet bgs met or exceeded the applicable SSL (pH = 5.3).

Down-gradient of Galvanizing Building

- B-12 (2 samples analyzed) – Zinc and cadmium concentrations from the samples collected at 15 feet and 20 feet bgs exceeded the SSLs (pH = 4.0 and 3.9). None of the other constituents analyzed indicated concentrations at or above the applicable SSL.
- B-9 (2 samples analyzed) - Zinc and cadmium concentrations were detected above the SSLs in the samples collected at 15 feet bgs (pH = 3.5). None of the other analyzed constituents met or exceeded the applicable SSL. The other soil samples submitted for laboratory analyses (20 feet bgs) did not indicate any concentrations that met or exceeded the SSLs (pH = 5.7).

Based on soil boring logs provided by Terracon, subsurface soils generally consisted of micaceous sandy silt with some interbedded sand layers to at least 17 feet bgs. The micaceous sandy silt was generally underlain by partially weathered rock (PWR) in some of the soil borings (B-1A @ 22'; B-4A @ 19' to 40'; B-5A @ 20' to 25 feet; and B-7 @ 20' to 21'). The PWR or sandy silt was generally underlain by silty sand. Bedrock (probe refusal) was reportedly encountered in soil boring B-4A at 46 feet. Based on a Site and Erosion Control Plan obtained from Merchants Metals, there appears to have been up to about eight feet of soil removed (cut) in the northeastern portion of the *property* and up to 20 feet of soil fill added to the western portion of the *property*. The area beneath the

galvanizing building appears to have received between about six and 16 feet of fill to achieve the current elevation. There was reportedly no groundwater encountered in any of the soil borings, including boring B-4A which was advanced to 46 feet bgs where bedrock was encountered. Based on information provided by Terracon, soil boring B-4A was left open for several hours and no groundwater entered the soil boring.

5.3 Terracon August 2010 Assessment Activities

On August 19, 2010, Terracon advanced four hand auger borings (HA-1 through HA-4) to three feet bgs in the area west of the galvanizing building. Soil samples collected at three feet bgs were submitted for laboratory analyses for cadmium, chromium, lead and zinc. Based on the laboratory data provided by Terracon, zinc exceeded the SSL in the sample collected from HA-1 (943 mg/Kg). Chromium and zinc concentrations exceeded the SSLs in the sample collected from HA-4.

5.4 Terracon Background Samples

Terracon has completed seven background soil borings (Background 1 through Background 7). Background 1 was advanced on November 17, 2009, Background 2 though Background 5 were advanced on January 20, 2010, and Background 6 and Background 7 were advanced on August 19, 2010. Background borings 1 through 5 were advanced to 4 feet bgs and Background 6 and 7 were advanced to 3 feet bgs. Background 1, 2 and 3 were advanced on the east side of the main building in a landscaped area. Background 4 and 5 were advanced northwest and southwest of the galvanizing building. Background 6 and 7 were advanced north of the galvanizing building. All of the background sample locations appear to have been advanced in areas where significant depths of fill has been placed, except for background 1, 2 and 3.

The background samples were submitted for laboratory analyses for cadmium, chromium, lead and zinc. In addition, the samples were analyzed in the laboratory (beyond the holding time), or in the field for pH. The laboratory results indicated cadmium concentrations that ranged from <0.54 mg/Kg to 2.9 mg/Kg. Chromium concentrations ranged from 11.7 mg/Kg to 20.3 mg/Kg. Lead concentrations ranged from 11.2 mg/Kg to 14.7 mg/Kg. Zinc concentrations ranged from 26.8 mg/Kg to 107 mg/Kg. pH values ranged from 4.9 to 5.9 standard units in the background soil samples. Background 7 concentrations were generally higher than those from the other background boring locations (cadmium 2.3 mg/Kg, chromium 53.9 mg/Kg, lead 457 mg/Kg, and zinc 33,600 mg/Kg).

5.5 Stormwater and Surface Water Samples

On August 19, 2010, Terracon collected a stormwater runoff sample, an upstream sample and a downstream sample for analyses for cadmium, chromium, lead and zinc. The stream samples were apparently collected from the unnamed tributary of Fourth Branch Creek. The unnamed tributary of Fourth Branch Creek appears to flow from south to north, apparently with one portion originating just south of the Merchants Metals facility and the other on the adjacent Iredell County landfill property. The unnamed tributary, then flows back onto the Iredell County Landfill property.

Based on the results of the laboratory analyses of the stormwater runoff and stream samples, zinc concentrations exceeded the NCDENR Surface Water Quality standard of 50 micrograms per liter (ug/L) in all of the samples collected. The stormwater runoff sample result for zinc was 2,270 ug/L. The upstream laboratory result for zinc was 76.8 ug/L and the downstream zinc result was 499 ug/L.

Based on review of Statesville weather conditions on August 18 and 19, 2010, it appears that between 11:00 PM on the 18th and 10:00 AM on the 19th, almost 2 inches (1.97 inches) of rain fell in the area. Based on the amount of rainfall, there was likely a large amount of suspended sediment in both the stormwater runoff and stream samples. It is ESI's opinion that these sample results were skewed by the presence of sediment in the water samples.

6.0 Receptor Information

6.1 Water Supply

A receptor survey was conducted on January 24, and February 3, 2011. The receptor survey consisted of a review of the *property* and all accessible parcels within a 1,500 foot radius from the *property* boundary. Each parcel was observed for the presence of a water meter and/or a visible well/well house. In addition, ESI contacted the City of Statesville Water Department, Aqua NC, Inc. and the Iredell Water Corporation to determine the availability of potable water to the area. Based on information provided, neither the Iredell Water Corporation nor Aqua NC, Inc. provides potable water service to the area within 1,500 feet of the *property* boundary. The City of Statesville Water Department provided ESI with a map that presented the location of water lines and water meters for parcels within a 1,500 foot radius of the *property* boundary. **Figure 2** in the **Appendix** shows the location of water lines, addresses and water meters. The *property* is not shown on **Figure 2** as having a water meter; however, according to Merchants Metals personnel, the *property* is connected to and uses water provided by the City of Statesville Water Department. However, there is a well

located on the property that has not been used since the facility was connected to the public water supply. The well is located about 400 feet northeast of the area of impact.

The addresses are shown on **Figure 2** are for developed parcels; if an address is not shown, the parcel is undeveloped. ESI used the City of Statesville Water Department map to verify the locations of water meters and wells during our site reconnaissance. Based on the information provided by the City of Statesville Water Department, water lines are present along Salisbury Highway (US Highway 70), along Fanjoy Road and Twin Oaks Road (toward landfill). Water lines do not extend north of the intersection of Fanjoy Road and Twin Oaks Road, so all parcels north of the intersection use private drinking water wells. Water lines do not extend to parcels located to the south of Salisbury Highway (Shiloh Road and Seven Oaks Lane). According to the map, there are 36 developed parcels within a 1,500 foot radius of the *property* boundary. Of the 36 developed parcels, 18 use private water supply wells for drinking water. There is a water supply well used for fire suppression located on the Accuma Corporation parcel to the south. The locations of the parcels located within 1,500 feet of the property boundary are provided on **Figure 3** and **Table 1** in the Appendix lists the property owners and occupants within 1,500 feet.

Based on information provided by the City of Statesville Water Department, the City gets its water from the South Yadkin River and Lookout Shoals Lake. The City of Statesville does not obtain potable water from deep wells. There are no surface water intakes in the vicinity of the *property.*

6.2 Environmentally Sensitive Areas

ESI reviewed information included on the NC Division of Parks and Recreation (www.ncparks.gov), The National Park Service (www.nps.gov), and the US Forest Service (www.fs.fed.us) websites as well as the North Carolina Natural Heritage Program (gis.esinc.cc/ncnhp) information. Based on the information reviewed, there are no state parks, areas important to the maintenance of unique natural areas; sensitive areas identified under the National Estuary Program, designated state natural areas, national or state seashore, Lakeshore and River Recreational Areas, rare species (state and federal threaten and endangered), sensitive aquatic habitats, national parks or monuments, federal designated Wild and Scenic Rivers, designated and proposed Federal Wilderness and Natural Areas, national preserves and forests, or federal land designated for the protection of natural ecosystems on or in the vicinity of the *property*.

6.3 Streams, Ponds and Other Surface Water

The closest surface water to the area of highest concentrations is an unnamed tributary of Fourth Branch Creek. The unnamed tributary is located in the western portion of the *property* in a historically down-gradient direction of the main facility (prior to filling). The unnamed tributary appears to originate on the Accuma Corporation parcel (undeveloped) to the south and flows onto portions of the *property* and continues to flow to the north toward the Iredell County Landfill. The next closest surface water is a pond located about 1,000 feet to the east of the *property.*

7.0 Background Sampling

On January 24, 2011, ESI advanced five background soil borings (BG-8, BG-9, BG-10, BG-11 and BG-12) in the western portion of the *property,* in areas that have been historically undisturbed by the facility operations, using a stainless steel hand auger. The hand auger was decontaminated between each soil boring using an alconox/liquid-nox wash and distilled water rinse. The soil boring locations are presented on **Figure 4** in the **Appendix.** The soil borings were advanced to maximum depths of five feet bgs (BG-10, BG-11 and BG-12). Soil borings BG-8 and BG-9 were advanced to three feet bgs where groundwater was encountered due to the lower elevations and the proximity to the creek. Soil samples were collected at one-foot intervals and classified in the field by a geologist. The soil boring logs are provided in the **Appendix**. The soil samples collected at one-foot intervals were placed in pre-cleaned, laboratory containers and submitted to SGS Laboratories for metals analysis per EPA Method 6010 for cadmium, total chromium, lead and zinc. The laboratory reports are provided in the **Appendix**. In addition, ESI personnel performed field pH measurements per EPA Method 9045D preparation and using a YSI EcoSense pH meter with temperature compensation.

The sampling data from BG-8, BG-9, BG-10, BG-11 and BG-12 indicate a background range for cadmium of <0.0852 mg/Kg and 2.09 mg/Kg; a background range for total chromium of 6.44 mg/Kg and 250 mg/Kg; a background range for lead of 3.02 mg/Kg and 19.9 mg/Kg; and a background range for zinc of 13.1 mg/Kg and 87.1 mg/Kg. The background range for pH was evaluated to be 4.04 and 6.39.

8.0 Contaminants of Concern

Based on the sampling completed to date, it appears that the contaminants of concern (COC) for the Merchants Metals facility are cadmium, lead and zinc. In addition, acidic pH levels were detected in some of the soil samples collected. The background sampling data indicates concentrations of cadmium, lead and zinc above measured background concentrations as well as the SSLs (protective of groundwater). However, none of the concentrations detected to date (except for zinc at BG-7) have exceeded the RRBCLs.

