Business Development Corporation
of the Northern Panhandle

Phone: (304) 748 5041
Fax: (304) 914-4687
324A Penco Road
Weirton, WV 26062

February 18, 2020

Attention: VRP Application
Office of Environmental Remediation
West Virginia Department of Environmental Protection
601 57th Street SE
Charleston, West Virginia 25304

To Whom It May Concern:

Subject: Application to Participate in the VRP
Mingo Junction Steel Works Site – CAAs VIM and VIIM
Weirton, Hancock County, West Virginia

The Business Development Corporation of the Northern Panhandle (BDC) is submitting one electronic copy of the enclosed application to participate in the Voluntary Remediation Program for the Mingo Junction Steel Works Site located in the in Weirton, West Virginia. Enclosed are a $5,000 check to cover the application fee and a compact disc containing a PDF file of the complete application.

The BDC looks forward to receiving your response regarding the application. In the meantime, please call me at 304-748-5041 if you have any questions.

Sincerely,

Business Development Corporation of the Northern Panhandle

Marvin Six

Marvin Six
Assistant Director

Enclosures

cc: Craig Slater – Mingo Junctions
David Olson, L.R.S. – CEC

Application Instructions

Program Overview

The Voluntary Remediation Program (VRP) encourages voluntary remediation and redevelopment of contaminated or potentially contaminated sites in West Virginia by providing financial incentives and limiting liability under environmental laws and rules. The program is authorized by W.V. Code §22-22 (Voluntary Remediation and Redevelopment Act), regulated by 60CSR3 (Voluntary Remediation and Redevelopment Rule), and administered by the Office of Environmental Remediation (OER).

W.V. Code §22-22	Voluntary Remediation and Redevelopment Act http://www.legis.state.wv.us/WVCODE/ChapterEntire.cfm?chap=22&art=22
60CSR3	Voluntary Remediation and Redevelopment Rule (last revised 6/1/2014) http://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=25666&Format=PDF

Licensed Remediation Specialists

A Licensed Remediation Specialist (LRS) must be contracted by an applicant for preparation of an application and supervision of the remediation. A LRS is tested, certified, and licensed by WVDEP. The LRS is responsible for all remediation activities at a site and has a duty to protect the safety, health, and welfare of the public in the performance of his or her professional duties.

A list of Licensed Remediation Specialists for hire is located on OER's webpage:
https://apps.dep.wv.gov/oer/l_list4.cfm

Pre-Application Conference

All potential applicants may request a pre-application conference with WVDEP staff prior to submission of an application. The conference will include a discussion of the conditions of the site and the potential future use of the site. Brownfield applicants, as defined by Section 2.8 in the Voluntary Remediation and Redevelopment Rule (60 CSR 3), are required to participate in a pre-application conference.

To request a pre-application conference, contact the Office of Environmental Remediation (304-926-0455).

Application Fee

The application fee must be submitted at the time the application is filed in the form of a check payable to the West Virginia Department of Environmental Protection. To determine the application fee for a site, refer to Section 7 of the application.

WITHDRAWALS: If an applicant withdraws an application prior to determination of eligibility to participate by WVDEP or if WVDEP rejects the application and the applicant does not re-submit a revised application within twenty-five (25) days, the applicant will receive a refund of one-half the application fee paid. The application fee is non-refundable if an applicant fails to enter into a Voluntary Remediation Agreement within thirty-one (31) days of the acceptance of an application.

Application Submittal

Submit an electronic copy of the completed, signed application and required attachments to DEPOERFileCopy@wv.gov. NOTE: Scanned signatures are required and accepted on applications.

If the electronic copy cannot be emailed, it may be placed on digital media and mailed with the application fee as indicated below.

Mail the application fee to:

Attention: VRP Application
Office of Environmental Remediation
West Virginia Department of Environmental Protection
601 57th Street SE
Charleston, WV 25304

Application Review and Process

The WVDEP will review the application within forty-five (45) days of receipt, and unless an extension of time is agreed to and confirmed in writing, will approve the application, approve the application with corrections, or deny the application. The WVDEP will provide their determination to the applicant in writing.

Upon acceptance of an application, WVDEP will enter into a Voluntary Remediation Agreement (VRA) with the applicant within thirty-one (31) days after the application has been accepted. If an agreement has not been negotiated by this time, either party may withdraw from negotiations. However, if it becomes impractical to reach an agreement within thirty-one (31) days, the time limit may be extended by mutual agreement and confirmed in writing.

A WVDEP project manager is assigned to each project as the WVDEP designated representative at the site. The project manager will work with the applicant and LRS to properly remediate the site and ultimately issue a Certificate of Completion.

Voluntary Remediation Program Application

Section 1 – PROGRAM ELIGIBILITY

		YES	NO
1.	Has the site been listed or proposed to be listed on the National Priorities List developed by the USEPA pursuant to Title I of the Comprehensive Environmental Response, Compensation, and Liability Act?	☐	☒
2.	Is the site subject to a unilateral order issued by the USEPA pursuant to §104 through §106 of the Comprehensive Environmental Response, Compensation, and Liability Act?	☐	☒
3.	Is the site subject to a unilateral enforcement order under §3008 or §7003 of the Resource Conservation and Recovery Act?	☐	☒
4.	Is the site subject to a unilateral enforcement order for corrective action issued pursuant to any provision of Chapter 22 of the West Virginia Code?	☐	☒
5.	Was the release which is subject to remediation created through gross negligence or willful misconduct by the applicant?	☐	☒

If you answered "yes" to any of the above questions, contact the Office of Environmental Remediation (304-926-0455) for assistance.

Section 2 – APPLICANT INFORMATION

Applicant

Applicant's Legal Name
Business Development Corporation of the Northern Panhandle

Aliases or Other Names By Which Applicant Is Known or Does Business
BDC

Address	City	State	Zip Code
324 A Penco Road	Weirton	WV	26062

Type of Entity
☐ Private Business ☒ Non-Profit Corporation ☐ Federal Government ☐ State Government ☐ Local Government
☐ Other:

Relationship to Property
☒ Owner ☐ Operator ☐ Prospective Purchaser ☐ Prospective Operator ☒ Other: Grant recipient funding the project

Contact Name	Contact Title
Mr. Marvin Six	Assistant Director

Phone	Alternate Phone	Email
304-748-5041	304-748-5041	msix@bhbdc.com

Co-Applicant 1 (if applicable)

Co-Applicant's Legal Name
Mingo Junction Steel Works, LLC

Aliases or Other Names By Which Co-Applicant Is Known or Does Business
MJSW

Address	City	State	Zip Code
500 Seneca Street, Suite 504	Buffalo	NY	14204

Type of Entity
☒ Private Business ☐ Non-Profit Corporation ☐ Federal Government ☐ State Government ☐ Local Government
☐ Other:

Relationship to Property
☒ Owner ☐ Operator ☐ Prospective Purchaser ☐ Prospective Operator ☐ Other:

Contact Name	Contact Title
Craig Slater	Vice President

Phone	Alternate Phone	Email
716-447-7587	716-480-5417	cslater@fic-services.com

Co-Applicant 2 (if applicable)

Co-Applicant's Legal Name

Aliases or Other Names By Which Co-Applicant Is Known or Does Business

Address	City	State	Zip Code

Type of Entity
☐ Private Business ☐ Non-Profit Corporation ☐ Federal Government ☐ State Government ☐ Local Government
☐ Other:

Relationship to Property
☐ Owner ☐ Operator ☐ Prospective Purchaser ☐ Prospective Operator ☐ Other:

Contact Name	Contact Title

Phone	Alternate Phone	Email

Billable Party

Billable Party's Name	Phone
Civil & Environmental Consultants, Inc.	724-327-5200

Address	City	State	Zip Code
4350 Northern Pike, Suite 141	Monroeville	PA	15146

Contact Name	Contact Title
Mr. David Olson	Vice President

Legal Right to Perform Work Required

One or more of the following forms of proof of the applicant's legal right to perform the work required is attached to the application:

☒ Property Deed ☐ Property Access Agreement

Financial Capabilities

Provide a brief description of the applicant's financial capabilities to successfully complete the voluntary remediation and satisfy any contractual obligations entered into by the applicant that relate to the voluntary remediation.

One or more of the following forms of proof of the applicant's financial capability is attached to the application.

- ☐ Annual Report or Prospectus for a Publicly Held Company
- ☒ Grant Award
- ☐ Letter of Credit from a Financial Institution
- ☐ Other:

Is a party other than the applicant providing the proof of financial capability?

☒ No	
☐ Yes	Demonstrate the relationship to the applicant.

Confidentiality Claim

Information obtained by WVDEP for the Voluntary Remediation Program is available to the public unless the applicant demonstrates that the information or parts thereof, if made public, would divulge methods, processes, or activities entitled to protection as trade secrets (any information protected from disclosure under WV Code §29B-1-4(1)).

- ☐ Applicant asserts a confidentiality claim.
- ☒ Applicant does not assert a confidentiality claim.

If asserting a confidentiality claim, specify the items for which confidentiality is being claimed.

Section 3 – TECHNICAL CAPABILITIES

LRS Contact Information

LRS Name	Company	LRS Number
David Olson	Civil & Environmental Consultants, Inc.	49

Address	City	State	Zip Code
4350 Northern Pike, Suite 141	Monroeville	PA	15146

Phone	Alternate Phone	Email
724-327-5200	724-255-1190	dolson@cecinc.com

Experience

Has the LRS previously managed West Virginia Voluntary Remediation Program projects?

☒ Yes — List the three most recent projects that the LRS has managed.

VRP #	Project Name	COC Issued
17026	Former Follansbee Steel	☒
12512	TS&T Pottery	☒
17029	Pietro Fiorentini	☒

☐ No — Provide a brief description of any experience applicable to this project.

Section 4 – SITE DESCRIPTION

Physical Location

Site Name			Size (acres)
Mingo Junction Steel Works – CAAs VIM and VIIM			
Address	**City**	**Zip Code**	**County**
Main Street	Weirton	26062	Hancock
Driving Directions (if necessary): US Route 22 to State Route 2 North (Main Street)			

GIS Data

Collection Point: ☐ Center of Site ☐ Main/Front Door ☐ Main Entrance/Front Gate ☐ Other:

Latitude (degrees/minutes/seconds)	Longitude (degrees/minutes/seconds)	Horizontal Datum	Accuracy (≤12.2 meters required)
40 24 53.48	80 35 14.23	WGS84	

Additional Locational Data

☒ At least one site map identifying site boundaries is attached to the application (required).

If necessary, provide a brief description of any other identifying information that will serve to clearly and concisely identify the property.

Legal Description

Provide tax map information for each tax map parcel within the site boundaries. Attach a legal property description for each parcel.

District	Address/Description	Map No.	Parcel No.	Deed Book	Page No.	Acres
See Attachment 1 for property deeds with legal descriptions and Attachment 4 for tax parcel map and related information.						

Survey

☐ A survey of the property has been made and is attached to the application.

Property Owner

☐ Applicant is property owner.

☐ Owner's Name: The site has two property owners - see Attachment 5

Address	City	State	Zip Code

Contact Name	Contact Title

Phone	Alternate Phone	Email

☒ The site has more than one current property owner, and additional property owner information is attached to the application.

Operator

☐ n/a ☐ Applicant is operator. ☐ Property owner is operator.

☐ Operator's Name: The site has two operators - see Attachment 6

Address	City	State	Zip Code

Contact Name	Contact Title

Phone	Alternate Phone	Email

	☒ The site has more than one current operator, and additional operator information is attached to the application.

Section 5 – EXISTING ENVIRONMENTAL INFORMATION

Site Identification

List all WVDEP and USEPA identification numbers assigned to the site (solid waste, UST/LUST, CERCLIS, RCRIS, UIC, etc.).

Issuing Agency	Type	Identification Number

Environmental Permits

List all past, present, and pending permits issued by WVDEP or USEPA relating to the site.

Issuing Agency	Type	Permit ID	Issue Date	Expiration Date

Site Assessment

Have any environmental site assessments, sample collections, or analyses been performed on the site?

☒ Yes ☐ No

The following environmental site assessments, sample collections, or analyses have been performed and are attached to the application:

☐ Phase I ☐ Phase II ☒ Other: In discussions with OER, a 2013 RCRA Facility Investigation Work Plan has been deemed sufficient to meet the site assessment requirements for the application and is attached as Attachment 7

Is the site assessment complete?

☐ Yes	
☒ No	State the additional site assessment work to be addressed under the Voluntary Remediation Agreement. Any additional necessary site assessment work will be determined after OER review of the VRP-compliant SAR (combined Preliminary Investigation Report and Draft RCRA Facility Investigation Report)

Past Proceedings

Has the property (or any activity conducted on the property) ever been the subject of an administrative (e.g. consent order), civil, or criminal investigation related to protection of the environment?

☐ No	
☒ Yes	Provide a brief explanation and dates of actions. USEPA issued RCRA Corrective Action Administrative Order effective on 9/26/18 (Docket RCRA-03-2018-0144CA) – see Attachment 8

Section 6 – REMEDIATION OBJECTIVES

Post-Remediation Use

Future Property Use (check all that apply)

☐ Agricultural ☒ Commercial ☒ Industrial ☐ Recreational ☐ Residential ☐ School ☐ Vacant
☐ Unknown ☐ Other:

Redevelopment

☒ In Progress ☐ Imminent	Provide a brief description of redevelopment plans. Bidell Gas Compression has established operations in the former Machine Shop and MJSW is actively marketing other portions of the site in accordance with the Weirton Area Reuse Plan.
☐ n/a	

Section 7 – FEE CALCULATION

(A) Size of Property

Total Square Feet of Surface Area of Property (rounded to nearest 1,000 square feet)	Total Acres (total square feet divided by 43,560)
12, 275, 208	281.8

Determine the points for size of property:

- ☐ < 1 acre (10 points)
- ☐ **≥ 1** acre, but < 5 acres (20 points)
- ☒ **≥ 5 acres** (30 points)

(B) Years of Operation

Years Property Operated for Any Non-Residential Activity (Treat partial years as complete years.)

Determine the points for years of operation:

- ☐ **≤ 10 years** (10 points)
- ☐ > 10 years, but < 20 years (20 points)
- ☒ **≥ 20 years** (30 points)
- ☐ Undetermined (30 points)

(C) NAICS Code

North American Industry Classification System (NAICS) Code(s) for Activities Conducted on the Property

Review the tables below. If more than one NIACS Code applies, use the one which results in the greatest number of points.

Table A	
316	Leather and Allied Product Manufacturing
322	Paper Manufacturing
324	Petroleum and Coal Products Manufacturing
325	Chemical Manufacturing
326	Plastics and Rubber Products Manufacturing
331	Primary Metal Manufacturing
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
336	Transportation Equipment Manufacturing
339	Miscellaneous Manufacturing

Table B	
113	Forestry and Logging
211	Oil and Gas Extraction
212	Mining (except Oil and Gas)
213	Support Activities for Mining
221	Utilities
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
313	Textile Mills
314	Textile Product Mills
315	Apparel Manufacturing
321	Wood Product Manufacturing
323	Printing and Related Support Activities
327	Nonmetallic Mineral Product Manufacturing
337	Furniture and Related Product Manufacturing
486	Pipeline Transportation
488	Support Activities for Transportation
511	Publishing Industries (except Internet)
526	Waste Management and Remediation Services

Determine the points for NAICS Code:

- ☐ NAICS Code not in Table A or B (10 points)
- ☐ NAICS Code in Table B (20 points)
- ☒ NAICS Code in Table A (30 points)
- ☐ NAICS Code undetermined (30 points)

Total Points

Part A Points		Part B Points		Part C Points		Total Points
	+		+		=	

Determine application fee based on total score:

- ☐ 30 or 40 ($1,000.00)
- ☐ 50 or 60 ($3,000.00)
- ☒ 70, 80, or 90 ($5,000.00)

Section 8 – STATEMENT OF AFFIRMATION

I certify that I am fully authorized to act on behalf of the applicant. I affirm that the information provided in this application and its attachments, to the best of my knowledge and belief, is true, complete, and accurate. Upon approval of this application, I will execute a Voluntary Remediation Agreement (VRA) within thirty-one (31) days of the date of WVDEP's acceptance letter.

Applicant

Print Name: Marvin Six

Title: Assistant Director

Marvin Six

Signature

2/17/20

Date

Co-Applicant 1

Print Name: Craig Slater

Title: Vice President / Authorized Member

Craig Slater

Signature

2/17/2020

Date

Co-Applicant 2

Print Name:

Title:

Signature

Date

I certify that I have prepared and/or approved the site assessment provided with this application.

LRS

Print Name: David Olson

David M Olson

Signature

2/17/20

Date

ATTACHMENTS

Indicate the items attached to the application.

Required Attachments

- ☒ Proof of Legal Right to Perform Work Required (Section 2)
- ☒ Proof of Financial Capability (Section 2)
- ☒ Site Map(s) (Section 4)
- ☒ Legal Property Description(s) (Section 4)
- ☒ Conceptual Site Model Worksheet

Conditional Attachments

- ☐ Survey of Property (Section 4)
- ☒ Additional Property Owner Information (Section 4)
- ☒ Additional Operator Information (Section 4)
- ☒ Environmental Site Assessments (Section 5)
- ☒ Other: USEPA Brownfields Assessment Grant that will serve as the source of funding
- ☒ Other: RCRA Corrective Action Administrative Order
- ☐ Other:
- ☐ Other:
- ☐ Other:

Conceptual Site Model Worksheet

Section 1 – SITE CHARACTERISTICS

Geologic Setting

Geologic Setting Characteristics
☒ Alluvial Setting ☐ Fractured Rock ☐ Karst ☐ None Listed

Soil

Soil Type (check all that apply)
☒ Gravel ☒ Sand ☒ Silt ☐ Clay ☒ Fill Material

Groundwater

Depth to Groundwater Range (feet)	Groundwater Flow Direction	Underlying Aquifer
10 to 50	Unknown	☐ Confined ☐ Perched ☒ Unconfined ☐ Unknown

Are there any known discharge points from the underlying aquifer? ☐ Yes ☒ No

Distance from Known Discharge Points to Site (miles)

Surface Water

List each local surface water body (lake, pond/impoundment, river, spring/seep, stream, wetlands).

Type	Name or Identifying Information	Distance from Site (feet)
River	Ohio River	600’ to 5000’

Site Activities

Past or Current Site Activities
☐ Deep Mining ☐ Injection or Extraction Wells ☒ Monitoring Wells ☐ Surface Mining

Section 2 – SITE USE

Historical Site Use

Land Use (check all that apply)

☐ Agricultural ☐ Commercial ☒ Industrial ☐ Recreational ☐ Residential ☐ School ☐ Vacant
☐ Other:

List past and current property owners/operators, a description of operations, and the approximate dates of ownership/operation.

Approximate Dates	Owner/Operator Name	Description of Operations
1909 through 2011	Various (Weirton Steel Corp, et.al.)	Iron/Steel Making and related operations

Current Site Use

Land Use (check all that apply)

☐ Agricultural ☐ Commercial ☒ Industrial ☐ Recreational ☐ Residential ☐ School ☐ Vacant
☐ Other:

If necessary, provide additional current site use description.

Future Site Use

Land Use (check all that apply)

☐ Agricultural ☒ Commercial ☒ Industrial ☐ Recreational ☐ Residential ☐ School ☐ Vacant
☐ Unknown ☐ Other:

If necessary, provide additional future site use description.

Historical Adjacent Property Use

Land Use (check all that apply)

☐ Agricultural ☒ Commercial ☒ Industrial ☐ Recreational ☒ Residential ☐ School ☐ Vacant
☐ Other:

If necessary, provide additional historical adjacent property use description.

Current Adjacent Property Use

Land Use (check all that apply)

☐ Agricultural ☒ Commercial ☒ Industrial ☐ Recreational ☒ Residential ☐ School ☐ Vacant
☐ Other:

If necessary, provide additional current adjacent property use description.

Section 3 – CONTAMINANT SOURCE CHARACTERISTICS

Nature of Contamination

Provide a brief description of the nature of the contamination.

Evidence of Contamination

Known or Suspected Source(s) of Contamination (check all that apply)

- ☒ Analytical data
- ☐ Free product or sheen on groundwater surface
- ☐ Free product or sheen on ponded water
- ☐ Free product or sheen on surface water body
- ☐ Odor
- ☐ Other:
- ☐ Oil, tar, or other non-aqueous phase contaminant (≥1,000 sq ft)
- ☐ Ponded contaminants
- ☐ Stained saturated soil or backfill
- ☐ Stressed biota (fish kills, stressed vegetation, etc.)

Source(s) of Contamination

Known or Suspected Source(s) of Contamination (check all that apply)

- ☐ Aboveground Storage Tank System (AT)
- ☐ Adjacent Property (AP)
- ☐ Burial or Dumping of Wastes (BD)
- ☐ Other (OT):
- ☐ Drums or Storage Containers (DS)
- ☐ Industrial Accident (IA)
- ☒ Routine Industrial Operations (IO)
- ☒ Surface Spill or Discharge (SD)
- ☐ Underground Storage Tank System (UT)
- ☐ Unknown (UK)

Contaminants

For each contaminant, indicate: Source(s) of contamination as labeled above (A, B, C, etc.)
Known (K) and suspected (S) contamination for each media affected

Contaminant	Source(s)	Soil	Groundwater	Surface Water	Sediments	Air
Example	*BD, IO*	*K*	*K*	*S*		
Chlorinated Solvents						
Dioxins						
Metals	IO	K	K			
PCBs	IO	K				
Pesticides / Herbicides						
Petroleum	SD,IO	K	K			
SVOCs	SD,IO	K				
VOCs	IO	K	K			
Other:						
Other:						
Other:						
Other:						

Section 4 – INTERIM REMEDIAL ACTIONS

Interim Remedial Actions

Are there any interim remedial actions that have or will take place on the site?

☐ No

☒ Yes

Specify the remedial actions.

Remedial Action	Planned	Initiated	Completed	n/a
Containing contamination	☐	☐	☐	☐
Excavating contaminated soil	☐	☐	☒	☐
Providing temporary water supplies	☐	☐	☐	☐
Recovering free product	☐	☐	☐	☐
Removing regulated substance from storage tank(s)	☐	☐	☒	☐
Removing storage tank(s)	☐	☐	☒	☐
Other:	☐	☐	☐	☐
Other:	☐	☐	☐	☐

Section 5 – EXPOSURE MEDIA AND TRANSPORT PATHWAYS

Media

Affected or Potentially Affected Media (check all that apply)

☒ Soil ☒ Groundwater ☐ Surface Water ☐ Sediments ☒ Air

Transport Mechanisms

Identify contaminant transport mechanisms.

Contaminant	Erosion/Runoff	Fugitive Dust	Leaching	Volatilization
Metals	☒	☒	☒	☐
VOCs	☒	☒	☒	☒
SVOCs	☒	☒	☒	☒
PCBs	☒	☒	☒	☐

Local Water Supplies

Indicate the supply for each local water need and the distance of the supply from the site.

Local Water	Surface	Downstream Distance (feet)	Well	Downgradient Distance (feet)
Public Water System	☒	500	☒	10,000
Private Residential	☐		☐	
Agricultural	☐		☐	
Industrial / Commercial	☒	500	☐	

Is the groundwater connected to or part of an aquifer that serves as a source of drinking water? ☒ Yes ☐ No

Other Surface Water Use

Surface Water Use (check all that apply)

☒ Boating ☒ Fish and Wildlife Habitat ☒ Recreational Fishing ☐ Subsistence Fishing ☐ Swimming ☐ Not Used

☐ Other:

Exposure Pathways

Current and Future Exposure Pathways (check all that apply)

Inhalation
- ☒ Soil Particles
- ☒ Vapors released from Groundwater
- ☒ Vapors released from Soil

Dermal Contact
- ☐ Groundwater
- ☐ Sediments
- ☒ Soil
- ☐ Surface Water

Ingestion
- ☐ Groundwater
- ☐ Sediments
- ☒ Soil
- ☐ Surface Water
- ☐ Aquatic Organisms
- ☒ Plants
- ☒ Terrestrial Animals

Receptors

Current and Future Receptors (check all that apply)

Human
- ☐ Residential
- ☒ Commercial / Industrial
- ☒ Construction / Outdoor Maintenance Worker
- ☒ Recreational / Trespasser
- ☐ Other:

Ecological
- ☐ Aquatic
- ☒ Terrestrial

ATTACHMENT 1

PROPERTY DEEDS

201700001112
Filed for Record in
HANCOCK COUNTY, WV
GEORGE FOLEY, COUNTY CLERK
03-07-2017 At 02:26:13 pm.
DEED 36.00
STATE TAX 7425.00
COUNTY TAX 2475.00
OR Book 848 Page 2672 2675

#21

Return to:
Patrick Deem
Steptoe & Johnson PLLC
400 White Oaks Boulevard
Bridgeport, WV 26330

PREPARED BY:
THE SLATER LAW FIRM, PLLC
500 SENECA STREET, SUITE 504
BUFFALO, NEW YORK 14204
PH: (716) 845-6760

WARRANTY DEED WITH LIEN COVENANT

THIS INDENTURE, made the 14th day of February 2017 between **Mingo Junction Steel Works, LLC**, a New York limited liability company with an address at 500 Seneca Street, Suite 504, Buffalo, New York 14204, party of the first part, and **Business Development Corporation of the Northern Panhandle**, a West Virginian corporation with offices at 3174 Pennsylvania Avenue, Suite 1, Weirton, West Virginia 26062, party of the second part;

WITNESSETH, that the party of the first part, in consideration of One Dollar ($1.00), lawful money of the United States, paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL THAT TRACT OR PARCEL OF LAND located in the City of Weirton, County of Hancock, State of West Virginia and also known as the "Central Machine Shop" of the former ArcelorMittal facility which has and as is more fully set out on a portion of a certain ALTA/ACSM Land Survey prepared by Civil & Environmental Consultants, Inc., dated September 19, 2016, a copy of which is attached hereto as **EXHIBIT A** ("***Survey***") and made a part hereof (the "***Property***")

TOGETHER with all right, title and interest, if any, of the party of the first part in and to any streets and roads abutting the above described premises to the center lines thereof,

TOGETHER with the appurtenances and all the estate and rights of the party of the first part in and to said premises,

TO HAVE AND TO HOLD the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the costs of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

AND the party of the first part covenants as follows:

FIRST. That said party of the first part is seized of the said premises in fee simple, and has good right to convey the same;

SECOND. That the party of the second part shall quietly enjoy the said premises;

THIRD. That the said premises are free from encumbrances, except as aforesaid;

FOURTH. That said party of the first part will forever warrant the title to said premises.

FIFTH. That this conveyance has been unanimously ratified by all of the members and managers of Mingo Junction Steel Works, LLC.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

The undersigned party of the first part hereby declares that the actual consideration paid for the Property transferred by the terms of this Deed is **TWO MILLION TWO HUNDRED FIFTY THOUSAND AND NO/100 DOLLARS ($2,250,000.00).**

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written by its duly appointed officer.

Mingo Junction Steel Works, LLC

By: _____
Name: David P. Franjoine
Title: Managing Member

STATE OF NEW YORK)
) ss.:
COUNTY OF ERIE)

I, Craig A. Slater, a notary public of said county, do certify that David P. Franjoine, who signed the writing hereto annexed, bearing date as of the 14th of February 2017, on behalf of Mingo Junction Steel Works, LLC, a New York limited liability company, has this day in my said county, before me, acknowledged the same to be the act and deed of said limited liability company.

Given under my hand and seal this 14th day of February 2017.

_____
Notary Public

CRAIG A. SLATER
Notary Public, State of New York
Qualified in Erie County
Commission Expires October 31, 2018

EXHIBIT A

9.269 Acres
Mingo Junction Steel Works, LLC

All those certain tracts of land, situated in the City of Weirton, Weirton District, Hancock County, West Virginia and being part of the lands as conveyed to Mingo Junction Steel Works, LLC, by Official Record Volume 848, Pages 657-786 as recorded in the office of the County Clerk, Hancock County, West Virginia and more fully bounded and described as follows:

Being all of Lots 1 and 2 in the ArcelorMittal Plan of Lots # 2 as recorded in Plat Cabinet 1, Slide 74B, Hancock County Records, Assessor's Parcel Numbers W38S-0023-0000 and W38S-0025-0000, containing a total of 5.445 acres, 0.430 acres Lot 1 and 5.015 acres Lot 2;

Being all of Lots 377 through 393 inclusive (17 Lots) in the Phillips Sheet & Tin Plate Co's 2nd Addition to Weirton as recorded in Plat Book Volume 1, Page 80, excepting any portion of Alley K that is part of Lot 391, Assessor's Parcel Number W38S-0027-0000, containing 1.667 acres;

Being all of Lots 18, 19, 20 and 21 in Block "A" of C. Ferguson's First Addition to Weirton as recorded in Plat Book Volume 1, Page 87, excepting part of Lots 18, 19 and 20 a conveyed to John Richard Bohrer by Deed Book 235 Page 285, Assessor's Parcel Numbers W38S-0048-0000, W38S-0050-0000, W38S-0051-0000 and W38S-0052-0000, containing 0.316 acres;

Being all of Lots 1 and 2 in Block "A" of C. Ferguson's First Addition to Weirton as recorded in Plat Book Volume 1, Page 87 and all of Lots A and B in Loeb and Weir Revised Plan of part of Block "A" of C. Ferguson's First Addition to Weirton as recorded in Plat Book Volume 1, Page 91, Assessor's Parcel Numbers W38S-0030-0000, W38S-0031-0000, W38S-0032-0000 and W38S-0033-0000, containing 0.248 acres;

Being all of Lots D through Q inclusive (14 Lots) in Loeb and Weir Revised Plan of part of Block "A" of C. Ferguson's First Addition to Weirton as recorded in Plat Book Volume 1, Page 91, Assessor's Parcel Numbers W38S-0035-0000, W38S-0036-0000, W38S-0037-0000 and W38S-0038-0000, containing 0.779 acres;

Being all of Lots 23 through 31 inclusive (9 Lots) and the portion of a 16 foot vacated alley described as "PARCEL LIII" in the deed from Weirton Steel Corporation to ISG Weirton Inc. dated April 29, 2004, and recorded in Deed Book No. 268, at page 1, as vacated by the City of Weirton, Ordinance Number 1170 Page 486, in Block "A" of C. Ferguson's First Addition to Weirton as recorded in Plat Book Volume 1, Page 87, Assessor's Parcel Numbers W38S-0040-0000, W38S-0041-0000, W38S-0042-0000, W38S-0043-0000, W38S-0044-0000, W38S-0045-0000, W38S-0046-0000 and W38S-0257-0000 containing 0.814 acres;

The above described lands contain 9.269 acres of land more or less, based on a survey performed under the direction of Charles F. Hammontree, P.S. 1212 of Morris Knowles & Associates, Inc., Consulting Engineers and Land Surveyors, completed on January 22, 2017.

This tract is subject to restrictions, reservations, rights of ways, easements, covenants, conveyances, leases, exclusions, etc. of record or as otherwise established. This tract is also subject to any land use and zoning requirements of the City of Weirton, West Virginia.

201700000577
Filed for Record in
HANCOCK COUNTY, WV
GEORGE FOLEY, COUNTY CLERK
02-02-2017 At 08:34:09 am.
DEED 174.00
STATE TAX 76152.45
COUNTY TAX 25384.15
OR Book 848 Page 657 - 786

THIS QUITCLAIM DEED, made this 25th day of October, 2016, by and between **ARCELORMITTAL WEIRTON LLC**, a Delaware limited liability company, formerly known as ISG Weirton Inc. ("Seller"), and **MINGO JUNCTION STEEL WORKS, LLC**, a New York limited liability company ("Buyer").

WITNESSETH:

That for and in consideration of the sum of Ten Dollars ($10.00), cash in hand paid by Buyer and for other good and valuable consideration, the receipt and sufficiency of all of which are hereby acknowledged, Seller does hereby remise, release, and forever quitclaim unto Buyer all of its right, title and interest in the real estate described on *Exhibit A* attached hereto and made a part hereof together with all buildings, improvements, structures, fixtures, appurtenant rights, privileges and easements, including, all right, title and interest of Seller in and to any land lying in the bed of any street, road, avenue, open or proposed, in front of or adjoining said real estate to the center line thereof, (the "Property"), but excluding from this grant and reserved for Seller, its successors and assigns, all of Seller's right, title and interest in and to the following: (A) all minerals, oil, gas, and hydrocarbons that are in and under the surface of the Property and that may be produced from it, and all rights accruing from its ownership of such minerals, oil, gas, and hydrocarbons, together with (i) the right of ingress and egress onto and under the surface of the Property for mining, drilling, exploring, operating, producing, extracting, removing, transporting, storing, processing and developing the same, and (ii) the right of ingress and egress onto and under the surface of the Property for the construction, maintenance, use, operation, repair, removal and replacement of such pipe lines and other equipment and facilities

as are reasonably necessary in connection with the mining, drilling, exploration, operation, production, extraction, removal, transportation, storage, processing and development of minerals, oil, gas and hydrocarbons, and (iii) all subsurface easements and subsurface rights of way necessary for the directional drilling of wells (the surface locations of which may be on lands other than the Property) for the drilling for, producing, extracting, taking and removing of oil, gas and other hydrocarbons from the subsurface of the Property and other lands, and for the construction, maintenance, use, operation, repair, removal and replacement of such pipe lines and other equipment and facilities as are reasonably necessary in connection with the foregoing; and (B) the buildings, improvements, structures and fixtures commonly referred to as (1) the Filtration Plant (Building 1), (2) the Bull Gang Building substation (Part of Building 33), (3) the Detinning Plant and substation (Building 58), (4) the No. 4 Pickler Substation a.k.a. WWTP – Hot Mill (Building 62), (5) the HCL Regeneration Plant, substation, transformers and associated fixtures and equipment (Building 64), (6) the BOP 6.9kV Substation (Building 73), (7) the H2 Reformer (Building 98), (8) the Walnut Street Offices and scale facilities (Building 106), (9) the Potable Water Tank (Building 108); (10) the Browns Island Substation, transformers and associated fixtures and equipment (Building 117); (11) the No. 4 Rectifier Substation a.k.a. the DC Substation (Building 120), (12) the electric power distribution facilities located in the Power House (Building 22) (including wires, conduits, circuits, switches, transformers, buses and associated facilities and equipment), (13) the fire suppression tank, the acid tanks and facilities, (14) the C&E Outfall/WWTP facilities, (15) the full electronic steel deck above ground heavy duty flat top motor truck scale with full frame and bulkheads (B-TEK CT-7011-DT) with digital weight indicator (B-TEK Model 410) and with ticket printer (TM295), and (16) Building 101, the location of each of which is described, labeled and depicted on *Exhibit B* attached hereto and made a part hereof; and (C) all railroad tracks, scales, controls,

switching equipment, gates, signs and related improvements situated on the Property and described as being retained by Seller in *Exhibit C* attached hereto and made a part hereof; provided, however, that the rights herein reserved to Seller, its successors and assigns to enter upon the surface of the Property for any of the foregoing purposes are subject to the covenants, terms and conditions set forth in that certain Declaration of Covenants, Conditions, Restrictions and Easements, dated as of October 28, 2016, executed by Seller and Tecumseh Redevelopment Inc., recorded in the office of the Clerk of the County Commission of Hancock County, West Virginia in Volume 848, Page 364 /Instrument No. _____ and recorded in the office of the Clerk of the County Commission of Brooke County, West Virginia in Volume 372, Page 210 /Instrument No. _____ (the "Declaration").

This conveyance is made subject to any and all zoning ordinances, real estate taxes and assessments, both general and special, which are a lien not yet due and payable, all legal highways, and all covenants, restrictions, conditions, reservations, prior mineral reservations, rights of way and easements of record, including, without limitation, those set forth in the Declaration.

DECLARATION OF RESIDENCY

Under penalty of perjury, Seller further declares it is a limited liability company formed under the laws of the State of Delaware and registered with the West Virginia Tax Commissioner to do business in the State of West Virginia and is exempt from the withholding tax requirements for the sale of real estate in the State of West Virginia pursuant to W. Va. Code §11-21-71b, and intends this declaration to satisfy the requirements thereof.

