



The David J. Joseph Company

August 2, 2012

George D. Adams, PG & EI
Environmental Engineer II
Department of Environment and Natural Resources
Division of Waste Management
Superfund Section – Inactive Hazardous Sites Branch
610 East Center Avenue, Suite 301
Mooresville, NC 28115

**Re: Site Cleanup Questionnaire and Supplemental Site Assessment Letter
Stateline Scrap Metal, Inc.
5401 South York Highway
Gastonia, Gaston County, North Carolina
IHSB #NONCD0002899**

Dear Mr. Adams:

The David J. Joseph Company (DJJ) is providing the attached documents to satisfy your May 4, 2012 request for additional site assessment activities at the above referenced facility. Our consultant, AECOM, conducted the requested additional sampling activities of the drainage swales. In addition, AECOM collected soil samples to help establish site-specific background levels for metals. The analytical data and a summary of sampling activities along with the requested Cleanup Questionnaire are provided in the attached AECOM prepared documents.

If you have any questions or need additional information please contact me at (502) 715-1426.

Sincerely,

Brian Lenihan, CHMM
Environmental Specialist

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July 31, 2012

Mr. Brian Lenihan
Environmental Specialist
The David J. Joseph Company
2045 River Road
Louisville, Kentucky 40206

**Subject: Supplemental Site Assessment Results
Stateline Scrap Metal – Gastonia, North Carolina
5401 South York Highway, Gastonia, North Carolina
IHSB #: NONCD0002899**

Dear Mr. Lenihan,

AECOM North Carolina, Inc. (AECOM) is submitting this report which provides a summary of supplemental site assessment activities conducted at the above-referenced metal recycling facility located in Gastonia, North Carolina (Site). The primary objective of these additional assessment activities was to address the requirements of the Notice of Regulatory Requirements (NORR) submitted to the David J. Joseph Company (DJJ) by the North Carolina Department of Environment and Natural Resources (NCDENR) on May 4, 2012. Specifically, the NORR required additional sampling at the Site to further evaluate impacts identified during a limited Phase II Environmental Site Assessment (ESA) conducted in December 2011.

Background

The Site is located at 5401 South York Highway and occupies approximately 40.6 acres. The Site is currently occupied by an active metal recycling facility. A Site Location Plan is provided as Figure 1, and a Sample Location Map is provided as Figure 2.

In December 2011, AECOM performed a Phase I ESA at the Site. Based on preliminary findings and site observations, a Phase II ESA was authorized and conducted concurrently with the Phase I ESA. The Phase II scope of work was designed to address areas of concern identified by DJJ and AECOM. The results of the Phase II ESA at the Site indicated that volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs) and oil & grease were detected at concentrations exceeding applicable standards in soil and sediment samples. However, no exceedances were noted in groundwater. The full results of the Phase II ESA are provided in the Phase II ESA Results letter submitted to DJJ on January 26, 2012.

Objectives

The primary objectives of the supplemental site assessment sampling were to address the requirements specified in the NORR. Specifically, the NORR outlined the following sampling requirements:

- Surficial soil sampling of the drainage swales that convey stormwater from the facility's three stormwater outfalls to the unnamed tributary of Crowders Creek. The soil samples were to be collected near the entrance to the unnamed tributary and analyzed for the following constituents: VOCs, SVOCs, PCBs, antimony, arsenic, beryllium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc.
- Establishment of site-specific natural background levels for the following metals if they are suspected or known to exceed Branch Remediation Goals: antimony, arsenic, beryllium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc.

Subsequent discussions between DJJ and NCDENR resulted in amendments to the NORR as outlined in an e-mail from George Adams (NCDENR) to Brian Lenihan (DJJ) on May 8, 2012. These amendments included eliminating the requirements to analyze the drainage swale samples for VOCs, SVOCs, and metals, and eliminated the requirement to establish Site-specific background concentrations for metals. However, DJJ did elect to sample assumed background soils for metals which were previously detected at concentrations exceeding regulatory limits.

Investigative Activities

In May 2012, AECOM personnel performed soil sampling at the Site to meet the objectives described above.

Soil Sampling Methodology

A stainless-steel hand auger was used to collect surficial soil samples from the drainage swales associated with facility's three storm water ponds and from four assumed background locations. The soil samples were collected from 0 to 1 foot below ground surface. A clean pair of Nitrile gloves was used during collection of each sample, and field sampling equipment was thoroughly decontaminated prior to use and between each sample collection point.