9.0 Conclusions

Based on the receptor survey completed in January and February 2011, the *property* is supplied with public water. There is a well located in the northern portion of the *property* about 400 feet northeast of the area of highest concentrations that has not been used since the *property* was connected to the public water supply (more than 4 years). The construction details of the well are not known, but it is suspected that the well is screened in bedrock. There are 18 private water supply wells located within a 1,500 foot radius of the *property* boundary. Public water is available to parcels along Salisbury Highway and portions of Fanjoy Road, but not for parcels located on side streets off of Salisbury Highway or north of the intersection of Fanjoy Road and Twin Oaks Road.

Based on review of published information, there were no environmentally sensitive areas identified on or in the vicinity of the *property*.

On January 24, 2011, ESI advanced five soil borings in the extreme western portion of the property for the collection of soil samples for background metals (cadmium, total chromium, lead and zinc) as well as for background pH measurements. The background testing indicated that concentrations of cadmium in the area ranged from <0.0852 mg/Kg to 2.09 mg/Kg. total chromium concentrations ranged from 6.44 mg/Kg to 250 mg/Kg, lead concentrations ranged from 3.02 mg/Kg to 19.9 mg/Kg, zinc concentrations ranged from 13.1 mg/Kg to 87.1 mg/Kg, and pH measurements ranged from 4.04 to 6.39. Concentrations of cadmium, lead and zinc exceeded the background and SSLs (protective of groundwater) in several of the soil samples analyzed as part of previous assessments. None of the concentrations detected to date (except BG-7 for zinc) exceed the RRBSLs (health-based).

10.0 Acknowledgement

Environmental Services, Inc. appreciates the opportunity to provide professional environmental services to the Merchants Metals. If you have any questions regarding this report or if we can provide any additional assistance, please do not hesitate to contact the Raleigh office of Environmental Services, Inc.

11.0 References

Geologic Map of North Carolina, NC Department of Natural Resources and Community Development. Brown, 1985.

Generator Closure Guidelines. NC Department of Environment and Natural Resources, Division of Waste Management, Hazardous Waste Section. June 18, 2008. .

Facility Sampling Data. Terracon. Via email September 22, 2010.

Iredell County, North Carolina, website: http://iredell.connectgis.com.

NCDENR Solid Waste website: http://acp.ncdenr.org.

Semi-Annual Groundwater Sampling and Analysis Report, prepared for Iredell County Closed C&D Landfill, All Phases I, 2 and 3, Statesville, North Carolina, Municipal Engineering Company, PA, January 2009.

Semi-Annual Groundwater Sampling and Analysis Report, prepared for Iredell County Closed C&D Landfill, All Phases I, 2 and 3, Statesville, North Carolina, Municipal Engineering Company, PA, July 2009.

Semi-Annual Groundwater Sampling and Analysis Report, prepared for Iredell County Closed C&D Landfill, All Phases I, 2 and 3, Statesville, North Carolina, Municipal Engineering Company, PA, January 2010.

North Carolina Division of Parks and Recreation. *www.**ncparks**.gov/*

National Parks Services. *www.nps.gov/*

US Forest Service. www.fs.fed.**us**/

ESI National Heritage Program site. *https://gis.esinc.cc/ncnhp/*

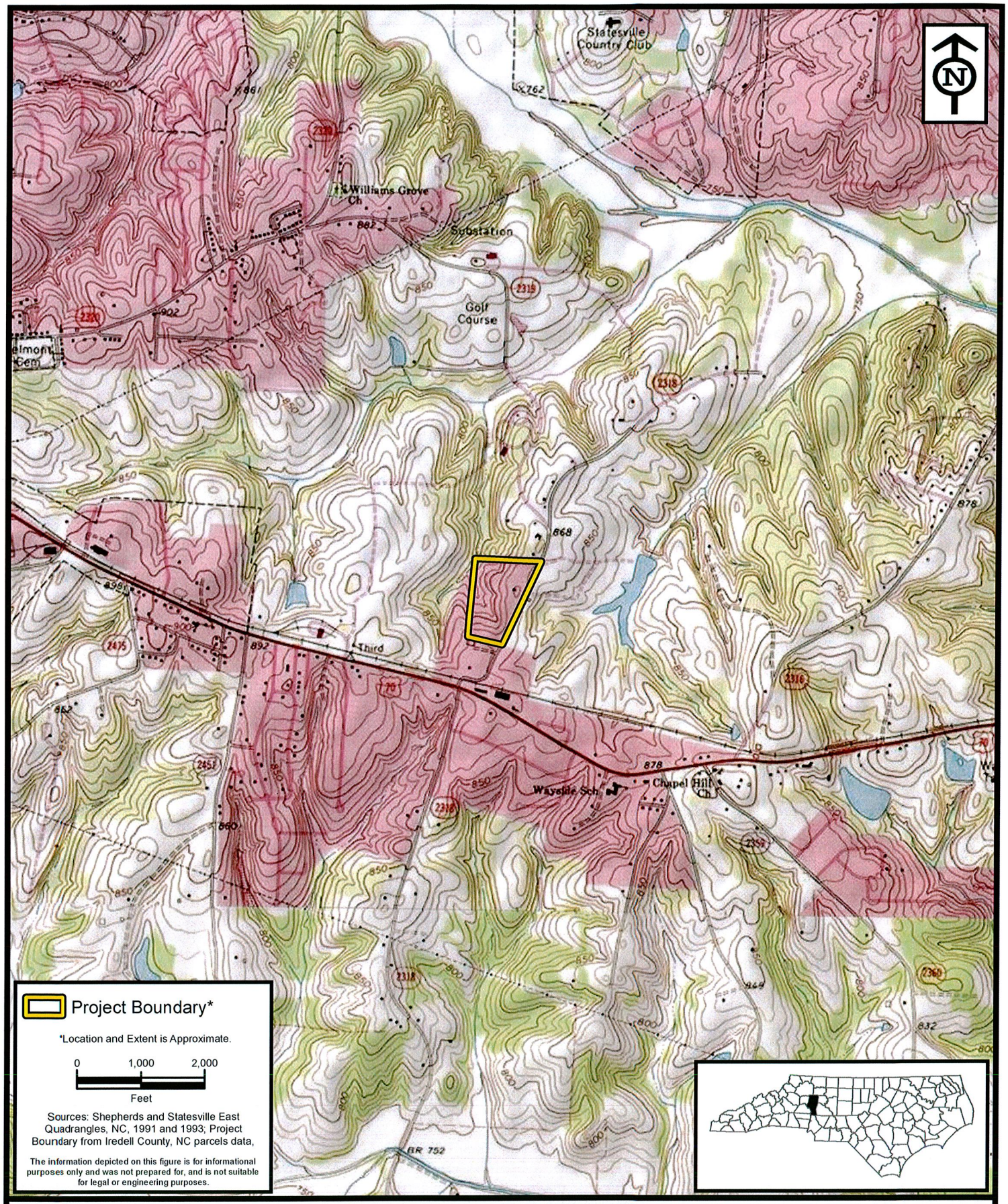
Iredell County Water Corporation. 2008 Water Supply Map

North Carolina Department of Environment and Natural Resources.
http://swap.deh.enr.state.nc.us/Swap_app/viewer.htm

APPENDIX

FIGURES
TABLES
SOIL BORING LOGS
LABORATORY REPORTS
ENVIRONMENTALLY SENSITIVE AREAS INFORMATION

FIGURES



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Project Location

Merchants Metals

Iredell County, North Carolina

Project:	ER10-125.01
Date:	Feb 2011
Drwn/Chkd:	CD/MB
Figure:	1

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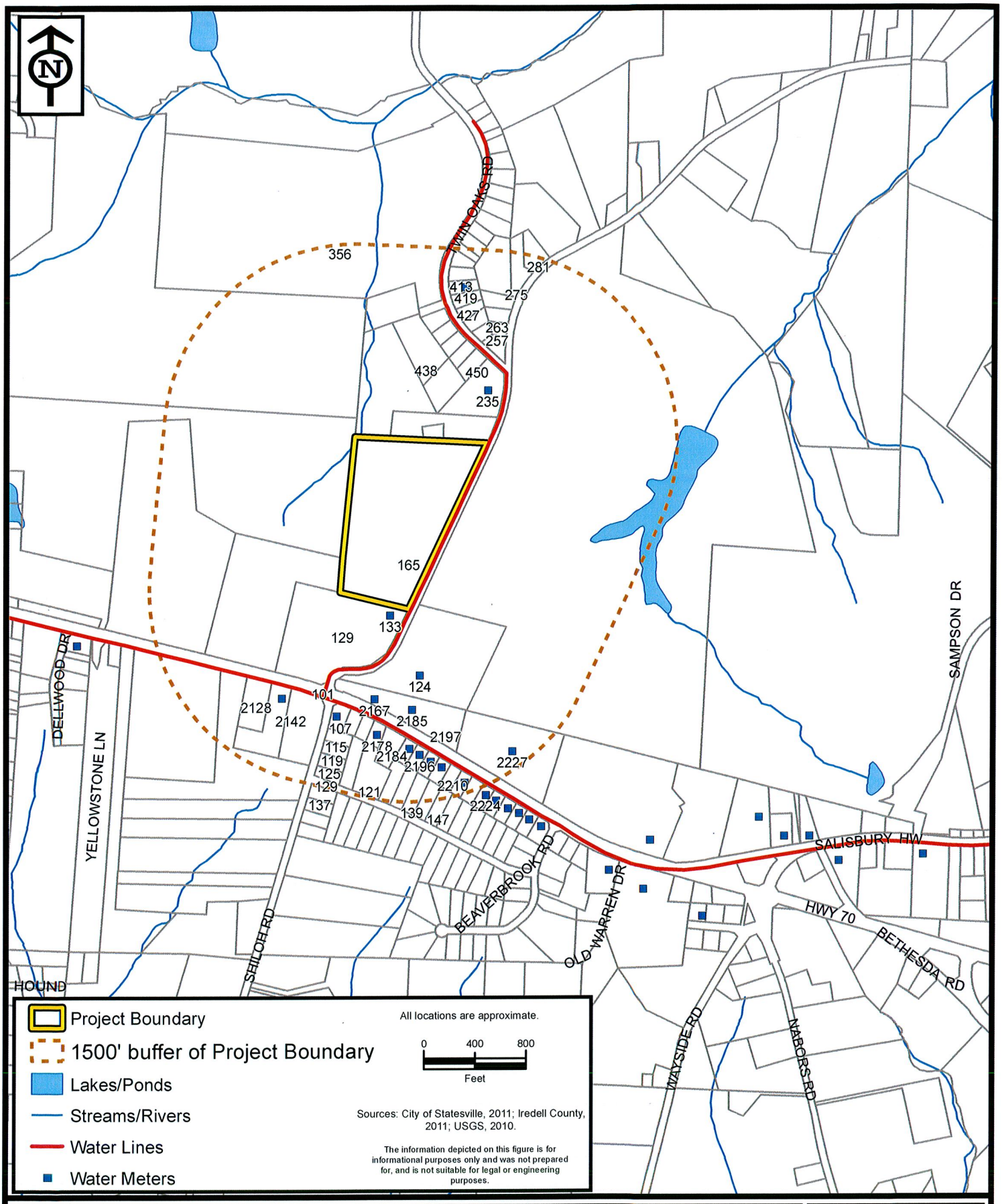