[SIGNATURE PAGE FOLLOWS]

DECLARATION OF CONSIDERATION OR VALUE

The undersigned hereby declares that the total consideration paid for the real estate herein conveyed is $ 23,076,300.00.

WITNESS the following signature:

ARCELORMITTAL WEIRTON LLC,
a Delaware limited liability company

By: Keith Nagel
Keith Nagel, Authorized Representative

STATE OF OHIO)
) SS.
COUNTY OF SUMMIT)

The foregoing document was acknowledged and signed before me this 25th day of October, 2016, by Keith Nagel, Authorized Representative of **ARCELORMITTAL WEIRTON LLC**, a Delaware limited liability company, on behalf of said limited liability company.

My commission expires:_____.

Notary Public

NOTORIAL SEAL STATE OF OHIO

TERENCE L. THOMAS, Attorney at Law
Notary Public, State of Ohio
My commission has no expiration date.
Section 147.03 O.R.C.

This instrument prepared by:
Squire Patton Boggs (US) LLP
4900 Key Tower
127 Public Square
Cleveland, OH 44114

PROPERTIES TO BE SOLD
BROOKE COUNTY

PROPERTY DESCRIPTION
LOT 2-ARCELORMITTAL PLAN OF LOTS NO. 3

All that certain lot or parcel of land, being Lot 2 in the ArcelorMittal Plan of Lots No. 3 recorded in Plat Book 4, Page 7, situate in the City of Weirton and Cross Creek District, County of Brooke, State of West Virginia, more particularly bounded and described as follows:

Beginning for Reference at a capped steel pin on the southerly right of way line Freedom Way, Formerly U.S. Route 22, Variable width, said point also being the southwesterly corner of property of now or formerly The James White Construction Company; thence along the southerly line of property of now or formerly The James White Construction Company South 51°32'59" East, 490.31' to a capped steel pin at the true place of beginning; thence along the Easterly and northerly line of property of now or formerly The James White Construction Company the following three (3) courses and distances, viz: North 39°08'35" East, 335.12' to a capped steel pin; thence North 50°14'20" East, 97.58' to a capped steel pin; thence North 45°59'23" West, 143.81' to a capped steel pin on the Easterly line of property of now or formerly Roll Coater, Inc; thence along the Easterly line of property of now or formerly Roll Coater, Inc. North 53°49'30" East, 1284.61' to a capped steel pin at the southeast corner of property of now or formerly Shelly & Sands, Inc; thence along the Easterly line of property of now or formerly Shelly & Sands, Inc. the following five (5) courses and distances, viz: North 60°34'51" East, 176.39' to a capped steel pin; thence South 36°10'30" East, 76.41' to a capped steel pin; thence North 53°49'30" East, 100.00' to a capped steel pin; thence North 36°10'30" West, 70.00' to a capped steel pin; thence North 59°40'09" East, 272.67' to a capped steel pin at the northeast corner of property of now or formerly Shelly & Sands, Inc; thence along the northerly line of property of now or formerly Shelly & Sands, Inc. North 36°10'30" West, 493.34' to a capped steel pin on the southerly right of way line of Freedom Way, Formerly U.S. Route 22, Variable width; thence along the southerly right of way line of Freedom Way, Formerly U.S. Route 22, Variable width, North 59°49'34" East, 270.00' to a capped steel pin at a southwesterly corner of property of now or formerly Shelly & Sands, Inc; thence along the southerly and Westerly lines of property of now or formerly Shelly & Sands, Inc. the following three (3) courses and distances, viz:
South 36°10'30" East, 125.70' to a capped steel pin; thence South 45°41'19" West, 193.10' to a capped steel pin; thence South 36°10'30" East, 320.00' to a capped steel pin at the southeast corner of property of now or formerly Shelly & Sands, Inc; thence along the Easterly and northerly line of property of now or formerly Shelly & Sands, Inc. the following two (2) courses and distances, viz: North 59°40'09" East, 667.58' to a capped steel pin; thence North 45°14'41" West, 98.73' to a capped steel pin at the southeast corner of property of now or formerly Weir-Cove Moving & Storage Company; thence along the Easterly line of property of now or formerly Weir-Cove Moving & Storage Company North 58°22'35" East, 399.94' to a capped steel pin at the northeast corner of property of now or formerly Weir-Cove Moving & Storage Company; thence along the northerly line of property of now or formerly Weir-Cove Moving & Storage Company the following two (2) courses and distances viz: by an arc of a circle deflecting to the left in a northwestwardly direction, having a radius of 460.00', an arc distance of 582.00'

(chord bearing and distance, North 83°59'26" West, 543.95') to a capped steel pin; thence South 59°45'49" West, 49.96' to a capped steel pin on the northerly line of property of now or formerly Shelly & Sands, Inc; thence along the northerly line of property of now or formerly Shelly & Sands, Inc. North 45°14'41" West, 64.28' to a capped steel pin on the southerly right of way line of Freedom Way, Formerly U.S. Route 22, Variable width; thence along the southerly right of way line of Freedom Way, Formerly U.S. Route 22, Variable width, the following two (2) courses and distances, viz: North 59°49'34" East, 25.53' to a capped steel pin; thence by an arc of a circle deflecting to the right in a northeastwardly direction, having a radius of 2839.78', an arc distance of 71.51' (chord bearing and distance, North 60°32'21" East, 71.51') to a capped steel pin at the southwesterly corner of property of now or formerly Weir-Cove Moving & Storage Company; thence along the southerly line of property of now or formerly Weir-Cove Moving & Storage Company and the southerly line of property of now or formerly ISG Weirton, Inc. the following seven (7) courses and distances, viz: South 32°35'27" East, 22.09' to a capped steel pin; thence by an arc of a circle deflecting to the right in a southeastwardly direction, having a radius of 500.00', an arc distance of 601.25' (chord bearing and distance, South 82°11'38" East, 565.67') to a capped steel pin; thence South 47°44'24" East, 65.89' to a capped steel pin; thence South 47°49'11" East, 150.00' to a capped steel pin; thence South 50°23'11" East, 98.50' to a capped steel pin; thence South 56°15'11" East, 105.00' to a capped steel pin; thence North 74°25'49" East, 103.27' to a monument on the Westerly right of way line West Virginia State Route 2, Variable width; thence along the Westerly and southerly right of way line of West Virginia State Route 2, Variable width, the following six (6) courses and distances, viz:
South 28°37'15" West, 39.13' to a capped steel pin; South 84°23'03" East, 88.39' to a capped steel pin; thence North 89°21'26" East, 144.59' to a capped steel pin; thence North 67°59'11" East, 189.89' to a capped steel pin; thence North 55°52'15" East, 88.87' to a capped steel pin; thence by an arc of a circle deflecting to the left in a southeastwardly direction, having a radius of 213.00', an arc distance of 58.21' (chord bearing and distance, South 23°20'07" East, 58.03') to a capped steel pin, being 232.40' left of centerline Station 115+28.84 of U.S. Route 22, Variable width, on the northerly line of property of now or formerly ISG Weirton; thence along the northerly line of property of now or formerly ISG Weirton the following seven (7) courses and distances, viz: South 61°53'14" West, 1397.73' to a capped steel pin, being 378.60' left of centerline Station 101+38.77 of U.S. Route 22, Variable width; thence South 56°53'14" West, 947.66' to a capped steel pin, being 397.91' left of centerline Station 92+03.06 of U.S. Route 22, Variable width; thence South 52°33'19" West, 760.00' to a point (inaccessible), being 423.44' left of centerline Station 84+93.84 of U.S. Route 22, Variable width; thence South 37°26'41" East, 30.00' to a point (inaccessible), being 393.58' left of centerline 84+91.16 of U.S. Route 22, Variable width; thence by an arc of a circle deflecting to the left in a southwestwardly direction, having a radius of 1150.00', an arc distance of 552.23' (chord bearing and distance, South 37°00'19" West, 546.94') to a point (inaccessible), being 313.62' left of centerline Station 79+63.71 of U.S. Route 22, Variable width; thence South 23°14'55" West, 80.70' to a capped steel pin, being 283.73' left of centerline Station 78+88.75 of U.S. Route 22, Variable width; thence South 66°45'05" East, 75.00' to a capped steel pin, being 214.06' left of centerline Station 79+16.53 of U.S. Route 22, Variable width; thence by an arc of a circle deflecting to the

left in a southwestwardly direction, having a radius of 2000.00', an arc distance of 88.25' (chord bearing and distance, South 21°59'04" West, 88.25') to a capped steel pin, being 179.58' left of centerline Station 78+35.30 of U.S. Route 22, Variable width, on the northerly line of property of now or formerly ISG Weirton; said point also being the northeast corner of Lot 1 of the aforesaid ArcelorMittal Plan of Lots No. 3; thence along the northerly line of Lot 1 of the aforesaid ArcelorMittal Plan of Lots No. 3 the following two (2) courses and distances, viz: North 65°15'15" West, 425.42' to a capped steel pin; thence North 51°32'59" West, 280.88' to a capped steel pin at the true place of beginning.

Contains: 1,978,335.29 Sq. Ft. or 45.416 Acres.

Excepting and reserving 2 tracts for controlled access and 2 tracts for non-controlled access taken by the West Virginia Department of Highways for highway purposes.

[Exception to Lot 2 of ArcelorMittal Plan of Lots No. 3]

PROPERTY DESCRIPTION
TRACT NO. 2 – CONTROLLED ACCESS

All that certain lot or parcel of land, being Tract No. 2 Controlled Access, situate in the Cross Creek District, County of Brooke, State of West Virginia, more particularly bounded and described as follows:

Beginning for reference at a capped steel pin on the northerly line of property of now or formerly ISG Weirton, being 232.40' left of Centerline Station 115+28.84 of U.S. Route 22, Variable width, said point also being a northeasterly corner of Lot 2 of the ArcelorMittal Plan of Lots No. 3, recorded in Plat Book 4, Page 7; thence along the southerly line of Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 South 61°53'14" West, 471.58' to a capped steel pin; thence through Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 North 04°54'12" East, 12.31' to a capped steel pin being the true place of beginning; thence continuing through Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 the following four (4) courses and distances, viz: North 85°05'48" West, 42.72' to a capped steel pin; thence North 04°54'12" East, 17.09' to a capped steel pin; thence South 85°05'48" East, 42.72' to a capped steel pin; thence South 04°54'12" West, 17.09' to a capped steel pin at the true place of beginning.

Contains: 730.00 Sq. Ft. or 0.017 Acres.

[Exception to Lot 2 of ArcelorMittal Plan of Lots No. 3]

PROPERTY DESCRIPTION
TRACT NO. 3 – CONTROLLED ACCESS

All that certain lot or parcel of land, being Tract No. 3 Controlled Access, situate in the Cross Creek District, County of Brooke, State of West Virginia, more particularly bounded and described as follows:

Beginning for reference at a capped steel pin on the northerly line of property of now or formerly ISG Weirton, being 232.40' left of Centerline Station 115+28.84 of U.S. Route 22, Variable width, said point also being a northeasterly corner of Lot 2 of the ArcelorMittal Plan of Lots No. 3, recorded in Plat Book 4, Page 7; thence along the southerly line of Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 South 61°53'14" West, 179.13' to a capped steel pin; thence through Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 the following two (2) courses and distances, viz: South 66°30'10" West, 37.08' to a capped steel pin; thence South 83°02'39" West, 107.16' to a capped steel pin on the Easterly line of Tract No. 14, Non-Controlled Access; thence along the Easterly line of Tract No. 14, Non-Controlled Access, South 04°52'21" East, 6.32' to a capped steel pin at the southeast corner of Tract No. 14, Non-Controlled Access; thence along the southerly line of Tract No. 14, Non-Controlled Access South 84°07'21" West, 36.06' to a capped steel pin at the southwest corner of Tract No. 14, Non-Controlled Access; thence along the Westerly line of Tract No. 14, Non-Controlled Access, North 08°14'20" West, 5.39' to a capped steel pin; thence through Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 South 81°52'03" West, 39.11' to a capped steel pin at the true place of beginning; thence continuing through Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 the following four (4) course and distances, viz: North 83°49'50" West, 42.38' to a capped steel pin; thence North 04°54'12" East, 17.09' to a capped steel pin; thence South 83°49'50" East, 42.38' to a capped steel pin; thence South 04°54'12" West, 17.09' to a capped steel pin; at the place of beginning.

Contains: 724.00 Sq. Ft. or 0.017 Acres.

[Exception to Lot 2 of ArcelorMittal Plan of Lots No. 3]

PROPERTY DESCRIPTION
TRACT NO. 14 – NON-CONTROLLED ACCESS

All that certain lot or parcel of land, being Tract No. ~~3 Controlled Access~~ 14 - Non-Controlled Access, situate in the Cross Creek District, County of Brooke, State of West Virginia, more particularly bounded and described as follows:

Beginning for reference at a capped steel pin on the northerly line of property of now or formerly ISG Weirton, being 232.40' left of Centerline Station 115+28.84 of U.S. Route 22, Variable width, said point also being a northeasterly corner of Lot 2 of the ArcelorMittal Plan of Lots No. 3, recorded in Plat Book 4, Page 7; thence along the southerly line of Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 South 61°53'14" West, 179.13' to a capped steel pin; thence through Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 the following two (2) courses and distances, viz: South 66°30'10" West, 37.08' to a capped steel pin; thence South 83°02'39" West, 107.16' to a capped steel pin at the true place of beginning; thence continuing through Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 the following five (5) courses and distances, viz: thence South 04°52'21" East, 6.32' to a capped steel pin; thence South 84°07'21" West, 36.06' to a capped steel pin; thence North 08°14'20" West, 16.16' to a capped steel pin; thence North 84°38'16" East, 37.00' to a capped steel pin; thence South 04°52'21" East, 9.49' to a capped steel pin at the place of beginning.

Contains: 583.50 Sq. Ft. or 0.013 Acres.

[Exception to Lot 2 of ArcelorMittal Plan of Lots No. 3]

PROPERTY DESCRIPTION
TRACT NO. 8 – NON-CONTROLLED ACCESS

All that certain lot or parcel of land, being Tract No. ~~2 Controlled Access~~ 8 - Non-Controlled Access, situate in the Cross Creek District, County of Brooke, State of West Virginia, more particularly bounded and described as follows:

Beginning for reference at a capped steel pin on the northerly line of property of now or formerly ISG Weirton, being 232.40' left of Centerline Station 115+28.84 of U.S. Route 22, Variable width, said point also being a northeasterly corner of Lot 2 of the ArcelorMittal Plan of Lots No. 3, recorded in Plat Book 4, Page 7; thence along the southerly line of Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 South 61°53'14" West, 361.22' to a capped steel pin at the true place of beginning; thence continuing along the southerly line of Lot 2 of the aforesaid ArcelorMittal Plan of Lots No. 3 South 61°53'14" West, 17.18' to a capped steel pin; thence through Lot 2 of the aforesaid ArcelorMittal Plan of Lots No.3 the following two (2) courses and distances, viz: North 55°38'00" East, 17.11' to a capped steel pin; thence South 33°23'56" East, 1.87' to a capped steel pin at the true place of beginning.

Contains: 16.00 Sq. Ft. or 0.000 Acres.

ISG WEIRTON
CROSS CREEK DISTRICT – PARCEL 3
PROPERTY DESCRIPTION

All that certain lot or parcel of land, being Parcel 3 on Cross Creek District Tax Map CC2, situate in Cross Creek District, County of Brooke, State of West Virginia, more particularly bounded and described as follows:

Beginning at a capped steel pin on the northerly line of Lot 2 of the Arcelormittal Plan of Lots No. 3, recorded in the Recorder of Deeds Office of Brooke County in Plat Book 4, Page 7, said capped steel pin also being on the westerly right of way line of US Route 22, variable width ; thence along the northerly line of Lot 2 of the aforesaid Arcelormittal Plan of Lots No. 3 the following four (4) courses and distances, viz: South 74°25'49" West, 103.27' to a capped steel pin; thence North 56°15'11" West, 105.00' to a capped steel pin; thence North 50°23'11" West, 98.50' to a capped steel pin; thence North 47°49'11" West, 100.34' to a capped steel pin at the southeast corner of property of now or formerly Weir-Cove Moving and Storage; thence along the easterly line of property of now or formerly Weir-Cove Moving and Storage North 58°16'14" East, 325.66' to a point (inaccessible) on the southerly line of property of now or formerly Starvaggi Industries, Inc.; thence along the southerly line of property of now or formerly Starvaggi Industries, Inc. South 18°04'06" East, 291.03' to a fence post on the westerly right of way line of US Route 22, variable width; thence along the westerly right of way line of US Route 22, variable width; South 28°37'15" West, 63.09' to a capped steel pin at the place of beginning.

Contains: 72,002.42 Sq. Ft. or 1.653 Acres.

ISG WEIRTON
PROPERTY DESCRIPTION

All that certain lot or parcel of land situate in Cross Creek District, County of Brooke, State of West Virginia, more particularly bounded and described as follows:

Beginning at a capped steel pin on the northerly line of property of now or formerly Dennis Pyles, said point also being on the southerly right of way line of U.S. Route 22, Variable width, being 443.41' right of centerline Station 137+00.00; thence along the southerly right of way line of U.S. Route 22, Variable width, the following four (4) courses and distances, viz: North 06°08'18" East, 233.86' to a capped steel pin, being 362.00' right of centerline Station 138+99.85; thence North 19°52'54" East, 1210.77' to a capped steel pin, being 273.00' right of centerline Station 151+00.00; thence North 37°54'39" East, 1164.00' to a capped steel pin, being 417.00' right of centerline Station 165+00.00; thence North 59°33'30" East, 342.98' to a capped steel pin, being 356.83' right of centerline Station 170+01.04, said point also being on dividing line between Hancock County and Brooke County; thence along the dividing line between Hancock County and Brooke County North 84°03'56" East, 118.70' to a capped steel pin, being 354.17' right of centerline Station 171+69.44; thence along the southerly right of way line of U.S. Route 22, Variable width, the following two (2) courses and distances, viz: South 61°59'47" East, 809.27' to a capped steel pin, being 500.00' right of centerline Station 181+50.00; thence South 87°22'18" East, 337.47' to a capped steel pin, being 357.11' right of centerline Station 184+94.55, at a northwesterly corner of property of now or formerly the West Virginia Department of Highways; thence along the Westerly line of property of now or formerly the West Virginia Department of Highways the following two (2) courses and distances, viz: South 19°40'36" West, 111.05' to a capped steel pin; thence North 84°56'24" West, 301.67' to a capped steel pin at a southwesterly corner of property of now or formerly the West Virginia Department of Highways; thence along the Westerly line of properties of now or formerly the West Virginia Department of Highways, Clifford Smith, Joseph Simich, Wilma L. Paw, Anthony Parr, M.B. Investments and Dennis Pyles the following three (3) courses and distances, viz: South 54°30'21" West, 2478.66' to a capped steel pin; thence South 24°30'06" West, 498.49' to a capped steel pin; thence South 26°33'36" West, 122.27' to a capped steel pin at the place of beginning.

Contains: 1,639,030.58 Sq. Ft. or 37.627 Acres.

ISG WEIRTON
PROPERTY DESCRIPTION

All that certain lot or parcel of land situate in Cross Creek District, County of Brooke, State of West Virginia, more particularly bounded and described as follows:

Beginning at a capped steel pin on a southwesterly corner of property of now or formerly Thomas Morrissett, said point also being on the southerly right of way line of U.S. Route 22, Variable width, being 545.48' right of centerline Station 123+98.11; thence along the southerly right of way line of U.S. Route 22, Variable width, the following two (2) courses and distances, viz: North 48°30'20" East, 1.76' to a monument (found), being 545.51' right of centerline Station 123+99.66; thence North 47°22'05" East, 516.97' to a capped steel pin, being 575.26' right of centerline Station 128+50.00, at a northwesterly corner of property of now or formerly Thomas Morrissett; thence along the northerly line of property of now or formerly Thomas Morrissett, the following two (2) courses and distances, viz: South 26°33'36" West, 557.48' to a rebar (found); thence North 41°56'24" West, 198.09' to a capped steel pin at the place of beginning.

Contains: 51,364.60 Sq. Ft. or 1.179 Acres.

ATTACHMENT 2

2019 COALITION GRANT COOPERATIVE AGREEMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY

Cooperative Agreement

GRANT NUMBER (FAIN): 96369901	
MODIFICATION NUMBER: 0	**DATE OF AWARD** 09/05/2019
PROGRAM CODE: BF	
TYPE OF ACTION New	**MAILING DATE** 09/10/2019
PAYMENT METHOD: ASAP	**ACH#** 30409

RECIPIENT TYPE:
Special District

Send Payment Request to:
N/A

RECIPIENT:
Business Development Corporation of the Northern Panhandle
324 Penco Road
Weirton, WV 26062
EIN: 55-0630721

PAYEE:
Business Development Corporation of the Northern Panhandle
324 Penco Road
Weirton, WV 26062

PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST
Patrick Ford 324 Penco Road Weirton, WV 26062 **E-Mail:** pford007@gmail.com **Phone:** 304-748-5041	Joseph Nowak 1650 Arch Street, 3LD50 Philadelphia, PA 19103-2029 **E-Mail:** Nowak.Joseph@epa.gov **Phone:** 215-814-3303	Tanya Thomas Grants and Audit Management Branch, 3MD70 **E-Mail:** Thomas.Tanya@epa.gov **Phone:** 215-814-5408

PROJECT TITLE AND DESCRIPTION
BROWNFIELD COMMUNITY-WIDE ASSESSMENT COALITION (HAZARDOUS SUBSTANCES/PETROLEUM)
This assistance agreement will provide funding for the Business Development Corporation of the Northern Panhandle to inventory, characterize, assess, and conduct cleanup planning and community involvement related activities at brownfield sites in Hancock and Brooke Counties, West Virginia and Jefferson County, Ohio. Brownfields are real property, the expansion, development or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

BUDGET PERIOD	PROJECT PERIOD	TOTAL BUDGET PERIOD COST	TOTAL PROJECT PERIOD COST
07/01/2019 - 09/30/2022	07/01/2019 - 09/30/2022	$600,000.00	$600,000.00

NOTICE OF AWARD

Based on your Application dated 06/17/2019 including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA) hereby awards $600,000. EPA agrees to cost-share 100.00% of all approved budget period costs incurred, up to and not exceeding total federal funding of $600,000. Recipient's signature is not required on this agreement. The recipient demonstrates its commitment to carry out this award by either: 1) drawing down funds within 21 days after the EPA award or amendment mailing date; or 2) not filing a notice of disagreement with the award terms and conditions within 21 days after the EPA award or amendment mailing date. If the recipient disagrees with the terms and conditions specified in this award, the authorized representative of the recipient must furnish a notice of disagreement to the EPA Award Official within 21 days after the EPA award or amendment mailing date. In case of disagreement, and until the disagreement is resolved, the recipient should not draw down on the funds provided by this award/amendment, and any costs incurred by the recipient are at its own risk. This agreement is subject to applicable EPA regulatory and statutory provisions, all terms and conditions of this agreement and any attachments.

ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)	AWARD APPROVAL OFFICE
ORGANIZATION / ADDRESS	**ORGANIZATION / ADDRESS**
US EPA Region 3, 3MD70 1650 Arch Street Philadelphia, PA 19103-2029	U.S. EPA, Region 3 Land, Chemicals, and Redevelopment Division 3LD00 1650 Arch Street Philadelphia, PA 19103-2029

THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY

Digital signature applied by EPA Award Official Catherine McManus - Assistant Regional Administrator	**DATE** 09/05/2019

EPA Funding Information

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	$	$ 600,000	$ 600,000
EPA In-Kind Amount	$	$	$ 0
Unexpended Prior Year Balance	$	$	$ 0
Other Federal Funds	$	$	$ 0
Recipient Contribution	$	$	$ 0
State Contribution	$	$	$ 0
Local Contribution	$	$	$ 0
Other Contribution	$	$	$ 0
Allowable Project Cost	$ 0	$ 600,000	$ 600,000

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.818 - Brownfields Multipurpose Assessment Revolving Loan Fund and Cleanup Cooperative Agreements	CERCLA: Sec. 104(k)(2) Consolidated Appropriations Act of 2018 (P.L. 115-141)	2 CFR 200 2 CFR 1500 and 40 CFR 33

Fiscal

Site Name	Req No	FY	Approp. Code	Budget Organization	PRC	Object Class	Site/Project	Cost Organization	Obligation / Deobligation
-	1903BF0015	19	E4	0300AG7	000D79	4114	G300NY00	-	404,250
-	1903BF0015	19	E4	0300AG7	000D79XBP	4114	G300OR00	-	195,750
									600,000

Budget Summary Page

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	$0
2. Fringe Benefits	$0
3. Travel	$12,000
4. Equipment	$0
5. Supplies	$2,500
6. Contractual	$558,500
7. Construction	$0
8. Other	$27,000
9. Total Direct Charges	$600,000
10. Indirect Costs: % Base	$0
11. Total (Share: Recipient 0.00 % Federal 100.00 %.)	$600,000
12. Total Approved Assistance Amount	$600,000
13. Program Income	$0
14. Total EPA Amount Awarded This Action	$600,000
15. Total EPA Amount Awarded To Date	$600,000

Hazardous Substances

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	$0
2. Fringe Benefits	$0
3. Travel	$6,000
4. Equipment	$0
5. Supplies	$1,250
6. Contractual	$379,000
7. Construction	$0
8. Other	$18,000
9. Total Direct Charges	$404,250
10. Indirect Costs	$0
11. Total (Share: Recipient % Federal 100.00 %.)	$404,250
12. Total Approved Assistance Amount	$404,250
13. Program Income	$0

Petroleum

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	$0
2. Fringe Benefits	$0
3. Travel	$6,000
4. Equipment	$0
5. Supplies	$1,250
6. Contractual	$179,500
7. Construction	$0
8. Other	$9,000
9. Total Direct Charges	$195,750
10. Indirect Costs	$0
11. Total (Share: Recipient % Federal 100.00 %.)	$195,750
12. Total Approved Assistance Amount	$195,750
13. Program Income	$0

Detailed Table B Budget Page: 1

Table B - Program Element Classification (Non-construction)	Total Approved Allowable Budget Period Cost
1. Hazardous Substances	$404,250
2. Petroleum	$195,750
3.	$
4.	$
5.	$
6.	$
7.	$
8.	$
9.	$
10.	$
11. Total (Share: Recip % Fed 100.00 %)	$600,000
12. Total Approved Assistance Amount	$600,000

Administrative Conditions

National Administrative Terms and Conditions

General Terms and Conditions

The recipient agrees to comply with the current EPA general terms and conditions available at: https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2018 These terms and conditions are in addition to the assurances and certifications made as a part of the award and the terms, conditions, or restrictions cited throughout the award.

The EPA repository for the general terms and conditions by year can be found at http://www.epa.gov/grants/grant-terms-and-conditions.

A. Correspondence Condition

The terms and conditions of this agreement require the submittal of reports, specific requests for approval, or notifications to EPA. Unless otherwise noted, all such correspondence should be sent to the following email addresses:

- Federal Financial Reports (SF-425): LVFC-grants@epa.gov

- MBE/WBE reports (EPA Form 5700-52A): MBE/WBE reports should be **signed and emailed to** R3_MBE-WBE_Reports@epa.gov **as a pdf file, or, if that is not possible, mailed to Hana Jones, Small Business Program Coordinator (3RA00), U.S. EPA - Region III, 1650 Arch Street, Philadelphia, PA 19103-2029 with a courtesy copy to the EPA Grant Specialist**. The current EPA Form 5700-52A can be found at the EPA Office of Small Business Program's Home Page at http://www.epa.gov/osbp/dbe_reporting.htm

- All other forms/certifications/assurances, Indirect Cost Rate Agreements, Requests for Extensions of the Budget and Project Period, Amendment Requests, Requests for other Prior Approvals, updates to recipient information (including email addresses, changes in contact information or changes in authorized representatives) and other notifications: R3_Grant_Applications@epa.gov, Tanya Thomas, Grants Specialist, thomas.tanya@epa.gov and Joseph Nowak, Project Officer, nowak.joseph@epa.gov

- Payment requests (if applicable): LVFC-grants@epa.gov

- Quality Assurance documents, workplan revisions, equipment lists, programmatic reports and deliverables: Joseph Nowak, Project Officer, nowak.joseph@epa.gov

B. Extension of Project/Budget Period Expiration Date

EPA has not exercised the waiver option to allow automatic one-time extensions for non-research grants under 2 CFR 200.308 (d)(2). Therefore, if a no-cost time extension is necessary to extend the period of availability of funds the recipient must submit a written request to the EPA prior to the budget/project period expiration dates. **The written request must include:** a justification describing the need for additional time, an estimated date of completion, and a revised schedule for project completion including updated milestone target dates for the approved workplan activities. In addition, if there are overdue reports required by the general, administrative, and/or programmatic terms and conditions of this assistance agreement, the recipient must ensure that they are submitted along with or prior to submitting the no-cost time extension request.

C. Disadvantaged Business Enterprise (DBEs)

UTILIZATION OF SMALL, MINORITY AND WOMEN'S BUSINESS ENTERPRISES

GENERAL COMPLIANCE, 40 CFR, Part 33
The recipient agrees to comply with the requirements of EPA's Disadvantaged Business Enterprise (DBE) Program for procurement activities under assistance agreements, contained in 40 CFR, Part 33.

MBE/WBE REPORTING, 40 CFR, Part 33, Subpart E
The recipient agrees to complete and submit a "MBE/WBE Utilization Under Federal Grants and Cooperative Agreements" report (EPA Form 5700-52A) on an annual basis. The current EPA Form 5700-52A can be found at the EPA Grantee Forms Page at https://www.epa.gov/grants/epa-grantee-forms.

MBE/WBE reporting is required in annual reports. Reporting is required for assistance agreements where there are funds budgeted for procuring construction, equipment, services and supplies, including funds budgeted for direct procurement by the recipient or procurement under subawards or loans in the "Other" category with a cumulative total that exceed the threshold amount of $250,000, including amendments and/or modifications. The recipient must make reporting a requirement of all sub-awards/loans. All procurement actions are reportable, not just that portion which exceeds $250,000.

When completing the annual report, recipients are instructed to check the box titled "annual" in section 1B of the form. For the final report, recipients are instructed to check the box titled "annual" and the box indicated for the "last report" of the project in section 1B of the form. Annual reports are due by October 30th of each year. Final reports are due by October 30th or 90 days after the end of the project period, whichever comes first.

The reporting requirement is based on total procurements. Recipients with expended and/or budgeted funds for procurement are required to report annually whether the planned procurements take place during the reporting period or not. If no budgeted procurements take place during the reporting period, the recipient should check the box in section 5B when completing the form.

Based on EPA's review of the planned budget, this award meets the conditions above and is subject to the Disadvantaged Business Enterprise (DBE) Program reporting requirements. However, if the recipient believes this award does not meet these conditions, it must provide a justification and budget detail within 21 days of the award date clearly demonstrating that, based on the planned budget, this award is not subject to the DBE reporting requirements to the Regional or Headquarters point of contact defined in the correspondence condition, if applicable.

This provision represents an approved deviation from the MBE/WBE reporting requirements as described in 40 CFR, Part 33, Section 33.502; however, the other requirements outlined in 40 CFR Part 33 remain in effect, including the Good Faith Effort requirements as described in 40 CFR Part 33 Subpart C, and Fair Share Objectives negotiation as described in 40 CFR Part 33 Subpart D and explained below.

FAIR SHARE OBJECTIVES, 40 CFR, Part 33, Subpart D
A recipient must negotiate with the appropriate EPA award official, or his/her designee, fair share objectives for MBE and WBE participation in procurement under the financial assistance agreements.

In accordance with 40 CFR, Section 33.411 some recipients may be exempt from the fair share objectives requirements as described in 40 CFR, Part 33, Subpart D. Recipients should work with their DBE coordinator, if they think their organization may qualify for an exemption.

Accepting the Fair Share Objectives/Goals of Another Recipient
The dollar amount of this assistance agreement, or the total dollar amount of all of the recipient's financial assistance agreements in the current federal fiscal year from EPA is $250,000, or more. The recipient accepts the applicable MBE/WBE fair share objectives/goals negotiated with EPA by the West Virginia Department of Environmental Protection as follows:

MBE: CONSTRUCTION 3.34%; SUPPLIES 2.60%; SERVICES 5.76%; EQUIPMENT 3.97%

WBE: CONSTRUCTION 6.67%; SUPPLIES 45.69%; SERVICES 35.43%; EQUIPMENT 10.92%

By signing this financial assistance agreement, the recipient is accepting the fair share objectives/goals stated above and attests to the fact that it is purchasing the same or similar construction, supplies, services and equipment, in the same or similar relevant geographic buying market as West Virginia Department of Environmental Protection.

Negotiating Fair Share Objectives/Goals, 40 CFR, Section 33.404
The recipient has the option to negotiate its own MBE/WBE fair share objectives/goals. If the recipient wishes to negotiate its own MBE/WBE fair share objectives/goals, the recipient agrees to submit proposed MBE/WBE objectives/goals based on an availability analysis, or disparity study, of qualified MBEs and WBEs in their relevant geographic buying market for construction, services, supplies and equipment.

The submission of proposed fair share goals with the supporting analysis or disparity study means that the recipient is **not** accepting the fair share objectives/goals of another recipient. The recipient agrees to submit proposed fair share objectives/goals, together with the supporting availability analysis or disparity study, to the Regional MBE/WBE Coordinator within 120 days of its acceptance of the financial assistance award. EPA will respond to the proposed fair share objective/goals within 30 days of receiving the submission. If proposed fair share objective/goals are not received within the 120 day time frame, the recipient may not expend its EPA funds for procurements until the proposed fair share objective/goals are submitted.

SIX GOOD FAITH EFFORTS, 40 CFR, Part 33, Subpart C
Pursuant to 40 CFR, Section 33.301, the recipient agrees to make the following good faith efforts whenever procuring construction, equipment, services and supplies under an EPA financial assistance agreement, and to require that sub-recipients, loan recipients, and prime contractors also comply. Records documenting compliance with the six good faith efforts shall be retained:

(a) Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

(b) Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

(c) Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

(d) Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

(e) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.

(f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

CONTRACT ADMINISTRATION PROVISIONS, 40 CFR, Section 33.302
The recipient agrees to comply with the contract administration provisions of 40 CFR, Section 33.302.

BIDDERS LIST, 40 CFR, Section 33.501(b) and (c)
Recipients of a Continuing Environmental Program Grant or other annual reporting grant, agree to create and maintain a bidders list. Recipients of an EPA financial assistance agreement to capitalize a revolving loan fund also agree to require entities receiving identified loans to create and maintain a bidders list if the recipient of the loan is subject to, or chooses to follow, competitive bidding requirements. Please see 40 CFR, Section 33.501 (b) and (c) for specific requirements and exemptions.

D. Pre-Award Costs

In accordance with 2 CFR 1500.8, the grantee may charge otherwise allowable pre-award costs (both Federal and non-Federal matching shares) incurred from July 1, 2019, to the actual award date provided that such costs were contained in the approved application and all costs are incurred within the approved budget period.

Programmatic Conditions

FY19 Assessment Cooperative Agreement Terms and Conditions

I. GENERAL FEDERAL REQUIREMENTS

A. Federal Policy and Guidance

1. Cooperative Agreement Recipients: By awarding this cooperative agreement, the Environmental Protection Agency (EPA) has approved the proposal for the Cooperative Agreement Recipient (CAR) submitted in the Fiscal Year 2019 competition for Brownfield Assessment cooperative agreements.

2. In implementing this agreement, the CAR shall ensure that work done with cooperative agreement funds complies with the requirements of CERCLA § 104(k). The CAR shall also ensure that assessment activities supported with cooperative agreement funding comply with all applicable federal and state laws and regulations.

3. A term and condition or other legally binding provision shall be included in all subawards entered into with the funds awarded under this agreement, or when funds awarded under this agreement are used in combination with non-federal sources of funds, to ensure that the CAR complies with all applicable federal and state laws and requirements. In addition to CERCLA § 104(k), federal applicable laws and requirements include 2 CFR Part 200.