Drainage swale sample locations (Outfall-001, Outfall-002, and Outfall-003) were selected based on visual observations. The locations were intended to be as close to the outfall to the unnamed tributary as possible while being in the active drainage swale (Figure 2). Background soil samples (BG-02, BG-03, BG-04, and BG-05) were collected from areas of undisturbed areas of the Site in the northwestern (upgradient) portion of the Site (Figure 2).

The laboratory analytical samples were placed into appropriate laboratory provided containers and labeled with the project name, sample designation, sample collection date, sample collection time, and sampler's name, and submitted for analysis by various methods. The drainage swale soil samples were analyzed for PCBs via United States Environmental Protection Agency (EPA) Method 8082, and the background soil samples were analyzed for Resource Conservation and Recovery Act metals (arsenic, barium, selenium, and silver only) via EPA Method 6010C, and lead via EPA Method 6010C.

Sample Location Coordinates

Soil sampling locations were mapped using global positioning system coordinates collected by AECOM. A Trimble Geo XH with optional GeoBeacon receiver was used to collect the coordinates listed on Figure 2. To improve data accuracy, the data was then differentially post-processed using Trimble Pathfinder Office Software v4.2.

Investigative Results

This section summarizes the results of the supplemental site assessment. The analytical results are summarized on Tables 1 and 2. A copy of the laboratory analytical report is included in Attachment A. Soil results were compared to the NCDENR Inactive Hazardous Sites Branch (IHSB) Preliminary Soil Remediation Goals (PSRG) for Protection of Groundwater (PoG) and Industrial Health.

Drainage Swales

As shown on Table 1, one PCB compound (Aroclor 1254) was detected in the drainage swale sample collected from Outfall-003. The detected concentration (0.11 milligrams per kilogram {mg/kg}) was below the applicable IHSB PSRGs. PCBs were not detected above the laboratory reporting limits in samples collected at Outfall-001 or Outfall-002.

Background Soils

As shown on Table 2, arsenic, barium and lead were detected in each of the five background soil samples collected at the Site, and selenium was detected in one sample. Arsenic exceeded the applicable IHSB PSRGs in four out of five samples. The average background concentration for arsenic was 2.76 mg/kg (ranging from 1.4 mg/kg to 4.1 mg/kg). The average background concentration for barium was 53.2 mg/kg (ranging from 21 mg/kg to 110 mg/kg), and the average background concentration for lead was 35.0 mg/kg (ranging from 13 mg/kg to 110 mg/kg). The average background concentration for selenium was 1.58 mg/kg (ranging from <0.56 to 6.7mg/kg). Silver was not detected above laboratory reporting limits in the background soil samples.

A comparison of the background soil sample results to the soil samples collected during the Phase 2 ESA (AECOM, 2011) revealed the following:

- Arsenic was detected at concentrations above the maximum background concentration and the Industrial PSRG in samples SB-16, SB-17, SB-17, SB-22, SB-30 and SB-33. However, it only exceeded maximum background and the PoG PSRG in samples SB-17, SB-22 and SB-30.
- Barium and lead were detected above their respective maximum background concentrations and the PoG PSRG only in the sample collected from SB-22 (0-2). Neither metal was detected at concentrations exceeding the industrial PSRG.
- Selenium had the most widespread exceedances of the maximum background concentration and the PoG PSRG. Selenium concentrations did not exceed the industrial PSRG in any of the samples.
- Silver was only detected in the sample collected from SB-22 at concentrations above maximum background and PoG PSRG. The detected concentration at SB-22 did not exceed the industrial PSRG.

Summary

The following summarizes the results of the supplemental site assessment activities and historical data collected from the site:

- Surficial soils collected in the three drainage swales associated with the facility's storm water ponds did not contain PCB at concentrations in excess of applicable IHSB PSRGs. As such, it does not appear that PCBs, previously detected in the sediment samples from the storm water ponds at concentrations above applicable regulatory limits, have migrated from the ponds.
- Although arsenic, barium, lead, selenium and silver were previously detected at several locations at concentrations exceeding applicable PSRGs, the results of the background metals evaluation indicated that elevated background metals concentrations exist at the site. Furthermore, exceedances of background concentrations and the applicable PSRG are limited to a few locations. In addition, groundwater samples collected from the Site in 2011 only revealed the presence of barium and lead above laboratory detection limits. However, the concentrations did not exceed applicable 15A NCAC 2L groundwater standards.
- Despite previous detections of limited VOCs, SVOCs and PCBs in soil above respective PoG PSRGs, groundwater samples collected at the Site did not indicate the presence of VOCs, SVOCs and PCB at concentrations above laboratory detection limits.