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Receptors within 1,500 feet

Merchants Metals

Iredell County, North Carolina

Project:	ER10-125.01
Date:	Feb 2011
Drwn/Chkd:	CD/MB
Figure:	2

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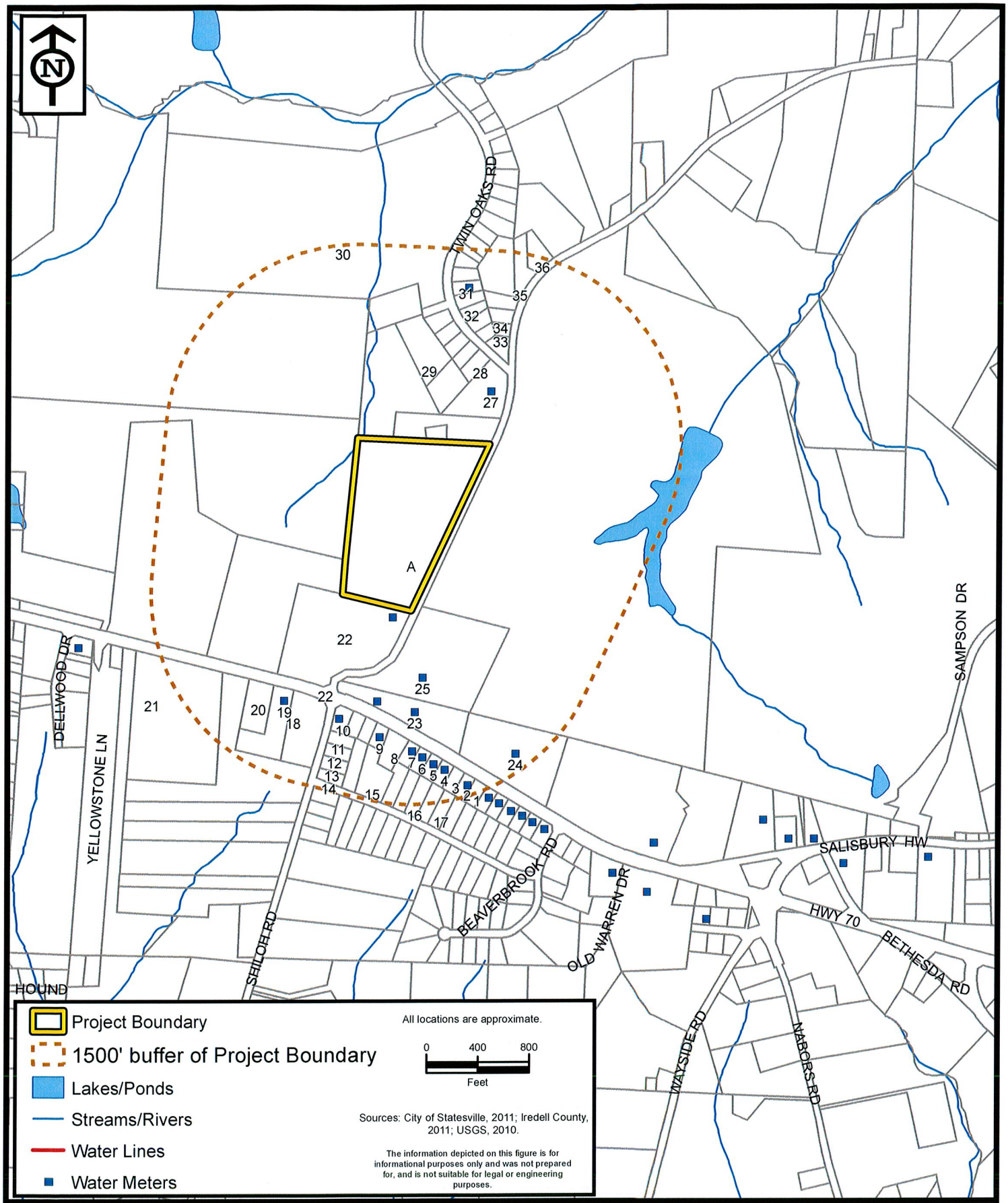

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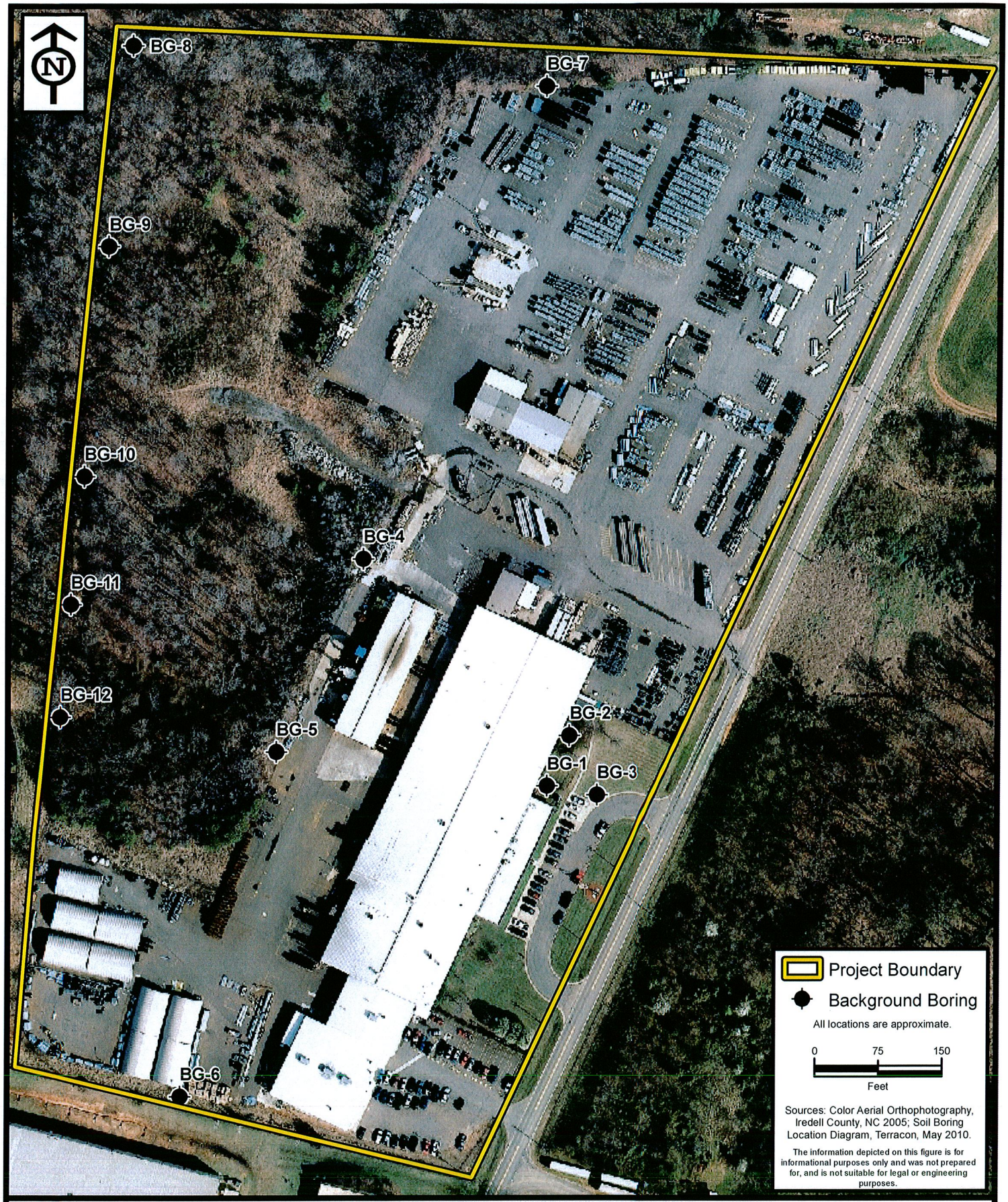
Property Owners/Occupants

Merchants Metals

Iredell County, North Carolina

Project:	ER10-125.01
Date:	Feb 2011
Drwn/Chkd:	CD/MB
Figure:	3

Path: P:\GeoGra\Projects\2010\125\GIS\mxd\Parcels_owners.mxd Date: 2/8/2011 4:13:41 PM



ENVIRONMENTAL SERVICES, INC.
524 S. New Hope Road
Raleigh, North Carolina 27610
(919) 212-1760
(919 212-1707 Fax
www.environmentalservicesinc.com