4. The CAR must comply with federal cross-cutting requirements. These requirements include, but are not limited to, DBE requirements found at 40 CFR Part 33; OSHA Worker Health & Safety Standard 29 CFR § 1910.120; Uniform Relocation Act (40 USC § 61); National Historic Preservation Act (16 USC § 470); Endangered Species Act (P.L. 93-205); Permits required by Section 404 of the Clean Water Act; Executive Order 11246, Equal Employment Opportunity, and implementing regulations at 41 CFR § 60-4; Contract Work Hours and Safety Standards Act, as amended (40 USC §§ 327-333); the Anti-Kickback Act (40 USC § 276c); and Section 504 of the Rehabilitation Act of 1973 as implemented by Executive Orders 11914 and 11250.

5. The CAR must comply with Davis-Bacon Act prevailing wage requirements and associated U.S. Department of Labor (DOL) regulations for all construction, alteration, and repair contracts and subcontracts awarded with funds provided under this agreement by operation of CERCLA § 104(g). Assessment activities generally do not involve construction, alteration, and repair within the meaning of the Davis-Bacon Act. However, the recipient must contact the EPA Project Officer if there are unique circumstances (e.g., removal of an underground storage tank or another structure and restoration of the site) which indicate that the Davis-Bacon Act applies to an activity the CAR intends to carry out with funds provided under this agreement. EPA will provide guidance on Davis-Bacon Act compliance if necessary.

II. SITE ELIGIBILITY REQUIREMENTS

A. Eligible Brownfield Site Determinations

1. The CAR must provide information to the EPA Project Officer about site-specific work prior to incurring any costs under this cooperative agreement for sites that have not already been pre-approved in the CAR's workplan by EPA. The information that must be provided includes whether the site meets the definition of a brownfield site as defined in § 101(39) of CERCLA, and whether the CAR is the potentially responsible party under CERCLA § 107, is exempt from CERCLA liability and/or has defenses to CERCLA liability.

2. If the site is excluded from the general definition of a brownfield but is eligible for a property-specific funding determination, then the CAR may request a property-specific funding determination from the EPA Project Officer. In its request, the CAR must provide information sufficient for EPA to make a property-specific funding determination on how financial assistance will protect human health and the environment, and either promote economic development or enable the creation of, preservation of, or addition to parks, greenways, undeveloped property, other recreational property, or other property used for nonprofit purposes. The CAR must not incur costs for assessing sites requiring a property-specific funding determination by EPA until the EPA Project Officer has advised the CAR that EPA has determined that the property is eligible.

3. Brownfield Sites Contaminated with Petroleum

   a. For any petroleum-contaminated brownfield site that is not included in the CAR's EPA-approved workplan, the CAR shall provide sufficient documentation to EPA prior to incurring costs under this cooperative agreement which documents that:

      i. the State determines there is "no viable responsible party" for the site;

      ii. the State determines that the person assessing or investigating the site is a person who is not potentially liable for cleaning up the site; and

      iii. the site is not subject to any order issued under Section 9003(h) of the Solid Waste Disposal Act.

      This documentation must be prepared by the CAR or the State, following contact and discussion with the appropriate state petroleum program official. Please contact the EPA Project Officer for additional information.

   b. Documentation must include:

      i. the identity of the State program official contacted;

      ii. the State official's telephone number;

      iii. the date of the contact; and

      iv. a summary of the discussion relating to the State's determination that there is no viable responsible party and that the person assessing or investigating the site is not potentially liable for cleaning up the site.

      Other documentation provided by a State to the recipient relevant to any of the determinations by the State must also be provided to the EPA Project Officer.

   c. If the State chooses not to make the determinations described in Section II.A.3. above, the CAR must contact the EPA Project Officer and provide the necessary information for EPA to make the requisite determinations.

   d. EPA will make all determinations on the eligibility of petroleum-contaminated brownfield sites

located on tribal lands (i.e., reservation lands or lands otherwise in Indian country, as defined at 18 U.S.C. § 1151). Before incurring costs for these sites, the CAR must contact the EPA Project Officer and provide the necessary information for EPA to make the determinations described in Section II.A.3.b. above.

III. GENERAL COOPERATIVE AGREEMENT ADMINISTRATIVE REQUIREMENTS

A. Sufficient Progress

1. This condition supplements the requirements of the Sufficient Progress Condition (No. 22) in the General Terms and Conditions. If after 18 months from the date of award, EPA determines that the CAR has not made sufficient progress in implementing its cooperative agreement, the CAR must implement a corrective action plan concurred on by the EPA Project Officer and approved by the Award Official or Grants Management Officer. Alternatively, EPA may terminate this agreement under 2 CFR § 200.339 for material non-compliance with its terms, or with the consent of the CAR as provided at 2 CFR § 200.339, depending on the circumstances. Sufficient progress is indicated when 35% of funds have been drawn down and disbursed for eligible activities. For assessment coalition cooperative agreements, sufficient progress is demonstrated when a solicitation for services has been released, sites are prioritized, or an inventory has been initiated (if necessary), community involvement activities have been initiated and a Memorandum of Agreement is in place, or other documented activities that demonstrate to EPA's satisfaction that the CAR will successfully perform the cooperative agreement.

B. Substantial Involvement

1. EPA may be substantially involved in overseeing and monitoring this cooperative agreement.

   a. Substantial involvement by EPA generally includes administrative activities by the EPA Project Officer such as monitoring, reviewing project phases, and approving substantive terms included in professional services contracts. EPA will not direct or recommend that the CAR enter into a contract with a particular entity.

   b. Substantial EPA involvement includes brownfield property-specific funding determinations described in Section II.A.2. If the CAR awards a subaward for site assessment, the CAR must obtain technical assistance from EPA on which sites qualify as a brownfield site and determine whether the statutory prohibition found in CERCLA § 104(k)(5)(B)(i)(IV) applies. This prohibition does not allow the subrecipient to use EPA cooperative agreement funds to assess a site for which the subrecipient is potentially liable under § 107 of CERCLA.

   c. Substantial EPA involvement may include reviewing financial and program performance reports, monitoring all reporting, record-keeping, and other program requirements.

   d. EPA may waive any of the provisions in Section III.B.1. with the exception of property-specific funding determinations, at its own initiative or upon request by the CAR. The EPA Project Officer will provide waivers in writing.

2. Effects of EPA's substantial involvement include:

   a. EPA's review of any project phase, document, or cost incurred under this cooperative agreement will not have any effect upon CERCLA § 128 *Eligible Response Site* determinations or rights, authorities, and actions under CERCLA or any federal statute.

   b. The CAR remains responsible for ensuring that all assessments are protective of human health and the environment and comply with all applicable federal and state laws.

   c. The CAR and its subrecipients remain responsible for ensuring costs are allowable under 2 CFR Part 200, Subpart E.

C. Cooperative Agreement Recipient Roles and Responsibilities

1. The CAR must acquire the services of a Qualified Environmental Professional(s) as defined in 40 CFR § 312.10 to coordinate, direct, and oversee the brownfield site assessment activities at a given site, if it does not have such a professional on staff.

2. Subawards are defined at 2 CFR § 200.92. The CAR may not subaward to for-profit organizations or individual consultants. The CAR must obtain commercial services and products necessary to carry out this agreement under competitive procurement procedures as described in 2 CFR §§ 200.317 through 200.326. In addition, EPA policy encourages awarding subawards competitively and the CAR must consider awarding subawards through competition. Recipients may consult EPA's Subaward Policy and Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements for additional guidance.

3. The CAR is responsible for ensuring that funding received under this cooperative agreement does not exceed the statutory $200,000 funding limitation for an individual brownfield site. Waiver of this funding limit for a brownfield site must be submitted to the EPA Project Officer and approved prior to the expenditure of funding exceeding $200,000. In no case may funding for site-specific assessment activities exceed $350,000 on a site receiving a waiver.

   CARs expending funding from a Community-wide Assessment cooperative agreement must include this amount in any total funding expended on the site.

4. Cybersecurity - The recipient agrees that when collecting and managing environmental data under this cooperative agreement, it will protect the data by following all applicable State or Tribal law cybersecurity requirements.

   a. EPA must ensure that any connections between the recipient's network or information system and EPA networks used by the recipient to transfer data under this agreement are secure. For purposes of this section, a connection is defined as a dedicated persistent interface between an Agency IT system and an external IT system for the purpose of transferring information. Transitory, user-controlled connections such as website browsing are excluded from this definition.

      If the recipient's connections as defined above do not go through the Environmental Information Exchange Network or EPA's Central Data Exchange, the recipient agrees to contact the EPA Project Officer (PO) {*enter* 'no later than 90 days after the date of this award' *for Tribal and non-State recipients*} and work with the designated Regional/ Headquarters Information Security Officer to ensure that the connections meet EPA security requirements, including entering into Interconnection Service Agreements as appropriate. This condition does not apply to manual entry of data by the recipient into systems operated and used by EPA's regulatory programs for the submission of reporting and/or compliance data.

   b. The recipient agrees that any subawards it makes under this agreement will require the subrecipient to comply with the requirements in Cybersecurity Section a. above if the subrecipient's network or information system is connected to EPA networks to transfer data to the Agency using systems other than the Environmental Information Exchange Network or EPA's Central Data Exchange. The recipient will be in compliance with this condition: by including this requirement in subaward agreements; and during subrecipient monitoring deemed necessary by the recipient under 2 CFR § 200.331(d), by inquiring whether the subrecipient has contacted the EPA Project Officer. Nothing in this condition requires the recipient to contact the EPA Project Officer on behalf of a subrecipient or to be involved in the negotiation of an Interconnection Service Agreement between the subrecipient and EPA.

5. All geospatial data created must be consistent with Federal Geographic Data Committee (FGDC) endorsed standards. Information on these standards may be found at www.fgdc.gov.

D. Quarterly Progress Reports

1. In accordance with EPA regulations 2 CFR Parts 200 and 1500 (specifically, § 200.328, *Monitoring and Reporting Program Performance*), the CAR agrees to submit quarterly progress reports to the EPA Project Officer within 30 days after each reporting period. The reporting periods are October 1 - December 31 (1st quarter); January 1 - March 31 (2nd quarter); April 1 - June 30 (3rd quarter); and July 1 - September 30 (4th quarter).

   These reports shall cover work status, work progress, difficulties encountered, preliminary data results and a statement of activity anticipated during the subsequent reporting period, including a description of equipment, techniques, and materials to be used or evaluated. A discussion of expenditures and financial status for each workplan task, along with a comparison of the percentage of the project completed to the project schedule and an explanation of significant discrepancies shall be included in the report. The report shall also include any changes of key personnel concerned with the project.

2. The CAR must submit progress reports on a quarterly basis to the EPA Project Officer. Quarterly progress reports must include:

   a. A summary that clearly differentiates between activities completed with EPA funds provided under the Brownfield Assessment cooperative agreement and related activities completed with other sources of leveraged funding.

   b. A summary and status of approved activities performed during the reporting quarter; a summary of the performance outputs/outcomes achieved during the reporting quarter; and a description of problems encountered during the reporting quarter that may affect the project schedule.

   c. A comparison of actual accomplishments to the anticipated outputs/outcomes specified in the EPA-approved workplan and reasons why anticipated outputs/outcomes were not met.

   d. An update on project schedules and milestones, including an explanation of any discrepancies from the EPA-approved workplan.

   e. A list of the properties where assessment activities were performed and/or completed during the reporting quarter.

   f. A budget recap summary table with the following information: current approved project budget; EPA funds drawn down during the reporting quarter; costs drawn down to date (cumulative expenditures); program income generated and used (if applicable); and total remaining funds. The CAR should include an explanation of any discrepancies in the budget from the EPA-approved workplan, of cost overruns or high unit costs, and other pertinent information.

   Note: Each property where assessment activities were performed and/or completed must have its corresponding information updated in ACRES (or via the Property Profile Form with prior approval from the EPA Project Officer) prior to submitting the quarterly progress report (see Section III.E. below).

3. Because the workplan and budget for this agreement includes subawards, the CAR is a pass-through entity under the "Establishing and Managing Subaward" General Term and Condition of this agreement. As the pass-through entity, the CAR must report to EPA on its subaward monitoring activities under 2 CFR § 200.331(d), including the following information on subawards as part of the CAR's quarterly performance reporting:

   a. Summaries of results of reviews of financial and programmatic reports.

   b. Summaries of findings from site visits and/or desk reviews to ensure effective subrecipient performance.

c. Environmental results the subrecipient achieved.

d. Summaries of audit findings and related pass-through entity management decisions.

e. Actions the pass-through entity has taken to correct any deficiencies such as those specified at 2 CFR § 200.331(e), 2 CFR § 200.207 and 2 CFR § 200.338, *Remedies for Noncompliance*
.

4. The CAR must maintain records that will enable it to report to EPA on the amount of funds disbursed by the CAR to assess specific properties under this cooperative agreement.

5. In accordance with 2 CFR § 200.328(d)(1), the CAR agrees to inform EPA as soon as problems, delays, or adverse conditions become known which will materially impair the ability to meet the outputs/outcomes specified in the EPA-approved workplan.

E. Property Profile Submission

1. The CAR must report on interim progress (i.e., assessment started) and any final accomplishments (i.e., assessment completed, clean up required, contaminants, institutional controls, engineering controls) by completing and submitting relevant portions of the Property Profile Form using the Assessment, Cleanup and Redevelopment Exchange System (ACRES). The CAR must enter the data in ACRES as soon as the interim action or final accomplishment has occurred, or within 30 days after the end of each reporting quarter. The CAR must enter any new data into ACRES prior to submitting the quarterly progress report to the EPA Project Officer. The CAR must utilize the ACRES system unless approval is obtained from the EPA Project Officer to utilize and the Property Profile Form.

F. Final Technical Cooperative Agreement Report with Environmental Results

1. In accordance with EPA regulations 2 CFR Parts 200 and 1500 (specifically, § 200.328, *Monitoring and Reporting Program Performance*), the CAR agrees to submit to the EPA Project Officer within 90 days after the expiration or termination of the approved project period a final technical report on the cooperative agreement and at least one reproducible copy suitable for printing. The final technical report shall document project activities over the entire project period and shall include brief information on each of the following areas:

   a. a comparison of actual accomplishments with the anticipated outputs/outcomes specified in the EPA-approved workplan;

   b. reasons why anticipated outputs/outcomes were not met; and

   c. other pertinent information, including when appropriate, analysis and explanation of cost overruns or high unit costs.

IV. FINANCIAL ADMINISTRATION REQUIREMENTS

A. Eligible Uses of the Funds for the Cooperative Agreement Recipient

1. To the extent allowable under the EPA-approved workplan, cooperative agreement funds may be used for eligible programmatic expenses to inventory, characterize, assess sites; conduct site-specific planning, general brownfield-related planning activities around one or more brownfield sites, and outreach. Eligible programmatic expenses include activities described in Section V. of these Terms and Conditions. In addition, eligible programmatic expenses may include:

   a. Determining whether assessment activities at a particular site are authorized by CERCLA § 104(k).

   b. Ensuring that an assessment complies with applicable requirements under federal and state laws, as required by CERCLA § 104(k).

   c. Developing a Quality Assurance Project Plan (QAPP) as required by 2 CFR § 1500.11. The

specific requirement for a QAPP is outlined in *Implementation of Quality Assurance Requirements for Organizations Receiving EPA Financial Assistance* available at https://www.epa.gov/grants/implementation-quality-assurance-requirements-organizations-receiving-epa-financial.

d. Using a portion of the cooperative agreement funds to purchase environmental insurance for the characterization or assessment of the site. Funds may not be used to purchase insurance intended to provide coverage for any of the ineligible uses under Section IV., *Ineligible Uses of the Funds for the Cooperative Agreement Recipient.*

e. Any other eligible programmatic costs, including direct costs incurred by the recipient in reporting to EPA; procuring and managing contracts; awarding, monitoring, and managing subawards to the extent required to comply with 2 CFR § 200.331 and the "Establishing and Managing Subawards" General Term and Condition; and carrying out community involvement pertaining to the assessment activities.

2. Under CERCLA § 104(k)(5)(B), CARs and subrecipients may use up to 5% of the amount of federal funding for this cooperative agreement for administrative costs, including indirect costs under 2 CFR § 200.414. The limit on administrative costs for this agreement is $0. The total amount of indirect costs and any direct costs for cooperative agreement administration by the CAR or subaward administration by subrecipients paid for by EPA under the cooperative agreement may not exceed this amount. As required by 2 CFR § 200.403(d), the CAR and subrecipients must classify administrative costs as direct or indirect consistently and may not classify the same types of cost in both categories.

   Eligible cooperative agreement and subaward administrative costs subject to the 5% limitation include direct costs for:

   a. Costs incurred to comply with the following provisions of the *Uniform Administrative Requirements for Cost Principles and Audit Requirements for Federal Awards* at 2 CFR Parts 200 and 1500 other than those identified as programmatic.

      i. Record-keeping associated with equipment purchases required under 2 CFR § 200.313;

      ii. Preparing revisions and changes in the budgets, scopes of work, program plans and other activities required under 2 CFR § 200.308;

      iii. Maintaining and operating financial management systems required under 2 CFR § 200.302;

      iv. Preparing payment requests and handling payments under 2 CFR § 200.305;

      v. Financial reporting under 2 CFR § 200.327.

      vi. Non-federal audits required under 2 CFR Part 200, Subpart F; and

      vii. Closeout under 2 CFR § 200.343 with the exception of preparing the recipient's final performance report. Costs for preparing this report are programmatic and are not subject to the 5% limitation on direct administrative costs.

   b. Pre-award costs for preparation of the proposal and application for this cooperative agreement (including the final workplan) or applications for subawards are not allowable as direct costs but may be included in the CAR's or subrecipient's indirect cost pool to the extent authorized by 2 CFR § 200.460.

B. Ineligible Uses of the Funds for the Cooperative Agreement Recipient

1. Cooperative agreement funds shall not be used by the CAR for any of the following activities:

   a. Cleanup activities;

   b. Site development activities that are not brownfield site assessment activities (e.g., marketing of property (activities or products created specifically to attract buyers or investors) or

construction of a new facility);

c. General community visioning, area-wide zoning updates, design guideline development, master planning, green infrastructure, infrastructure service delivery, and city-wide or comprehensive planning/plan updates - these activities are all ineligible uses of grant funds if unrelated to advancing cleanup and reuse of brownfield sites or sites to be assessed. Note: for these types of activities to be an eligible use of grant funds, there must be a specific nexus between the activity and how it will help further cleanup and reuse of the priority brownfield site(s). This nexus must be clearly described in the workplan for the project;

d. Job training unrelated to performing a specific assessment at a site covered by the cooperative agreement;

e. To pay for a penalty or fine;

f. To pay a federal cost share requirement (e.g., a cost share required by another federal grant) unless there is specific statutory authority;

g. To pay for a response cost at a brownfield site for which the CAR or subaward recipient is potentially liable under CERCLA § 107;

h. To pay a cost of compliance with any federal law, excluding the cost of compliance with laws applicable to the assessment; and

i. Unallowable costs (e.g., lobbying and purchases of alcoholic beverages) under 2 CFR Part 200, Subpart E.

2. Cooperative agreement funds may <u>not</u> be used for any of the following properties:

a. Facilities listed, or proposed for listing, on the National Priorities List (NPL);

b. Facilities subject to unilateral administrative orders, court orders, and administrative orders on consent or judicial consent decree issued to or entered by parties under CERCLA;

c. Facilities that are subject to the jurisdiction, custody or control of the United States government except for land held in trust by the United States government for an Indian tribe; or

d. A site excluded from the definition of a brownfield site for which EPA has not made a property-specific funding determination.

C. Interest-Bearing Accounts and Program Income

1. In accordance with 2 CFR § 1500.7(b), during the performance period of the cooperative agreement, the CAR is authorized to add program income to the funds awarded by EPA and use the program income under the same terms and conditions of this agreement.

2. Program income for the CAR shall be defined as the gross income received by the recipient, directly generated by the cooperative agreement award or earned during the period of the award. Program income includes, but is not limited to, fees charged for conducting assessment, site characterizations, cleanup planning, or other activities when the costs for the activity is charged to this agreement.

3. The CAR must deposit advances of cooperative agreement funds and program income (i.e., fees) in an interest-bearing account.

a. For interest earned on advances, CARs are subject to the provisions of 2 CFR 200.305(b)(7)(ii) relating to remitting interest on advances to EPA on a quarterly basis.

b. Any program income earned by the CAR will be added to the funds EPA has committed to this agreement and used only for eligible and allowable costs under the agreement as provided in 2 CFR § 200.307 and 2 CFR § 1500.7, as applicable.

c. Interest earned on program income is considered additional program income.

d. The CAR must disburse program income (including interest earned on program income) before requesting additional payments from EPA as required by 2 CFR § 200.305(b)(5).

4. As required by 2 CFR § 200.302, the CAR must maintain accounting records documenting the receipt and disbursement of program income.

5. The recipient must provide as part of its quarterly performance report and final technical report a description of how program income is being used. Further, a report on the amount of program income earned during the award period must be submitted with the quarterly performance report, final technical report, and Federal Financial Report (Standard Form 425).

V. ASSESSMENT REQUIREMENTS

A. Authorized Assessment Activities

1. Prior to conducting or engaging in any on-site activity with the potential to impact historic properties (such as invasive sampling), the CAR shall consult with the EPA Project Officer regarding potential applicability of the National Historic Preservation Act (NHPA) (16 USC § 470) and, if applicable, shall assist EPA in complying with any requirements of the NHPA and implementing regulations.

B. Quality Assurance (QA) Requirements

1. When environmental data are collected as part of the brownfield assessment, the CAR shall comply with 2 CFR § 1500.11 requirements to develop and implement quality assurance practices sufficient to produce data adequate to meet project objectives and to minimize data loss. State law may impose additional QA requirements. Recipients implementing environmental programs within the scope of the assistance agreement must submit to the EPA Project Officer an approvable Quality Assurance Project Plan (QAPP) at least [Insert 30/45/60] days prior to the initiating of data collection or data compilation. The Quality Assurance Project Plan (QAPP) is the document that provides comprehensive details about the quality assurance, quality control, and technical activities that must be implemented to ensure that project objectives are met. Environmental programs include direct measurements or data generation, environmental modeling, compilation of date from literature or electronic media, and data supporting the design, construction, and operation of environmental technology.

   The QAPP should be prepared in accordance with EPA QA/R-5: EPA Requirements for Quality Assurance Project Plans.

   No environmental data collection or data compilation may occur until the QAPP is approved by the EPA Project Officer and Quality Assurance Regional Manager. When the recipient is delegating the responsibility for an environmental data collection or data compilation activity to another organization, the EPA Regional Quality Assurance Manager may allow the recipient to review and approve that organization's QAPP. Additional information on these requirements can be found at the EPA Office of Grants and Debarment website at https://www.epa.gov/grants/implementation-quality-assurance-requirements-organizations-receiving-epa-financial.

2. **Competency of Organizations Generating Environmental Measurement Data:** In accordance with Agency Policy Directive Number FEM-2012-02, *Policy to Assure the Competency of Organizations Generating Environmental Measurement Data under Agency-Funded Assistance Agreements*, the CAR agrees, by entering into this agreement, that it has demonstrated competency prior to award, or alternatively, where a pre-award demonstration of competency is not practicable, the CAR agrees to demonstrate competency prior to carrying out any activities under the award involving the generation or use of environmental data. The CAR shall maintain competency for the duration of the project period of this agreement and this will be documented during the annual reporting process. A copy of the Policy is

available online at http://www.epa.gov/fem/lab_comp.htm or a copy may also be requested by contacting the EPA Project Officer for this award.

C. Community Outreach

1. The CAR agrees to clearly reference EPA investments in the project during all phases of community outreach outlined in the EPA-approved workplan which may include the development of any post-project summary or success materials that highlight achievements to which this project contributed.

   a. If any documents, fact sheets, and/or web materials are developed as part of this cooperative agreement, then they shall include the following statement: "**Though this project has been funded, wholly or in part, by EPA, the contents of this document do not necessarily reflect the views and policies of EPA**."

   b. If a sign is developed as part of a project funded by this cooperative agreement, then the sign shall include either a statement (e.g., this project has been funded, wholly or in part, by EPA) and/or EPA's logo acknowledging that EPA is a source of funding for the project. The EPA logo may be used on project signage when the sign can be placed in a visible location with direct linkage to site activities. Use of the EPA logo must follow the sign specifications available at https://www.epa.gov/grants/epa-logo-seal-specifications-signage-produced-epa-assistance-agreement-recipients.

2. The CAR agrees to notify the EPA Project Officer of public or media events publicizing the accomplishment of significant events related to construction and/or site reuse projects as a result of this agreement, and provide the opportunity for attendance and participation by federal representatives with at least ten (10) working days' notice.

3. To increase public awareness of projects serving communities where English is not the predominant language, CARs are encouraged to include in their outreach strategies communication in non-English languages. Translation costs for this purpose are allowable, provided the costs are reasonable.

D. All Appropriate Inquiry

1. As required by CERCLA § 104(k)(2)(B)(ii) and CERCLA § 101(35)(B), the CAR shall ensure that a Phase I site characterization and assessment carried out under this agreement will be performed in accordance with EPA's all appropriate inquiries regulation (AAI). The CAR shall utilize the practices in ASTM standard E1527-13 *"Standard Practices for Environmental Site Assessment: Phase I Environmental Site Assessment Process,"* or EPA's All Appropriate Inquiries Final Rule (40 CFR Part 312). A suggested outline for an AAI final report is provided in *"All Appropriate Inquiries Rule: Reporting Requirements and Suggestions on Report Content"*, (Publication Number: EPA 560-F-14-003). This does not preclude the use of cooperative agreement funds for additional site characterization and assessment activities that may be necessary to characterize the environmental impacts at the site or to comply with applicable state standards.

2. All final reports produced with funding from this agreement must comply with 40 CFR Part 312 and must, at a minimum, include the information below. All AAI reports submitted to EPA Project Officers as deliverables under this agreement must be accompanied by a completed *"All Appropriate Inquiries: Reporting Requirements Checklist for Assessment Grant Recipients"* (Publication Number: EPA 560-F-17-194) that the EPA Project Officer will provide to the recipient. The checklist is available to CARs on EPA's website at www.epa.gov/brownfields. The completed checklist must include:

   a. An ***opinion*** as to whether the inquiry has identified conditions indicative of releases or threatened releases of hazardous substances, and as applicable, pollutants and contaminants, petroleum or petroleum products, or controlled substances, on, at, in, or to the subject property.

b. An identification of ***"significant" data gaps*** (as defined in 40 CFR § 312.10), if any, in the information collected for the inquiry. Significant data gaps include missing or unattainable information that affects the ability of the environmental professional to identify conditions indicative of releases or threatened releases of hazardous substances, and as applicable, pollutants and contaminants, petroleum or petroleum products, or controlled substances, on, at, in, or to the subject property. The documentation of significant data gaps must include information regarding the significance of these data gaps.

c. ***Qualifications*** **and** ***signature*** of the environmental professional(s). The environmental professional must place the following statements in the document and sign the document:

- *"[I, We] declare that, to the best of [my, our] professional knowledge and belief, [I, we] meet the definition of Environmental Professional as defined in §312.10 of this part."*

- *"[I, We] have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. [I, We] have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."*

Note: Please use either "I" or "We."

d. In compliance with §312.31(b), the environmental professional must include in the final report an ***opinion regarding additional appropriate investigation***, if the environmental professional has such an opinion.

3. EPA may review checklists and AAI final reports for compliance with the AAI regulation documentation requirements at 40 CFR Part 312 (or comparable requirements for those using ASTM Standard 1527-13). Any deficiencies identified during an EPA review of these documents must be corrected by the recipient within 30 days of notification. Failure to correct any identified deficiencies may result in EPA disallowing the costs for the entire AAI report as authorized by 2 CFR § 200.338 through 2 CFR § 200.342. If a recipient willfully fails to correct the deficiencies EPA may consider other available remedies under 2 CFR § 200.342.

E. Completion of Assessment Activities

1. The CAR shall properly document the completion of all activities described in the EPA- approved workplan. This must be done through a final report or letter from a Qualified Environmental Professional, or other documentation provided by a State or Tribe that shows assessments are complete.

F. Inclusion of Additional Terms and Conditions

1. In accordance with 2 CFR § 200.333 the CAR shall maintain records pertaining to the cooperative for a minimum of three (3) years following submission of the final financial report unless one or more of the conditions described in the regulation applies. The CAR shall provide access to records relating to assessments supported with Assessment cooperative agreement funds to authorized representatives of the Federal government as required by 2 CFR § 200.336.

2. The CAR has an ongoing obligation to advise EPA if it assessed any penalties resulting from environmental non-compliance at sites subject to this agreement.

VI. PAYMENT AND CLOSEOUT

For the purposes of these Terms and Conditions, the following definitions apply: "payment" is EPA's transfer of funds to the CAR; "closeout" refers to the process EPA follows to ensure that all administrative actions and work required under the cooperative agreement have been completed.

A. Payment Schedule

1. The CAR may request advance payment from EPA pursuant to 2 CFR § 200.305(b)(1) and the prompt disbursement requirements of the General Terms and Conditions of this agreement.
This requirement does not apply to states which are subject to 2 CFR § 200.305(a).

B. Schedule for Closeout

1. Closeout will be conducted in accordance with 2 CFR § 200.343. EPA will close out the award when it determines that all applicable administrative actions and all required work under the cooperative agreement have been completed.

2. The CAR, within 90 days after the expiration or termination of the cooperative agreement, must submit all financial, performance, and other reports required as a condition of the cooperative agreement 2 CFR Part 200.

    a. The CAR must submit the following documentation:

        i. The Final Technical Cooperative Agreement Report as described in Section III.F. of these Terms and Conditions.

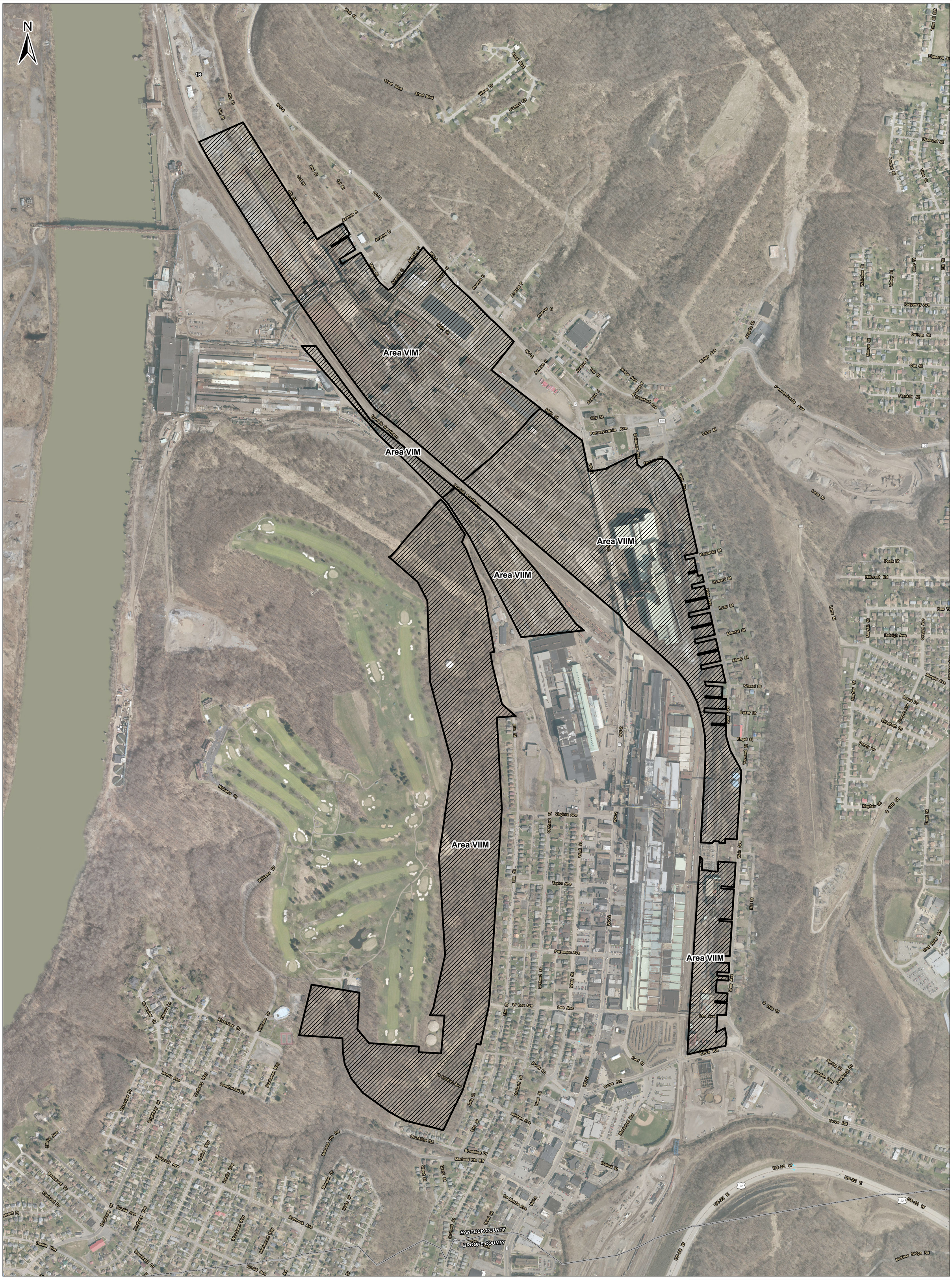
        ii. Administrative and Financial Reports as described in the Grant-Specific Administrative Terms and Conditions of this agreement.

    b. The CAR must ensure that appropriate data have been entered into ACRES or all Property Profile Forms are submitted to the EPA Project Officer.

    c. As required by 2 CFR § 200.343, the CAR must immediately refund to EPA any balance of unobligated (unencumbered) advanced cash or accrued program income that is not authorized to be retained for use on other cooperative agreements.