Based on the information provided in the Phase 2 ESA (AECOM, 2011) and the results of the supplemental site assessment activities summarized herein, AECOM does not believe that additional investigation at the site is warranted with respect to VOCs, SVOCs, metals and PCBs detected in soil or sediment. It is our understanding that additional investigation may be required to evaluate petroleum (i.e. oil and grease) related soil impacts, but that work will be directed by the NCDENR Non-Underground Storage Tank Program.

Please contact us if you have questions or need additional information.

Yours sincerely,



Brian Ray
Senior Project Manager



Bob Wyrick, P.G.
Senior Geologist

Attachments

Certification

"I certify that, to the best of my knowledge, after a thorough investigation, the information contained in or accompanying this certification is true, accurate, and complete.



Brian Lenihan
The David J. Joseph Company

Jefferson County, ~~North Carolina~~ Kentucky
Signed and sworn to (or affirmed) before this day by BRIAN LENIHAN
(name of principal)

Date: 7/31/2012

Tanya House
Notary Public's Signature

TANYA HOUSE
(Notary's printed or typed name, Notary Public)

(Official Seal)

My commission expires: 6/2/2013

6/2/2013

Certification

"I certify that, to the best of my knowledge, after a thorough investigation, the information contained in or accompanying this certification is true, accurate, and complete.


Robert Wyrick
AECOM

Wake County, North Carolina
Signed and sworn to (or affirmed) before this day by Robert Wyrick
(name of principal)

Date: August 1, 2012

Sharon Rose Donald
Notary Public's Signature

Sharon Rose Donald
(Notary's printed or typed name, Notary Public)

My commission expires: October 29, 2012



**Table 1
Drainage Swale Soil Analytical Results
State Line Scrap Metal**

			Drainage Swales			
			Sample ID:	Outfall-001	Outfall-002	Outfall-003
			Sample Type:	Grab	Grab	Grab
			Depth (ft bgs):	0-1	0-1	0-1
			Date:	5/23/2012	5/23/2012	5/23/2012
Analyte	IHSB PSRG PoG	IHSB PSRG (Ind.)				
PCBs by 8082 (mg/kg)						
Aroclor 1254	0.14	1.0	< 0.050	< 0.049	0.11	

Notes:

Only detected compounds listed in table

ft bgs - feet below ground surface

IHSB PSRG - Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (February 2012)