Background Soil Boring Locations

Merchants Metals

Iredell County, North Carolina

Project:	ER10125.01
Date:	Feb 2011
Drwn/Chkd:	CD/MB
Figure:	4

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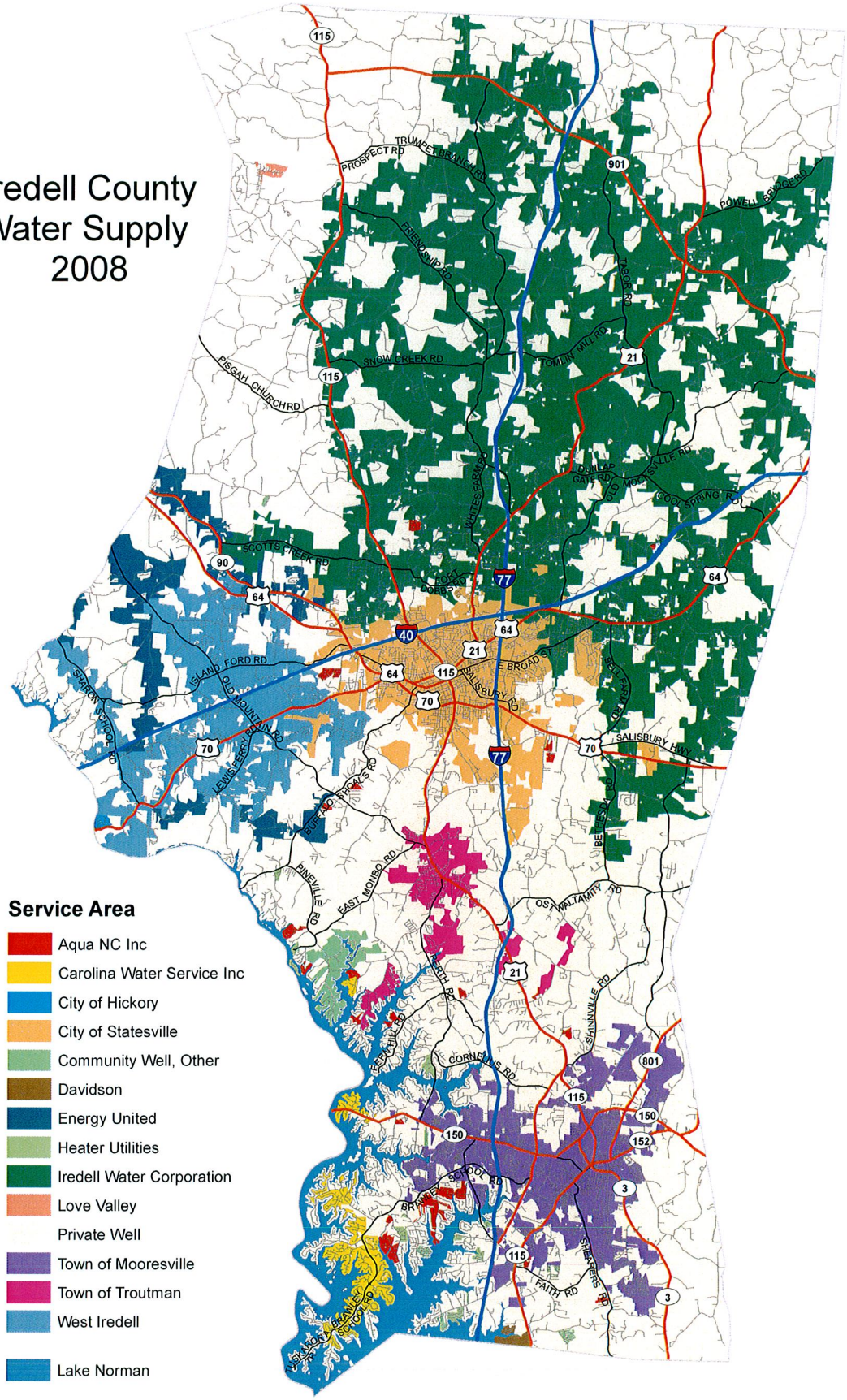
Iredell County Water Supply 2008



Users of this map are hereby notified that the information provided herein should be verified. Iredell County assumes no legal responsibility for any of the information contained on this map. Users are advised that the use of any of this information is at their own risk.

Source: Iredell County Department of Tax Administration;
Iredell County Planning Department;
Iredell Water Corporation; West Iredell Water Corporation;
NC OneMap, Water System B; NCDENR, Public Water Supply Section

Created By: Iredell County GIS, April 17, 2009

TABLES

TABLE 1
PROPERTY OWNERS/OCCUPANTS WITHIN 1,500 FEET
MERCHANTS METALS
STATESVILLE, IREDELL COUNTY, NORTH CAROLINA
ESI PROJECT NUMBER ER10-125.01

Map ID	Well or Meter?*	PIN	Property Address	Owner Name Owner Address	Use	County Water Information‡
1	Well, No meter	4753954601	2218 Salisbury Highway	HSBC Mortgage Services 636 Grand Regency Blvd Brandon, FL 33509	Residence	**Public water available. Uses private water supply well**
2	Water meter observed	4753953627	2214 Salisbury Highway	Donnie Ray Upright 2214 Salisbury Highway Statesville, NC 28677	Residence	Public water available
3	Well, No meter	4753952742	2210 Salisbury Highway	Ray E. & Helen C. McMakin 2210 Salisbury Highway Statesville, NC 28677	Residence	**Public water available. Uses private water supply well**
4	Water meter observed	4753951757	2204 Salisbury Highway	Sondra Waugh Deans 2204 Salisbury Highway Statesville, NC 28677	Residence	Public water available/ active water account
5	Water meter observed	4753950861	2200 Salisbury Highway	James E. Michelle C. Davis 186 Gibbs Road Mooresville, NC 28117	Residence	Public water available/ active water account
6	Water meter observed	4753859875	2196 Salisbury Highway	Albert T. & Susan B. Shoemaker 530 Barry Oak Road Statesville, NC 28625	Residence	Public water available/ active water account
7	Water meter observed	4753858981	2192 Salisbury Highway	James Melvin Vermilliam 4375 US Highway 601 Salisbury, NC 28147	Residence	Public water available/ active water account
8	Well, No meter	4753857975	2184 Salisbury Highway	Earl E. & Charlene Koester 2184 Salisbury Highway Statesville, NC 28677	Residence	**Public water available. Uses private water supply well**
9	Water meter observed	4753866066	2178 Salisbury Highway	Betty B. Hope 3712 Wilkesboro Highway Statesville, NC 28625	Residence	Public water available/ active water account
10	Water meter observed	4753863169	107 Shiloh Road	Mararet Alfreda Webster 2060 Salisbury Highway Statesville, NC 28677	Residence	Public water available/ active water account
11	Well, No meter	4753863062	115 Shiloh Road	Kenneth Dale Miller 115 Shiloh Road Statesville, NC 28677	Residence	**Public water not available/ lines do not extend to this area**
12	Well, No meter	4753853933	119 Shiloh Road	Steve & Korene Maynard 119 Shiloh Road Statesville, NC 28677	Residence	**Public water not available/ lines do not extend to this area**
13	Well, No meter	4753853802	125 Shiloh Road	Michael S. Wong 125 Shiloh Road Statesville, NC 28677	Residence	**Public water not available/ lines do not extend to this area**
14	Well, No meter	48753852783	129 Shiloh Road	Leo K. Louann Shreckengost 129 Shiloh Road Statesville, NC 28577	Residence	**Public water not available/ lines do not extend to this area**
15	Well, No meter	4753856722	121 Seven Oaks Ln	James C. & Ruth W. Lapish 121 Seven Oaks Ln Statesville, NC 28677	Residence	**Public water not available/ lines do not extend to this area**
16	Well, No meter	4753859568	139 Seven Oaks Ln	Davis DEA & Lorna E. Harris 129 Seven Oaks Ln Statesville, NC 28677	Residence	**Public water not available/ lines do not extend to this area**
17	Well, No meter	4753951449	147 Seven Oaks Ln	Jose S. & Yer Vang Perez 147 Seven Oaks Ln Statesville, NC 28677	Residence	**Public water not available/ lines do not extend to this area**
18	Did not observe either	4753860181	2142 Salisbury Highway	Farm House Holdings, Inc. 2142 Salisbury Highway Statesville, NC 28677	Plant Nursery	**Public water available. Private water supply well assumed**
19	Water meter observed	4753768023	2138 Salisbury Highway	Joel Poole, LLC 38 Mohawk Ave Corte Madera, CA 94925	Commercial	Public water available/ active water account
20	Did not observe either	4753767209	2128 Salisbury Highway	Dorothy B. Davis P.O. Box 467 Forest, VA 24551	Retail	**Public water available. Private water supply well assumed**
21	Did not observe either	4753760153	2088 Salisbury Highway	Harvey Holdings, Inc. P.O. Box 552 Statesville, NC 28687	Industrial	**Public water available. Private water supply well assumed**

TABLE 1
PROPERTY OWNERS/OCCUPANTS WITHIN 1,500 FEET
MERCHANTS METALS
STATESVILLE, IREDELL COUNTY, NORTH CAROLINA
ESI PROJECT NUMBER ER10-125.01

22	Water meter observed	4753863821	133 Fanjoy Road	Accuma Corporation 133 Fanjoy Road Statesville, NC 28625	Industrial	Public water available/ active water account
23	Water meter observed	4753869205	2185 Salisbury Highway	Fletcher Industries, Inc. 1485 Central Drive Southern Pines, NC 28387	Industrial	Public water available/ active water account
24	Water meter observed	4753956892	2227 Salisbury Highway	Fletcher Industries, Inc. 1485 Central Drive Southern Pines, NC 28387	Industrial	Public water available/ active water account
25	Water meter observed	4753961661	Fanjoy Road	Iredell Fiber, Inc. P.O. Box 5728 Statesville, NC 28687	Industrial	Public water available/ active water account
26	Did not observe either	4753980399	Fanjoy Road	Douglas A. Hareline 3379 Amity Hill Road Statesville, NC 28677	Residence/Vacan	Public water available/ active water account
27	Water meter observed	4753984678	235 Fanjoy Road	RHA/North Carolina MR, Inc. 3060 Peachtree Road, Suite 1620 Atlanta, GA 30305	Welfare Service Office	Public water available/ active water account
28	Well, No meter	4753983993	Twin Oaks Road	RHA/North Carolina MR, Inc. 3060 Peachtree Road, Suite 1620 Atlanta, GA 30305	Welfare Service Office	Public water available/ active water account
29	Did not observe either	4753990013	438 Twin Oaks Road	Alan Lee Ayers 438 Twin Oaks Road Statesville, NC 28625	Residence	Public water available/ active water account
30	Did not observe either	4753895929	354 Twin Oaks Road	Iredell County P.O. Box 1027 Statesville, NC 28687	Landfill	Public water available/ active water account
31	Water meter observed	4753993522	419 Twin Oaks Road	Neil A. & Valerie N. Garnett 419 Twin Oaks Road Statesville, NC 28625	Residence	Public water available/ active water account
32	Well, No meter	4753993453	427 Twin Oaks Road	Mark A. & Shannon M. Bailey 427 Twin Oaks Road Statesville, NC 28625	Residence	**Public water available. Uses private water supply well**
33	Well, No meter	4753996129	257 Fanjoy Road	Robert L. Lambert 263 Fanjoy Road Statesville, NC 28625	Residence	**Public water not available/ lines do not extend to this area**
34	Well, No meter	4753996320	263 Fanjoy Road	Robert L. Lambert 263 Fanjoy Road Statesville, NC 28625	Residence	**Public water not available/ lines do not extend to this area**
35	Well, No meter	4753997667	275 Fanjoy Road	Johnny R. Green 275 Fanjoy Road Statesville, NC 28625	Residence	**Public water not available/ lines do not extend to this area**
36	Well, No meter	4753998776	281 Fanjoy Road	Wayne E. & Betty Haire Sammons 281 Fanjoy Road Statesville, NC 28625	Residence	**Public water not available/ lines do not extend to this area**

*Based on observations made on aerial photographs and from field opbservations from Arrington Bridge Road within 1500 feet of the source area.