ATTACHMENT 3

VRP SITE MAP



LEGEND

- VRP SITE BOUNDARY (RCRA CORRECTIVE ACTION AREAS VIM AND VIIM)
- COUNTY/STATE BOUNDARY

REFERENCE

- WEST VIRGINIA GIS TECHNICAL CENTER LEAF OFF MOSAIC WEB MAPPING SERVICE; IMAGE DATE: 2017

SCALE IN FEET

0 400 800 1,200 1,600

Civil & Environmental Consultants, Inc.
333 Baldwin Road - Pittsburgh, PA 15205-9072
Ph: 412.429.2324 - 800.365.2324 - Fax: 412.429.2114
www.cecinc.com

MINGO JUNCTION STEELWORKS, LLC
CITY OF WEIRTON
BROOKE AND HANCOCK COUNTIES, WEST VIRGINIA

DRAWN BY:	CBL	CHECKED BY:	DLO	APPROVED BY:* Hand signature on file	DRAFT
DATE:	2/6/2020	SCALE:	1 " = 400 '	PROJECT NO:	174-529

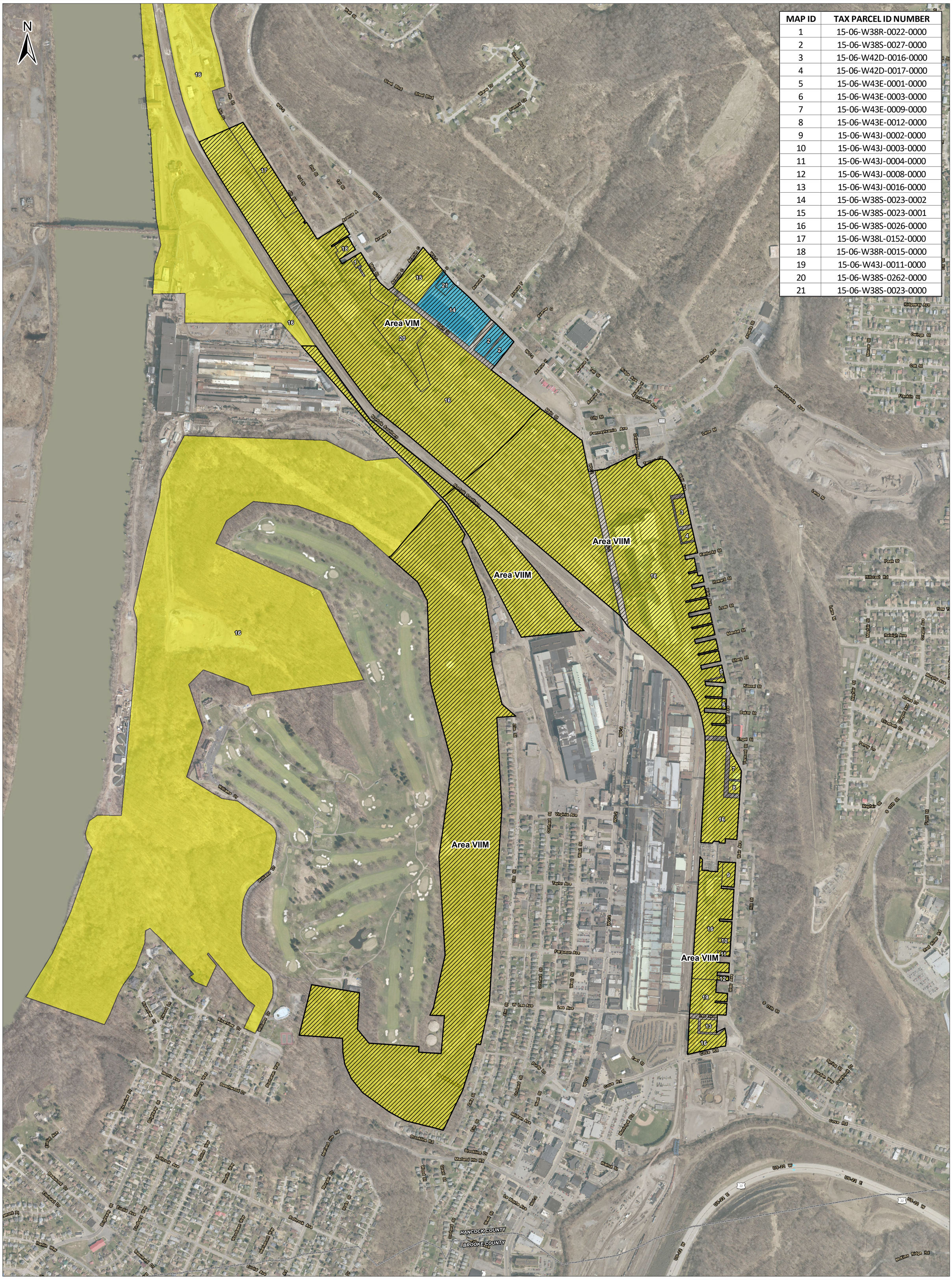
VRP SITE BOUNDARY MAP

FIGURE NO.: **ATTACHMENT 3**

\\Svr-export\projects\2017\174-529\-GIS\Maps\Task_2H22\174529_ATC3_VRP_Boundaries.mxd 2/6/2020 9:55 AM (clangley)

ATTACHMENT 4

TAX PARCEL MAP AND TAX PARCEL RECORDS



MAP ID	TAX PARCEL ID NUMBER
1	15-06-W38R-0022-0000
2	15-06-W38S-0027-0000
3	15-06-W42D-0016-0000
4	15-06-W42D-0017-0000
5	15-06-W43E-0001-0000
6	15-06-W43E-0003-0000
7	15-06-W43E-0009-0000
8	15-06-W43E-0012-0000
9	15-06-W43J-0002-0000
10	15-06-W43J-0003-0000
11	15-06-W43J-0004-0000
12	15-06-W43J-0008-0000
13	15-06-W43J-0016-0000
14	15-06-W38S-0023-0002
15	15-06-W38S-0023-0001
16	15-06-W38S-0026-0000
17	15-06-W38L-0152-0000
18	15-06-W38R-0015-0000
19	15-06-W43J-0011-0000
20	15-06-W38S-0262-0000
21	15-06-W38S-0023-0000

LEGEND

- VRP SITE BOUNDARY (RCRA CORRECTIVE ACTION AREAS VIM AND VIIM)
- PARCEL OWNED BY MINGO JUNCTION STEEL WORKS LLC
- PARCEL OWNED BY BUSINESS DEVELOPMENT CORPORATION OF THE NORTHERN PANHANDLE
- COUNTY/STATE BOUNDARY

REFERENCE

- HANCOCK COUNTY, WV DIGITAL PARCEL DATA; 2016
  PARCEL GEOMETRY AND ATTRIBUTES WERE MODIFIED
  USING DATA FROM COUNTY GIS WEB APPLICATION
  DATE ACCESSED: 1/20/2020
- WEST VIRGINIA GIS TECHNICAL CENTER LEAF OFF
  MOSAIC WEB MAPPING SERVICE; IMAGE DATE: 2017

SCALE IN FEET

0 400 800 1,200 1,600

Civil & Environmental Consultants, Inc.
333 Baldwin Road - Pittsburgh, PA 15205-9072
Ph: 412.429.2324 - 800.365.2324 - Fax: 412.429.2114
www.cecinc.com

MINGO JUNCTION STEELWORKS, LLC
CITY OF WEIRTON
BROOKE AND HANCOCK COUNTIES, WEST VIRGINIA

DRAWN BY: CBL	CHECKED BY: DLO	APPROVED BY: * Hand signature on file	DRAFT
DATE: 2/5/2020	SCALE: 1 " = 400 '	PROJECT NO:	174-529

VRP SITE BOUNDARY AND TAX PARCEL OVERVIEW MAP

FIGURE NO.: **ATTACHMENT 4**

\\Svr-export\projects\2017\174-529\-GIS\Maps\Task_2H2Z\174529_ATC4_VRP_Boundaries_Tax_Parcel_Overview.mxd 2/5/2020 5:52 PM (clangley)

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .20 AC LOTS 5 & 6 L&W ADD AVE B (LESS MINERALS)

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06100499
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$7,090.00	$0.00	$7,090.00	4	
2019	$5,960.00	$0.00	$5,960.00	4	
2018	$5,220.00	$0.00	$5,220.00	4	
2017	$1,500.00	$0.00	$1,500.00	4	
2016	$1,500.00	$0.00	$1,500.00	4	
2015	$1,500.00	$0.00	$1,500.00	4	
2014	$1,500.00	$0.00	$1,500.00	4	
2013	$1,500.00	$0.00	$1,500.00	4	
2012	$1,500.00	$0.00	$1,500.00	4	
2011	$1,500.00	$0.00	$1,500.00	4	
2010	$1,500.00	$0.00	$1,500.00	4	
2009	$1,500.00	$0.00	$1,500.00	4	
2008	$1,500.00	$0.00	$1,500.00	4	
2007	$1,500.00	$0.00	$1,500.00	4	
2006	$1,500.00	$0.00	$1,500.00	4	
2005	$1,860.00	$0.00	$1,860.00	4	
2004	$1,860.00	$0.00	$1,860.00	4	

LAND

Map/Parcel: W38R 0022 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	8716	0.2001	$8,720.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .823 AC LOTS 386-393 PS&TP 2ND ADD (LESS MINERALS)

CURRENT OWNER: BUSINESS DEV CORP OF THE NORTHERN PANHANDLE
MAILING ADDRESS: 324A PENCO RD WEIRTON WV 26062
ACCOUNT NUMBER: 06102629
DEED BOOK/PAGE: 848/2672

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2017-02-14 00:00:00	$2,250,000.00	848	2672
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$18,300.00	$1,380.00	$19,680.00	4	
2019	$18,300.00	$1,380.00	$19,680.00	4	
2018	$18,300.00	$1,380.00	$19,680.00	4	
2017	$22,440.00	$1,380.00	$23,820.00	4	
2016	$22,440.00	$1,380.00	$23,820.00	4	
2015	$22,440.00	$1,380.00	$23,820.00	4	
2014	$22,440.00	$1,320.00	$23,760.00	4	
2013	$22,440.00	$1,320.00	$23,760.00	4	
2012	$22,440.00	$1,320.00	$23,760.00	4	
2011	$22,440.00	$1,320.00	$23,760.00	4	
2010	$22,440.00	$1,320.00	$23,760.00	4	
2009	$22,440.00	$1,320.00	$23,760.00	4	
2008	$19,980.00	$0.00	$19,980.00	4	
2007	$19,980.00	$0.00	$19,980.00	4	
2006	$19,980.00	$0.00	$19,980.00	4	
2005	$19,980.00	$0.00	$19,980.00	4	
2004	$19,260.00	$0.00	$19,260.00	4	

LAND

Map/Parcel: W38S 0027 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	35850	0.8230	$30,470.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved 6 - Sidewalk	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
398 - Warehouse	2 - Major Thorofare	5 - Secondary Strip	

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .725 AC (LESS MIN) LOTS 68-74
WRTN DEV CO 2ND ADN TO WRTN

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06102834
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$2,600.00	$0.00	$2,600.00	4	
2019	$2,200.00	$0.00	$2,200.00	4	
2018	$1,920.00	$0.00	$1,920.00	4	
2017	$1,020.00	$0.00	$1,020.00	4	
2016	$1,020.00	$0.00	$1,020.00	4	
2015	$1,020.00	$0.00	$1,020.00	4	
2014	$1,020.00	$0.00	$1,020.00	4	
2013	$1,020.00	$0.00	$1,020.00	4	
2012	$1,020.00	$0.00	$1,020.00	4	
2011	$1,020.00	$0.00	$1,020.00	4	
2010	$1,020.00	$0.00	$1,020.00	4	
2009	$1,020.00	$0.00	$1,020.00	4	
2008	$780.00	$0.00	$780.00	4	
2007	$780.00	$0.00	$780.00	4	
2006	$780.00	$0.00	$780.00	4	
2005	$780.00	$0.00	$780.00	4	
2004	$720.00	$0.00	$720.00	4	

LAND

Map/Parcel: W42D 0016 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	31569	0.7247	$3,160.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
3 - Below Street	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .310 AC (LESS MIN) LTS 75-77
WRTN DEV CO 2ND TO WRTN

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06102825
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$1,140.00	$0.00	$1,140.00	4	
2019	$960.00	$0.00	$960.00	4	
2018	$840.00	$0.00	$840.00	4	
2017	$960.00	$0.00	$960.00	4	
2016	$960.00	$0.00	$960.00	4	
2015	$960.00	$0.00	$960.00	4	
2014	$960.00	$0.00	$960.00	4	
2013	$960.00	$0.00	$960.00	4	
2012	$960.00	$0.00	$960.00	4	
2011	$960.00	$0.00	$960.00	4	
2010	$960.00	$0.00	$960.00	4	
2009	$960.00	$0.00	$960.00	4	
2008	$840.00	$0.00	$840.00	4	
2007	$840.00	$0.00	$840.00	4	
2006	$840.00	$0.00	$840.00	4	
2005	$840.00	$0.00	$840.00	4	
2004	$840.00	$0.00	$840.00	4	

LAND

Map/Parcel: W42D 0017 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	13500	0.3099	$1,350.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
3 - Below Street	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .071 (LESS MIN) LOT 171 REV PLAN WRTN DEV CO 1ST ADD TO WRTN

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06092499
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657
1995-01-01 00:00:00	$4,000.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$250.00	$0.00	$250.00	4	
2019	$200.00	$0.00	$200.00	4	
2018	$180.00	$0.00	$180.00	4	
2017	$180.00	$0.00	$180.00	4	
2016	$180.00	$0.00	$180.00	4	
2015	$180.00	$0.00	$180.00	4	
2014	$180.00	$0.00	$180.00	4	
2013	$180.00	$0.00	$180.00	4	
2012	$180.00	$0.00	$180.00	4	
2011	$180.00	$0.00	$180.00	4	
2010	$180.00	$0.00	$180.00	4	
2009	$180.00	$0.00	$180.00	4	
2008	$180.00	$0.00	$180.00	4	
2007	$180.00	$0.00	$180.00	4	
2006	$180.00	$0.00	$180.00	4	
2005	$180.00	$0.00	$180.00	4	
2004	$180.00	$0.00	$180.00	4	

LAND

Map/Parcel: W43E 0001 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	3092	0.0710	$310.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
3 - Below Street	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .092 AC (LESS MIN) LOT 19 WRTN IMP CO 4TH ADD TO WRTN

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06092408
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$320.00	$0.00	$320.00	4	
2019	$280.00	$0.00	$280.00	4	
2018	$240.00	$0.00	$240.00	4	
2017	$240.00	$0.00	$240.00	4	
2016	$240.00	$0.00	$240.00	4	
2015	$240.00	$0.00	$240.00	4	
2014	$240.00	$0.00	$240.00	4	
2013	$240.00	$0.00	$240.00	4	
2012	$240.00	$0.00	$240.00	4	
2011	$240.00	$0.00	$240.00	4	
2010	$240.00	$0.00	$240.00	4	
2009	$240.00	$0.00	$240.00	4	
2008	$240.00	$0.00	$240.00	4	
2007	$240.00	$0.00	$240.00	4	
2006	$240.00	$0.00	$240.00	4	
2005	$240.00	$0.00	$240.00	4	
2004	$240.00	$0.00	$240.00	4	

LAND

Map/Parcel: W43E 0003 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	4000	0.0918	$400.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
3 - Below Street	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .487 AC (LESS MIN) LOTS 56-61
WRTN IMP CO 4TH ADD TO WRTN

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06103227
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$1,710.00	$0.00	$1,710.00	4	
2019	$1,440.00	$0.00	$1,440.00	4	
2018	$1,260.00	$0.00	$1,260.00	4	
2017	$300.00	$0.00	$300.00	4	
2016	$300.00	$0.00	$300.00	4	
2015	$300.00	$0.00	$300.00	4	
2014	$300.00	$0.00	$300.00	4	
2013	$300.00	$0.00	$300.00	4	
2012	$300.00	$0.00	$300.00	4	
2011	$300.00	$0.00	$300.00	4	
2010	$300.00	$0.00	$300.00	4	
2009	$300.00	$0.00	$300.00	4	
2008	$300.00	$0.00	$300.00	4	
2007	$300.00	$0.00	$300.00	4	
2006	$300.00	$0.00	$300.00	4	
2005	$300.00	$0.00	$300.00	4	
2004	$300.00	$0.00	$300.00	4	

LAND

Map/Parcel: W43E 0009 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	21233	0.4874	$2,120.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .331 AC (LESS MIN) LOTS 62-64
WRTN IMP CO 4TH ADD TO WRTN

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06103192
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$1,140.00	$0.00	$1,140.00	4	
2019	$960.00	$0.00	$960.00	4	
2018	$840.00	$0.00	$840.00	4	
2017	$300.00	$0.00	$300.00	4	
2016	$300.00	$0.00	$300.00	4	
2015	$300.00	$0.00	$300.00	4	
2014	$300.00	$0.00	$300.00	4	
2013	$300.00	$0.00	$300.00	4	
2012	$300.00	$0.00	$300.00	4	
2011	$300.00	$0.00	$300.00	4	
2010	$300.00	$0.00	$300.00	4	
2009	$300.00	$0.00	$300.00	4	
2008	$300.00	$0.00	$300.00	4	
2007	$300.00	$0.00	$300.00	4	
2006	$300.00	$0.00	$300.00	4	
2005	$300.00	$0.00	$300.00	4	
2004	$300.00	$0.00	$300.00	4	

LAND

Map/Parcel: W43E 0012 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	14400	0.3306	$1,440.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .675 AC (LESS MIN) LOTS 3-8
WRTN IMP CO 5TH ADD

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06201749
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657
1985-02-01 00:00:00	$15,000.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$2,360.00	$0.00	$2,360.00	4	
2019	$1,990.00	$0.00	$1,990.00	4	
2018	$1,740.00	$0.00	$1,740.00	4	
2017	$7,920.00	$0.00	$7,920.00	4	
2016	$7,920.00	$0.00	$7,920.00	4	
2015	$7,920.00	$0.00	$7,920.00	4	
2014	$7,920.00	$0.00	$7,920.00	4	
2013	$7,920.00	$0.00	$7,920.00	4	
2012	$7,920.00	$0.00	$7,920.00	4	
2011	$7,920.00	$0.00	$7,920.00	4	
2010	$7,920.00	$0.00	$7,920.00	4	
2009	$7,920.00	$0.00	$7,920.00	4	
2008	$7,140.00	$0.00	$7,140.00	4	
2007	$7,140.00	$0.00	$7,140.00	4	
2006	$7,140.00	$0.00	$7,140.00	4	
2005	$7,140.00	$0.00	$7,140.00	4	
2004	$7,140.00	$0.00	$7,140.00	4	

LAND

Map/Parcel: W43J 0002 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	29400	0.6749	$2,940.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
3 - Below Street	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .110 AC (LESS MIN) LOT 20
WRTN IMP CO 5TH ADD

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06107205
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657
1996-10-01 00:00:00	$6,000.00	236	368

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$410.00	$0.00	$410.00	4	
2019	$340.00	$0.00	$340.00	4	
2018	$300.00	$0.00	$300.00	4	
2017	$300.00	$0.00	$300.00	4	
2016	$300.00	$0.00	$300.00	4	
2015	$300.00	$0.00	$300.00	4	
2014	$300.00	$0.00	$300.00	4	
2013	$300.00	$0.00	$300.00	4	
2012	$300.00	$0.00	$300.00	4	
2011	$300.00	$0.00	$300.00	4	
2010	$300.00	$0.00	$300.00	4	
2009	$300.00	$0.00	$300.00	4	
2008	$300.00	$0.00	$300.00	4	
2007	$300.00	$0.00	$300.00	4	
2006	$300.00	$0.00	$300.00	4	
2005	$300.00	$0.00	$300.00	4	
2004	$300.00	$0.00	$300.00	4	

LAND

Map/Parcel: W43J 0003 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	4800	0.1102	$480.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved 6 - Sidewalk	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	9 - Residential	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .124 AC (LESS MIN) LOT 23 WRTN IMP CO 5TH ADD

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06107429
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$410.00	$0.00	$410.00	4	
2019	$340.00	$0.00	$340.00	4	
2018	$300.00	$0.00	$300.00	4	
2017	$300.00	$0.00	$300.00	4	
2016	$300.00	$0.00	$300.00	4	
2015	$300.00	$0.00	$300.00	4	
2014	$300.00	$0.00	$300.00	4	
2013	$300.00	$0.00	$300.00	4	
2012	$300.00	$0.00	$300.00	4	
2011	$300.00	$0.00	$300.00	4	
2010	$300.00	$0.00	$300.00	4	
2009	$300.00	$0.00	$300.00	4	
2008	$300.00	$0.00	$300.00	4	
2007	$300.00	$0.00	$300.00	4	
2006	$300.00	$0.00	$300.00	4	
2005	$360.00	$0.00	$360.00	4	
2004	$360.00	$0.00	$360.00	4	

LAND

Map/Parcel: W43J 0004 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	5400	0.1240	$540.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved 6 - Sidewalk	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	9 - Residential	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .101 AC (LESS MIN) LOT 5 SOUTH REALTY CO 1ST ADD HOL COVE

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06115651
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$320.00	$0.00	$320.00	4	
2019	$280.00	$0.00	$280.00	4	
2018	$240.00	$0.00	$240.00	4	
2017	$240.00	$0.00	$240.00	4	
2016	$240.00	$0.00	$240.00	4	
2015	$240.00	$0.00	$240.00	4	
2014	$240.00	$0.00	$240.00	4	
2013	$240.00	$0.00	$240.00	4	
2012	$240.00	$0.00	$240.00	4	
2011	$240.00	$0.00	$240.00	4	
2010	$240.00	$0.00	$240.00	4	
2009	$240.00	$0.00	$240.00	4	
2008	$240.00	$0.00	$240.00	4	
2007	$240.00	$0.00	$240.00	4	
2006	$240.00	$0.00	$240.00	4	
2005	$300.00	$0.00	$300.00	4	
2004	$300.00	$0.00	$300.00	4	

LAND

Map/Parcel: W43J 0008 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	4400	0.1010	$440.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	9 - Residential	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .441 AC (LESS MIN) LOTS 6-9
C V L CO 1ST ADD HOL COVE

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06114466
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$15,640.00	$0.00	$15,640.00	4	
2019	$13,160.00	$0.00	$13,160.00	4	
2018	$11,520.00	$0.00	$11,520.00	4	
2017	$2,880.00	$0.00	$2,880.00	4	
2016	$2,880.00	$0.00	$2,880.00	4	
2015	$2,880.00	$0.00	$2,880.00	4	
2014	$2,880.00	$0.00	$2,880.00	4	
2013	$2,880.00	$0.00	$2,880.00	4	
2012	$2,880.00	$0.00	$2,880.00	4	
2011	$2,880.00	$0.00	$2,880.00	4	
2010	$2,880.00	$0.00	$2,880.00	4	
2009	$2,880.00	$0.00	$2,880.00	4	
2008	$2,880.00	$0.00	$2,880.00	4	
2007	$2,880.00	$0.00	$2,880.00	4	
2006	$2,880.00	$0.00	$2,880.00	4	
2005	$1,440.00	$0.00	$1,440.00	4	
2004	$1,440.00	$0.00	$1,440.00	4	

LAND

Map/Parcel: W43J 0016 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	19200	0.4408	$19,200.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved 6 - Sidewalk	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	9 - Residential	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: 5.015 AC (LESS MIN) LOT 2
ARCELORMITTAL PLAN OF LOTS 2

CURRENT OWNER: BUSINESS DEV CORP OF THE NORTHERN PANHANDLE
MAILING ADDRESS: 324A PENCO RD WEIRTON WV 26062
ACCOUNT NUMBER: 06206350
DEED BOOK/PAGE: 848/2672

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2017-02-14 00:00:00	$2,250,000.00	848	2672
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$66,180.00	$1,125,780.00	$1,191,960.00	4	
2019	$66,180.00	$1,147,860.00	$1,214,040.00	4	
2018	$66,180.00	$1,169,940.00	$1,236,120.00	4	

LAND

Map/Parcel: W38S 0023 0002 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	218453	5.0150	$110,330.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
401 - Manufacturing	2 - Major Thorofare		None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: 2.794 AC STEAM PLANT AND CENTRAL STORE (LESS MINERALS)

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06204711
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657
2004-04-28 00:00:00	$913,800.00	268	594
2001-11-01 00:00:00	$30,000,000.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$53,940.00	$250,940.00	$304,880.00	4	
2019	$65,820.00	$190,920.00	$256,740.00	4	
2018	$30,010.00	$194,640.00	$224,650.00	4	
2017	$36,840.00	$204,900.00	$241,740.00	4	
2016	$36,840.00	$195,480.00	$232,320.00	4	
2015	$36,840.00	$201,540.00	$238,380.00	4	
2014	$36,840.00	$195,420.00	$232,260.00	4	
2013	$36,840.00	$192,600.00	$229,440.00	4	
2012	$36,840.00	$195,840.00	$232,680.00	4	
2011	$36,840.00	$204,660.00	$241,500.00	4	
2010	$36,840.00	$210,240.00	$247,080.00	4	
2009	$36,840.00	$215,820.00	$252,660.00	4	
2008	$46,860.00	$467,700.00	$514,560.00	4	
2007	$46,860.00	$475,920.00	$522,780.00	4	
2006	$46,860.00	$533,220.00	$580,080.00	4	
2005	$46,860.00	$496,020.00	$542,880.00	4	
2004	$45,180.00	$503,280.00	$548,460.00	4	

LAND

Map/Parcel: W38S 0023 0001 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	121707	2.7940	$89,900.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
310 - Unsound Commercial Structure	2 - Major Thorofare	8 - Industrial Site	

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: 300.089 AC LOT 1 ARCELORMITTAL PLAN OF LOTS (LESS MINERALS)

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06201601
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$5,793,140.00	$1,195,380.00	$6,988,520.00	4	
2019	$3,960,090.00	$1,924,980.00	$5,885,070.00	4	
2018	$3,222,950.00	$1,926,480.00	$5,149,430.00	4	
2017	$6,366,060.00	$4,091,820.00	$10,457,880.00	4	
2016	$6,366,060.00	$3,282,540.00	$9,648,600.00	4	
2015	$6,366,060.00	$3,613,140.00	$9,979,200.00	4	
2014	$6,366,060.00	$3,051,480.00	$9,417,540.00	4	
2013	$6,366,060.00	$2,571,960.00	$8,938,020.00	4	
2012	$6,366,060.00	$2,585,220.00	$8,951,280.00	4	
2011	$6,366,060.00	$2,592,840.00	$8,958,900.00	4	
2010	$6,366,060.00	$2,594,220.00	$8,960,280.00	4	
2009	$6,366,060.00	$1,227,780.00	$7,593,840.00	4	
2008	$6,134,580.00	$2,812,620.00	$8,947,200.00	4	
2007	$6,134,580.00	$1,979,580.00	$8,114,160.00	4	
2006	$6,134,580.00	$1,020,540.00	$7,155,120.00	4	
2005	$6,137,880.00	$3,449,350.00	$9,587,230.00	4	
2004	$5,541,120.00	$2,694,480.00	$8,235,600.00	4	

LAND

Map/Parcel: W38S 0026 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	13071877	300.0890	$9,655,360.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
310 - Unsound Commercial Structure	2 - Major Thorofare	8 - Industrial Site	

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: 3.428 AC LOTS 119-140 INCL M OF W 4TH ST (LESS MINERALS)

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06102022
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$49,960.00	$0.00	$49,960.00	4	
2019	$42,080.00	$0.00	$42,080.00	4	
2018	$36,820.00	$0.00	$36,820.00	4	
2017	$2,520.00	$0.00	$2,520.00	4	
2016	$2,520.00	$0.00	$2,520.00	4	
2015	$2,520.00	$0.00	$2,520.00	4	
2014	$2,520.00	$0.00	$2,520.00	4	
2013	$2,520.00	$0.00	$2,520.00	4	
2012	$2,520.00	$0.00	$2,520.00	4	
2011	$2,520.00	$0.00	$2,520.00	4	
2010	$2,520.00	$0.00	$2,520.00	4	
2009	$2,520.00	$0.00	$2,520.00	4	
2008	$2,520.00	$0.00	$2,520.00	4	
2007	$2,520.00	$0.00	$2,520.00	4	
2006	$2,520.00	$0.00	$2,520.00	4	
2005	$2,520.00	$0.00	$2,520.00	4	
2004	$2,520.00	$0.00	$2,520.00	4	

LAND

Map/Parcel: W38L 0152 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	149332	3.4280	$110,300.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .498 AC M OF W LOT 90 & PT 89
PS&TP LOTS 254-255 & S PT 256
(LESS MINERALS)

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06102228
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$8,870.00	$0.00	$8,870.00	4	
2019	$7,480.00	$0.00	$7,480.00	4	
2018	$6,540.00	$0.00	$6,540.00	4	
2017	$1,320.00	$0.00	$1,320.00	4	
2016	$1,320.00	$0.00	$1,320.00	4	
2015	$1,320.00	$0.00	$1,320.00	4	
2014	$1,200.00	$0.00	$1,200.00	4	
2013	$1,200.00	$0.00	$1,200.00	4	
2012	$1,200.00	$0.00	$1,200.00	4	
2011	$1,140.00	$0.00	$1,140.00	4	
2010	$1,140.00	$0.00	$1,140.00	4	
2009	$1,140.00	$0.00	$1,140.00	4	
2008	$1,140.00	$0.00	$1,140.00	4	
2007	$1,140.00	$0.00	$1,140.00	4	
2006	$1,140.00	$0.00	$1,140.00	4	
2005	$1,080.00	$0.00	$1,080.00	4	
2004	$1,080.00	$0.00	$1,080.00	4	

LAND

Map/Parcel: W38R 0015 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	21701	0.4982	$10,850.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
300 - Vacant Commercial Land	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: 2.567 AC (LESS MIN) LOT 3
ARCELORMITTAL PLAN OF LOTS 1

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06114732
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$47,790.00	$29,040.00	$76,830.00	4	
2019	$35,660.00	$29,040.00	$64,700.00	4	
2018	$27,570.00	$29,040.00	$56,610.00	4	
2017	$120.00	$0.00	$120.00	4	
2016	$120.00	$0.00	$120.00	4	
2015	$120.00	$0.00	$120.00	4	
2014	$120.00	$0.00	$120.00	4	
2013	$120.00	$0.00	$120.00	4	
2012	$120.00	$0.00	$120.00	4	
2011	$120.00	$0.00	$120.00	4	
2010	$120.00	$0.00	$120.00	4	
2009	$120.00	$0.00	$120.00	4	
2008	$120.00	$0.00	$120.00	4	
2007	$120.00	$0.00	$120.00	4	
2006	$120.00	$0.00	$120.00	4	
2005	$120.00	$0.00	$120.00	4	
2004	$120.00	$0.00	$120.00	4	

LAND

Map/Parcel: W43J 0011 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	111819	2.5670	$82,590.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
401 - Manufacturing	9 - Residential	8 - Industrial Site	

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: 4.748 AC (LESS MIN) LOT 5
ARCELORMITTAL PLAN OF LOTS 1

CURRENT OWNER: MINGO JUNCTION STEEL WORKS LLC
MAILING ADDRESS: 500 SENECA ST STE504 BUFFALO NY 14204
ACCOUNT NUMBER: 06206348
DEED BOOK/PAGE: 848/657

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$91,680.00	$100,730.00	$192,410.00	4	
2019	$71,250.00	$90,780.00	$162,030.00	4	
2018	$50,990.00	$90,780.00	$141,770.00	4	

LAND

Map/Parcel: W38S 0262 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	206823	4.7480	$152,770.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved 6 - Sidewalk	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
401 - Manufacturing	3 - Secondary Artery	8 - Industrial Site	None

PROPERTY RECORD - HANCOCK COUNTY ASSESSOR

View Building Record (Requires Login) View Map Card View Tax Data

TAXING DISTRICT: 06 - WEIRTON

STREET ADDRESS:

LEGAL DESCRIPTION: .43 AC LOT 1 ARCELORMITTAL PLAN OF LOTS 2 (LESS MINERALS)

CURRENT OWNER: BUSINESS DEV CORP OF THE NORTHERN PANHANDLE
MAILING ADDRESS: 324A PENCO RD WEIRTON WV 26062
ACCOUNT NUMBER: 06102601
DEED BOOK/PAGE: 848/2672

SALES HISTORY

SALE DATE	SALE PRICE	BOOK	PAGE
2017-02-14 00:00:00	$2,250,000.00	848	2672
2016-10-25 00:00:00	$23,076,300.00	848	657

ASSESSMENT RECORD

YEAR	LAND	BUILDING	TOTAL	CLASS	HOMESTEAD
2020	$5,700.00	$45,720.00	$51,420.00	4	
2019	$5,700.00	$46,440.00	$52,140.00	4	
2018	$5,700.00	$47,220.00	$52,920.00	4	
2017	$74,040.00	$699,180.00	$773,220.00	4	
2016	$74,040.00	$675,420.00	$749,460.00	4	
2015	$74,040.00	$695,580.00	$769,620.00	4	
2014	$74,040.00	$682,200.00	$756,240.00	4	
2013	$74,040.00	$671,940.00	$745,980.00	4	
2012	$74,040.00	$690,600.00	$764,640.00	4	
2011	$74,040.00	$727,380.00	$801,420.00	4	
2010	$74,040.00	$746,100.00	$820,140.00	4	
2009	$74,040.00	$764,880.00	$838,920.00	4	
2008	$67,320.00	$1,580,580.00	$1,647,900.00	4	
2007	$67,320.00	$1,608,300.00	$1,675,620.00	4	
2006	$67,320.00	$1,801,800.00	$1,869,120.00	4	
2005	$67,320.00	$1,676,100.00	$1,743,420.00	4	
2004	$60,600.00	$1,700,760.00	$1,761,360.00	4	

LAND

Map/Parcel: W38S 0023 0000 0000

FRONTAGE	DEPTH	DEPTH FACTOR	SF	ACRES	LAND VALUE
		1.00	18731	0.4300	$9,460.00

PROPERTY FACTORS

TOPOGRAPHY	UTILITIES	STREET-ROAD	TRAFFIC
1 - Level	1 - All Public	1 - Paved	
LAND USE	**FRONTING**	**LOCATION**	**FENCES**
463 - Steel Mill	2 - Major Thorofare		

ATTACHMENT 5

OWNER INFORMATION

Attachment 5 – Property Owner Information

Owner 1

Mingo Junction Steel Works, LLC

500 Seneca Street, Suite 504

Buffalo, NY 14204

Contact: Mr. Craig Slater – Vice President

Phone: 716-447-7587

Email: cslater@fic-services.com

Owner 2

Business Development Corporation of the Northern Panhandle

324 A Penco Road

Weirton, WV 26062

Contact: Mr. Marvin Six – Assistant Director

Phone: 304-748-5041

Email: msix@bhbdc.com

ATTACHMENT 6

OPERATOR INFORMATION

Attachment 6 – Operator Information

Operator 1

Bidell Gas Compression, Inc.

1400 Main Street

Weirton, WV 260602

Contact: Mr. Tom Welch – Operations Manager

Phone: 304-748-8618

Email: twelch@bidell.com.

Operations – Manufacture gas compression equipment in the former Machine Shop in CAA VI

Operator 2

GoGreen American Recycling, LLC

857 Archer Hill Road

Colliers, WV 26035

Contact: Mr. Scotty Ewusiak

Phone: 304-914-4624

Email: jessica@gogreencmr.com

Operations – Slag processing and shipment in former Ore Yard area in CAA VI

ATTACHMENT 7

RFI WORK PLAN

ArcelorMittal

September 16, 2013

Ms. Donna M. McCartney
U.S. ENVIRONMENTAL PROTECTION AGENCY
Region III, Mail Code 3LC20
1650 Arch Street
Philadelphia, PA 19103-2029

Re: ArcelorMittal Weirton, Inc., Weirton, West Virginia
Docket No. RCRA-3-0033CA
Response to EPA August 27, 2013 Comment Letter

Dear Ms. McCartney:

This letter provides responses to your letter dated August 27, 2013, which provided comments on the following submittals by ArcelorMittal:

- CAA VI/VII RFI Work Plan submitted by ArcelorMittal on June 26, 2013; and
- CAA III Preliminary Investigation Report submitted by ArcelorMittal on June 26, 2013.

For convenience, each of your comments is provided below in italics followed by our response.

CAA VI/VII RFI Work Plan

EPA Comment

Section 2.0, Site Location and Physical Setting, page 4 – The last paragraph of text on this page indicates that these areas are likely to be used for industrial or commercial purposes in the future. Since EPA was notified of the pending sale of the majority of the property comprising the Facility in a March 20, 2013 email message and a letter dated April 24, 2013 from ArcelorMittal USA, we are confident that additional information is or may be available regarding the future use of these parts of the Facility. EPA will expect to see more details and confirmation of the anticipated future use(s) of these CAAs included in future submittals and specifically the Corrective Measures Study ("CMS") report where this information is most important.

ArcelorMittal Response

We will provide an update of the pending sale and more details on anticipated land use in future submittals.

EPA Comment

Please include, as part of the Preliminary Investigation Report for CAAs VI and VII, additional information to clarify whether any portions of these areas may contain habitat that warrants further consideration as part of the RFI process. This seems most relevant for the western (wooded hillside) portions of CAA VII that are currently zoned "Residential".

ArcelorMittal Response

We will perform a habitat assessment and provide the results in the Preliminary Investigation Report.

EPA Comment

Section 3.0, Site History and Operations, pages 5 through 9 - This section of the Work Plan includes discussion of several parts of the Facility that were permanently shut down, demolished, or otherwise decommissioned. Although the Draft Work Plan presents some historical information regarding previous investigation activities or Interim Measures work we found no information regarding the nature of the activities associated with the shutdown of these iron-making and steel-making operations that would be relevant to the RCRA Corrective Action project. Since this information can be helpful to our efforts to characterize any releases that occurred or may have occurred, EPA is requesting additional information. Please include as part of the Preliminary Investigation Report to be prepared for CAAs VI and VII, any additional information available to describe the activities associated with the shutdown of these areas and operations, any findings (regarding releases or potential releases to the environment) from due diligence work completed by ArcelorMittal Weirton Inc. or others at these parts of the Facility, any waste materials found or removed from the furnaces, boilers, machine shop, wastewater treatment plant, or water and/or chemical treatment plant, and whether these features include subsurface piping, sumps or conduits from which releases could occur.