PoG - Protection of Groundwater

Ind. - Industrial

PCBs - polychlorinated biphenyls

mg/kg - milligrams per kilogram

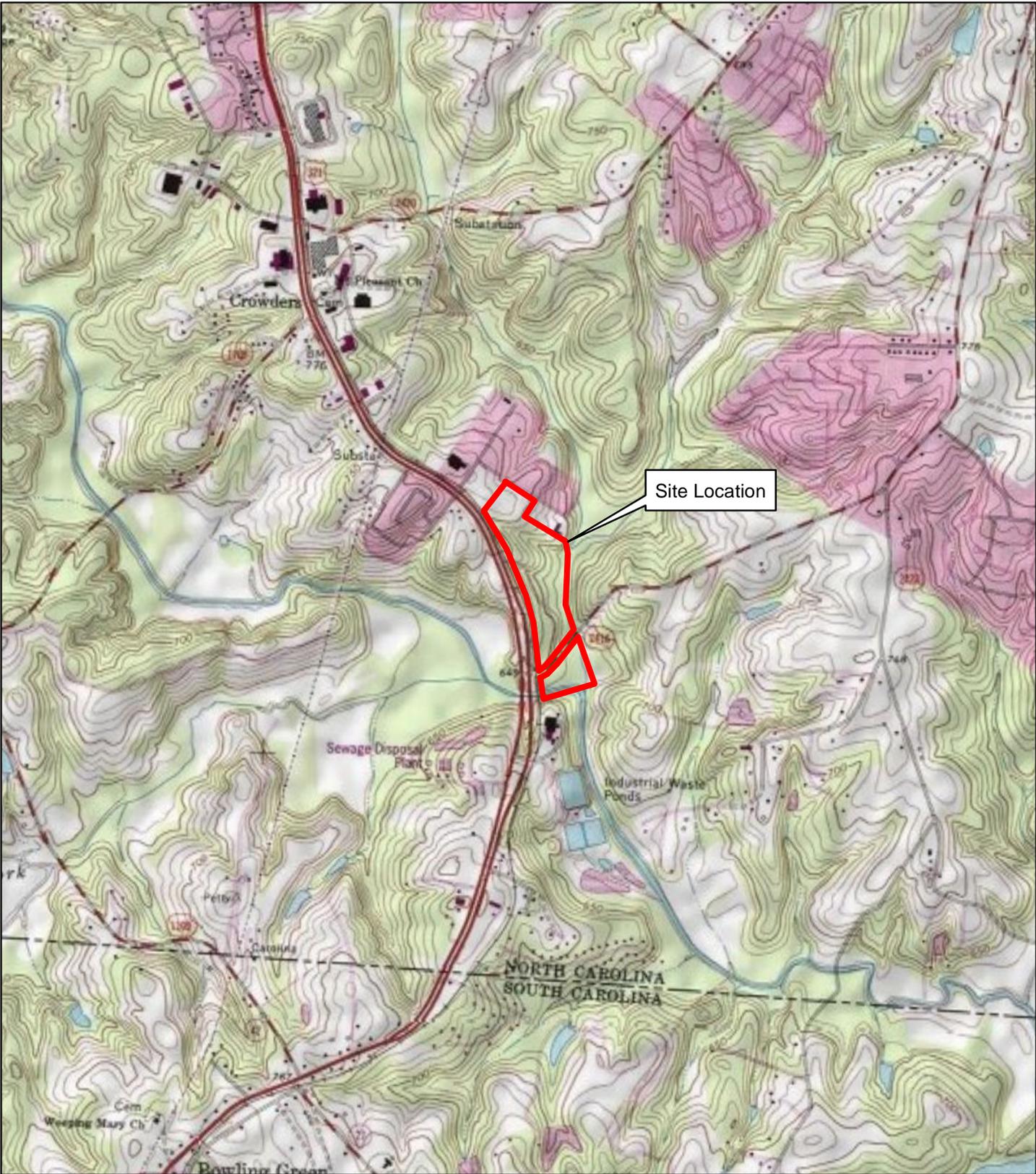
< - constituent was not detected above the reporting limit

Table 2
Soil Analytical Results
State Line Scrap Metal

Analyte	IHSB PSRG PoG	IHSB PSRG (Ind.)	Average Background	Minimum Background	Maximum Background	NA Soils (NC)	Background					Turnings Area and Maintenance Building																	
							BC-01	BG-02	BG-03	BG-04	BG-05	SB-01	SB-02	SB-03	SB-03	SB-04	SB-05	SB-06	SB-07	SB-08	SB-09	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16	SB-16
							Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Total Metals (mg/kg)							3.2	2.1	3	1.4	4.1	< 3.0	< 3.1	< 3.0	< 3.0	< 3.5	< 3.2	< 3.3	< 3.3	< 3.1	< 3.1	< 3.3	< 2.9	3.2	3.8	3.3	< 3.0	4.9	3.6
Arsenic	5.8	1.6	2.76	1.4	4.1	4.8	3.2	2.1	3	1.4	4.1	< 3.0	< 3.1	< 3.0	< 3.0	< 3.5	< 3.2	< 3.3	< 3.3	< 3.1	< 3.1	< 3.3	< 2.9	3.2	3.8	3.3	< 3.0	4.9	3.6
Barium	580	38,000	53.2	21	110	356	59	26	110	21	50	230	140	160	350	210	58	52	67	23	61	91	87	86	85	63	15	98	52
Lead	270	800	35.0	13	110	16	15	18	110	13	19	29	29	29	15	13	27	19	28	13	30	30	21	21	34	28	18	23	19
Selenium	2.1	1000	1.58	< 0.56	6.7	0.42	6.7	< 0.56	< 0.59	< 0.56	< 0.66	6.6	15	5.7	8.6	12	12	4.9	13	12	7.6	6.3	11	7.2	7.1	10	10	6.3	
Silver	3.4	1000	0.152	< 0.28	< 0.33	NS	< 0.33	< 0.28	< 0.30	< 0.28	< 0.33	< 1.5	< 1.6	< 1.5	< 1.5	< 1.8	< 1.6	< 1.6	< 1.6	< 1.5	< 1.5	< 1.7	< 1.5	< 1.5	< 1.6	< 1.6	< 1.5	< 1.6	< 1.5