Table 2
Results of Metals and pH in Soils
Merchant Metals Facility
Statesville, Iredell County, North Carolina
ESI Project: ER10-125.01

Boring Location	Date of Sample	Depth of Sample (in feet)	Laboratory Analytical Results				
			Cadmium	Chromium	Lead	Zinc	pH[1]
B-1	11-17-09	1	0.34	5.4	24.1	**9,620**	2.1
		4	**2.1**	20.0	24.5	**6,980**	3.2
B-1A (B-1 Offset)	01-20-10	9 to 10	**1.4**	10.2	29.3	**6,830**	3.4
		26 to 27	BDL	9.3	13.7	**2,120**	3.4
B-2	11-17-09	1	**4.5**	**70.0**	8.2	**872**	2.6
		4	**2.3**	**27.4**	18.4	**3,550**	3.7
B-3	11-17-09	1	0.52	9.9	37.9	**16,900**	1.6
		4	**4.2**	**33.9**	30.5	**8,480**	2.9
B-4	11-17-09	1	**3.5**	**64.2**	34.9	**13,300**	1.9
		4	**2.1**	16.4	27.9	**6,280**	3.8
B-4A (B-4 Offset)	01-20-10	6 to 7	**3.3**	17.3	32.7	**9,590**	3.0
		15 to 16	**2.5**	18.5	33.9	**10,300**	3.2
		19 to 20	BDL	16.2	15.3	65.9	5.1
		31 to 32	BDL	NS	NS	33.3	5.6
		45 to 46	0.29	NS	NS	26.0	5.7
B-5	11-17-09	1	0.66	12.5	40.2	**19,200**	2.0
		4	**2.6**	26.2	37.3	**10,200**	3.4
B-5A (B-5 Offset)	01-20-10	15 to 16	**1.8**	16.6	18.1	**8,080**	3.4
		25 to 26	BDL	2.0	5.3	**3,500**	3.4
B-6	11-17-09	1	**2.5**	**40.2**	14.6	**1,260**	3.3
		4	**2.0**	23.5	28.4	**6,690**	3.6
B-7	01-20-10	6 to 7	**1.8**	22.0	21.2	**5,930**	3.3
		21 to 22	BDL	NS	NS	22.5	5.5
B-8	01-20-10	9 to 10	**2.6**	17.8	13.9	**3,630**	3.7
		19 to 20	BDL	NS	NS	9.3	5.6
B-9	01-20-10	14 to 15	**3.6**	16.4	33.3	**7,160**	3.5
		24 to 25	BDL	NS	NS	5.6	5.7
B-10	01-20-10	9 to 10	**3.0**	13.9	12.9	33.4	5.5
B-11	01-21-10	9 to 10	BDL	13.3	16.3	**1,380**	4.1
		19 to 20	BDL	NS	NS	7.0	5.4
B-12	01-21-10	14 to 15	**2.1**	21.7	32.9	**6,890**	4.0
		19 to 20	**1.4**	NS	NS	**6,230**	3.9
B-13	01-21-10	9 to 10	0.56	9.5	7.1	14.4	5.3
B-14	01-21-10	6 to 7	**2.0**	13.9	35.6	**7,460**	4.0
		14 to 15	**3.0**	NS	NS	32.8	5.4
HA-1	08-19-10	3	0.22	20.3	20.9	**943**	N/A
HA-2	08-19-10	3	BDL	4.3	4.4	39.2	N/A
HA-3	08-19-10	3	BDL	3.1	4.8	7.7	N/A
HA-4	08-19-10	3	BDL	**45.5**	23.5	**649**	N/A
Background 1	11-17-09	4	**1.3**	15.6	14.3	32.9	5.7
Background 2	01-20-10	4	**2.9**	14.4	13.0	40.2	5.9
Background 3	01-20-10	4	0.73	11.7	14.7	32.3	5.1
Background 4	01-20-10	4	BDL	20.3	13.2	107	5.2
Background 5	01-20-10	4	**0.98**	11.7	13.3	26.8	4.9

Table 2
Results of Metals and pH in Soils
Merchant Metals Facility
Statesville, Iredell County, North Carolina
ESI Project: ER10-125.01

Background 6	08-19-10	3	BDL	13.7	11.2	41.1	N/A
Background 7	08-19-10	3	**2.30**	**53.9**	**457**	**33,600**	N/A
BG-8	01-24-11	1	**0.932**	**10.7**	**9.67**	**73.2**	6.16
BG-8	01-24-11	2	**0.751**	**8.89**	**4.81**	**18.0**	6.39
BG-8	01-24-11	3	**0.689**	**6.44**	**5.75**	**30.2**	5.91
BG-9	01-24-11	1	**0.619**	**10.0**	**11.3**	**13.1**	4.86
BG-9	01-24-11	2	**0.553**	**10.9**	**11.5**	**14.8**	5.16
BG-9	01-24-11	3	**0.585**	**17.2**	**7.25**	**14.5**	4.57
BG-10	01-24-11	1	**0.64**	**49.1**	**5.37**	**14.1**	4.04
BG-10	01-24-11	2	**0.801**	**104**	**5.27**	**22.3**	4.45
BG-10	01-24-11	3	**0.603**	**35.4**	**4.16**	**13.3**	4.83
BG-10	01-24-11	4	**2.09**	**250**	**19.9**	**53.7**	4.65
BG-10	01-24-11	5	**1.19**	**62.7**	**10.8**	**40.5**	4.85
BG-11	01-24-11	1	**0.613**	**7.14**	**3.7**	**30.3**	5.95
BG-11	01-24-11	2	**0.589**	**7.55**	**3.91**	**19.1**	4.98
BG-11	01-24-11	3	**0.655**	**10.7**	**5.5**	**38.4**	4.95
BG-11	01-24-11	4	**0.795**	**12.0**	**5.99**	**24.3**	4.63
BG-11	01-24-11	5	**0.713**	**14.4**	**8.31**	**21.4**	4.59
BG-12	01-24-11	1	**0.186**	**7.64**	**12.2**	**87.1**	5.14
BG-12	01-24-11	2	**0.390**	**9.13**	**4.6**	**33.8**	5.01
BG-12	01-24-11	3	**0.127**	**8.57**	**3.24**	**13.4**	4.92
BG-12	01-24-11	4	**<0.0852**	**9.53**	**3.02**	**15.5**	4.79
BG-12	01-24-11	5	**<0.0888**	**11.5**	**3.76**	**16.6**	4.67
Concrete Composite	11-17-09	N/A	NS	BDL	BDL	178	N/S
Measured Background Range*			<0.0852-2.09	6.44-250	3.02-19.9	13.1-87.1	4.04-6.39
NCDENR HWS Soil Cleanup Levels		**SSL**	**0.95**	**27.2**	**270**	**500**	**N/L**
		Residential Risk-Based Level	**37**	**210**	**400**	**23,000**	**N/L**

All metals results in milligrams/kilogram (mg/kg) or milligrams/Liter (mg/L)

pH[1] testing within the laboratory was conducted outside the EPA Method Holding Time, results in standard units

N/A - Concrete chips were composited from the 6 boring locations

N/L - No standard listed

NS - Not submitted for laboratory analysis

BDL - Below laboratory detection limits

NCDENR HWS - NCDENR Hazardous Waste Section Soil Cleanup Levels

SSL - Soil Screening Level Protective of Groundwater

Bold denotes above the NCDENR HWS SSL

SOIL BORING LOGS

Project: Merchants Metals Project Location: Statesville, Iredell County, NC Project Number: ER10-125.01	**Log of Boring BG-8** Sheet 1 of 1

Date(s) Drilled	**January 24, 2011**	Logged By	**MJB**	Checked By	
Drilling Method	**Continuous Sampling**	Drill Bit Size/Type		Total Depth of Borehole	**3.5 feet bgs**
Drill Rig Type	**Hand Auger**	Drilling Contractor	**Environmental Services, Inc.**	Approximate Surface Elevation	
Groundwater Level and Date Measured		Sampling Method(s)	**Grab**	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Depth, feet	Sample Type	Sample Number	Sampling Resistance, blows/foot	Relative Consistency	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0		BG-8@1'			MH		Orange micaceous clayey SILT	
			BG-8@2'			SW		Tan medium to coarse SAND	
			BG-8@3'						
			BG-8@4'						
			BG-8@5'			GW		Gravel: white and tan rounded quartz (saturated)	
	5							Bottom of Boring at 3.5 feet bgs	
	10								
	15								
	20								
	25								
	30								

Figure

P:\Projects\2000-2010\2010\ER10-051 to ER10-140\ER10-125.01 MM\BG-12.bgs [Basic Boring Log.tpl]

Project: Merchants Metals Project Location: Statesville, Iredell County, NC Project Number: ER10-125.01	**Log of Boring BG-9** Sheet 1 of 1

Date(s) Drilled	**January 24, 2011**	Logged By	**MJB**	Checked By	
Drilling Method	**Continuous Sampling**	Drill Bit Size/Type		Total Depth of Borehole	**3.5 feet bgs**
Drill Rig Type	**Hand Auger**	Drilling Contractor	**Environmental Services, Inc.**	Approximate Surface Elevation	
Groundwater Level and Date Measured		Sampling Method(s)	**Grab**	Hammer Data	
Borehole Backfill		Location			

Elevation, feet	Depth, feet	Sample Type	Sample Number	Sampling Resistance, blows/foot	Relative Consistency	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0		BG-9@1'			ML		Brown micaceous sandy SILT	
			BG-9@2'			SM-SC		Tan clayey silty SAND	
			BG-9@3'						
			BG-9@4'						
			BG-9@5'			GW		Gravel: white and tan rounded quartz (saturated)	
	5							Bottom of Boring at 3.5 feet bgs	
	10								
	15								
	20								
	25								
	30								

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Figure

P:\Projects\2000-2010\2010\ER10-051 to ER10-140\ER10-125.01 MM\BG-12.bgs [Basic Boring Log.tpl]

Project: Merchants Metals Project Location: Statesville, Iredell County, NC Project Number: ER10-125.01	**Log of Boring BG-10** Sheet 1 of 1

Date(s) Drilled **January 24, 2011**	Logged By **MJB**	Checked By
Drilling Method **Continuous Sampling**	Drill Bit Size/Type	Total Depth of Borehole **5 feet bgs**
Drill Rig Type **Hand Auger**	Drilling Contractor **Environmental Services, Inc.**	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) **Grab**	Hammer Data
Borehole Backfill	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	Sampling Resistance, blows/foot	Relative Consistency	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0		BG-10@1'			ML		Brown micaceous sandy SILT	
			BG-11@2'			SM-SC		Tan clayey silty SAND	
			BG-11@3'			MH		Tan/orange mottled sandy clayey SILT	
			BG-11@4'						
			BG-11@5'			MH		Tan/orange/black mottled sandy clayey SILT (black appears to be manganese)	
	5							Bottom of Boring at 5 feet bgs	
	10								
	15								
	20								
	25								
	30								

Figure

P:\Projects\2000-2010\2010\ER10-051 to ER10-140\ER10-125.01 MM\BG-12.bgs [Basic Boring Log.tpl]

Project: Merchants Metals Project Location: Statesville, Iredell County, NC Project Number: ER10-125.01	**Log of Boring BG-11** Sheet 1 of 1