ArcelorMittal Response

We will provide information obtained in connection with demolition or decommissioning activities, to the extent available and relevant to the facility characterization efforts, as part of the Preliminary Investigation Report.

EPA Comment

Section 6.4.1, Soil Characterization, Surface Soil Sampling – The last paragraph on page 21 describes that samples VI-SS-10, VI-SS-11 and VI-SS-18 are being collected for petroleum fuel-related sources and that these samples will be analyzed for BTEX and PAHs only. Please note that the previous work completed in 2007 as part of the Yard Office Interim Measure ("IM") included sampling and analysis for BTEX, PAHs and PCBs. Since the Yard Office IM work was also done to address petroleum fuel-related sources it is not clear why a consistent approach is not being proposed for similar source areas in CAAs VI and VII. Unless additional information and supporting rationale can be provided for the analytical approach proposed in the Draft Work

Plan, EPA requests that a consistent approach (including PCBs) be used to characterize other petroleum fuel-related sources in CAAs VI and VII.

Please note that we found similar language in the third paragraph on page 27 (Section 6.4.2, Subsurface Soil Sampling) where samples from soil borings VI-SB-101, VI-SB-102, VII-SB-101 and VII-SB-109 to 117 are discussed.

ArcelorMittal Response

Samples collected during the Yard Office IM were analyzed for PCBs in addition to BTEX and PAHs only because locomotives that were being fueled in that area used engine/gear oils that could have contained PCBs. In contrast, the areas where the above referenced samples are being collected were fueling stations for trucks and other vehicles with no expectation that PCB-containing fuels or oils were used. Therefore, it is appropriate to analyze only for BTEX and PAHs in these areas as originally proposed.

EPA Comment

Section 6.5 Groundwater Characterization, page 32 – The second paragraph of text includes discussion regarding existing monitoring wells that are located further downgradient from CAA VII. Please note that based on our recent review of the February 2013 Annual Groundwater Monitoring Report for the Facility, it appears that two of these wells are not currently usable or accessible. Please clarify and revise to include some indication of the current status of these wells and any plans for replacing or repairing the wells reported as "not sampled" in the February 2013 Annual Report.

ArcelorMittal Response

As described in our response to your August 23, 2013 comment letter on the Annual Groundwater Monitoring Report, we do not plan to replace the two damaged monitoring wells in CAA I. The two remaining monitoring wells in that area (CA-MW-03A and CA-MW-04A) are sufficient to monitor groundwater quality downgradient of CAA VII as part of the ongoing Environmental Indicators program. In addition, as proposed in the CAA VI/VII Work Plan, we will install two additional wells (VII-MW-02A and VII-MW-03A) near the downgradient boundary of CAA VII, and will sample those wells and existing well CA-MW-01A (which is also located immediately downgradient of CAA VII) as part of the CAA VII RFI. As also indicated in our response to your August 23 comment letter, we will include VII-MW-03A in the EI groundwater monitoring program as requested in your September 10, 2013 email to Dave Olson of CEC.

EPA Comment

Section 6.5.1, Monitoring Wells, page 32 – Although the scope of work described in the Draft Work Plan appears to be generally acceptable, no groundwater wells were proposed for CAA VI at all. EPA requests that monitoring wells be installed and sampled at two of the four subsurface borings proposed in CAA VI; VI-SB-101 and VI-SB-104. Please revise to include this information.

ArcelorMittal Response

Monitoring wells will be installed in soil borings VI-SB-101 and VI-SB-104 as requested. The RFI Work Plan has been revised to reflect this change and to include these wells in the groundwater sampling program. The revised sections of the Work Plan are attached and should replace the corresponding pages in the original version.

CAA III Preliminary Investigation Report

EPA Comment

Based on the content of the transmittal letter that accompanied this submittal EPA did not have sufficient time and resources to complete a thorough review of the Preliminary Investigation Report for CAA III prior to commencement of the additional fieldwork. However we did review the Conclusions and Recommendations included in Section 8.3 of the Report. Based on this review we are in agreement with the additional activities described in the two bullet items on page 8-8. However we are not in agreement with the deviation from the EPA approved RFI Work Plan that is discussed on page 8-9. EPA recognizes that it may not be feasible to complete a soil boring through the brick backfill that now exists in the former emergency lagoon however the target depth (10 feet) is easily within reach of a moderately-sized backhoe. EPA requests that a grab sample be collected from the base of the lagoon using a backhoe or excavator as an alternative to the soil boring that could not be completed. Please confirm whether you will agree to include and complete this task prior to preparation of a RFI Report for CAA III as part of your response to this letter.

ArcelorMittal Response

We will collect a sample from the base of the lagoon using a backhoe and include the analytical results in the RFI Report.

EPA Comment

For future reference, EPA requests that you contact us to discuss any plans or interest in deviating from EPA approved work plans or other documents generated for the RCRA Corrective Action project, prior to the submittal of documents. We would prefer to work together with ArcelorMittal Weirton Inc., CEC and Tecumseh Redevelopment Inc. to determine the best course of action for the site investigation and cleanup work. If you have concerns regarding this request, please contact me at your convenience.

ArcelorMittal Response

We apologize for our oversight in not contacting you to discuss the deviation from the approved work plan prior to submitting our report. In the future, we will contact you in advance to discuss any requested deviations from work plans or other documents generated for the RCRA Corrective Action project.

We trust this information satisfies the requirements of the Administrative Order and meets your needs at this time. Should you have any questions or require additional information, please do not hesitate to contact me at 330-659-9165.

Sincerely,

ArcelorMittal USA

Keith A. Nagel
General Manager, Environmental Affairs & Real Estate

Enclosures

cc: Dave Olson, CEC
Catherine Guynn, WVDEP
Matt Caprarese, ArcelorMittal

I certify that the information contained in or accompanying these comment responses is true, accurate, and complete.

As to information contained in these comment responses for which I cannot personally verify its accuracy, I certify under penalty of law that these comment responses and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), 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 fines and imprisonment for knowing violations.

Signature: _____

Name: **Keith A. Nagel**

Title: **General Manager, Environmental Affairs & Real Estate**

RCRA FACILITY INVESTIGATION WORK PLAN
CORRECTIVE ACTION AREA VI IRON-MAKING
AND
CORRECTIVE ACTION AREA VII STEEL-MAKING

RCRA CORRECTIVE ACTION
ARCELORMITTAL WEIRTON INC. FACILITY
WEIRTON, WEST VIRGINIA

JUNE 2013
REVISED SEPTEMBER 2013

Prepared For:

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RFI WORK PLAN
CAAs VI AND VII
ARCELORMITTAL WEIRTON INC. FACILITY

1.0 INTRODUCTION

This document presents a work plan for the RCRA Facility Investigation (RFI) at Corrective Action Area (CAA) VI Former Iron-Making and CAA VII Former Steel-Making [which includes the former Detinning Plant, Hot Mill Wastewater Treatment Plant (WWTP), Veolia (formerly P.O.R.I.) Oil/Acid Treatment Plant, and Hydrochloric Acid Regeneration Plant] Areas at the ArcelorMittal Weirton Inc. (ArcelorMittal) Facility located in Weirton, West Virginia. This work plan was prepared by Civil & Environmental Consultants, Inc. (CEC) on behalf of ArcelorMittal and is intended to supplement the Facility-wide Work Plan[1] that was approved by the U.S. Environmental Protection Agency (U.S. EPA) by letter dated July 20, 1999. Related project planning information is contained in the Facility-wide Work Plan and incorporated in this work plan by reference, as follows:

- Project Management Plan - Section 3.1;
- Data Collection Quality Assurance Project Plan (QAPP) - Section 3.2 and Attachments A and B;
- Data Management Plan - Section 3.3;
- Community Relations Plan - Section 3.4; and
- Health and Safety Plan - Section 3.5 and Attachment C.

It is noted that the boundaries for CAA VI and VII included in this work plan were revised from the boundaries contained in the original Facility-wide Work Plan consistent with the map provided to U.S. EPA via letter dated April 24, 2013.

[1] RCRA Facility Investigation Work Plan, RCRA Corrective Action Program, Weirton Steel Facility, Weirton, West Virginia, dated December 1996 and June 1999.

The following sections present a general description of the environmental setting and former operations, Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) that will be the subject of the site investigation, a discussion of previous site investigation and clean-up activities that have been performed, and a plan and schedule for performing the site investigation.

2.0 SITE LOCATION AND PHYSICAL SETTING

The Facility is situated in a relatively flat, wide valley bottom that was a former channel of the Ohio River (Figure 1). CAAs VI and VII occupy approximately 288 acres within the central portion of the Facility. The land surface across CAAs VI and VII is relatively flat-lying with land surface elevations ranging from approximately 740 to 760 feet above mean sea level (famsl). The land surface rises to approximately 780 to 800 famsl along the eastern boundary towards Weir Avenue in CAA VII and Main Street in CAA VI. The detailed topography of the area is shown on Figures 4 and 5. Surface drainage is captured in a series of drop inlets and conveyed via underground sewers to the A-Outfall or B-Outfall wastewater treatment facilities where it is discharged to the Ohio River.

The geology of the former river valley consists essentially of four components: 1) relatively flat-lying bedrock strata of Pennsylvanian Age which comprise upland areas and underlie alluvial sediments in the valley bottom; 2) sand and gravel deposits (glacial outwash) that directly overlie bedrock within the valley and comprise the primary groundwater-bearing zone at the Facility; 3) fine-grained alluvial sediments (primarily silt and clay with some sand) that directly overlie and interfinger with the outwash deposits; and 4) a wedge of colluvial deposits along the bottom of the valley slopes resulting from the mass downslope movement of weathered bedrock material (clay, silt, and sand). Prior to site development in 1909, the upper surface of the alluvial and colluvial deposits formed the ground surface within the valley. As site development has progressed, slag, excavated soil/alluvium, and other fill materials have been placed across the Facility for grading and site development purposes. The pre-development ground surface contours are shown on Figure 2. Review of Figure 2 shows that a drainage divide (topographic high) existed beneath the northern portion of CAA VII, with drainage north of the divide to the north/northwest and drainage south of the divide to the south/southeast.

In localized areas, groundwater exists at the base of the fill materials perched on top of the original ground surface (fine-grained alluvial deposits). In general, however, the groundwater table lies deeper within the alluvial deposits. Figure 3 presents a groundwater table contour map based on available subsurface information. As shown on Figure 3, a groundwater divide (high water table) exists beneath CAA VII and generally coincides with the pre-development

ground surface drainage divide discussed above. North of the groundwater divide, shallow groundwater flow appears to be to the north/northwest, with discharge to the Ohio River near the Tin Mill and Mainland Coke Plant Areas of the Facility. South of the groundwater divide, groundwater flow appears to be to the south/southwest towards Harmon Creek and the Ohio River at the southern limit of the Facility.

Potable water is obtained from the Facility's water filtration plant located in CAA II. The filtration plant obtains water from an intake located in the Ohio River. Sewage from the Facility is directed to the City of Weirton Wastewater treatment Plant.

The land that comprises CAAs VI and VII has been used for industrial purposes for nearly 100 years and will likely be used for industrial/commercial purposes in the future. CAA VI is zoned as "Planned Development District" (commercial/industrial and restricted residential use) by the City of Weirton. The central portion of CAA VII is zoned "Heavy Industrial" while the eastern (along Weir Avenue) and western (wooded hillside) portions are zoned "Residential".

3.0 SITE HISTORY AND OPERATIONS

Steel processing operations began in 1909 and the Facility continuously expanded after that time.

3.1 CAA VI – Former Iron-Making Area

The primary activities in CAA VI have included iron-making and related support operations, power and steam generation, the central Facility machine shop, and trucking (fueling and maintenance) operations. Each of these is described in more detail below.

Blast Furnaces

Historically, four blast furnaces were used to produce molten iron for steelmaking. All four have been permanently shut down. The blast furnaces combined a variable mixture of iron ore, iron pellets, sinter, scrap and fluxing agents with coke, fuel oil, pitch, and oxygen-enriched heated air to produce iron. Iron ore was shipped to the site by rail and stored in two designated areas near the blast furnaces.

Process gases from the blast furnaces were washed in a gas cleaning system and then used in plant for process heat and steam generation purposes. Furnace cooling waters were discharged to the Ohio River via the A Outfall treatment facilities (Outlet 002).

Sinter Plant

The Sinter Plant was demolished during 2006 and 2007. In the past, the Sinter Plant used a process to agglomerate iron ore fines and steel mill iron oxide byproducts into a suitable raw material for the production of iron in a blast furnace. The first step in the production of sinter involves the mixing of ore fines, thickener sludge, iron scale, and other iron-bearing materials with coke breeze and limestone to form a mass which can be ignited to produce sinter. Coke breeze is added to provide the required fuel for downdraft combustion in the sintering process, while limestone provides the necessary flux for the sinter when it is subsequently processed in

the blast furnace. These materials are blended into a mixture which will result in rapid and uniform sintering. The final sintered material is subsequently charged into the blast furnace.

Steam and Power Generation

There is a large steam and power generation complex within the Facility. The complex includes five boilers which are fueled with fuel oil and natural gas. Currently the ArcelorMittal Weirton Facility is only using the #3, #4, and #5 boilers. There are also two water treatment systems dedicated to producing high quality boiler feed water for these units. Steam from these units is used in the plant for process applications.

Steam was also historically produced at the Foster Wheeler plant located across Main Street from the Blast Furnaces. This plant has been shut down and is not scheduled to be restarted.

Company Machine Shop

The primary machine shop for the Facility is located along Main Street next to the Foster Wheeler facility. Operations included the manufacturing of components used in the steel-making process at the Facility.

Trucking Department

Fueling and maintenance of Facility trucks was performed at the Trucking Department located next to the Central Machine Shop.

3.2 CAA VII – Former Steel-Making Area

The primary activities in CAA VII included steel making and related support operations. With the recent CAA reconfiguration, CAA VII now also includes the former Detinning Plant, Hot Mill Wastewater Treatment Plant, the Veolia (formerly P.O.R.I.) Acid/Oil Treatment Plant, and the Hydrochloric Acid Regeneration Plant. Each of these is discussed in more detail below.

Basic Oxygen Furnaces

Historically, two Basic Oxygen Furnaces were used to produce molten steel from molten iron, scrap metal, and other additives. Both furnaces have been permanently shut down. After being transferred to a 275-ton charging ladle, a 400-ton charging crane transported the molten iron to the steel-making vessel. Scrap metal was also added to the vessel by a 400-ton crane at the rate of two boxes per charge. Upon completion of the steel-making cycle, steel was tapped into a ladle for further processing at the Continuous Caster.

Continuous Caster

The Continuous Caster, which has also been shut down, was located at the north end of the Basic Oxygen Process (BOP) building. The casting machine received molten steel which had been vacuum degassed. As the molten steel passed through the water-cooled, copper lined molds in the caster, it solidified and emerged as a continuous steel slab which was then cut to the desired length.

Detinning Plant

The Detinning Plant, which was shut down in 1996, reclaimed tin from tin-bearing sludges generated at the Tin Mill. Utilizing a chemical and physical process to separate tin from iron compounds, the tin was recovered as tin hydroxide, heated to tin oxide, and eventually tin metal. Iron was removed as “Prussian Blue” and landfilled as a hazardous waste. Wastewaters from the separation process were discharged to the C&E Outfall Wastewater Treatment Plant. The RCRA Regulated units (EPA ID Number WVD 000 068 908) were removed from the facility and a closure report was submitted to the West Virginia Department of Environmental Protection (WVDEP) in September 2000.

Hot Strip Mill Wastewater Treatment Plant

The Hot Strip Mill Wastewater Treatment Plant was permanently shut down in 2007. This plant received and treated water from the Hot Strip Mill. Water was pumped from the Hot Strip Mill to four concrete settling basins, where primary settling and oil skimming operations occurred. Each basin has a capacity of 225,000 gallons and was equipped with oil skimmers. The skimmed oil from each basin flowed to a 6,000-gallon storage tank, where a vacuum truck periodically picked up and transported the oil to the Veolia plant for reclamation. The settled solids from the basins were periodically removed with a clam bucket and loaded into sealed bed dump trucks or sealed roll-off containers for disposal in a permitted nonhazardous waste landfill.

Water from the settling basins flowed by gravity to the gravity filters which were composed of a media of sand and gravel. Filtered water flowed to a clear well from where a portion of it was recycled to the plant and the remainder discharged to Harmon Creek.

Veolia Water North America Chemical Treatment Plant

The Veolia (formerly P.O.R.I.) Chemical Treatment Plant was permanently shut down in December 2011. It was used to neutralize acidic pickle rinse and scrubber water. Alkaline wastes generated on-site at the Facility as well as off-site were used, together with hydrated lime, to neutralize the acidic wastewaters. The hydroxide containing waste was then agglomerated with polymer and settled in a clarifier. The solids underflow were filtered in a plate and frame filter press to yield solid iron hydroxide cake that was disposed off-site in a permitted solid waste landfill. The clear water from the clarifiers was discharged via the clear well to the C&E-Outfall sewer system.

Veolia Water North America Oil Treatment Plant

The Veolia (formerly P.O.R.I.) Oil Treatment Plant was also permanently shut down in December 2011. It functioned as a used oil processing plant which reclaimed used oils from Facility operations. The reclaimed oil which was produced was used in other Facility operations as a fuel. Used oils that were recovered at Veolia came mainly from the cold Rolling Mills which

used an oil-water emulsion in the process. Other sources of used oils were the wastewater treatment systems from which floating oils were removed daily and with a minor amount of used oils coming from miscellaneous in-plant sources.

Oils were removed from the rolling oil emulsion by breaking the emulsion in cookers and floating off the oil in a dissolved air flotation unit. Miscellaneous used oils also received an acid treatment to remove iron materials. After the oil was removed from the other wastes, it was filtered.

Hydrochloric Acid Regeneration Plant

The Hydrochloric Acid Regeneration Plant (HCL Plant) was permanently shut down in August 2009. It processed spent acid, primarily from the pickling lines in the Strip Mill. The feed entered the reactor and was heated to approximately 1600°F in a fluidizing bed reactor by natural gas burners, so that the water and free acid evaporated. The ferrous chloride reacted with oxygen to produce iron oxide and hydrochloric acid gas. The steam, hydrochloric acid gas, and the burner exhaust gases left the reactor at about 1600°F and the iron inside was left behind.

The very hot gases leaving the reactor had to be cooled down so that the hydrochloric acid gas could be dissolved in water. Cooling was achieved by passing the gas back through a venturi scrubber and the evaporator. Most of the heat was used up evaporating the feed solution. Then the cooled gas then went through the absorber where the hydrochloric acid was dissolved in water. This recovered acid was then recycled back to the Picklers for re-use.

Since August 2009, spent pickle liquor has been sold and shipped offsite for beneficial reuse as a water treatment chemical.

4.0 SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

Fifteen SWMUs were identified in CAA VI during the 1988 RCRA Facility Assessment (RFA) and only one was noted as having potential for a release and recommended that assessment be performed. One additional SWMU was identified by WSC in CAA VI during the preparation for the Facility-wide RFI Work Plan. One hundred sixteen SWMUs were identified in CAA VII during the 1988 RFA and only six were identified as having potential for a release. Eleven additional SWMUs were identified by WSC in CAA VII during the preparation for the Facility-wide RFI Work Plan.

CEC visited each SWMU location in 2004 as part of the "Human Exposures Under Control" portion of the RCRA Environmental Indicators program and again in 2013 as part of development of this work plan.

The locations of all SWMUs identified in the RFA Report (designated with an S- prefix followed by the RFA designation) and SWMUs identified by WSC (designated with a W- prefix followed by a sequential numbering system) are shown on Figures 4 through 11. A summary of SWMUs, including observations made during the 1988 RFA and 2004/2013 visits performed by CEC, is presented in Table 1.

Since the time the original RFI Work Plan was developed, ArcelorMittal has identified several other areas of concern in CAAs VI and VII that will be addressed under this RFI. These areas are shown of Figures 4 through 11 and include:

- The Blast Furnace Oil House (CAA VI) where drums of used oil and other waste materials were stored prior to being transferred to the Veolia Oil Recycling Plant or shipped off-site for disposal;

- Two 10,000-gallon diesel above ground storage tanks (and diesel fueling station) and one 10,000-gallon gasoline above ground storage tank(and gasoline fueling station) located at the former Trucking Department (CAA VI);

- An in-ground concrete tank located at the north end the Central Machine Shop (CAA VI) that was used to collect spills and floor cleaning rinse waters inside the building;

- A 10,000-gallon diesel above ground storage tank and fueling station east of the BOP building (CAA VII);

- A drum storage pad and building on the south side of the BOP building (CAA VII) where used oil and other waste materials were stored prior to being transferred to the Veolia Oil Recycling Plant or shipped off-site for disposal; and

- Stained soil in drum/material storage areas around the south end of the Hydrochloric Acid Regeneration Plant (CAA VII).

Constituents of potential concern related to the SWMUs and AOCs described above include:

- Volatile organic compounds (VOCs), primarily monocyclic aromatic hydrocarbons and to a lesser extent, halogenated aliphatics;
- Semi-volatile organic compounds (SVOCs), primarily phenols and polycyclic aromatic hydrocarbons (PAHs);
- Polychlorinated biphenyls (PCBs);
- Metals; and
- Cyanide.

5.0 PREVIOUS INVESTIGATION AND REMEDIATION ACTIVITIES

Several investigation and cleanup activities have been performed since the Facility-wide RFI Work Plan was approved in 1999. A summary of these activities is provided below.

5.1 YARD OFFICE INTERIM MEASURE (SWMU W-700)

Soil impacted by the release of diesel fuel around the former Yard Office locomotive fueling station (CAA VII) was excavated and disposed off-site between May and July 2007. The excavation ranged in depth from approximately 2 to 4.5 feet and covered approximately 15,000 square feet (see Figure 5). Thirty-seven soil samples were collected from the base and sidewalls of the excavation in July 2007 and were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), polynuclear aromatic hydrocarbons (PAHs), and PCBs. A report documenting this Interim Measure was submitted to U.S. EPA on October 3, 2007. Excerpts from the report, including the text sections, a map showing sample locations, and a table summarizing the laboratory analytical results in relation to U.S. EPA Regional Screening Levels (RSLs), is contained in Appendix A. The report concluded that additional sampling should be performed to delineate the extent of soil contamination (exceedences of screening criteria occurred in several sidewall samples but further excavation was not feasible due to the presence of rail lines and other site features) and to determine whether impacts to groundwater have occurred. Accordingly, additional soil and groundwater sampling has been proposed in this work plan. The original sidewall/bottom sample results will be incorporated into the RFI Report along with the analytical results of samples proposed in this work plan.

5.2 DETINNING PLANT INTERIM MEASURE (SWMUS W-1000, W-1002, AND W-1007)

Three Interim Measures were performed as part of the RCRA closure of the Detinning Plant between 1998 and 2000 (CAA VII). The regulated units located inside the Detinning Plant building (tanks, filter press, etc.) were decommissioned and removed from the site (SWMU W-1002). Contaminated soil from two impacted areas was also excavated and disposed offsite: an area of Prussian Blue-stained soil associated with the sludge transfer station (SWMU

W-1000) and an area of oil-stained soil associated with an air compressor condensate drip (SWMU W-1007).

The excavation at SWMU W-1000 ranged in depth from approximately 4 to 7 feet and covered approximately 2,500 square feet (see Figure 5). Two soil samples were collected from the base of the excavation and one from the east sidewall. The samples were analyzed for total cyanide and Target Analyte List (TAL) metals.

The excavation at SWMU W-1007 was approximately 2 feet deep and covered approximately 225 square feet (see Figure 5). Two soil samples were collected from the base of the excavation and analyzed for TCL VOCs and SVOCs and TAL metals.

The excavation and sampling activities were documented in the RCRA Closure report that was submitted to WVDEP on September 18, 2000. Based on those sampling results and documentation for decommissioning the regulated units, the closure was approved by WVDEP. The laboratory analytical results for the confirmatory soil samples are contained in Appendix A.

5.3 HOT MILL WASTEWATER TREATMENT PLANT SOIL EXCAVATION

As outlined in the Facility-wide RFI Work Plan, soil impacted by the handling/storage of sludge removed from the Hot Mill Wastewater Treatment Plant settling basins (SWMUs S-E1 through S-E6) was excavated and disposed off-site. However the limits of excavation were not documented and no confirmatory soil samples were taken. Surface and subsurface soil samples are proposed for this area in this work plan.

5.4 BASIC OXYGEN PROCESS BAGHOUSE SOIL EXCAVATION

Soil impacted by releases from the BOP baghouse (located along the east side of the BOP building) was excavated in 2005 and disposed off-site. The excavation was approximately 6 to 12 inches deep and covered approximately 6,000 square feet (see Figure 5). Confirmatory samples were not collected following soil removal. Surface soil samples (base of the original excavation) are proposed for this area in this work plan.

5.5 GROUNDWATER MONITORING RESULTS FROM ENVIRONMENTAL INDICATORS PROGRAM AND RFIs IN ADJACENT CAAs

Groundwater monitoring wells MA-MW-01A/MA-MW-01D and MA-MW-07A/MA-MW-07D, which serve as upgradient wells in CAA II, are located immediately downgradient of CAA VI. Similarly, groundwater monitoring well CA-MW-01A, which serves as an upgradient well in CAA I, is located immediately downgradient of CAA VII. These wells were installed and monitored as part of the CAAs I and II RFIs. Groundwater monitoring wells SC-MW-01A/SC-MW-01D, SC-MW-02A/SC-MW-02D, and SC-MW-03A/SC-MW-03D are located within CAA VII, along the downgradient perimeter. These wells were installed as part of the Facility-wide Environmental Indicators (EI) Program and are monitored annually. Analytical data for these wells are provided on Table B-1 in Appendix B. These results were previously reported to U.S. EPA as part of the CAA I and II RFIs and annual EI Reports. The locations of existing monitoring wells are shown of Figures 4 and 5.

As discussed in Section 6.5, four additional groundwater monitoring wells are proposed to supplement this existing monitoring well network.

6.0 PROPOSED INVESTIGATION

The proposed investigation of CAAs VI and VII includes:

- Collection of 66 surface soil samples for laboratory analysis;
- Completion of 25 soil borings, with collection of subsurface soil samples for laboratory analysis;
- Installation of six groundwater monitoring wells to supplement the existing monitoring well network;
- Three rounds of groundwater sampling and analysis;
- Water level measurements at each well during each sampling event to evaluate groundwater elevations and flow directions; and
- Slug testing to determine aquifer hydraulic conductivity.

Specific aspects of the site investigation are discussed in the remainder of this section.

6.1 SAMPLING PROGRAM INITIATION AND PREPARATION

Prior to initiating soil and groundwater sampling, the Project Manager will notify the appropriate personnel and the analytical laboratory of the anticipated sampling schedule to ensure that samples are properly collected and analyzed within scheduled sampling periods and holding times.

A Pre-Field Checklist for Sampling Activities will be completed prior to each sampling event to aid in the efficient preparation and coordination of field activities. The Project Hydrogeologist will be responsible for ensuring that needed items are identified on the checklist and obtained prior to initiation of field activities.

Prior to the initiation of field activities, the following tasks will be completed:

- The necessary sample container sets with appropriate sample preservatives will be obtained from the laboratory;

- The appropriate number of trip blanks, equipment blanks, sample duplicate, and matrix spike/matrix spike duplicate sample containers will be identified and prepared/obtained in the same manner as the sample containers;

- Sample labels will be prepared for each of the sample and QA/QC sample containers;

- A field sample preservation kit will be prepared and stocked, as necessary, to ensure that the appropriate preservatives are available in the event that additional preservative must be added to the sample containers in the field; and

- All non-dedicated sampling equipment will be decontaminated in the laboratory or office prior to shipment to the field.

6.2 SAMPLE LABELS AND IDENTIFICATION

Sample containers will be labeled with the site name, project name, sample identification number, analyses required, sampler's initials, date, and time. Samples will be identified in accordance with the protocol in Section 5.1 of the QAPP. Samples will be labeled in accordance with the labeling procedure provided in Section 6.1 of Standard Operating Procedure (SOP) No. 016 in Appendix FSAP-1 of the Field Sampling and Analysis Plan (FSAP).

6.3 FIELD EQUIPMENT DECONTAMINATION

Sampling equipment will be pre-cleaned prior to transport to the field. However, in some cases, field decontamination of selected sampling equipment may be necessary if equipment is reused in the field before returning to the office or laboratory for decontamination. Accordingly, the

following decontamination procedures will be followed when equipment is decontaminated in the laboratory/office and in the field, respectively:

- Laboratory/Office Decontamination Procedures - Field Sampling Equipment:
  - Wash and brush equipment with a mild solution of laboratory-grade phosphate-free detergent and water to remove particulate matter and surface films;
  - Rinse thoroughly with tap water;
  - Rinse with a 10 percent solution of laboratory-grade nitric acid (Note: stainless steel sampling equipment should be rinsed with 10 percent hydrochloric acid not nitric acid);
  - Rinse thoroughly with tap water;
  - Rinse or wipe thoroughly with isopropanol, only when organic contamination is suspected;
  - Rinse thoroughly with organic/analyte-free water;
  - Wrap equipment in aluminum foil and wrap in clean plastic sheeting until needed. Large equipment may be wrapped in clean plastic sheeting without aluminum foil; and
  - Document the decontamination event in a field or laboratory logbook.

- Field Decontamination Procedures - Field Sampling Equipment:
  - Clean with tap water and laboratory-grade phosphate-free detergent using a brush, if necessary, to remove particulate matter and surface films;
  - Rinse thoroughly with tap water;
  - Rinse thoroughly with analyte-free water;
  - Rinse or wipe thoroughly with isopropanol, only when organic contamination is suspected;
  - Rinse thoroughly with organic/analyte-free water;
  - If organic/analyte-free water is not available, equipment should be allowed to completely dry after the isopropanol rinse. Do not apply a final water rinse;
  - Cover with clean plastic sheeting until needed;

- Equipment stored overnight should be wrapped in aluminum foil and covered with clean, unused plastic; and
- Document the decontamination event in a field logbook.

- Well Sounders or Tapes Used to Measure Groundwater Levels:
  - Wash the well sounder and tape with detergent and tap water using a manually pressurized sprayer such as a two gallon garden sprayer or equivalent equipment. Washing with detergent is necessary when organic films or phases are present on the tape or when the tape is covered with sediment. Otherwise proceed with the next step;
  - Rinse with tap water;
  - Rinse with organic-free deionized water. Note: Organic-free deionized water may be used in place of tap water if desired. A garden sprayer may be used to rinse the equipment; and
  - If the equipment will not be used immediately, place the equipment in a polyethylene bag or wrap in polyethylene sheeting to prevent contamination during storage or transit.

- pH, Specific Conductivity, Dissolved Oxygen, and Temperature Probes:
  - If necessary, wipe clean to remove any sediment; and
  - Rinse the probes with organic-free deionized water before and after each use.

6.4 SOIL CHARACTERIZATION

6.4.1 Surface Soil Sampling

Surface soil samples will be collected in CAA VI as follows (refer to Figure 4 for sample locations):

- Three samples (VI-SS-01 through VI-SS-03) near the Blast Furnace Oil House;

- Two samples (VI-SS-04 and VI-SS-05) on the roadway leading to the Boiler House Scrubber Water Sludge Holding Bin (SWMU S-H8) where sludge was observed during the 1988 RFA;

- Four samples (VI-SS-06 through VI-SS-09) near the oil/tar pitch tanks and pump station where tar was identified on the ground surface (SWMU W-601); and

- Three samples (VI-SS-10 through VI-SS-12) near the former diesel and gasoline fueling stations at the former Trucking Department.

Surface soil samples will be collected in CAA VII as follows (refer to Figures 5 through 11 for sample locations):

- Six samples at SWMU W-701: three (VII-SS-01 through VI-SS-03) near the 400,000-gallon fuel oil storage tank; two (VII-SS-04 and VI-SS-05) near the heat exchanger used to heat the fuel oil from the 400,000-gallon tank; and one (VII-SS-06) beneath the former elevated tar storage tank. Sample locations are shown on Figure 6;

- Four samples at SWMU W-800: three (VII-SS-07 through VII-SS-09) along the west side of the Continuous Caster Wastewater Sedimentation Basins and one (VII-SS-10) between the waste oil tanks located at the south end of the basins. Sample locations are shown on Figure 7;

- Three samples (VII-SS-11 through VII-SS-13) in the area along the east side of the BOP where baghouse dust that had accumulated on the ground surface was removed to a depth of 6 to 12 inches. Sample locations are shown on Figure 7;

- Four samples near the BOP Scrubber Wastewater Treatment System: three (VII-SS-14 through VII-SS-16) near the vacuum filters (SWMU S-A5 and S-A6) where sludges were collected in a steel box and spilled onto the ground surface and one (VII-SS-17) in the only remaining unpaved area adjacent to the thickeners (SWMUs S-A1 and S-A2). Sample locations are shown on Figure 8;

- One sample (VII-SS-18) near the 10,000 gallon diesel tank and fueling station located east of the BOP (refer to Figure 5);

- Three samples (VII-SS-19 through VII-SS-21) around the former drum storage pad/building at the south end of the BOP (refer to Figure 5);

- Three samples (VII-SS-22 through VII-SS-24) in the area where white staining was observed on the ground along the west side of the former Detinning Plant (SWMU W-1001). Sample locations are shown on Figure 9;

- Three samples (VII-SS-25 through VII-SS-27) located in the area south of the Detinning Plant where Prussian Blue sludge has been handled in the past. Sample locations are shown on Figure 9;

- Three samples (VII-SS-28 through VII-SS-30) at the north end of the Hot Mill Wastewater Treatment Plant where sludges removed from the settling basins were historically stored/handled (SWMUs S-E5 and S-E6) and one sample (VII-SS-31) located in front of the truck entry door at the south end of the treatment plant. Sample locations are shown on Figure 10;

- Three samples (VII-SS-32 through VII-SS-34) located west of the Veolia Oil Recycling Plant where oil escaped from the tank farm secondary containment area and spread across the ground surface (oil and contaminated soil was cleaned up but no confirmatory soil samples were collected) and two samples (VII-SS-35 and VII-SS-36) beneath the concrete floor of the secondary containment area. Sample locations are shown on Figure 11;

- Five samples (VII-SS-37 through VII-SS-41) in the former drum storage area (SWMU-1008) east of the Veolia Oil recycling Plant. Sample locations are shown on Figure 11;

- Four samples (VII-SS-42 through VII-SS-45) from the area west of the Veolia Plant Flotation Skimmers where sludge was observed on the ground surface during the 1988 RFA (SWMUs S-G5/G6 and W-1009). Sample locations are shown on Figure 11;

- One sample (VII-SS-46) from beneath the concrete floor of the Veolia Plant were oil and other materials were observed during the RFA (refer to Figure 11);

- Three samples (VII-SS-47 through VII-SS-49) where stained soil was observed beneath the old Pickle Liquor tanks in the Hydrochloric Acid Regeneration Plant area (refer to Figure 11);

- One sample (VII-SS-50) near the H.A.R.P. receiving sump (SWMU S-K1) where stained soils were observed (refer to Figure 11); and

- Two samples (VII-SS-51 and VII-SS-52) located along the west side of the H.A.R.P. building where soil staining from iron oxide materials that had escaped from inside the building and two samples (VII-SS-53 and VII-SS-54) on the southeastern side of the building where soil staining was observed at a former drum storage area. Sample locations are shown on Figure 11.

With the exception of samples specified below, surface soil samples will be collected and analyzed for the following parameters:

- TCL VOCs via Method 8260B;
- TCL SVOCs via Method 8270C;
- PCBs (all Aroclor mixtures) via Method 8082A;
- TAL metals via Methods 6020 and 7471A (for mercury); and
- Total Cyanide via Method 9012A.

Surface soil samples VI-SS-10, VI-SS-11, VI-SS12, and VII-SS-18, which are being collected for the purposes of investigating petroleum fuel-related sources, will be analyzed for BTEX and PAHs only.