Analyte	IHSB PSRG PoG	IHSB PSRG (Ind.)	Average Background	Minimum Background	Maximum Background	NA Soils (NC)	Torch Area										Shear Area										Shredder Area	
							SB-17	SB-17	SB-18	SB-19	SB-20	SB-21	SB-22	SB-22	SB-23	SB-23	SB-24	SB-25	SB-26	SB-27	SB-28	SB-29	SB-30	SB-30	SB-31	SB-32	SB-33	
							Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Total Metals (mg/kg)							4.4	6.4	2.1	3.1	2.0	2.2	12	3.1	2.6	< 1.2	1.6	1.7	2.2	< 1.1	1.8	1.2	8.2	1.1	2.0	3.6	4.2	
Arsenic	5.8	1.6	2.76	1.4	4.1	4.8	4.4	6.4	2.1	3.1	2.0	2.2	12	3.1	2.6	< 1.2	1.6	1.7	2.2	< 1.1	1.8	1.2	8.2	1.1	2.0	3.6	4.2	
Barium	580	38,000	53.2	21	110	356	61	99	26	53	38	110	3200	62	41	67	64	69	94	29	450	77	62	43	97	74	100	
Lead	270	800	35.0	13	110	16	20	21	13	13	16	17	430	19	46	170	19	15	130	5.2	21	37	40	8.5	11	21	30	
Selenium	2.1	1000	1.58	< 0.56	6.7	0.42	16	9.2	8.9	8.3	11	14	29	12	11	6.2	3.4	14	6.7	8.4	8.8	3.1	5.1	8.0	8.6	12	13	
Silver	3.4	1000	0.152	< 0.28	< 0.33	NS	< 0.65	< 0.61	< 0.62	< 0.61	< 0.62	< .064	14	< 0.64	< 0.61	< 0.65	< 0.56	< 0.60	< 0.65	< 0.56	< 0.62	< 0.59	< 0.28	< 0.57	< 0.61	< 0.59	< 0.58	

Notes:
Only detected compounds listed in table
Bold indicates a total metals concentration detected above the maximum background concentration.
Shaded indicates a concentration detected above the protection of groundwater (PoG) or Industrial (Ind.) standard, whichever is lower.
IHSB PSRG - Inactive Hazardous Sites Branch Preliminary Soil Remediation Goals (February 2012)
NA Soils (NC) - Mean concentration in soils according to *Elements in North American Soils* (second edition)
ft bgs - feet below ground surface
mg/kg - milligrams per kilogram
< - constituent was not detected above the reporting limit
NS - no standard
When a compound was not detected, the half the reporting limit was used in calculating average background concentrations



Site Location



Site Location Plan

Metal Recycling Services, LLC,
5401 South York Highway
Gastonia, North Carolina

Gastonia South, NC/SC USGS Topographic Quadrangle (1978)

0 2,000 4,000
Feet

June, 2012 60240271.501

Figure 1

AECOM

AECOM North Carolina, Inc.
8540 Colonnade Center Drive, Suite 306
Raleigh, NC 27615
Phone: (919) 872-6600
Fax: (919) 872-7996
Web: <http://www.aecom.com>



Legend

- Supplemental Background Soil Samples
- Outfall Soil Sample
- Subsurface Soil Sample (2011)
- Surficial Soil Sample (2011)
- Sediment Sample (2011)
- ⊗ Temporary Well (2011)
- Background Soil Sample (2011)
- ~ Stream

1 inch = 200 feet

0 50 100 200 Feet

**Metal Recycling Services, LLC,
Sample Location Map**

Gastonia, North Carolina

60240271.501

AECOM

Figure 2

June 2012