Date(s) Drilled **January 24, 2011**	Logged By **MJB**	Checked By
Drilling Method **Continuous Sampling**	Drill Bit Size/Type	Total Depth of Borehole **5 feet bgs**
Drill Rig Type **Hand Auger**	Drilling Contractor **Environmental Services, Inc.**	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) **Grab**	Hammer Data
Borehole Backfill	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	Sampling Resistance, blows/foot	Relative Consistency	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0		BG-11@1'			ML MH		Brown micaceous sandy SILT	
			BG-11@2'					Tan/orange mottled sandy clayey SILT	
			BG-11@3'						
			BG-11@4'						
			BG-11@5'						
	5							Bottom of Boring at 5 feet bgs	
	10								
	15								
	20								
	25								
	30								

Figure

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Project: Merchants Metals
Project Location: Statesville, Iredell County, NC
Project Number: ER10-125.01

Log of Boring BG-12

Sheet 1 of 1

Date(s) Drilled **January 24, 2011**	Logged By **MJB**	Checked By
Drilling Method **Continuous Sampling**	Drill Bit Size/Type	Total Depth of Borehole **5 feet bgs**
Drill Rig Type **Hand Auger**	Drilling Contractor **Environmental Services, Inc.**	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s) **Grab**	Hammer Data
Borehole Backfill	Location	

Elevation, feet	Depth, feet	Sample Type	Sample Number	Sampling Resistance, blows/foot	Relative Consistency	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0		BG-12@1'			CL		Orange silty CLAY	
			BG-12@2'			MH		Tan/orange mottled sandy clayey SILT	
			BG-12@3'						
			BG-12@4'						
			BG-12@5'						
	5							Bottom of Boring at 5 feet bgs	
	10								
	15								
	20								
	25								
	30								

Figure

P:\Projects\2000-2010\2010\ER10-051 to ER10-140\ER10-125.01 MM\BG-12.bgs [Basic Boring Log.tpl]

LABORATORY REPORTS

SGS

Mike Burns
Environmental Services, Inc.
524 S. New Hope Road
Raleigh, NC 27610

Report Number: G1216-5

Client Project: Merchants Metals

Dear Mike Burns,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Michael Page at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

Michael Page

Digitally signed by Michael Page
DN: CN = Michael Page, C = US, OU = SGS Environmental
Reason: I have reviewed this document for Lori Lockamy
Date: 2011.01.31 15:10:11 -05'00'

Project Manager
Michael Page

Date

List of Reporting Abbreviations and Data Qualifiers

B = Compound also detected in batch blank

BQL = Below Quantitation Limit (RL or MDL)

DF = Dilution Factor

Dup = Duplicate

D = Detected, but RPD is > 40% between results in dual column method.

E = Estimated concentration, exceeds calibration range.

J = Estimated concentration, below calibration range and above MDL

LCS(D) = Laboratory Control Spike (Duplicate)

MDL = Method Detection Limit

MS(D) = Matrix Spike (Duplicate)

PQL = Practical Quantitation Limit

RL/CL = Reporting Limit / Control Limit

RPD = Relative Percent Difference

mg/kg = milligram per kilogram, ppm, parts per million

ug/kg = micrograms per kilogram, ppb, parts per billion

mg/L = milligram per liter, ppm, parts per million

ug/L = micrograms per liter, ppb, parts per billion

% Rec = Percent Recovery

% soilds = Percent Solids

Special Notes:

1) Metals and mercury samples are digested with a hot block, see the standard operating procedure document for details.

2) Uncertainty for all reported data is less than or equal to 30 percent.

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-8 @ 1'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-1
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 10:08
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 75.4
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.932**	1.18	0.0957	MG/KG	1	JB	27-Jan-11 11:13
Chromium	**10.7**	1.18	0.141	MG/KG	1	B	27-Jan-11 11:13
Lead	**9.67**	1.18	0.733	MG/KG	1	B	27-Jan-11 15:58
Zinc	**73.2**	2.37	0.186	MG/KG	1	B	27-Jan-11 11:13

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.56
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-8 @ 2'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-2
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 10:12
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 83.1
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.751**	1.16	0.0935	MG/KG	1	JB	27-Jan-11 11:32
Chromium	**8.89**	1.16	0.138	MG/KG	1	B	27-Jan-11 11:32
Lead	**4.81**	1.16	0.716	MG/KG	1	B	27-Jan-11 16:07
Zinc	**18.0**	2.31	0.182	MG/KG	1	B	27-Jan-11 11:32

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.52
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-8 @ 3'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-3
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 10:17
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 76.0
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.689**	1.26	0.102	MG/KG	1	JB	27-Jan-11 11:44
Chromium	**6.44**	1.26	0.150	MG/KG	1	B	27-Jan-11 11:44
Lead	**5.75**	1.26	0.783	MG/KG	1	B	27-Jan-11 16:12
Zinc	**30.2**	2.53	0.199	MG/KG	1	B	27-Jan-11 11:44

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.52
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-9 @ 1'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-4
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 10:56
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 84.2
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.619**	1.08	0.0872	MG/KG	1	JB	27-Jan-11 11:50
Chromium	**10.0**	1.08	0.128	MG/KG	1	B	27-Jan-11 11:50
Lead	**11.3**	1.08	0.668	MG/KG	1	B	27-Jan-11 16:15
Zinc	**13.1**	2.16	0.170	MG/KG	1	B	27-Jan-11 11:50

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.55
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-9 @ 2'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-5
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:00
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 85.7
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.553**	1.12	0.0907	MG/KG	1	JB	27-Jan-11 12:09
Chromium	**10.9**	1.12	0.134	MG/KG	1	B	27-Jan-11 12:09
Lead	**11.5**	1.12	0.695	MG/KG	1	B	27-Jan-11 16:24
Zinc	**14.8**	2.24	0.176	MG/KG	1	B	27-Jan-11 12:09

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.52
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-9 @ 3'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-6
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:03
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 86.7
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.585**	1.01	0.0817	MG/KG	1	JB	27-Jan-11 12:15
Chromium	**17.2**	1.01	0.120	MG/KG	1	B	27-Jan-11 12:15
Lead	**7.25**	1.01	0.626	MG/KG	1	B	27-Jan-11 16:27
Zinc	**14.5**	2.02	0.159	MG/KG	1	B	27-Jan-11 12:15

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.57
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-10 @ 1'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-7
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:15
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 82.5
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.640**	1.17	0.0942	MG/KG	1	JB	27-Jan-11 12:21
Chromium	**49.1**	1.17	0.139	MG/KG	1	B	27-Jan-11 12:21
Lead	**5.37**	1.17	0.721	MG/KG	1	B	27-Jan-11 16:30
Zinc	**14.1**	2.33	0.183	MG/KG	1	B	27-Jan-11 12:21

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.52
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-10 @ 3'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-9
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:20
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 81.5
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.603**	1.06	0.0855	MG/KG	1	JB	27-Jan-11 12:34
Chromium	**35.4**	1.06	0.126	MG/KG	1	B	27-Jan-11 12:34
Lead	**4.16**	1.06	0.655	MG/KG	1	B	27-Jan-11 16:36
Zinc	**13.3**	2.12	0.166	MG/KG	1	B	27-Jan-11 12:34

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.58
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-10 @ 4'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-10
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:22
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 74.2
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**2.09**	1.27	0.103	MG/KG	1	B	27-Jan-11 12:40
Chromium	**250**	12.7	1.51	MG/KG	10	B	28-Jan-11 16:15
Lead	**19.9**	1.27	0.787	MG/KG	1	B	27-Jan-11 16:39
Zinc	**53.7**	2.54	0.200	MG/KG	1	B	27-Jan-11 12:40

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.53
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-10 @ 5'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-11
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:26
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 76.0
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**1.19**	1.20	0.0967	MG/KG	1	JB	27-Jan-11 12:46
Chromium	**62.7**	1.20	0.142	MG/KG	1	B	27-Jan-11 12:46
Lead	**10.8**	1.20	0.741	MG/KG	1	B	27-Jan-11 16:42
Zinc	**40.5**	2.39	0.188	MG/KG	1	B	27-Jan-11 12:46

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.55
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-11 @ 1'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-12
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:32
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 81.7
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.613**	1.06	0.0853	MG/KG	1	JB	27-Jan-11 12:53
Chromium	**7.14**	1.06	0.126	MG/KG	1	B	27-Jan-11 12:53
Lead	**3.70**	1.06	0.653	MG/KG	1	B	27-Jan-11 16:45
Zinc	**30.3**	2.11	0.166	MG/KG	1	B	27-Jan-11 12:53

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.58
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-11 @ 2'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-13
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:36
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 82.0
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.589**	1.20	0.0966	MG/KG	1	JB	27-Jan-11 12:59
Chromium	**7.55**	1.20	0.142	MG/KG	1	B	27-Jan-11 12:59
Lead	**3.91**	1.20	0.740	MG/KG	1	B	27-Jan-11 16:48
Zinc	**19.1**	2.39	0.188	MG/KG	1	B	27-Jan-11 12:59

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.51
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-11 @ 3'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-14
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:37
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 76.5
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.655**	1.11	0.0896	MG/KG	1	JB	27-Jan-11 13:05
Chromium	**10.7**	1.11	0.132	MG/KG	1	B	27-Jan-11 13:05
Lead	**5.50**	1.11	0.686	MG/KG	1	B	27-Jan-11 16:51
Zinc	**38.4**	2.22	0.174	MG/KG	1	B	27-Jan-11 13:05

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.59
Prep Extract Vol: 50

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Print Date: 1/31/2011

Client Sample ID: **BG-11 @ 4'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-15
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:40
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 76.6
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.795**	1.31	0.106	MG/KG	1	JB	27-Jan-11 13:24
Chromium	**12.0**	1.31	0.155	MG/KG	1	B	27-Jan-11 13:24
Lead	**5.99**	1.31	0.809	MG/KG	1	B	27-Jan-11 17:00
Zinc	**24.3**	2.61	0.205	MG/KG	1	B	27-Jan-11 13:24

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.50
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-11 @ 5'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-16
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:45
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 75.0
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.713**	1.13	0.0913	MG/KG	1	JB	27-Jan-11 13:30
Chromium	**14.4**	1.13	0.135	MG/KG	1	B	27-Jan-11 13:30
Lead	**8.31**	1.13	0.700	MG/KG	1	B	27-Jan-11 17:03
Zinc	**21.4**	2.26	0.177	MG/KG	1	B	27-Jan-11 13:30

Batch Information

Analytical Batch: 012711a.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18134
Prep Method: 3050
Prep Date/Time: 26-Jan-11 11:45
Initial Prep Wt./Vol.: 0.59
Prep Extract Vol: 50

Print Date: 1/31/2011

Client Sample ID: **BG-12 @ 1'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-17
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:50
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 84.7
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.186**	1.18	0.0954	MG/KG	1	J	28-Jan-11 20:22
Chromium	**7.64**	1.18	0.140	MG/KG	1		28-Jan-11 20:22
Lead	**12.2**	1.18	0.731	MG/KG	1		28-Jan-11 20:22
Zinc	**87.1**	2.36	0.185	MG/KG	1	B	28-Jan-11 20:22