Where practical, surface soil samples will be collected using the following procedure as modified from SOP No. 006 in Appendix FSAP-1 of the FSAP:

- Locate the appropriate surface soil sampling location;

- Once the sampling location is located, remove all surface vegetation, debris, or other materials that are not to be included in the samples such as asphalt or recently placed slag;

- Using a stainless trowel or hand auger, remove soil to a depth of 12 inches. Place the recovered soil in a clean stainless bowl;

- Using the trowel or auger, carefully collect soil from 0 to 3 inches below the base of the excavation and transfer directly to the VOC vials. Pack the VOC vials completely full to minimize any air space. Immediately seal the vials with a teflon-lined silicon rubber septa and screw cap lids;

- Thoroughly mix the soil in the stainless steel bowl, taking care to remove any plant material, or debris. Transfer the mixed soil to the containers provided by the laboratory for non-VOC analysis;

- If not prelabeled, label sample containers in accordance with the sample identification procedure provided in Section 5.1 of the QAPP and the labeling procedure provided in Section 6.1 of SOP No. 016 in Appendix FSAP-1 of the FSAP;

- Collected samples will be stored in a cooler at 4±2°C until shipment to the laboratory. Sample packaging and shipment procedures will be in accordance with SOP No. 015 in Appendix FSAP-1 of the FSAP; and

- Chain-of-custody forms and procedures provided in SOP No. 016 in Appendix FSAP-1 of the FSAP will be completed and followed.

Where the above sampling procedures are impractical due to the existence of pavement or other hard materials at the surface, or where surface soil samples are proposed at soil boring locations, the surface soil sample will be collected using a split-spoon sampler driven by the hydraulic hammer on the drilling rig. Where asphalt pavement exists, the sample will be collected from 1 to 2 feet below the base of the pavement to minimize the potential for detecting PAHs related to the pavement.

A summary of the surface soil sampling parameters, analytical methods, and quality assurance samples is provided in Table 2.

6.4.2 Soil Borings and Subsurface Soil Sampling

Soil borings will be advanced at several locations. The purpose of the deep borings is to identify subsurface contamination, facilitate the collection of soil samples for laboratory analysis, and facilitate the installation of groundwater monitoring wells.

Soil borings will be installed in CAA VI as follows (refer to Figure 4 for boring locations):

- One boring (VI-SB-01) for the installation of VI-MW-01A at the diesel and gasoline fueling stations associated with the Trucking Department;
- One boring (VI-SB-101) at the diesel and gasoline fueling stations associated with the Trucking Department;
- One boring (VI-SB-102) located inside the Trucking Department Maintenance Building; and
- One boring (VI-SB-02) for the installation of monitoring well VI-MW-02A near the waste oil in-ground concrete collection sump at the Central Machine Shop.

Soil borings will be installed in CAA VII as follows (refer to Figures 5 through 11):

- One boring (VII-SB-101) near the 10,000 gallon diesel tank and fueling station located east of the BOP (refer to Figure 5);

- One boring (VII-SB-102) near the former sludge storage area located north of the Hot Mill Wastewater treatment Plant (refer to Figure 10);

- One boring (VII-SB-01) for the installation of monitoring well VII-MW-01A located southwest (downgradient) of the south end of the Hot Mill Wastewater Treatment Plant (refer to Figure 10);

- Two borings (VII-SB-103 and VII-SB-104) within the secondary containment area for the Veolia Plant tank farm (refer to Figure 11);

- One boring (VII-SB-105) located near the former wood-lined sump identified east of the Veolia Plant during the 1988 RFA (refer to Figure 11);

- One boring (VII-SB-106) inside the Veolia Plant building were oil and other materials were observed on the concrete floor during the 1988 RFA (refer to Figure 11);

- One boring (VII-SB-107) located near the waste oil collection sump located west of the Veolia Plant (refer to Figure 11);

- One boring (VII-SB-02) for the installation of monitoring well VII-MW-02A located downgradient of the Veolia Plant (refer to Figure 11);

- One boring (VII-SB-108) located downgradient of the H.A.R.P. receiving sump (SWMU S-K1 (refer to Figure 11);

- One boring (VII-SB-03) for the installation of monitoring well VII-MW-03A located downgradient of the H.A.R.P. (refer to Figure 11);

- Nine shallow (8 feet deep) soil borings (VII-SB-109 through VII-SB-117) to confirm the lateral extent of contamination around the Former Yard Office (SWMU W-700) where diesel contaminated soils were removed as an Interim Measure in 2007 (refer to Figure 5); and

- One boring (VII-SB-04) for the installation of monitoring well VII-MW-04A to evaluate groundwater quality beneath the former Yard Office locomotive fueling station - SWMU W-700 (see Figure 5).

Soil borings will be advanced using hollow stem auger drilling techniques with continuous split-spoon core samples collected at 2-foot intervals. Each soil core sample will be field-screened using a PID and classified by the site geologist in accordance with ASTM Method D2487, Unified Soil Classification System. Detailed field logs will be kept throughout the drilling process and will include items such as the nature of subsurface soil/material encountered, field screening measurements, and depths where evidence of contamination (staining or odors) is encountered.

Borings not to be used for monitoring well installations (VI-SB-101, VI-SB-102, and VII-SB-101 through VII-SB-117) will be terminated approximately 5 feet below the encountered water table. The only exception is borings VII-SB-109 through VII-SB-117, which will be advanced to 8 feet below ground surface to evaluate the lateral extent of contamination associated with the former Yard Office locomotive fueling station (contamination was identified from 0 to 4.5 feet during Interim Measure activities performed in 2007). Borings for monitoring well installations (VI-SB-01, VI-SB-02, and VII-SB-01 through VII-SB-04) will be terminated approximately 10 feet below the encountered water table. The depth of each boring will be measured and recorded. Boreholes not used for monitoring well installations will be backfilled using bentonite chips or a cement-bentonite grout mixture that will be placed as the augers are removed from the

boreholes. The boring locations and elevations will be surveyed concurrent with the monitoring well surveying activities described in Section 6.5.1.

At least two subsurface soil samples will be collected from each soil boring for laboratory analysis (with the exception of borings VII-SB-109 through VII-SB-117 as described above, where only one subsurface sample will be collected). One sample will be collected from the depth interval immediately above the encountered water table (or within the range of water table fluctuation as observed in the field). This sample will be selected based on field screening, such that the sample is taken from the area with the greatest potential for contamination. If no signs of contamination are observed, this sample will be taken immediately above the water table at the time of drilling (based on the first saturated zone encountered near the anticipated depth of the water table).

The other subsurface sample(s) will be taken from each discrete zone of contamination (identified based on field screening) above the water table encountered during drilling. If more than one discrete zone (depth interval) of soil contamination is noted during drilling (including the interval from 0 to 2 feet), one sample from each zone will be submitted for laboratory analyses to characterize the chemical constituents present. If no discrete zone of contamination above the water table is encountered during drilling, the sample will be taken from the middle of the boring.

If free product is encountered during drilling, the odor, physical characteristics, and thickness of the free product layer will be documented and a sample of the product will be collected for laboratory analysis to evaluate the source of the product and to assess clean-up alternatives.

All procedures for field sample storage and preservation will be followed during the collection of subsurface soil samples until the selection of the sample(s) for laboratory analysis is made.

All drilling activities will take place in accordance with the Health and Safety Plan presented as Attachment C of the Facility-wide work plan.

Downhole equipment will be steam-cleaned in a temporary decontamination pad prior to the initiation of any drilling activities; downhole equipment will also be steam-cleaned between drilling locations as described in Section 7.0 of the FSAP. Decontamination of split-spoons and direct push tube/drive shoe will be completed prior to each use as described in Section 4.4.3.4 of the RFI Work Plan and Section 7.0 of the FSAP. All contaminated fluids and solids generated during the decontamination procedures will be managed as investigation derived waste.

All soil cuttings will be collected as Investigation Derived Waste (IDW) and containerized in 55-gallon drums. Each of the drums will be located in a secure area on the site until a characterization has been received and a final determination for disposition has been made. An appropriate label will be affixed to each drum, describing its contents and the drilling location from which the contents were obtained.

With the exception of samples specified below, subsurface soil samples will be analyzed for the following parameters:

- TCL VOCs via Method 8260B;
- TCL SVOCs via Method 8270C;
- PCBs (all Aroclor mixtures) via Method 8082A;
- TAL metals via Methods 6020 and 7471A (for mercury);
- Total Cyanide via Method 9012A; and
- Total Organic Carbon.

Samples collected from soil borings VI-SB-01, VI-SB-101, VII-SB-101, and VII-SB 109 through VII-SB-117, which are being collected for the purposes of investigating petroleum fuel-related sources, will be analyzed for BTEX and PAHs only.

Selected representative samples will also be submitted for bulk density and cation exchange capacity analyses.

Subsurface soil samples will be collected using the following procedure as modified from SOP No. 005 in Appendix FSAP-1 of the FSAP:

- Borings will be advanced using continuous flight, hollow stem augers;

- Soil samples will be continuously collected using 2-inch outside diameter split-spoon samplers;

- Split-spoon samplers of other dimensions and type may be used as long as the selected samplers will provide equivalent performance. However, in any case, the diameter of the split-spoon should be determined by the volume of the sample required for classification and analysis;

- The drive rods which connect to the split-spoon must have a stiffness equal to or greater than A-rod. Attach the split-spoon sampler to the drive rods and lower into the borehole. Do not allow the sampler to drop onto the soil to be sampled. Observe any penetration of the sampler/rod assembly due to the weight of the rods;

- Sampling depth shall be independently determined by the field geologist, and any discrepancies shall be resolved prior to obtaining the sample. The field geologist should determine that the length of the sampling string (spoon, cross-over, and drive rods) is approximately the same as the depth of the boring, hollow stem augers or casing. If the sampler is not on the bottom (i.e., due to heaving sands from the intended interval of sampling or slough), remove the assembly and clean out the hole to the sampling depth;

- Mark the drive rods in three (18-inch spoon) or four (24-inch spoon) successive 6-inch increments so that the advance of the spoon can be read for each increment under the force of the drive hammer;

- Obtain samples by advancing the split-spoon using the Standard Penetration Test (SPT). The split-spoon sampler is driven with blows from a 140-lb. hammer. For each hammer blow, a 30-inch lift and free-fall drop is conducted;

- The number of blows for each 6-inch increment, over a 1.5- or 2-foot interval (length of split-spoon) will be recorded on the boring log maintained by the driller and in a logbook maintained by the field geologist. Hammering will cease if 50 blows are applied during any 6-inch increment or if no penetration occurs within 10 blows;

- Raise the sampler to the surface and remove it from the borehole. Remove the split-spoon from the end of the drill rod string and the split-spoon shoe from the bottom of the split-spoon. Immediately upon opening, use air monitoring instrumentation to determine volatile organic vapors, if appropriate. The amount of soil recovered should be recorded as a length or percentage recovery. The field geologist will determine if the recovery is adequate or if another attempt shall be made before drilling is continued;

- Describe the soil sample recovered as to composition, odor, intervals of stratification, heterogeneity, and condition. Classify the soil/fill material in accordance with the ASTM Method D2487, Unified Soil Classification System;

- Split the exposed soil core in half lengthwise using a trowel or spatula;

- Using a spatula, dig out the interior of the two split halves of the soil core and fill two VOC vials with the collected sample. (Note: the sample should be representative of the entire length of the soil core.);

- Pack the VOC vials completely full to minimize any air space;

- Immediately seal the vials with a teflon-lined silicon rubber septa and screw cap lids;

- Using a spatula or trowel scoop out the soil core halves to collect approximately 500 grams of sample;

- Transfer the collected sample to a one pint glass jar and seal with a teflon-lined screw cap lid;

- Collect an additional amount of soil from the split soil core to fill a second one pint glass jar approximately one-third full. Cover the mouth of this jar with aluminum foil and seal with a screw cap lid. Allow the jar to equilibrate to ambient temperature (70 to 85°C) for one-half hour. At the end of the equilibration period, remove the lid while leaving the aluminum foil seal intact and insert the probe tip of an HNu PID or equivalent instrument through the aluminum foil into the headspace in the jar. Read and record the maximum reading in ppmv in the field logbook;

- If not prelabeled, label the VOC vials and glass jar in accordance with the sample identification procedure provided in Section 5.1 of the QAPP and the labeling procedure provided in Section 6.1 of SOP No. 016 in Appendix FSAP-1 of the FSAP;

- The boring log and/or field logbook should contain the following information for each sample: site name, boring location, recovery, sample number, depth, and collection time;

- Collected samples will be stored in a cooler at 4±2°C until shipment to the laboratory. Sample packaging and shipment procedures will be in accordance with SOP No. 015 in Appendix FSAP-1 of the FSAP; and

- Chain-of-custody forms and procedures provided in SOP No. 016 in Appendix FSAP-1 of the FSAP will be completed and followed.

A summary of subsurface soil sampling parameters, analytical methods, and quality assurance samples is provided in Table 3.

6.4.3 Field QA/QC Samples

Two types of field QA/QC samples will be collected for surface and subsurface soil samples: equipment blanks and field duplicate samples. The following discussion provides a description of these types of field QA/QC samples and their corresponding frequency of collection.

Equipment Blanks

To verify that constituents are not introduced into the samples due to improper decontamination of sampling equipment, equipment blanks will be collected by filling, pumping, or pouring laboratory grade deionized water through the representative, decontaminated, sampling device, and analyzing the rinsate for the same constituents as the samples. One equipment blank will be collected per day or per every 20 samples or fraction thereof, whichever is greater. Equipment blanks are typically collected to verify that equipment has been properly decontaminated in the field. An equipment blank will only be collected if it is necessary to decontaminate equipment in the field.

Field Duplicates

Field duplicates will be collected to evaluate the precision of sample collection and laboratory analysis procedures and the comparability of analytical data. Duplicate samples will be collected from the same sample volume as the original sample and analyzed for the same parameters. Field duplicate samples will be collected at a frequency of one per sampling event or per every 20 samples or fraction thereof, whichever is greater.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicates, required for TCL, VOCs, SVOCs, and PCB samples, are designed to monitor for matrix interferences, determine that method accuracy is within tolerances expressed as percent recoveries, and determine that the precision between duplicates is within tolerances expressed as the relative percent difference. Matrix spikes, required for TAL total metals, cyanide, and total organic carbon samples, are designed to

monitor for matrix interferences and method accuracy. Matrix spike/matrix spike duplicates or matrix spikes will be collected at a frequency of one per sampling event or per every 20 samples or fraction thereof, whichever is greater.

6.5 GROUNDWATER CHARACTERIZATION

As discussed in Section 2 and shown on Figure 3, a groundwater divide (high water table) exists beneath CAA VII. North of the groundwater divide, shallow groundwater flow beneath CAA VI and the northern portion of CAA VII appears to be to the north/northwest, with discharge to the Ohio River near the Tin Mill and Mainland Coke Plant Areas of the Facility. South of the groundwater divide, groundwater flow appears to be to the south/southwest towards Harmon Creek and the Ohio River at the southern limit of the Facility.

Existing groundwater monitoring wells MA-MW-01A/MA-MW-01D and MA-MW-07A/MA-MW-07D are located immediately downgradient of CAA VI and monitor the northern flow regime. Additional groundwater monitoring wells monitor this northern flow regime further downgradient from MA-MW-01A/MA-MW-01D and MA-MW-07A/MA-MW-07D, along the Ohio River shoreline, as shown on Figure 4.

Similarly, existing groundwater monitoring wells SC-MW-01A/SC-MW-01D, SC-MW-02A/SC-MW-02D, SC-MW-03A/SC-MW-03D, and CA-MW-01A are located immediately downgradient of CAA VII and monitor the southern flow regime. Groundwater monitoring wells CA-MW-02A, CA-MW-03A, CA-MW-04A, and CC-MW-05AR are located further downgradient from CAA VII, and also monitor the southern flow regime, as shown on Figure 5.

CAAs VI and VII are located upgradient of the existing monitoring well network; therefore, several existing wells will be used to characterize groundwater in CAAs VI and VII. Specifically, the following groundwater monitoring wells will be sampled as part of this RFI:

- MA-MW-01A/MA-MW-01D and MA-MW-07A/MA-MW-07D located downgradient of CAA VI (refer to Figure 4); and

- SC-MW-01A/SC-MW-01D, SC-MW-02A/SC-MW-02D, SC-MW-03A/SC-MW-03D, and CA-MW-01A located downgradient of CAA VII.

6.5.1 Monitoring Wells

As described in Section 6.4.2, six monitoring wells are proposed to supplement the existing monitoring wells described above (refer to Figures 4 through 11 for the locations of proposed and existing wells). The proposed monitoring wells include:

- VI-MW-01A located downgradient of the diesel and gasoline fueling stations at the Trucking Department (refer to Figure 4);

- VI-MW-02A located downgradient of the waste oil in-ground concrete collection sump at the Central Machine Shop (refer to Figure 4);

- VII-MW-01A located downgradient of the Hot Mill Wastewater Treatment Plant (refer to Figure 10);

- VII-MW-02A located downgradient of the Veolia Plant (refer to Figure 11);

- VII-MW-03A located downgradient of the H.A.R.P. (refer to Figure 11); and

- VII-MW-04A located within the former Yard Office Interim Measure area to evaluate groundwater quality beneath SWMU W-700 (refer to Figure 5).

<u>Drilling Methods</u>

As discussed in the previous Section 6.4, borings for monitoring well installations will be advanced with 4-1/4-inch inside diameter hollow-stem augers with continuous split-spoon sampling. The procedures for drilling, logging, field screening, collection of soil samples for

laboratory analysis, and management of collected soil cuttings are also discussed in Section 6.4.

Monitoring Well Construction

All monitoring wells will be constructed of 2-inch inside diameter, flush joint and threaded Schedule 40 PVC well screen and riser. The screened section will be 15 feet in length with a slot size of 0.010 inches. As the screened section is lowered into the borehole, an appropriate length of riser pipe will be added to case the well to an elevation approximately 2 feet above grade. The screened section of the well will extend from approximately 7 feet above the encountered water table to 8 feet below the water table (field conditions permitting). The extension of the well screen above the water table will allow for the detection of any LNAPLs and accommodate sampling in fluctuating water table conditions.

A formation stabilizer consisting of medium to coarse silica sand will be placed in the annular space surrounding the well screen. The sandpack will extend to an elevation approximately 2 feet above the top of the well screen and will be overlain by a pelletized bentonite seal of a minimum thickness of 2 feet. The bentonite pellet seal will be emplaced by slowly pouring the bentonite down the annular space inside the hollow stem augers and raising the auger flights to allow the pellets to fill the borehole around the well casing. The bentonite pellet seal will be hydrated with potable water by pouring several gallons of water down the inside of the auger flights after the bentonite pellets have been emplaced. The bentonite pellets will be allowed to hydrate for a minimum of one hour before the remainder of the annular space from the top of the bentonite to approximately 2 feet below grade is sealed with a cement/bentonite grout mixture. Well installation will be completed by placing a steel protective casing with locking cap around the well casing at the ground surface. A concrete 3-foot by 3-foot concrete pad will be constructed surrounding the protective casing and will be made to slope away from the well to prevent surface water infiltration. A reference point will be established on the top of each well casing for water level measurements.

Well Development And Survey

Following installation, each well will be developed no sooner than 24 hours after completion to improve well efficiency, remove any foreign material introduced during drilling, and ensure that representative groundwater samples are obtained. Development will be accomplished by either pumping, surge block, bailing, or a combination of these methods. Well development will continue until a turbid-free groundwater discharge is achieved or ten well volumes (casing volume plus filter pack volume) are removed. An attempt will be made to develop wells to less than 10 NTU. Turbidity measurements will be completed and stabilization will be considered achieved when three consecutive NTU readings are within 10 percent of one another. Water removed will be collected in drums or a tank for treatment and disposal at the onsite B-Outfall wastewater treatment plant.

The plan location of each well will be determined by survey and the resulting coordinates tied to the State Plane Coordinate System. The elevation of the reference point marked on the top of each well casing and the concrete pad surrounding the well will be determined with respect to mean sea level (msl) in accordance with the 1929 datum established by the USGS. Measurements will be made to an accuracy of 0.01 feet.

6.5.2 Groundwater Sampling and Analysis

Groundwater samples will be collected from the six proposed new monitoring wells (VI-MW-01A, VI-MW-02A, and VII-MW-01A through VII-MW-04A) and the following existing monitoring wells:

- MA-MW-01A/MA-MW-01D and MA-MW-07A/MA-MW-07D located downgradient of CAA VI (refer to Figure 4); and

- SC-MW-01A/SC-MW-01D, SC-MW-02A/SC-MW-02D, SC-MW-03A/SC-MW-03D, and CA-MW-01A located downgradient of CAA VII (refer to Figure 5).

One groundwater sampling round will be conducted approximately one month after completion of all monitoring well installation activities and development of the wells. Another round of groundwater sampling will be completed approximately two months after the first round. An attempt will be made to coordinate one of these events with the annual EI monitoring event to maximize efficiency. The results of the first two sampling rounds will be included in a Preliminary Investigation Report that will be submitted to U.S. EPA for review. A third round of groundwater sampling will be conducted after U.S. EPA's review of the Preliminary Investigation Report. The schedule for the third round will be determined at that time.

Prior to initiating each groundwater sampling event, the depth to water will be measured in each monitoring well. All measurements will be collected within a 4-hour period. Measurements will be conducted using an electronic measuring probe capable of measuring water surface elevations to within 0.01 feet and detecting the presence of free product. All monitoring wells will be checked for the presence of LNAPL or DNAPL. These measurements will be conducted by first lowering the electronic probe to the upper and lower limit of any floating product layer. The probe will then be lowered to the base of the well to evaluate the presence of any sinking layers. If any NAPLs are present, the thickness of these layers will be measured. It should be noted that monitoring wells can act as a gravity separator for multi-phase fluids (oil and water) and the layer thickness measured in the well may not accurately reflect environmental conditions.

Prior to groundwater purging and sampling, the volume of water contained within the well casing will be calculated. Samples will be collected using a portable (non-dedicated) submersible bladder pump using low-flow purging and sampling procedures. Dedicated air supply and water discharge lines will be used at each well to minimize the level of decontamination required between wells. These lines will be stored inside the wells between sampling events.

Samples will be field-tested for pH, dissolved oxygen, turbidity, specific conductance, redox, and temperature at the well head. Samples will be split and preserved as appropriate before being placed on ice in sealed coolers for overnight delivery to the analytical laboratory. Chain-of-custody procedures will be followed at all times of sampling and subsequent analysis, as described in SOP No. 016 in Appendix FSAP-1 of the FSAP.

All groundwater samples will be analyzed for:

- TCL VOCs via 8260B;
- TCL SVOCs via 8270C LL;
- TAL Total metals via Methods 6020 and 7470A (for mercury); and
- Total Cyanide via Method 9012A.

Well Purging

- Place plastic sheathing around the wellhead to prevent contact by the sampling equipment with the ground.

- Lower the pump (with air supply and water discharge line) into the well very slowly to minimize disturbance. Secure the lines at the wellhead such that the pump intake is near the center of the water column within the well.

- Decontaminate: (1) all equipment (water level measurement equipment, etc.) that will be set in the well during purging to minimize the potential for well contamination; and (2) all equipment and supplies that will be used to take field water quality measurements prior to each use. Where feasible, the use of disposable supplies is recommended. Decontaminate equipment and supplies in accordance with decontamination procedures in Section 6.4.

- Before purging the well, lower a water level measurement device into the well, measure the initial groundwater level and the total depth of the well to the nearest 0.01- and 0.10-foot, respectively, and record the measurements in a field logbook or form.

- Connect the pump electrical lead to the pump control box.

- Start the generator and, once started, plug the pump control box into the generator.

- Adjust the pump control to the desired initial pumping rate and turn on the pump.

- Typically, an initial pumping rate of approximately 100 ml/minute should be used until experience with the well indicates the expected yield. Using a stopwatch and a one liter polyethylene graduated cylinder or other graduated container, measure the actual pumping rate to confirm the control box settings and record the result in a field logbook or form.

- While monitoring the water level in the well with a conductivity sensor and tape measure to the nearest 0.01 foot (QED Sample Pro™, Solinst M-Scope™ or equivalent) the pumping rate can be increased (optimized) until the well drawdown is 3 to 4 inches. Do not exceed 4 inches of drawdown to ensure that stagnant water above the well screen is not entrained in the purge water and collected water samples.

- Record initial and final control box settings, the pumping rates, and water level measurement data in a field logbook or form.

- Once the adjustment in pumping rate is complete and water levels have stabilized, continue to monitor and record well water levels approximately every three minutes. If water levels remain stable, a longer interval between measurements may be used. Water level measurements are important to document that the well has been properly purged and that the subsequent samples collected are representative of the aquifer formation.

- During low flow purging monitor the recovered groundwater for specific conductivity, pH, dissolved oxygen, redox potential, turbidity, and temperature at periodic intervals, beginning after the approximate internal volume of the pump and lines has been purged, to determine when groundwater quality has stabilized.

- The internal volume of the low flow purging system can be calculated by adding the pump volume to the discharge line volume. The volume of the discharge line can be calculated by the following formula:

$$\text{Line Volume (liters)} = 0.62(r^2)(h)$$

where:
r = the radius of tubing in inches; and
h = the length of the tubing in decimal feet (i.e., 7.5 feet).

The line volume can be converted to gallons by dividing by 3.785.

- Stabilization of groundwater quality is defined by the field water quality parameters (redox, specific conductivity, pH, dissolved oxygen, turbidity, and temperature) as three successive readings, approximately three minutes apart, which are within the following range of variation:

  - $\pm$10 percent for redox, specific conductance, dissolved oxygen, turbidity, and temperature; and
  - $\pm$0.10 unit for pH.

- Once water quality parameters have stabilized, purging is complete, and sampling may begin.

- All field water quality parameter readings are recorded in a field logbook or form.

- In summary, purging is continued until the groundwater quality has stabilized based on the field water quality monitoring results. (Note: Typically, one screen volume should be purged from the well to ensure that fresh formation water is available for sampling.)

- At the completion of purging, measure the water level in the well and record the measurement in a field logbook or form.

- Consult the appropriate sampling methods below.

Groundwater Sampling Procedures

The following step-by-step procedure to sample monitoring wells is based on the use of the same bladder pump immediately after purging has been completed:

- Maintain the pumping rate established during purging.

- Record the pumping rates, time, and any water level measurements in a field logbook or sampling form.

- Collection of groundwater samples will be performed in accordance with the parameter-specific sampling procedures provided below, which include specifications for sample containers and preservatives.

- Sample collection will be completed in the following manner, dependent upon the monitoring parameters at each well location. The sample fraction for organic constituents VOCs will be collected first followed by the sample fractions for total metals and SVOCs.

- Collected samples will be stored in the field at 4±2°C in an ice chest filled with water ice or blue ice gel packs.

- Samples will be properly identified and labeled in accordance with Section 5.1 of the QAPP and Section 6.1 of the SOP No. 016 in Appendix FSAP-1 of the FSAP.

- Chain-of-Custody Forms will be filled out in accordance with SOP No. 016 in Appendix FSAP-1 of the FSAP and accompany the samples back to the laboratory.

Volatile Organic Compound Sampling

- Adjust the pumping rate to 100 ml/min (if final purge rate was higher).

- Samples will be collected in three 40 ml or larger screw-cap VOA vials with Teflon®-lined silicone rubber septa (U.S. EPA-approved vials).

- Samples will be preserved with concentrated HCl to a pH of <2. Preservative will be added to the vials in the laboratory prior to shipment to the field. However, in the event that samples need to be preserved in the field, this may be accomplished by adding three to four drops of concentrated HCl to each vial prior to sampling. (Note: For some highly alkaline waters, more acid may be needed to reduce the pH to <2.)

- The vials will be filled directly from the discharge line by tilting the vials into the discharge stream to allow the water to run down the inside of the vial. This is necessary to minimize turbulence and aeration of the sample which will result in the loss of volatile constituents.

- Vials will be slowly filled until the meniscus is slightly above the rim of the vial without overflowing the vial.

- The vial will be sealed with a screw-cap and Teflon® liner by slowly placing the cap on the overfilled vial.

- After filling and sealing, the vials will be inverted to verify that no air bubbles are trapped inside.

- If air bubbles are present, the vial will be opened, filled to capacity by adding a small amount of water to raise the meniscus above the rim of the vial, and resealed.

- Once sealed and checked for air bubbles, the vials will be immediately placed in a cooler containing water ice or blue ice gel packs for preservation at 4±2°C prior to transport to the laboratory.

- A trip blank will be prepared at a frequency of one per sampling event or every 20 VOC samples or fraction thereof, whichever is greater. The trip blank will accompany the sample containers from the laboratory to the field and the samples back to the laboratory to monitor ambient contamination levels in the cooler during transport.

- An equipment blank per each day or every 20 samples or fraction thereof, whichever is greater, will be prepared and placed in the cooler to accompany the samples back to the laboratory. The equipment blank will consist of a sample of the deionized organic-free water that was used in the field to rinse the decontaminated sampling equipment. The equipment blank will only be collected if it is necessary to decontaminate equipment in the field.

- Both blanks will be preserved in the same manner as the samples and will have sufficient volume to be analyzed for all the volatile organic constituents in the monitoring program.

- One well location per each sampling event or every 20 samples or fraction thereof, whichever is greater, will be selected for matrix spike and matrix spike duplicate analyses. Collect a total of seven VOA vials for sample, matrix spike and matrix spike duplicate quality control analyses: one vial to check pH, two vials for sample analyses, two vials for matrix spikes, and two vials for matrix spike duplicates.

- One well location per each sampling event or every 20 samples or fraction thereof, whichever is greater, will be selected for duplicate sample analyses. Collect a total of five VOA vials for sample and sample duplicate analyses: one vial to check pH, two vials for sample analyses, and two vials for duplicate sample analyses.

Semivolatile Organic Compound Sampling

- SVOC samples will be collected directly from the well pump discharge line at a rate of approximately 0.2 to 0.5 liter per minute or the well purge rate, whichever is less.

- Each sample will be collected in a one liter amber glass bottle without preservative and sealed with a plastic screw-cap fitted with a Teflon liner.

- Sample bottles will be placed in a cooler containing water ice and blue ice gel packs with sufficient packing to prevent breakage during transport to the laboratory.

- An equipment blank per each day or every 20 samples or faction thereof, whichever is greater, will be prepared and placed in the cooler to accompany the samples back to the laboratory. The equipment blank will consist of a sample of the deionized organic-free water that was used in the field to rinse the decontaminated sampling equipment. The equipment blank will only be collected if it is necessary to decontaminate equipment in the field. If collected, the equipment blank will be preserved in the same manner as the samples and will have sufficient volume to be analyzed for all the base-neutral/acid extractable parameters in the monitoring program.

- One well location per each sampling event or every 20 samples or fraction thereof, whichever is greater, will be selected for matrix spike and matrix spike duplicate analyses. Collect a total of three one-liter amber glass bottles: one bottle for sample analyses, one bottle for matrix spike analyses, and one bottle for matrix spike duplicate analyses.

- One well location per each sampling event or every 20 samples or fraction thereof, whichever is greater, will be collected for duplicate sample analyses. Collect a total of two one-liter amber glass bottles: one bottle for sample analyses and one bottle for sample duplicate analyses.

Total Metals Sampling

- Samples for total metals and cyanide samples will be collected in separate containers directly from the well pump discharge line at a rate of approximately 0.2 to 0.5 liter per minute or the well purge rate, whichever is less, using one-liter polyethylene bottles sealed with a plastic screw cap fitted with a polyethylene liner.

- Preservative will be added to the bottles in the laboratory prior to shipment to the field.

- Total metals samples will be preserved to a pH of <2 by the addition of nitric acid. Total cyanide samples will be preserved to a pH of >12 by the addition of sodium hydroxide.

- The bottles will be sealed with a plastic screw-cap fitted with a polyethylene liner.

- The samples bottles will be placed in a cooler with sufficient packing to prevent damage during transport to the laboratory.

- An equipment blank per each sampling event or every 20 samples or fraction thereof, whichever is greater, will be prepared and placed in the cooler to accompany the samples back to the laboratory. The equipment blank will consist of a sample of the deionized organic-free water that was used in the field to rinse the decontaminated sampling equipment. The equipment blank will only be collected if it is necessary to decontaminate equipment in the field. If collected, the equipment blank will be preserved in the same manner as the samples and will have sufficient volume to be analyzed for all the metals in the monitoring program.

- One well location per each sampling event or every 20 samples or fraction thereof, whichever is greater, will be selected for matrix spike analyses. For metals, collect a total of two, one-liter polyethylene bottles for sample matrix spike quality control analyses: one bottle for sample analyses and one bottle for matrix spike analyses for total metals. For cyanide, collect a total of two, one-liter polyethylene bottles for sample

matrix spike quality control analyses: one bottle for sample analyses and one bottle for matrix spike analyses for total cyanide.

- One well location per each sampling event or every 20 samples or fraction thereof, whichever is greater, will be selected for duplicate sample analyses. Duplicate samples will be collected in containers with preservative just as the original samples were collected.

Documentation

All data and observations collected or noted during well purging and sampling activities will be recorded in a field logbook or form. Information to be recorded will include, but not be limited to, the following:

- Name of project;
- Date of purging/sampling;
- The persons performing the sampling;
- The wells being purged/sampled;
- Ambient weather conditions and temperature;
- Initial and final pump control box settings and pumping rate;
- Water level measurements to document groundwater elevations and well drawdown;
- The total depth of the well;
- The volume of water purged from the well and the calculated well volume;
- Field instrument calibrations for field water quality parameter measurements;
- Field water quality data (specific conductance, pH, dissolved oxygen, turbidity, and temperature); and
- Any other pertinent notes and observations.

A summary of the groundwater sampling parameters, analytical methods, and quality assurance samples are provided in Table 4.

Field Quality Control Samples

Field quality control samples and their frequency of collection provided above under the parameter-specific sampling procedures.

6.5.3 Aquifer Characterization

The objectives of this task are to generate information about the direction and rate of groundwater flow beneath the site. To determine the rate of groundwater flow, the hydraulic gradients across the site and the range of hydraulic conductivity will be determined.

Water level measurement data collected during the three rounds of groundwater sampling will also be used to calculate groundwater elevations. Groundwater contour maps will be constructed using these data to evaluate groundwater flow direction and determine hydraulic gradients. These data will be used in conjunction with hydraulic conductivity values determined from slug tests to evaluate the rate of groundwater migration using Darcy's Law.

Slug tests will be performed on up to five new and existing wells to estimate the hydraulic conductivity (k) of the aquifer across the central and downgradient portions of CAA VI and VII. The wells for slug testing will be selected based in information gathered during well installation/development to provide a representative range of hydraulic conductivity values. Slug tests will be performed by adding or removing a weighted slug (or a suitable volume of water) sufficient to significantly change the static water level in the well. The rate of return of the water level to a static condition will be measured using a pressure transducer and data logger. The slug test data will be analyzed using the computer program AQTESOLV. All equipment used for downhole slug testing will be decontaminated prior to each test.

7.0 PROJECT SCHEDULE

The planned schedule to perform the investigative tasks described in this Work Plan is presented in Figure 12. Approximately eight months will be required to conduct the investigation and complete the report following U.S. EPA's approval of the CAA VI/VII RFI Work Plan. The duration of field activities are reasonable-case estimates and do not take into account any delays.

Following U.S. EPA's Work Plan review and approval, preliminary activities such as driller selection, staffing, mobilization, and coordination with the analytical laboratory are expected to be completed within four weeks. The schedule assumes that the selected drilling firm will have a drilling crew and drilling rig available to start work after this four-week period. The soil quality evaluation and the monitoring well installation and development activities will require approximately four weeks to complete.

Following a minimum one-month period to allow groundwater conditions to stabilize, one round of groundwater elevation measurements will be collected prior to the first groundwater sampling event. A second groundwater sampling event will be conducted two months following the first event. Within approximately 60 days of completion of laboratory analyses of samples collected during the second groundwater sampling event, all site characterization data will be compiled and a preliminary investigation report will be submitted to the U.S. EPA and WVDEP for review.