Batch Information

Analytical Batch: 012811b.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18153
Prep Method: 3050
Prep Date/Time: 28-Jan-11 11:45
Initial Prep Wt./Vol.: 0.50
Prep Extract Vol: 50

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Print Date: 1/31/2011

Client Sample ID: **BG-12 @ 2'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-18
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:53
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 78.9
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.390**	1.07	0.0868	MG/KG	1	J	28-Jan-11 20:37
Chromium	**9.13**	1.07	0.128	MG/KG	1		28-Jan-11 20:37
Lead	**4.60**	1.07	0.665	MG/KG	1		28-Jan-11 20:37
Zinc	**33.8**	2.15	0.169	MG/KG	1	B	28-Jan-11 20:37

Batch Information

Analytical Batch: 012811b.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18153
Prep Method: 3050
Prep Date/Time: 28-Jan-11 11:45
Initial Prep Wt./Vol.: 0.59
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-12 @ 3'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-19
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 11:57
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 81.7
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	**0.127**	1.11	0.0899	MG/KG	1	J	28-Jan-11 20:46
Chromium	**8.57**	1.11	0.132	MG/KG	1		28-Jan-11 20:46
Lead	**3.24**	1.11	0.689	MG/KG	1		28-Jan-11 20:46
Zinc	**13.4**	2.23	0.175	MG/KG	1	B	28-Jan-11 20:46

Batch Information

Analytical Batch: 012811b.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18153
Prep Method: 3050
Prep Date/Time: 28-Jan-11 11:45
Initial Prep Wt./Vol.: 0.55
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-12 @ 4'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-20
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 12:01
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 79.0
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	BQL	1.05	0.0852	MG/KG	1		28-Jan-11 20:51
Chromium	**9.53**	1.05	0.125	MG/KG	1		28-Jan-11 20:51
Lead	**3.02**	1.05	0.653	MG/KG	1		28-Jan-11 20:51
Zinc	**15.5**	2.11	0.166	MG/KG	1	B	28-Jan-11 20:51

Batch Information

Analytical Batch: 012811b.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18153
Prep Method: 3050
Prep Date/Time: 28-Jan-11 11:45
Initial Prep Wt./Vol.: 0.60
Prep Extract Vol: 50

SGS

Print Date: 1/31/2011

Client Sample ID: **BG-12 @ 5'**
Client Project ID: Merchants Metals
Lab Sample ID: G1216-5-21
Lab Project ID: G1216-5

Collection Date: 24-Jan-11 12:04
Received Date: 26-Jan-11
Matrix: SOIL
Solids: 75.8
Basis: Dry

Results by 6010C

Parameter	Result	RL/CL	MDL	Units	DF	Qual	Date Analyzed
Cadmium	BQL	1.10	0.0888	MG/KG	1		28-Jan-11 21:06
Chromium	**11.5**	1.10	0.131	MG/KG	1		28-Jan-11 21:06
Lead	**3.76**	1.10	0.680	MG/KG	1		28-Jan-11 21:06
Zinc	**16.6**	2.20	0.173	MG/KG	1	B	28-Jan-11 21:06

Batch Information

Analytical Batch: 012811b.csv
Analytical Method: 6010C
Instrument: ICP
Analyst: PSW

Prep Batch: 18153
Prep Method: 3050
Prep Date/Time: 28-Jan-11 11:45
Initial Prep Wt./Vol.: 0.60
Prep Extract Vol: 50

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(1)
CLIENT: Environmental Services, Inc.
CONTACT: Mike Burns PHONE NO:( )
PROJECT: Merchants Metals SITE/PWSID#: ER10-125.01
REPORTS TO: Mike Burns ESI FAX NO.:( )
INVOICE TO: 524 S. New Hope Rd Raleigh, NC 27610 QUOTE #: ESI-011911-bah P.O. NUMBER:

SGS Reference: G1216-5

PAGE 1 OF 3

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE C= COMP G= GRAB	Preservatives Used	Analysis Required (3) Metals (Zn, Cr, Cd + Pb)	REMARKS
	BG-8 @ 1'	1-24-11	1008	Soil	1	G		X	
	BG-8 @ 2'		1012		1			X	
	BG-8 @ 3'		1017		1			X	
	BG-9 @ 1'		1056		1			X	
	BG-9 @ 2'		1100		1			X	
	BG-9 @ 3'		1103		1			X	
	BG-10 @ 1'		1115		1			X	
	BG-10 @ 2'		1117		1			X	
	BG-10 @ 3'		1120		1			X	
	BG-10 @ 4'		1122		1			X	

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
[signature]	1/25/11	2:39 pm	[signature]
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:
[signature]	1/26/11	11:30	[signature]

(4)

Shipping Carrier:
Shipping Ticket No:
Samples Received Cold? (Circle) YES NO
Temperature°C: 4.6
Special Deliverable Requirements:
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT
Special Instructions:
Requested Turnaround Time:
☐ RUSH _____ Date Needed ☐ STD

❑ 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

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CHAIN OF CUSTODY RECORD
SGS North America Inc.

Locations Nationwide
- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Ohio

www.us.sgs.com

100978

(1)

CLIENT: Environmental Services, Inc.

CONTACT: Mike Burns PHONE NO.: (919) 212-1760

PROJECT: Merchants Metals SITE/PWSID#: ER10-125.01

REPORTS TO: Mike Burns ESI FAX NO.: ( )

INVOICE TO: 5244 S. New Hope Rd. Raleigh, NC 27610 QUOTE #: ESI-011911-bah PO NUMBER:

SGS Reference: G1216-5

PAGE 2 OF 3

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	Preservatives Used	Analysis Required (3) Metals (Zn, Cr, Cd + Pb)	REMARKS
	BG-10@5'	1-24-11	1126	Soil	1	G		X	
	BG-11@1'		1132		1			X	
	BG-11@2'		1136		1			X	
	BG-11@3'		1137		1			X	
	BG-11@4'		1140		1			X	
	BG-11@5'		1145		1			X	
	BG-12@1'		1150		1			X	
	BG-12@2'		1153		1			X	
	BG-12@3'		1157		1			X	
	BG-17@4'		1201		1			X	

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
[signature]	1/25/11	2:40 pm	[signature]
Relinquished By:(2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:
[signature]	1/26/11	11:30	[signature]

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 4.6

Special Deliverable Requirements:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☐ STD

SGS

CHAIN OF CUSTODY RECORD
SGS North America Inc.

Locations Nationwide
- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Ohio

www.us.sgs.com

100979

(1)

CLIENT: Environmental Services, Inc.

CONTACT: Mike Burns PHONE NO: (919) 212-1760

PROJECT: Merchants Metals SITE/PWSID#: ER10-125.01

REPORTS TO: Mike Burns, ESI, 5245 New Hope Rd, Raleigh, NC 27610 FAX NO.: ( )

INVOICE TO: QUOTE #: ESI-011911-bah

P.O. NUMBER:

SGS Reference: G1216-5

PAGE 3 OF 3

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	Preservatives Used	Analysis Required (3) Metals (Zn, Cr, Cd & Pb)									REMARKS
	BG-12 @ 5'	1-24-11	1204	Soil	1	G		X									

(5)

Collected/Relinquished By:(1)	Date	Time	Received By:
[signature]	1/28/11	1439	[signature]
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4) [signature]	Date 1/26/11	Time 11:30	Received By: [signature]

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 4.0

Special Deliverable Requirements:

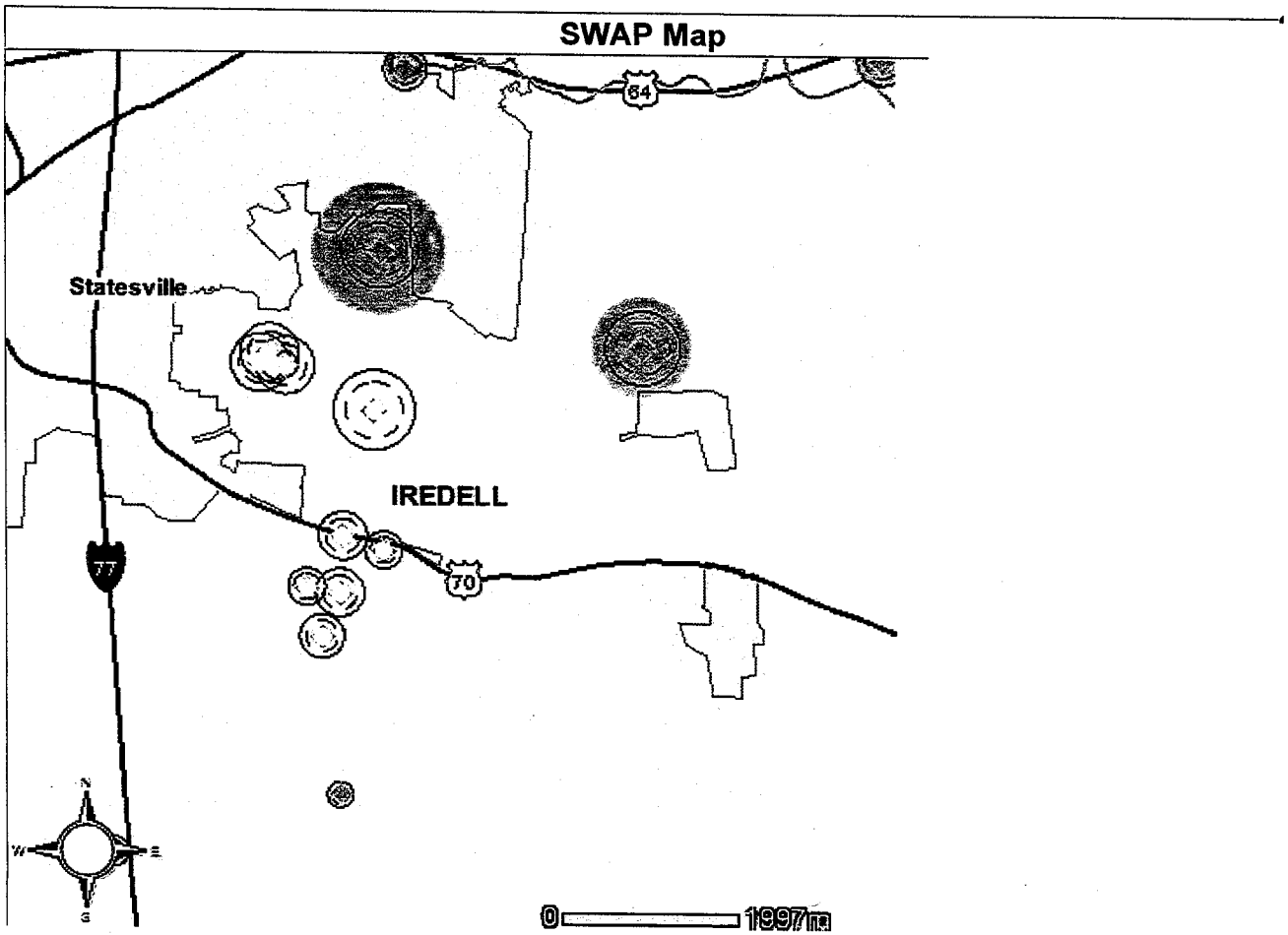
Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☐ STD

ENVIRONMENTALLY SENSITIVE AREAS INFORMATION


SWAP Map
84
Statesville
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Legend

- Selected Features
- Adjacent
- Campground
- Community
- Non-Transient Non-Community
- Transient Non-Community
- Wellhead Protection Areas
- Ground Water Delineated Area
- Ground Water Zone A
- Watershed Boundary
- Protected Area Boundary (WS-IV and V only)
- Critical Area (NA for WS-I)
- PWS
- Major Roads
- Municipal Boundaries
- Hydrology
- Counties

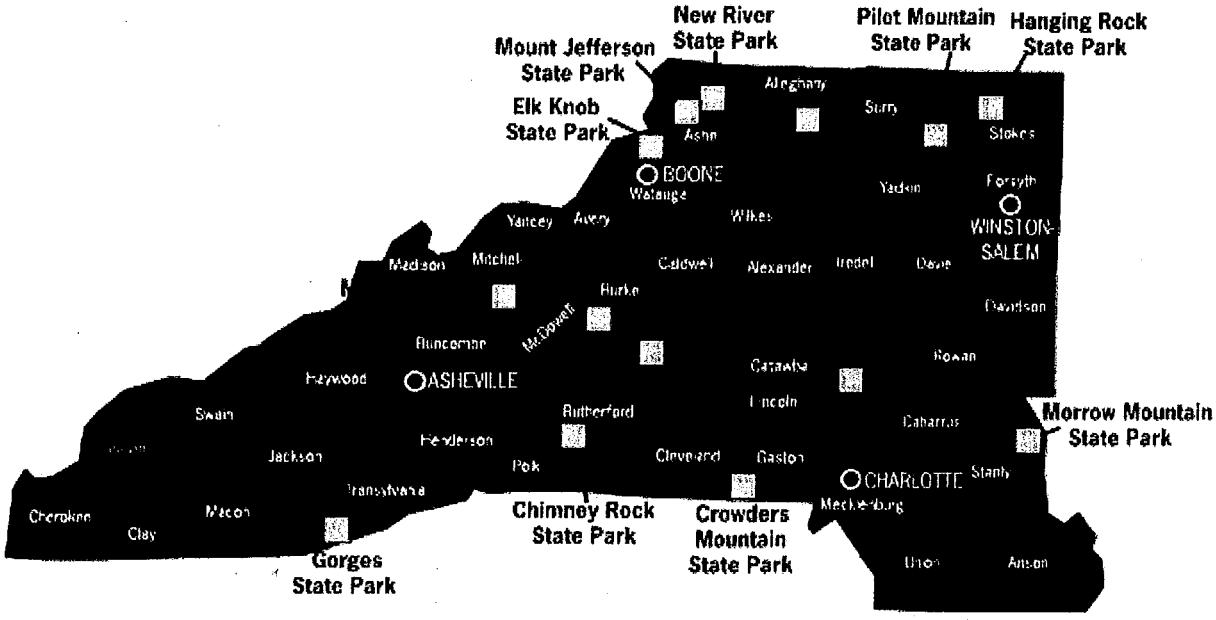
PWS

PWS_ID	EPA Source ID	SOURCE CODE	SOURCE TYPE	SOURCE NAME	YIELD (GPM)	DEGREE OF CONFINEMENT	RECHARGE RATE	SYSTEM NAME	CITY	STATE	ZIP	COUNTY	PWS TYPE
0149128	96	S02	G	WELL #2	18		600000	MURDOCK RD WATER SYSTEM	STATESVILLE	NC	28677	49	Community
0149128	41	S05	G	WELL #5	54		600000	MURDOCK RD WATER SYSTEM	STATESVILLE	NC	28677	49	Community
0149128	42	S06	G	WELL #6	54		600000	MURDOCK RD WATER SYSTEM	STATESVILLE	NC	28677	49	Community
0149152	59	S01	G	WELL #1	25		400000	STATESVILLE MHP	STATESVILLE	NC	28677	49	Community
0149128	43	S07	G	WELL #7	54		600000	MURDOCK RD WATER SYSTEM	STATESVILLE	NC	28677	49	Community
0149128	36	S03	G	WELL #3	10		600000	MURDOCK RD WATER SYSTEM	STATESVILLE	NC	28677	49	Community
0149139	53	S02	G	WELL #2	21		400000	SUBURBAN ACRES	STATESVILLE	NC	28677	49	Community
0149139	54	S01	G	WELL #1	15		400000	SUBURBAN ACRES	STATESVILLE	NC	28677	49	Community
0149152	58	S02	G	WELL #2	25		400000	STATESVILLE MHP	STATESVILLE	NC	28677	49	Community
0149550	34	S01	G	WELL #1	70		400000	TWIN OAKS GOLF CLUB	STATESVILLE	NC	28625	49	Transient Non-Community
2049008	49	S01	G	WELL #1	15		400000	FARM HOUSE GARDENERS	STATESVILLE	NC	28677	49	Transient Non-Community

Zoom to these records

Western Region Map

Please select a park and you will be taken to the park's main page.



N.C. Division of Parks & Recreation • 1615 MSC • Raleigh N.C. 27699-1615 (919) 733-4181

About Us » The Park System » State Natural Areas

As of January 1, 2007 (land area only)

Unit	Size (acres)
Baldhead Island	1,260
Beech Creek Bog	120
Bullhead Mountain	220
Bushy Lake	6,343
Chowan Swamp	6,066
Dismal Swamp	14,344
Elk Knob	2,317
Hemlock Bluffs	92
Lea Island	25
Lower Haw River	1,022
Masonboro Island	106
Mitchell Mill	93
Mount Jefferson	607
Mountain Bogs	101
Occoneechee Mountain	162
Run Hill	123
Sandy run Savannas	0
Theodore Roosevelt	265
Weymouth Woods	900
19 Natural Areas	**34,167 Acres**

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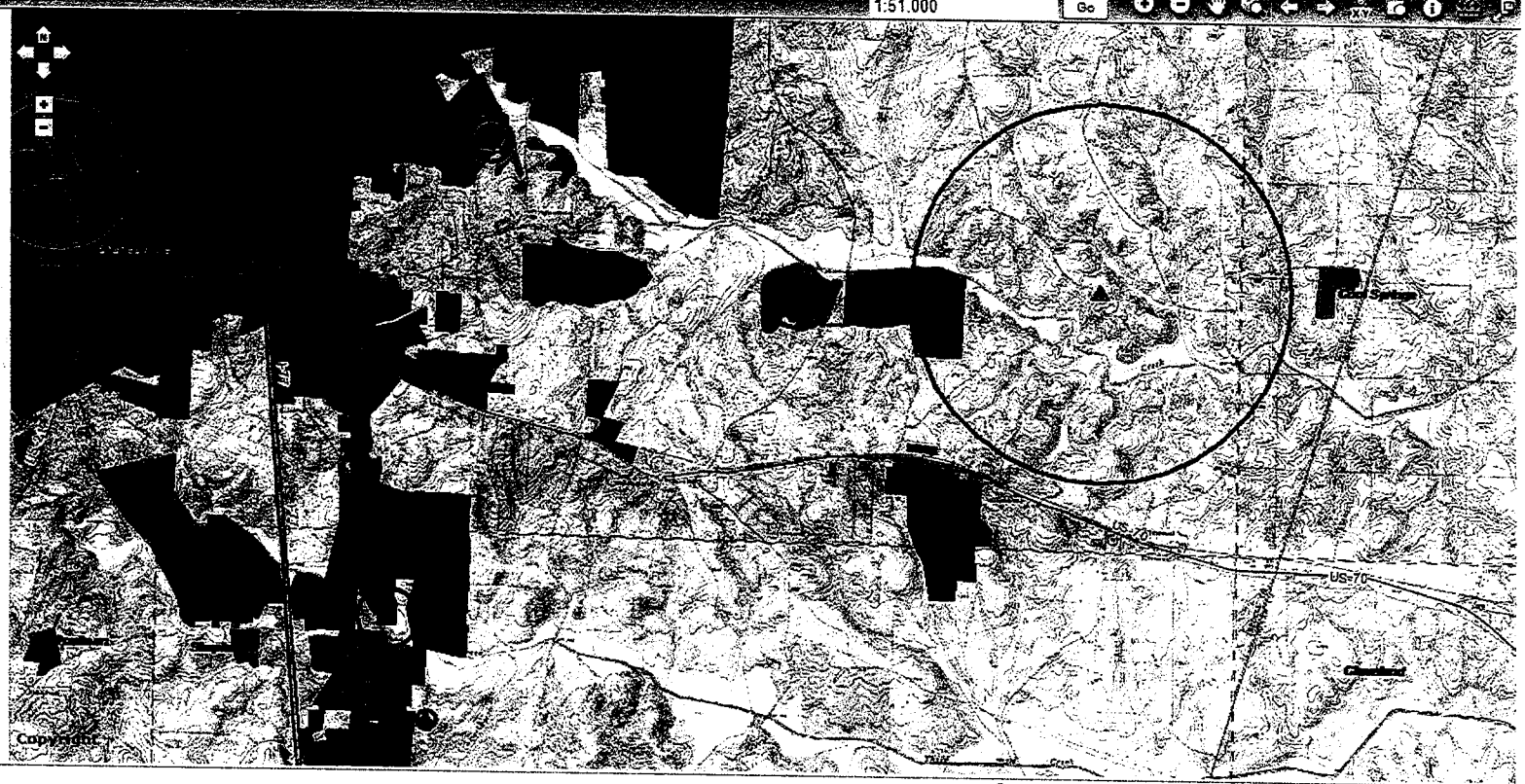
Results

Map Contents

- NHP_Data
  - NHEO
    - Element Occurrences
      - Plant
      - Animal
      - Natural Community
      - Animal Assemblage
    - EO Source Points
      - Plant
      - Animal
      - Animal Assemblage
      - Natural Community
    - EO Source Lines
    - EO Source Polygons
  - Marea
  - SNHA
- NC_Base
  - Base
- USA_Topo_Maps
  - USA Topo Maps
- ESRI_StreetMap_World_2D
  - World Street Map
- ESRI_ShadedRelief_World_2D
  - World Shaded Relief
- ESRI_Imagery_World_2D
  - World Imagery



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