TABLES

TABLE 1A
SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
CAA VI IRON-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
4	S-C1 S-C2	Sinter Plant Thickeners	Two steel, open-topped tanks (each holding 950,000 gallons) receive waste scrubber water from the blast-furnace and sinter-plant. Solids are settled from the scrubbing water in the two thickeners and clarified water is returned to the gas scrubber after cooling in the cooling tower (S-C3).	These units have been dismantled and removed.	1988 RFA: None 2004 EI: None 2013: None
4	S-C3	Sinter Plant Gas Cleaning System Cooling Tower	A four-compartment cooling tower constructed of wood and steel cools clarified water from the sinter plant thickeners (S-C1/C2) prior to recycle to the blast furnace scrubbers.	This unit has been dismantled and removed.	1988 RFA: None 2004 EI: None 2013: None
4	S-C4	Sinter Plant Vacuum Filter	A vacuum filter located indoors near the sinter plant thickeners (S-C1/C2) is used to dewater underflow from the thickeners. Filtrate is returned to the thickeners through a sump (S-C5) and a splitter box (S-C6) and solids are recycled to the blast furnace.	This unit has been dismantled and removed.	1988 RFA: None 2004 EI: Minor stains were observed on concrete floor of Sinter Plant building. 2013: None – Sinter Plant is gone.
4	S-C5	Sinter Plant Vacuum Filter Filtrate Sump	This concrete sump located in the sinter plant building receives filtrate from the vacuum filter (S-C4) in the sinter plant. The sump discharges to a splitter box (S-C6).	This unit has been dismantled and removed.	1988 RFA: None 2004 EI: Minor stains were observed on the concrete floor of the Sinter Plant building. 2013: None – Sinter Plant is gone.
4	S-C6	Sinter Plant Thickeners Splitter Box	Filtrate from the sinter plant vacuum filter sump (S-C5) and the scrubber water from the blast furnace scrubbers is split in this box and flows to the two thickeners (S-C1/C2). The unit, located between the thickeners, serves as a flow-regulating device.	This unit has been dismantled and removed.	1988 RFA: None 2004 EI: None 2013: None
4	S-H1	Boiler House Coal Wash Clarifier	Coal burned in the Boiler House was washed at the coal wash.	This unit is no longer in service.	1988 RFA: None 2004 EI: Stained concrete walls. No visual evidence of release to soil. 2013: Same as 2004.
4	S-H2	Boiler House Coal Wash Vacuum Filter	Solids from the Coal Washer were dewatered using a pressure belt filter and collected in a holding box (S-H3).	This unit is no longer in service.	1988 RFA: None 2004 EI: Stained concrete walls. No visual evidence of release to soil. 2013: Same as 2004.
4	S-H3	Boiler House Coal Wash Sludge Holding Bin	Solids from the Coal Washer belt filter (S-H2) were collected in a steel holding bin and loaded into trucks for off-site disposal.	This unit is no longer in service.	1988 RFA: None 2004 EI: None 2013: None
4	S-H4	Boiler House Ash Tank	There are four high pressure boilers at the Main Boiler House which previously burned coal. The bottom ash from these units was sluiced through an ash tunnel and pumped into an ash holding tank.	This unit is no longer in service.	1988 RFA: None 2004 EI: None 2013
4	S-H5 S-H6	Boiler House Scrubber Water Treatment Tanks	Two Krebs Scrubbers previously utilized high-pressure water to scrub particulate matter from the off-gases of two boilers firing coal. The dirty water from the scrubbers flowed to lamella clarifiers. Treatment consisted of neutralization and clarification.	Units were removed in 1995. Area is used to store equipment.	1988 RFA: None 2004 EI: None 2013: None
4	S-H7	Boiler House Scrubber Water Belt Filter	Underflow from the Scrubber Water Treatment Tanks (S-H5/H6) is dewatered on the belt filter. Dewatered sludge is collected in a Steel Bin (S-H8) for disposal.	This unit is no longer in use. Structure and rollers remain in place. Actual belts have been removed.	1988 RFA: None 2004 EI: None 2013: None

TABLE 1A
SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
CAA VI IRON-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
4	S-H8	Boiler House Scrubber Water Sludge Holding Bin	Dewatered sludge from the Scrubber Water Belt Filter (S-H7) had previously been collected in a three-sided steel bin. Wastes in the collection bin were routinely loaded into trucks for off-site disposal.	This unit is no longer in use and was removed. An air compressor has been placed in the bin's former location.	1988 RFA: Sludge on roadway leading to Boiler House. 2004 EI: None 2013: None
4	S-O10	Starvaggi Trailers/Dumpsters	Starvaggi Industries provided to WSC, on a contractual basis, trailers/dumpsters for disposal of general plant trash and refuse.	These units have been replaced with rolloff containers from Waste Management, Inc.	1988 RFA: None 2004 EI: None 2013: None
4	W-601	Leakage - Inactive Tar Tank and Pump Station	Coal tar is on the ground around an inactive tar tank and pump station located in the basement area of the north end of the open hearth building. The tank and pump station have been inactive since 1982.	This area remains in place. Spare equipment is stored on gravel in east area of W-601. The west inactive tar tank and pump station remains with foliage growth.	1988 RFA: NA 2004 EI: Tar (hardened) on ground around tank and pump station 2013: Tar identified in 2004 remains.

TABLE 1A
SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
CAA VI IRON-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

1 SWMUs identified in the 1988 RCRA Facility Assessment Report (RFA) are designated with an S- followed by the SWMU designation given in the RFA. SWMUs identified by WSC are designated with a W- followed by a sequential numbering system for each operations area.

2 Location and general description as provided in 1988 RFA and transferred to table in 1998 RFI Work Plan.

3 Current status as of June 2013. Recent actions include those completed subsequent to preparation of the 1998 RFI Work Plan.

4 Based on descriptions provided in 1988 RFA and 2004 Environmental Indicators inspections and 2013 inspections conducted by Civil & Environmental Consultants, Inc.

TABLE 1B
SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
CAA VII STEEL-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
5,8	S-A1 S-A2	Basic Oxygen Process (BOP) Scrubber Water Treatment System Thickeners	These two units are steel, open-top tanks that are 19.5 feet high by 60 feet in diameter and are situated on concrete pads. They are located outdoors adjacent to the BOP steelmaking furnaces and are equipped with overflow-type discharges which prevent tank overtopping. Scrubber water from the BOP steelmaking furnaces is treated in these two tanks. During the RFA site inspection, it was noted that the splitter box handling inflow to the thickeners was leaking and discharging to the soil between the thickeners.	The leak in the thickener splitter box was repaired and the area between the thickeners was paved. These units are no longer in service.	1988 RFA: Leakage from splitter box to soil between the thickeners. 2004 EI: Area between thickeners had been paved. Some iron oxide staining on pavement. 2013: Same as 2004.
5,8	S-A3	BOP Scrubber Water Treatment System Clearwell	The elevated steel tank is open-topped and measures 9 feet high by 16 feet in diameter. It is situated adjacent to and on the center line of the thickeners (S-A1/A2) outside in the BOP steelmaking complex. The clearwell receives overflow from the thickeners (S-A1/A2). Water from this is recycled to the scrubbers in the BOP process.	A curb was installed and a concrete slab with curb was poured around the tank to provide containment. This unit is no longer in service.	1988 RFA: None 2004 EI: Area between thickeners beneath clear well had been paved. Some iron oxide staining on pavement. 2013: Same as 2004.
5,8	S-A4	BOP Scrubber Water Treatment System Mini-Clarifier	Used to remove large solids, including brick, from the thickener influent.	This unit is no longer in service.	1988 RFA: None 2004 EI: Area around mini clarifier had been paved. Some iron oxide staining on pavement 2013: Same as 2004.
5,8	S-A5 S-A6	BOP Scrubber Water Treatment System Vacuum Filters	These units are located indoors within the BOP furnace building and receive sludge from the thickeners with the filtrate returned to the thickeners. Filter cake is disposed off-site.	A steel bin was constructed beneath the sludge loading area and the roadway leading to/from the loading area was paved. This unit is no longer in service.	1988 RFA: None 2004 EI: Stained soils and sludges are periodically removed from the dump truck garage located underneath the drum filters. 2013: Minor staining observed around the steel collection box that replaced the dump truck observed in 2004.
5	S-B1	BOP Hydromation System Basket Screens	Basket screens located at the caster stands in the continuous slab caster area are used to remove mill scale from contact cooling water sprayed on hot metal slabs.	These units are no longer in service.	1988 RFA: None 2004 EI: Minor stains observed on concrete floor. 2013: Same as 2004.
5	S-B2 S-B3	BOP Hydromation System Sumps	Two sumps below the mill floor in the continuous slab caster area were previously used to collect contact cooling water from basket screens (S-B1). Each sump contains a pump which discharges to the Hydromation System clarifiers.	These units are no longer in service.	1988 RFA: None 2004 EI: Minor stains observed on concrete floor. 2013: Same as 2004.
5,7	S-B4 to S-B7	BOP Hydromation System Flat-Bed Filters	A series of four, flat-bed, paper-media filters were previously located inside the mill near the cooling towers. Cooling water from the sumps (S-B2/B3) was passed through the paper media to remove suspended solids and oils. Filtrate was then pumped to the deep-bed filters (S-B8 through S-B11) for further treatment. Waste solids were disposed off-site.	These units (and SWMUs S-B8 to S-B12) were replaced with two rectangular sedimentation basins located east of the BOP building in 1990. The four inactive flat-bed filters remain in place, indoors at the hydromation area. The replacement basins are no longer in service.	1988 RFA: None 2004 EI: Soils stained from material handling along the west side of the basins were periodically removed for disposal. 2013: Minor staining observed along west side of basins. Oil-stained soil also observed between waste oil tanks located at south end of basins.
5	S-B8 to S-B11	BOP Hydromation System Deep-Bed Filters	The filters, located in the mill near the flat-bed filters (S-B4-B7), consist of four closed-top metal tanks containing walnut shells. Treated cooling water from the flat-bed filters (S-B4 through S-B7) is pumped through these filters for final polishing prior to being reused in cooling at the caster area. The filters are periodically backwashed.	These units are no longer in service.	1988 RFA: None 2004 EI: Minor stains observed on concrete floor. 2013: Same as 2004
5	S-B12	BOP Hydromation System Waste Oil Tank	The waste oil tank, located in hydromation, receives lubricating and rolling oils skimmed from the caster contact cooling water sumps-with rope skimmers. Recovered oil is sent to the U.S. Filter oil recycling system (S-G1/G2) for treatment and reuse.	This unit is no longer in service.	1988 RFA: None 2004 EI: Minor stains observed on concrete floor. 2013: Same as 2004
5	S-O5 S-O11 S-O12 S-O14 S-O15	Starvaggi Trailers/Dumpsters	Starvaggi Industries provide to WSC, on a contractual basis, trailers/dumpsters for the collection and disposal of general plant trash and refuse.	These units were replaced with Waste Management, Inc. rolloff containers.	1988 RFA: None 2004 EI: None 2013: Most are gone

TABLE 1B
SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
CAA VII STEEL-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
5,6	S-O21	Boiler Waste Fuel Storage	Ignitable wastes were previously used as a supplemental boiler fuel at WSC. Plant personnel questioned during the RFA site inspection were not aware of this practice.	Past practices mixed oil recovered from PORI with No. 6 fuel oil to fuel the Blast Furnaces. Tank emptied in 1998 and use of reclaimed oil and No. 6 fuel oil mixture to fuel the blast furnaces was discontinued at that time.	1988 RFA: None 2004 EI: None 2013: None
5,10	S-E1 to S-E4	Hot Strip Mill Wastewater Plant Settling Basins	Four open-top, above-ground, 225,000 gallon, concrete settling basins receive wastewater from the Hot Strip Mill. Wastewater is pumped into these four units at a total flow rate of 45,000 gallons per minute. Each basin is equipped with an oil skimmer.	These units are not in service. Some sludges and oily water remain in the basins.	1988 RFA: None 2004 EI: None 2013: None
5,10	S-E5	Hot Strip Mill Wastewater Plant Settled Solids Storage Pile	Previously, automatic drag-out devices were used to remove sludges from the settling basins (S-E1 through S-E4) and pile sludges on unlined soil in an area north of the settling basins. The sludges were loaded onto trucks for transport to an off-site disposal facility.	A concrete holding basin was installed to store sludges in 1989. However, this system was replaced in 1995 with a Gantry Crane which removed sludges directly from the settling basins and loaded the sludge immediately into a rolloff container staged on a concrete pad adjacent to (east of) the basins, thus eliminating the need for the concrete storage bin. Sludge and stained soil surrounding the concrete storage bin were removed as in Interim Measure in 1998 but no sampling was performed.	1988 RFA: Sludge in unlined storage pile 2004 EI: No visual evidence of sludge on ground. 2013: Same as 2004
5,10	S-E6	Hot Strip Mill Wastewater Plant Settled Solids Storage Bin	An elevated, outdoor steel bin and hopper approximately 100 feet west of settled solids storage pile (S-E5) was formerly used for collection and loading of sludge removed from the settling basins (S-E1 through S-E4) into trucks. Sludge was transferred to the unit via an overhead conveyer belt.	The storage bin has been removed. Stained soil was removed from this area as an Interim Measure in 1998 but no sampling was performed.	1988 RFA: Sludge on ground beneath storage bin and in vicinity of storage pile (SWMU S-E5) 2004 EI: No visual evidence of sludge on ground. 2013: Same as 2004
5,10	S-E7 to S-E22	Hot Strip Mill Wastewater Plant Filters	These units are indoor gravity filters composed of anthracite and sand supported by crushed stone. After preliminary removal of oils and solids, the wastewater from the settling basins (S-E1 through S-E4) flows through these filters.	New filters were installed in 1991 which use sand and gravel, not coal. These units are not in service.	1988 RFA: None 2004 EI: None 2013: None
5,10	S-E23	Hot Strip Mill Wastewater Plant Oil Storage Tank T-113	This 6,000 gallon, above-ground steel tank located in the basement level of the treatment plant receives oil skimmed from the sludge thickener (S-E25). Oil is stored in this tank prior to treatment in the PORI Oil Treatment Plant (S-G1/G2).	The tank was replaced with an outdoor tank located just north of the WWTP Thickener (SWMU S-E25). The replacement tank is not in service.	1988 RFA: None 2004 EI: None 2013: None
5,10	S-E24	Hot Strip Mill Wastewater Plant Filter Backwash Basin	This closed-top, above-ground concrete basin receives backwash from the Hot Strip Mill Wastewater Plant Filters (S-E7 through S-E22). The basin is used to collect backwash prior to treatment in the wastewater plant thickener (S-E25).	The backwash basin has been cleaned out and is not in service.	1988 RFA: None 2004 EI: None 2013: None
5,10	S-E25	Hot Strip Mill Wastewater Plant Sludge Thickener	This above-ground, open-top, steel tank resting on a concrete base is used to settle solids from the backwash. The unit is approximately 16 feet high and 60 feet in diameter. Wastes are transferred from the 16 plant filters (S-E7 through S-E22) through the backwash basin (S-E24) to the thickener.	This unit is not in service.	1988 RFA: None 2004 EI: None 2013:None
5,10	S-E26 S-E27	Hot Strip Mill Wastewater Plant Solids Vacuum Filters	Two elevated, indoor vacuum filters receive underflow from the sludge thickener (S-E25) which is first routed through two sludge conditioners (S-E30/E31). The units use flexible belts through which wastewater is passed to remove solids. Filtered sludge is scraped from the moving filter belts and collected in rolloff containers beneath the units for transportation and off-site disposal. Filtrate is returned to the thickener (S-E25).	This unit is not in service.	1988 RFA: None 2004 EI: None 2013: None
5,10	S-E28	Hot Strip Mill Wastewater Treatment Plant Oil Storage Tank T-182	The steel, above-ground 2,000 gallon tank located outdoors receives oil skimmed from the four settling basins (S-E1 through S-E4). Recovered oil is transported to the U.S. Filter Oil Treatment Plant (S-G1/G2) for reclamation.	This tank, which was diked in 2000, is no longer in service.	1988 RFA: None 2004 EI: None 2013: None

TABLE 1B
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Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
5,10	S-E29	Hot Strip Mill Wastewater Treatment Plant Oil Storage Tank T-184	This steel, above-ground, 2,000 gallon storage tank located outdoors receives oil skimmed from the flume feeding the 16 filters (S-E7 through S-E22). Recovered oil is transported to the U.S. Filter Oil Treatment Plant (S-G1/G2) for reclamation.	This tank, which was diked in 2002, is no longer in service.	1988 RFA: None 2004 EI: Evidence of small release and localized stained soil beneath drain valve on south end of unit. 2013: Same as 2004
5,10	S-E30 S-E31	Hot Strip Mill Wastewater Treatment Plant Sludge Conditioning Tanks	The two sludge conditioners are used to mix sludge from the sludge thickener (S-E25) prior to its treatment in the vacuum filters (S-E26/E27). They are totally enclosed, conical-bottom steel tanks and are located indoors in the treatment plant.	These units are not in service.	1988 RFA: None 2004 EI: None 2013: None
5,10	S-E32	Hot Strip Mill Wastewater Treatment Plant Filtrate Sump	This concrete sump in the floor of the treatment plant basement collects spills and floor washdown in the treatment plant as well as condensate from vacuum filters (S-E26/E27). Collected sump water is pumped to the thickener (S-E25).	This unit is not in service.	1988 RFA: None 2004 EI: None 2013: None
5,10	S-E33	Hot Strip Mill Wastewater Treatment Plant Clear Well	The clear well is a concrete tank located indoors and receives effluent from the 16 filters (S-E7 through S-E22) for discharge to the C&E sewers (S-D8). This water is also used as a source of clean backwash for the filters.	This unit is not in service.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F1	U.S. Filter Chemical Treatment Plant Surge Receiver	Two vertical, closed-top steel tanks (49,000 gallons each) located immediately outside the U.S. Filter Chemical Treatment Plant building are used to store oily wastes prior to treatment in the U.S. Filter Chemical Treatment Plant. The unit receives wastes directly from the strip steel mill as well as the solution tank (S-F2) and the waste oil storage tank (S-F3). Waste is pumped to the retention tank (S-F12) for treatment.	These units are not in service.	1988 RFA: None 2004 EI: Tanks are outdoors and elevated 20 ft. Stains on tank sidewalls and on floor of concrete containment. 2013: Same as 2004
5,11	S-F2	U.S. Filter Chemical Treatment Plant Solution Tank	A vertical, closed-top steel tank (132,000 gallons each) located immediately outside the U.S. Filter chemical Treatment Plant building and adjacent to the Surge Receiver (S-F1) is used to store oil/water solution prior to treatment in the plant. The unit receives wastes directly from the strip steel mill. Wastes are pumped from the Solution Tank to the surge receiver (S-F1) and the neutralizer (S-F5).	This unit is not in service.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F3	U.S. Filter Chemical Treatment Plant Waste Oil Storage Tank	A steel tank located inside the U.S. Filter Chemical Treatment Plant is used to store oily waste prior to treatment in the plant. The unit receives wastes directly from the strip steel mill. Wastes are pumped to the surge receiver (S-F1) and the neutralizer (S-F4).	This unit has been removed due to operating modifications.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F4	U.S. Filter Chemical Treatment Plant Surge Equalizer	Two steel tanks located inside the U.S. Filter Chemical Treatment Plant building is used to store alkaline materials prior to treatment. Wastes are received from the PORI iron sulfate storage tank (S-F16). Waste is pumped from the surge equalizer to the aerator (S-F17).	These units are not in service.	1988 RFA: None 2004 EI: Visual evidence of minimal prior releases on tank sidewalls. 2013: Same as 2004
5,11	S-F5	U.S. Filter Chemical Treatment Plant Neutralizer	Oily wastes from the solution tank (S-F2) and the waste oil storage tank (S-F3) are mixed in the neutralizer, an above ground fiberglass tank located in the treatment building, and sulfuric acid is added, as necessary, to adjust the effluent pH. Effluent is pumped to the vacuum filter (S-F6) for solids removal.	In May 1996, PORI upgraded the 12,500 gallon fiberglass tank to a 16,900 gallon tank. The replacement tank is not in service.	1988 RFA: None 2004 EI: Visual evidence of minimal prior releases on tank sidewalls and concrete floor. 2013: Same as 2004
5,11	S-F6 to S-F8	U.S. Filter Chemical Treatment Plant Filter Presses	Three elevated, rotary drum, vacuum precoat filters located within the treatment building are used to remove solid contaminants from the wastewater streams. Each filter is coated with a layer of diatomaceous earth to act as a sorbent layer.	In 1989, press filters were installed to replace the rotary drum filters. All rotary drum filters have been removed. The press filters are no longer in service.	1988 RFA: None 2004 EI: None 2013: None

TABLE 1B
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Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
5,11	S-F9 to S-F11	U.S. Filter Chemical Treatment Plant Vacuum Receivers	The vacuum receivers are indoor units which pull the wastes to be treated through the adjacent vacuum precoat filters (S-F6 through S-F8) and allow separation of wastewater from the vacuum being drawn. Filtrate from S-F9 flows to the wash tank (S-F15); filtrate from S-F10 flows to the iron sulfate storage tank (S-F16); and filtrate from S-F11 flows to the recycle water tank (S-F23).	All vacuum receivers were removed in 1997.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F12	U.S. Filter Chemical Treatment Plant Retention Tanks	The two retention tanks (2,600 gallons each) are indoor metal, above-ground tank with a hopper-shaped bottom in which polymer flocculation aids are mixed with wastes. Wastes flow to the retention tank from the surge receiver (S-F1) and the iron sulfate storage tank (S-F16). After mixing with the polymers, the wastes flow by gravity to the flotation skimmer (S-F13).	These units are not in service.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F13	U.S. Filter Chemical Treatment Plant Flotation Skimmers	The flotation skimmers are two steel tanks equipped with a moving skimming device which removes buoyant flocs from the waste. Waste flows to the skimmer from the retention tank (S-F12). Skimmed floc is pumped to the floc reduction tank (S-F14) and treated underflow flows to the recycle water tank (S-F23).	This unit is not in service.	1988 RFA: None 2004 EI: Visual evidence of minimal prior releases on tank sidewalls and concrete floor. 2013: Same as 2004
5,11	S-F14	U.S. Filter Chemical Treatment Plant Floc Reduction Tanks	Sulfuric acid is added to the waste in two fiberglass, indoor, above-ground floc reduction tanks (14,200 gallon) to break the flocs and allow further treatment. Waste is pumped to the floc reduction tank from the flotation skimmer (S-F13) and, after pH adjustment, flows to the vacuum filter (S-F7).	These units are not in service.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F15	U.S. Filter Chemical Treatment Plant Wash Tank	The indoor, above-ground wash tank (14,200 gallon) receives filtrate from the vacuum filter (S-F6) after it passes through the vacuum receiver (S-F9). Free-floating oils are removed from the top of the tank (99% oil, 1% water) and pumped to the product oil storage tank (S-F22).	This unit is not in service.	1988 RFA: None 2004 EI: Visual evidence of prior minimal releases on tank sidewalls and concrete floor. 2013: same as 2004
5,11	S-F16	U.S. Filter Chemical Treatment Plant Iron Sulfate Storage Tank	This indoor, above-ground unit receives iron sulfate wastes from filtering operations in the plant. Wastes are received from the waste tank (S-F15) and the vacuum receiver (S-F9). The iron sulfate storage tank (14,600 gallon) discharges to the retention tank (S-F12) and the surge equalizer (S-F4).	This unit is not in service. Most recently, it served as a cooked oil storage holding tank.	1988 RFA: None 2004 EI: Visual evidence of prior minimal releases on the tank sidewalls and concrete floor. 2013: Same as 2004
5,11	S-F17	U.S. Filter Chemical Treatment Plant Aerator	The aerator is a 19,400 gallon fiberglass tank in which acid wastes from the surge equalizer (S-F4) are neutralized using calcium hydroxide and then aerated to promote mixing and floc formation. The unit discharges to the flocculators (S-F18/F19).	This unit is not in service.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F18 S-F19	U.S. Filter Chemical Treatment Plant Lamellas	Two over-flow type lamella clarifiers are used to separate flocculated solids from the U.S. Filter acid wastewater stream. Flow enters the clarifier from the flocculators (S-F18/F19). Clarifier overflow is discharged to the recycle water tank (S-F23) while underflow is pumped to the filter feed tank (S-F21). 20,000 gallon capacity.	This unit was replaced by a large lamella, in which flocculation occurs in the front box segment. The replacement unit is not in service.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F20	U.S. Filter Chemical Treatment Plant Lamellas	Two over-flow type lamella clarifiers are used to separate flocculated solids from the U.S. Filter acid wastewater stream. Flow enters the clarifier from the flocculators (S-F18/F19). Clarifier overflow is discharged to the recycle water tank (S-F23) while underflow is pumped to the filter feed tank (S-F21). 20,000 gallon capacity.	This unit was replaced with a larger unit in 1997, in which flocculation occurs in the front box segment. The replacement unit is no longer in service.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F21	U.S. Filter Chemical Treatment Plant Filter Feed Tank	The steel filter feed tank (cooker) serves to equalize flow to the vacuum filter (S-F8). It receives underflow from the clarifier (S-F20).	This unit was removed due to operational changes.	1988 RFA: None 2004 EI: None 2013: None

TABLE 1B
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Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
5,11	S-F22	U.S. Filter Chemical Treatment Plant Product Oil Storage Tank	This steel tank (148,000 gallons) receives 99% pure oil which is recycled for use as a fuel at the Blast Furnace. Oil is pumped from the wash tank (S-F15) to the oil storage tank where it is held until pumped to the adjacent U.S. Filter Oil Treatment Plant (Group G) for recycling.	A release occurred in 2000when a valve was left open . A portion of the released oil escaped through an opening in the gated segment of the secondary containment wall and flowed west towards the former drum storage area (SWMU W-1008). The spill was cleaned up but no soil samples were collected. The breech in the gated section has been repaired. This unit is no longer in service.	1988 RFA: None 2004 EI: None 2013: None
5,11	S-F23	U.S. Filter Chemical Treatment Plant Recycle Water Tank	The recycle water tank (72,000 gallons) receives treated wastewaters from the flotation skimmer (S-F13), the clarifier (S-F20), and the vacuum receiver (S-F11). Water is discharged to the C&E sewers (S-D8).	This unit is not in service.	1988 RFA: None 2004 EI: Visual evidence of minor spills or overflow on tank sidewalls and concrete floor. 2013: Same as 2004
5,11	S-F24 to S-F26	U.S. Filter Chemical Treatment Plant Filter Media Collection Boxes	The collection boxes are rectangular steel enclosures on a concrete base located around the periphery of the U.S. Filter Chemical Treatment Plant directly beneath the Vacuum Precoat Filters (S-F6 through S-F8). They have open tops through which solids enter from the discharge chutes of the vacuum filters (S-F6 through S-F8). When full, the boxes are emptied using a front-end loader into trucks for off-site disposal. The collection boxes are partially covered by the building overhang and are equipped with a bottom lip to control run-on/runoff.	These units have been removed.	1988 RFA: None 2004 EI: N/A-units not present 2013: N/A- units not present
5,11	S-F27	U.S. Filter Chemical Treatment Plant Oils Storage Sump	An unlined, below-ground sump behind the U.S. Filter Chemical Treatment Plant building previously received washdown water, precipitation, and any spills that occurred on the concrete apron behind the plant. The unit was equipped with a sump pump to return accumulated liquids to the treatment system.	In March 1989, the apron sump was filled with concrete and replaced with a new U.S. Filter truck unloading pad. This concrete pad is equipped with a sump to collect spills and runoff in the unloading area. This area is no longer used for unloading - it holds large oil storage tanks that are not currently in service.	1988 RFA: Leakage from the sump may have resulted in soil/groundwater contamination. 2004 EI: N/A-unit not present. 2013: N/A unit not present.
5,11	S-F28	U.S. Filter Chemical Treatment Plant Loading Area Slop Tank	A free standing, rectangular steel tank with a capacity of approximately 1,200 gallons is located adjacent to the Oil Treatment Plant loading area sump (S-G13). The tank had previously received spills and drips from the plant floors.	This unit was removed.	1988 RFA: None 2004 EI: N/A-units not present 2013: N/A-units not present
5,11	S-G1 S-G2	U.S. Filter Oil Treatment Plant Surge Receiver Tanks	Two 13,500 gallon elevated steel tanks receive oil wastewaters from throughout the plant. Wastes are brought to the tanks by tanker trucks which are off loaded over a sump (S-G13). Wastes are drawn from the surge tanks for treatment in retention tanks (S-G3/G4).	These units are not in service.	1988 RFA: None 2004 EI: Visual evidence of minor staining on both tank's sidewalls and concrete floor 2013: Same as 2004
5,11	S-G3 S-G4	U.S. Filter Oil Treatment Plant Retention Tanks	Two elevated, 4,000 gallon tanks receive oily wastewaters from the surge receiver tanks (S-G1/G2). During transfer from the surge tanks, lime, iron sulfate and air are added to the waste as treatment aids. Wastes are pumped from the hopper-bottoms of the retention tanks to the Flotation Skimmers (S-G5/G6) for additional treatment.	These two units were removed.	1988 RFA: 2004 EI: None 2013: None
5,11	S-G5 S-G6	U.S. Filter Oil Treatment Plant Flotation Skimmers	Two open-top, 57,000 gallon, rectangular steel tanks are used to promote separation of water from flocculated oils. Wastes are received from the retention tanks (S-G3/G4) and from a skimmer recycle (reflux) line. In the skimmers a stream of waste is continuously removed, air agitated, and polymer added to flocculate free and emulsified oil. A treated water stream is removed from the units' bottoms for discharge to the C&E sewer system (S-D8). Thick floc is pumped to the floc reduction tank (S-G7) for further treatment.	The skimmers are not in service. Previous releases occurred as a result of opening an 8-foot steel door on the east and west sides of the skimmers. Sludges would be released when the skimmers were cleaned out. These practices ceased in 1989 and a vacuum truck currently removes any sludges from the skimmer bottoms.	1988 RFA: Recent release from skimmers was evident, with sludge remaining on the ground adjacent to the skimmers at the time of the inspection. 2004 EI: Visual evidence of minimal prior releases on the tank sidewalls and concrete floor inside containment area. 2013: Same as 2004

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Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
5,11	S-G7	U.S. Filter Oil Treatment Plant Floc Reduction Tank	The Floc Reduction Tank, or cooker tank, is an elevated, heated, 2,500 gallon tank in which waste oil flocs are broken. A thick oil floc is received from the flotation skimmers (S-G5/G6), heated to 200˚F with steam, mixed with sulfuric acid and air-agitated to dissolve the flocs formed. The floc-reduced oil stream is then transferred to the vacuum filter (S-G8) for final treatment.	This unit was removed.	1988 RFA: None 2004 EI: N/A-unit not present 2013: N/A-unit not present
5,11	S-G8	U.S. Filter Oil Treatment Plant Filter Presses	The Vacuum Filter, located in the U.S. Filter Chemical Treatment Plant building, receives treated waste oil from the Floc Reduction Tank (S-G7). Filtrate discharges through a vacuum receiver (S-G9) to a wash tank (S-G11). Sludge is dewatered and collected to waste management rolloffs.	Rotating drum vacuum filters were removed and replaced by three filter presses. The filter presses are not in service.	1988 RFA: None 2004 EI: Visual evidence of staining on the concrete secondary containment area around the filter presses and their rolloff containers. 2013: Staining on concrete floor remains
5,11	S-G9	U.S. Filter Oil Treatment Plant Oil Filter Receiver	The Oil Filter Receiver is a tank/pump system which pulls the waste being treated through the Filter presses. The waste oil is then pumped to the appropriate storage tanks.	This unit is not in service.	1988 RFA: None 2004 EI: Visual evidence of prior minor oil stains on the outer tank walls and concrete floor. 2013: Same as 2004
5,11	S-G10	U.S. Filter Oil Treatment Plant Sludge Collection Bin	The Collection Bin was a rectangular steel enclosure on a concrete base located on the periphery of the U.S. Filter Chemical Treatment Plant. The bin had an open top through which solids enter from the Vacuum Filter (S-G8) discharge chute. When full, the bin was emptied using a front-end loader which placed the sludge in trucks for off-site disposal.	This unit was taken out of service in April 1989 and has been removed.	1988 RFA: None 2004 EI: N/A-unit not present 2013:N/A-unit not present
5,11	S-G11	U.S. Filter Oil Treatment Plant Wash Tank	The wash tank (10,000 gallons) receives filtrate from the vacuum filter (S-G8) after it passes through the vacuum receiver (S-G9). Free-floating oils are pumped to the recycled oil tank. Tank bottoms, which contain approximately 0.5% iron sulfate, are transferred to the U.S. Filter Chemical Treatment Plant iron sulfate storage tank (S-F16).	This unit is not in service.	1988 RFA: None 2004 EI: Visual evidence of oil spills on the sides of tank and on the concrete floor. 2013: Same as 2004
5,11	S-G12	U.S. Filter Oil Treatment Plant Recycled Oil Storage Tank	A 20,000-gallon horizontal steel storage tank is used to store recycled oils prior to reuse on-site as a fuel. Treated oil is received from the wash tank (S-G11). Oil is removed in tanker trucks for distribution to oil burning equipment throughout the plant.	This unit is not in service. A concrete dike was constructed in 1996 around the outside tank area.	1988 RFA: None 2004 EI: Visual evidence of prior minor spills on the sides of the tank and its concrete slab. 2013: Same as 2004
5,11	S-G13	U.S. Filter Oil Treatment Plant Loading Area Sump	A concrete sump, covered with an iron grate, collects drips and spills from tanker truck loading/unloading at the Oil Treatment Plant. The sump is emptied into the surge receiver tanks (S-G1/G2) after tanker unloading operations.	This unit was removed and relocated 25 yards to the west of the U.S. Filter Plant. The replacement unit is no longer in service.	1988 RFA: None 2004 EI: Old sump now covered with building. Oil stains on concrete pad at new location. 2013: Same as 2004
5,11	S-K1	Hydrochloric Acid Regeneration Plant Receiving Sump	The sump is an outdoor subsurface pit constructed of reinforced concrete with steel plate covers. Tank overflows, spills and leaks are directed to the pit and waste is pumped to the reactors (S-K2 through S-K5) for treatment.	The sump is not in use. A tool shed and various equipment parts remain on top of steel covers.	1988 RFA: None 2004 EI: Orange staining on south and east sides of underground pit. 2013: Same as 2004
5,11	S-K2 to S-K5	Hydrochloric Acid Regeneration Plant Reactors	Four fluidized bed reactors are used to remove iron from the spent pickle liquor. Concentrated acid is returned to the picklers for reuse.	Three of the four reactors were rebuilt in 1995 and 1996. These units are not in service.	1988 RFA: None 2004 EI: Small amount of staining visible on concrete floor inside building. 2013: Same as 2004

TABLE 1B
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Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
5,9	S-N2	Tin Mill Waste Treatment System Transfer Box	A steel bin with a capacity of approximately 1,000 gallons is used to receive sludges and liquid wastes transported from the Tin Mill via vacuum truck. Several areas of blue stains characteristic of tin mill wastes were noted during the RFA site inspection in the area of the transfer box (S-N2). The area where the rail cars unload showed extensive staining.	Blue stained soils were excavated and properly disposed prior to improvements to the truck unloading pad in February, 1993. The improvements included the construction of berms, curbs and a trench to divert any leaks/spills to the inside sump. The detinning plant has been closed and decommissioned. The transfer box has been removed. All decommissioning activities are documented in RCRA Closure Report dated September 2000, submitted to WVDEP on September 20, 2000. Stained soils along the rail line were removed as an Interim Measure as described under SWMU W-1000.	1988 RFA: Blue staining near transfer box and along rail line where unloading occurred. 2004 EI: None 2013: None
5,9	S-N3 S-N4	Tin Mill Waste Treatment System Dissolving Tanks	Two RCRA-regulated tanks located in the Detinning Plant Area and designated numbers 3 and 4 by WSC are used to store waste tin plating sludges (U.S. EPA hazardous waste F007/F008) from the tin mill. Wastes are pumped to the tanks from the transfer box (S-N2). The tanks are open-top, steel, elevated tanks with a 10,000 gallon capacity each. The waste then flows to 6 treatment tanks (S-N5 through S-N10).	The detinning plant has been closed and decommissioned. These units have been removed. The building is currently used for equipment storage. All decommissioning activities are documented in RCRA Closure Report dated September 2000, submitted to WVDEP on September 20, 2000.	1988 RFA: None 2004 EI: None 2013: None
5,9	S-N5 to S-N9	Tin Mill Waste Treatment System Treatment Tanks	Five RCRA-regulated tanks located in the Detinning Plant Area and designated numbers 6 through 9 by WSC are used to precipitate insoluble ferri-ferro-cyanide sludge from the tin mill wastes. The tanks are open-top, steel, elevated tanks with a 10,000 gallon capacity each.	The detinning plant has been closed and decommissioned. These units have been removed. The building is currently used for equipment storage. All decommissioning activities are documented in RCRA Closure Report dated September 2000, submitted to WVDEP on September 20, 2000.	1988 RFA: None 2004 EI: None 2013: None
5,9	S-N10	Tin Mill Waste Treatment System Sludge Tank	A RCRA-regulated sludge tank located in the Detinning Plant and designated number 10 by WSC is used to store treated ferro ferro-cyanide sludge. The tank is an open-top, steel, elevated tank with a 7,000 gallon capacity.	The detinning plant has been closed and decommissioned. These units have been removed. The building is currently used for equipment storage. All decommissioning activities are documented in RCRA Closure Report dated September 2000, submitted to WVDEP on September 20, 2000.	1988 RFA: None 2004 EI: None 2013: None
5,9	S-N11	Tin Mill Waste Treatment System Sludge Filter	Approximately 1,000 gallons/day of sludge is dewatered in the filter press. Bottoms from the sludge tank (S-N10) are filtered, filtrate is returned to the treatment tanks (S-N5 through S-N9) and filter cake is collected in a storage bin (S-N12).	The detinning plant has been closed and decommissioned. This unit has been removed. The building is currently used for equipment storage. All decommissioning activities are documented in RCRA Closure Report dated September 2000, submitted to WVDEP on September 20, 2000.	1988 RFA: None 2004 EI: None 2013: None
5,9	S-N12	Tin Mill Waste Treatment System Sludge Bin	Rectangular steel boxes collect filter cake from the sludge filter (S-N11).	The detinning plant has been closed and decommissioned. This unit has been removed. The building is currently used for equipment storage. All decommissioning activities are documented in RCRA Closure Report dated September 2000, submitted to WVDEP on September 20, 2000.	1988 RFA: None 2004 EI: None 2013: None
5,9	S-N13	Tin Mill Waste Treatment System Drum Storage Area	Untreatable solids which are manually removed from the dissolving tanks (S-N3/N4) are placed in 55 gallon steel drums and stored inside the detinning plant for off-site disposal at a hazardous waste landfill. The drums are stored for periods of less than 90 days.	Area no longer used for drum storage.	1988 RFA: None 2004 EI: None 2013: None
5	W-700	Stained Soil Around Old Railroad Fueling Station	Stained soils exist around the former railroad diesel fueling station located at the old Railroad Transportation Office. The filling station consists of a brick building, several above-ground storage tanks and related pipelines.	The fueling station (tanks, buildings, etc.) have been demolished and removed. Soil excavation/disposal and confirmatory sampling were performed in 2003 as an Interim Measure. Interim measure report recommended additional borings to confirm lateral extent of contamination has been delineated and a monitoring well to determine whether groundwater has been impacted.	1988 RFA: N/A 2004 EI: N/A 2013: N/A

TABLE 1B
SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
CAA VII STEEL-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

Figure No.	SWMU/AOC ID No.[1]	Name	Location and General Description[2]	Current Status/Recent Actions[3]	Evidence of Release[4]
5,6	W-701	Spillage Around Oil Tanks	Stained soil exists around fuel oil and diesel storage tanks located at the south end of the open hearth building.	Tanks no longer used to store fuel oil and diesel.	1988 RFA: N/A 2004 EI: Stained soils exist around fuel oil tank. 2013: Some stained soil had been removed. Only minor staining observed near tank. More substantial staining observed beneath heat exchanger located 50 feet northwest of tank.
5,7	W-800	Continuous Caster Sedimentation Basins	Stained soils exist along the unloading area (western side) adjacent to the basins.	Stained soil was removed and a steel catch basin, which drains water to treatment plant sewer, was installed in 2000. The Continuous Caster nor these basins are currently not in service. No sampling has been performed to date.	1988 RFA: N/A 2004 EI: A minimal amount of stained soil was observed along the western side of the skimmer tank. 2013: Same a 2004
5,9	W-1000	Blue-Stained Soil Near Detinning Plant	Blue-stained soil along the rail unloading area southwest of Detinning Plant was identified in association with SWMU N-2 ((Waste Transfer Box) during the RFA (EPA Comment K-9 in A.O.).	The stained soils were removed as an Interim Measure in December 1998 (29 cubic yards) and May 2000 (170 cubic yards). Three soil samples were collected from the base and sidewalls of the excavation. The results of the sampling, as documented in the RCRA Closure Report for the Detinning Plant dated September 2000, indicate that no significant soil contamination remains.	1988 RFA: Blue stained soil along rail unloading area. 2004 EI: None 2013: None
5,9	W-1001	Stained Soils Along Railroad Tracks	White-stained soils along railroad tracks adjacent Detinning Plant.	These soils remain.	1988 RFA: N/A 2004 EI: Stained soil remains. 2013: No visible signs of staining.
5,9	W-1002	Detinning Plant Tanks	Tanks containing F007 and F008 hazardous waste in the Detinning Plant (EPA Comment No. D-2 in A.O.).	The Detinning Plant has been closed and decommissioned. These tanks were removed and recycled off-site. All decommissioning activities are documented in the RCRA Closure Report dated September 2000 and submitted to WVDEP on September 20, 2000.	1988 RFA: None 2004 EI: N/A-tanks not present 2013: N/A-tanks not present
5,9	W-1003	Detinning Filter Press	Detinning Plant Filter Press (EPA Comment D-7 in A.O.).	The Detinning Plant has been closed and decommissioned. The filter press was removed and recycled off-site. All decommissioning activities are documented in the RCRA Closure Report dated September 2000 and submitted to WVDEP on September 20, 2000.	1988 RFA: None 2004 EI: N/A-filter press not present 2013: N/A-Filter press not present
5,11	W-1004	HARP Pickle Liquor Tanks	Undiked waste pickle liquor tanks and pits at the HARP Plant (EPA Comments D-3 and D-8 in A.O.).	These tanks were cleaned out and are no longer in use. These tanks were replaced with new diked tanks near the U.S. Filter Plant in 1998.	1988 RFA: None 2004 EI: Orange stained soil/gravel is present beneath the old tanks. 2013: Stained soil remains
5,9	W-1007	Oil Stained Soils	Oil stained soils west of the Detinning Plant.	These soils were removed as an Interim Measure in October 1998. A total of 18 cubic yards of contaminated soil was excavated and disposed off-site. Two confirmatory soil samples were collected from the base of the excavation.	1988 RFA: N/A 2004 EI: None-IM completed 2013: None-IM completed
5,11	W-1008	Waste Oil Drum Storage Area	Waste oil drum storage area near U.S. Filter Plant with no containment. Stained soils exist around stockpiled drums.	Drums are no longer stored in this area.	1988 RFA: N/A 2004 EI: Most of the area had been covered with fresh slag. 2013: Same as 2004
5,11	W-1009	PORI Oil/Acid Unloading Area	Stained soils were identified adjacent to the oil/acid unloading area of the U.S. Filter Plant during the RFA (EPA Comment K-5 in A.O.).	A concrete apron and pad have been installed in the oil/acid unloading area to contain spillage. Shallow stained soils were excavated and removed during construction of the concrete pad. Additional paving between the new pad and skimmer has been installed.	1988 RFA: N/A 2004 EI: Concrete pad installed -no stained soil observed. 2013: Same as 2004

TABLE 1B
SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN
CAA VII STEEL-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

1 SWMUs identified in the 1988 RCRA Facility Assessment Report (RFA) are designated with an S- followed by the SWMU designation given in the RFA. SWMUs identified by WSC are designated with a W- followed by a sequential numbering system for each operations area.

2 Location and general description as provided in 1988 RFA and transferred to table in 1998 RFI Work Plan.

3 Current status as of June 2013. Recent actions include those completed subsequent to preparation of the 1998 RFI Work Plan.

4 Based on descriptions provided in 1988 RFA and 2004 Environmental Indicators inspections and 2013 inspections conducted by Civil & Environmental Consultants, Inc.

TABLE 2

SURFACE SOIL SAMPLING AND ANALYSIS PROGRAM
CAA VI IRON-MAKING AND CAA VII STEEL-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

Required Constituent Analysis[1]	Analytical Method	Number of Samples	Number of Field Duplicates[2]	Number of Equipment Blanks[2]	Number of Trip Blanks[2]	Number of Matrix Spikes and/or Matrix Spike Duplicates[2]
TCL Volatiles	SW-846, 8260B[3]	66 [4]	4	4	1 per cooler	4
TCL Semi-Volatiles	SW-846, 8270C	66 [4]	4	4	--	4
PCBs (all aroclors)	SW-846, 8082A	62	4	4	--	4
TAL Total Metals	SW-846, 6020/7471	62	4	4	--	4[5]
Total Cyanide	SW-846, 9012A	62	4	4	--	4

(1) TAL - Target Analyte List
TCL - Target Compound List

(2) Indicates the minimum number of QA/QC samples that are expected to be collected. Trip blanks will be included in every cooler containing samples for VOC analysis. Field Duplicate and Matrix Spike/Matrix Spike Duplicate samples will be collected at a frequency of one per every 20 samples. Equipment Blank samples will be selected at random for analysis at a frequency of one per sampling event or per every 20 samples or fraction thereof, whichever is greater.

(3) Sampling/preparatory procedures for soil samples will follow SW846 Update II Methods.

(4) Of the 66 samples, 4 will be analyzed for BTEX and PAHs only. This includes surface soil samples VI-SS-10, VI-SS-11, VI-SS12, and VII-SS-18.

(5) Indicates that only matrix spike samples will be collected.

TABLE 3

SUBSURFACE SOIL SAMPLING AND ANALYSIS PROGRAM
CAA VI IRON-MAKING AND CAA VII STEEL-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

Required Constituent Analysis(1)	Analytical Method	Number of Samples(2)	Number of Field Duplicates(2)	Number of Equipment Blanks(2)	Number of Trip Blanks(2)	Number of Matrix Spikes and/or Matrix Spike Duplicates(2)
TCL Volatiles	SW-846, 8260B(3)	41(4)	3	3	1 per cooler	3
TCL Semi-Volatiles	SW-846, 8270C	41(4)	3	3	--	3
PCBs (all aroclors)	SW-846, 8082A	26	2	2	--	2
TAL Total Metals	SW-846, 6020/7471	26	2	2	--	2(5)
Total Cyanide	SW-846, 9012A	26	2	2		2
Total Organic Carbon	SW-846, 9060	26	2	2	--	2

(1) TAL - Target Analyte List
TCL - Target Compound List

(2) The number of samples is based on a minimum of 2 samples collected from 16 soil borings (VI-SB-01, VI-SB-02, VI-SB-101, VI-SB-102, VII-SB-101 through VII-SB-108, and VII-SB-01 through VII-SB-04) and 1 sample collected from 9 soil borings (VII-SB-109 through VII-SB-117). The indicated number of QA/QC samples is the minimum number that may be collected. Trip blanks will be included in every cooler containing samples for VOC analysis. Equipment blanks will be selected at random for analysis at a frequency of 1 per sampling event or per every 20 samples or fraction thereof, whichever is greater. One Field Duplicate and Matrix Spike/Matrix Spike Duplicate sample will be collected per every 20 samples collected.

(3) Sampling/preparatory procedures for soil samples will follow SW846 Update II Methods.

(4) Of the 41 samples, 15 will be analyzed for BTEX and PAHs only. This includes samples from soil borings VI-SB-01, VI-SB-101, VII-SB-101, and VII-SB-109 through VII-SB-117.

(5) Indicates that only matrix spike samples will be collected.

TABLE 4

GROUNDWATER SAMPLING AND ANALYSIS PROGRAM
CAA VI IRON-MAKING AND CAA VII STEEL-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

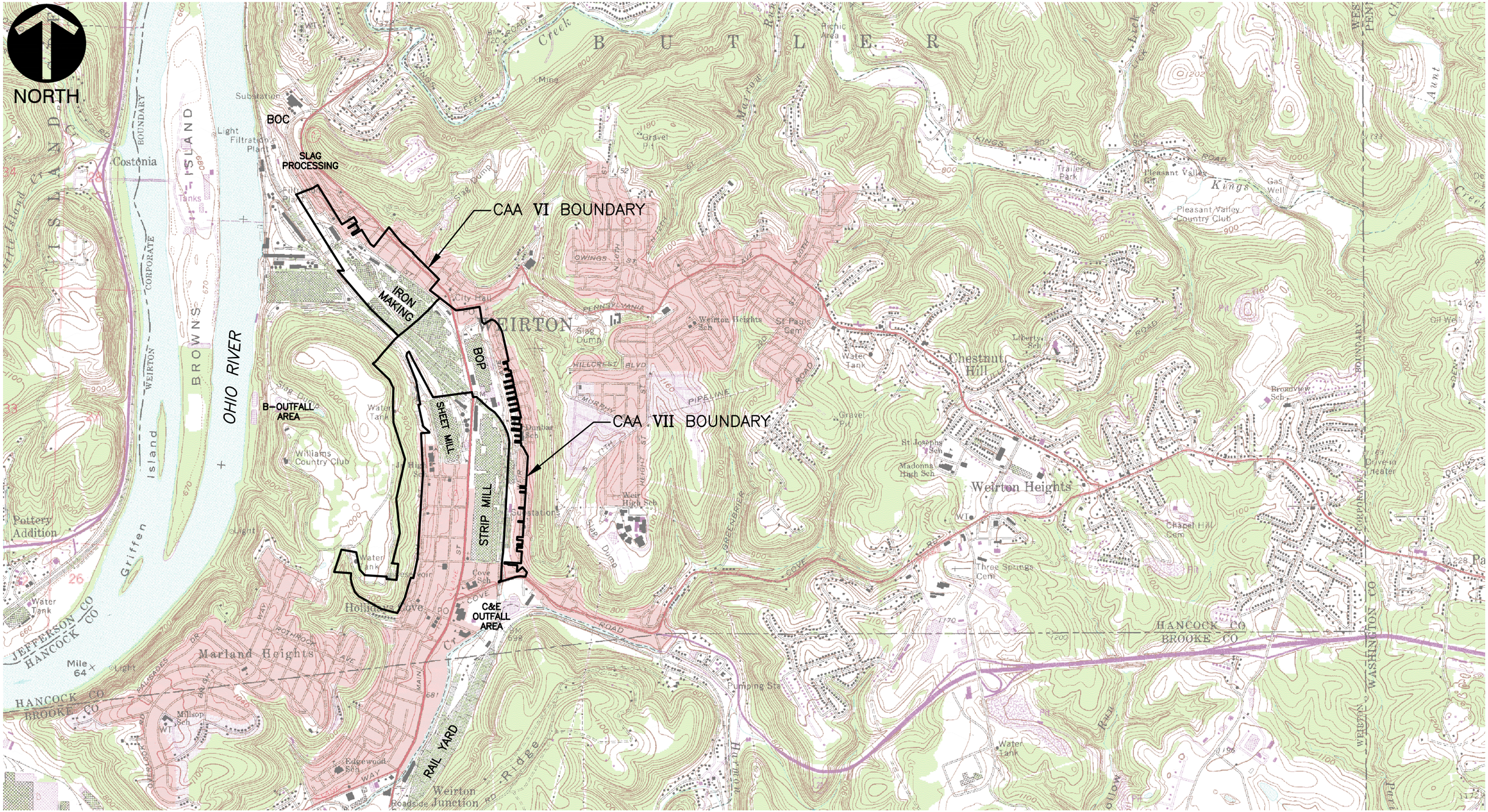
Required Constituent Analysis[1]	Analytical Method	Number of Samples[2]	Number of Duplicates[2]	Number of Equipment Blanks[2]	Number of Trip Blanks[2]	Number of Matrix Spikes and/or Matrix Spike Duplicates[2]
TCL Volatiles	SW-846, 8260B	51	3	3	3	3
TCL Semi-Volatiles	SW-846, 8270C	51	3	3	--	3
TAL Total Metals	SW-846, 6020/7470	51	3	3	--	3[3]
Total Cyanide	SW-846, 9012A	51	3	3	--	3

(1) TAL - Target Analyte List
TCL - Target Compound List

(2) The number of samples is based on 3 sampling events with the 6 new wells (VI-MW-01A, VI-MW-02A, and VII-MW-01A through VII-MW-04A) and 11 current wells (MA-MW-01A, MA-MW-01D, MA-MW-07A, MA-MW-07D, SC-MW-01A, SC-MW-01D, SC-MW-02A, SC-MW-02D, SC-MW-03A, SC-MW-03D, CA-MW-01A). The indicated number of QA/QC samples is based on 1 sample per event. Trip blanks will be included in every cooler containing samples for VOC analysis.

(3) Indicates that only matrix spike samples will be collected.

FIGURES



REFERENCE

1. U.S.G.S. 7.5' TOPOGRAPHIC MAP, WEIRTON QUADRANGLE, WV–PA–OH DATED: 1968, PHOTOREVISED: 1990.

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ARCELORMITTAL WEIRTON, INC. FACILITY
CAA VI/VII RFI WORK PLAN
WEIRTON, WEST VIRGINIA

CAA VI/VII SITE LOCATION MAP

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO	FIGURE NO.:	1
DATE:	JUNE 28, 2013	DWG SCALE:	1"=2000'	PROJECT NO:	090-342		

P:\2009\090-342\-CADD\DWG\090-342 B25.dwg{FIGURE 1} LS:(6/28/2013 - jgilligan) - LP: 6/28/2013 10:33 AM

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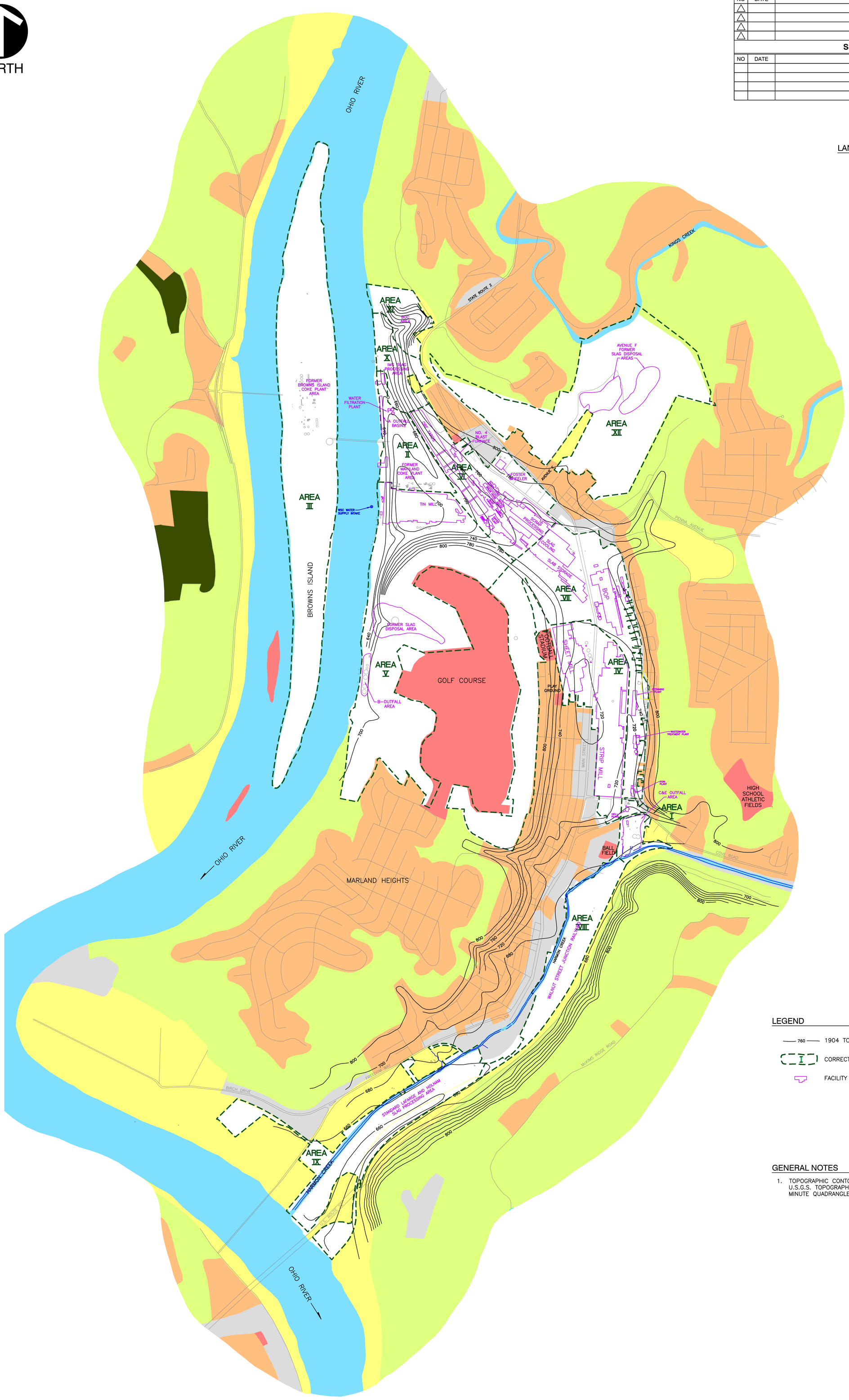

LAND USE LEGEND

- RECREATIONAL
- AGRICULTURAL
- RESIDENTIAL
- INDUSTRIAL
- URBAN/COMMERCIAL
- UNDEVELOPED
- SURFACE WATER

LEGEND

- 760 — 1904 TOPOGRAPHIC CONTOUR (SEE NOTE 1)
- I — CORRECTIVE ACTION AREA
- FACILITY OPERATIONS

GENERAL NOTES

1. TOPOGRAPHIC CONTOURS SHOWN WERE TAKEN FROM THE U.S.G.S. TOPOGRAPHIC MAP FOR THE STEUBENVILLE, OH 15 MINUTE QUADRANGLE, DATED 1904.

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WEIRTON, WEST VIRGINIA

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO
DATE:	JUNE 27, 2013	DWG SCALE:	1"=1000'	PROJECT NO:	090-342

FACILITY-WIDE PRE-DEVELOPMENT GROUND SURFACE CONTOURS

FIGURE NO.: 2

P:\2009\090-342\-CADD\DWG\090-342E14.dwg{FIGURE 3} LS:(6/28/2013 - jgilligan) - LP: 6/28/2013 10:31 AM

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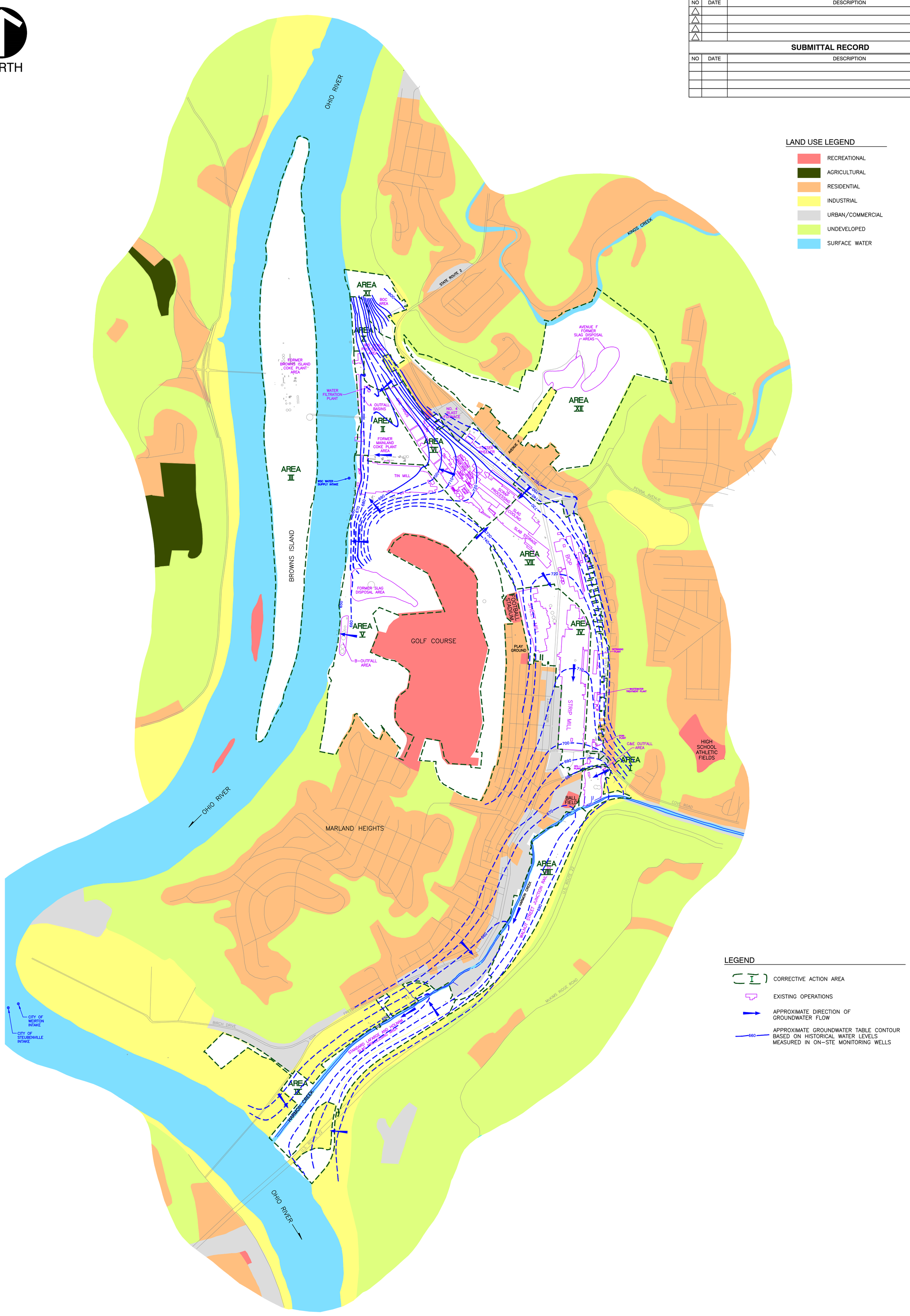

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DATE:	JUNE 28, 2013	DWG SCALE:	1"=1000'	PROJECT NO:	090-342

FACILITY-WIDE GROUNDWATER TABLE CONTOURS

FIGURE NO.: **3**

P:\2009\090-342\-CADD\DWG\090-342E16.dwg{FIGURE 4} LS:(6/28/2013 - jgilligan) - LP: 6/28/2013 10:29 AM

NORTH

CAA XI
BOC/AIR PRODUCTS
(DEMOLISHED)

CAA X
IMS SLAG PROCESSING
(INACTIVE)

CAA II
MAINLAND COKE PLANT
(DEMOLISHED)

CAA VI
IRON-MAKING AREA

CAA XII
AVENUE F SLAG
DISPOSAL AREA

CAA V
TIN MILL AREA

CAA VII
STEEL-MAKING AREA

FLOW

OHIO RIVER

A-OUTFALL BASIN

A-OUTFALL BASIN

ORE STORAGE YARD

ORE STORAGE YARD

NO. 4 BLAST FURNACE

BLOWER ROOM

HOSPITAL

STATE ROUTE 2

FOSTER WHEELER STEAM PLANT

OFFICE

OXYGEN BUILDING

BLAST FURNACE OIL HOUSE

IN-GROUND CONCRETE TANK

CENTRAL MACHINE SHOP

LADLE HOUSE

POWER HOUSE

BOILER HOUSE

NOS. 1, 2 & 3 BLAST FURNACES

TIN MILL

SINTER PLANT (DEMOLISHED)

FORMER OPEN HEARTH BUILDINGS

FORMER 10,000-GALLON GASOLINE AST & FUELING STATION

FORMER 10,000-GALLON DIESEL ASTS & FUELING STATION

TRUCKING DEPARTMENT MAINTENANCE BUILDING

FUEL OIL/TAR PITCH TANKS AND PUMPING STATION (SWMU W-601)

IC-MW-08A
BC-MW-01A
BC-MW-06D
BC-MW-06A
BC-MW-02A
IC-MW-07A
BC-MW-07D
BC-MW-07A
BC-MW-03A
IA-MW-04A
BC-MW-04D
BC-MW-04A
BC-MW-05A
IC-MW-06A
IA-MW-03A
IA-MW-01A
IC-MW-05A
IA-MW-02A
MC-MW-47A
MC-MW-48A
MA-MW-09A
MA-MW-08A
MC-MW-49A
MA-MW-09D
MC-MW-43A
MA-MW-06A
MC-MW-44A
MA-MW-06D
MC-MW-51A
MC-MW-50A
MC-MW-52A
MC-MW-53A
MC-MW-53D
MA-MW-07A
MA-MW-07D
MA-MW-05A
MA-MW-05D
MA-MW-04A
MA-MW-04D
MC-MW-61D
MC-MW-61A
MC-MW-59D
MC-MW-59A
MC-MW-58D
MC-MW-58A
MA-MW-03A
MA-MW-03D
MC-MW-60A
MC-MW-60D
MA-MW-10A
MA-MW-10D
MC-MW-46A
MC-MW-46D
MC-MW-45D
MC-MW-45A
MC-MW-02AR
MC-MW-02DR
MC-MW-54A
MC-MW-54D
MC-MW-55D
MC-MW-55A
MC-MW-56D
MC-MW-56A
MC-MW-57A
MC-MW-57D
MA-MW-01A
MA-MW-01D
TC-MW-02A
TC-MW-02D
TC-MW-01D
TC-MW-01A
VI-SS-01
VI-SS-02
VI-SS-03
VI-SS-04
VI-SS-05
VI-SB-104
S-H6
S-H7
S-H8
S-H5
S-H4
S-H1 - S-H3
VI-SS-06
VI-SS-07
VI-SS-08
VI-SS-09
VI-SS-11
VI-SB-102
VI-SS-10
VI-SS-12
VI-SB-101
VI-SB-103
S-O10
S-C3
S-C1
S-C6
S-C4
S-C5
S-C2

REVISION RECORD

NO	DATE	DESCRIPTION
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SUBMITTAL RECORD

NO	DATE	DESCRIPTION

LEGEND

- TOPOGRAPHIC CONTOUR
- CORRECTIVE ACTION AREA BOUNDARY
- W-001 — SOLID WASTE MANAGEMENT UNITS IDENTIFIED BY WSC
- S-D2 — SOLID WASTE MANAGEMENT UNITS IDENTIFIED IN 1988 RFA REPORT
- EXISTING GROUNDWATER MONITORING WELL
- PROPOSED SOIL BORING
- PROPOSED SURFACE SOIL SAMPLE

GENERAL NOTES

1. REFER TO TABLE 1 FOR A DESCRIPTION OF SOLID WASTE MANAGEMENT UNITS SHOWN ON THIS MAP.

REFERENCE

1. TOPOGRAPHIC MAPPING PREPARED BY ADR EASTERN MAPPING DATED APRIL 9, 1990.

SCALE IN FEET
0 200 400

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CAA VI/VII RFI WORK PLAN
WEIRTON, WEST VIRGINIA

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO
DATE:	JUNE 28, 2013	DWG SCALE:	1"=1000'	PROJECT NO:	090-342

SAMPLE LOCATIONS - CAA VI

FIGURE NO.: 4

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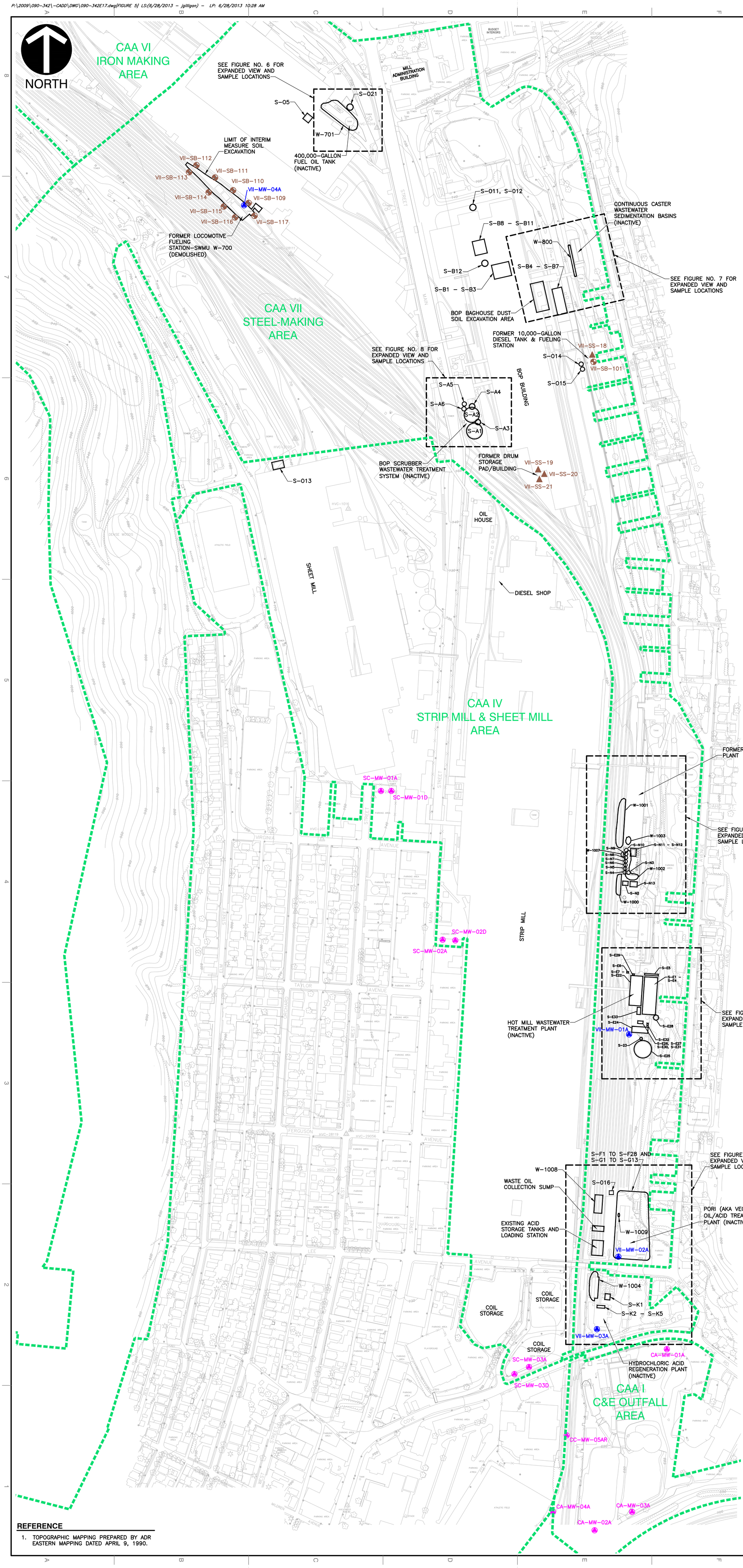

REVISION RECORD

NO	DATE	DESCRIPTION

SUBMITTAL RECORD

NO	DATE	DESCRIPTION

LEGEND

- TOPOGRAPHIC CONTOUR
- CORRECTIVE ACTION AREA BOUNDARY
- W-001 — SOLID WASTE MANAGEMENT UNITS IDENTIFIED BY WSC
- S-D2 — SOLID WASTE MANAGEMENT UNITS IDENTIFIED IN 1988 RFA REPORT
- SC-MW-01A — EXISTING GROUNDWATER MONITORING WELL
- VI-SB-102 — PROPOSED SOIL BORING
- VI-SS-10 — PROPOSED SURFACE SOIL SAMPLE
- VII-MW-01A — PROPOSED GROUNDWATER MONITORING WELL

GENERAL NOTES

1. REFER TO TABLE 1 FOR A DESCRIPTION OF SOLID WASTE MANAGEMENT UNITS SHOWN ON THIS MAP.

REFERENCE

1. TOPOGRAPHIC MAPPING PREPARED BY ADR EASTERN MAPPING DATED APRIL 9, 1990.

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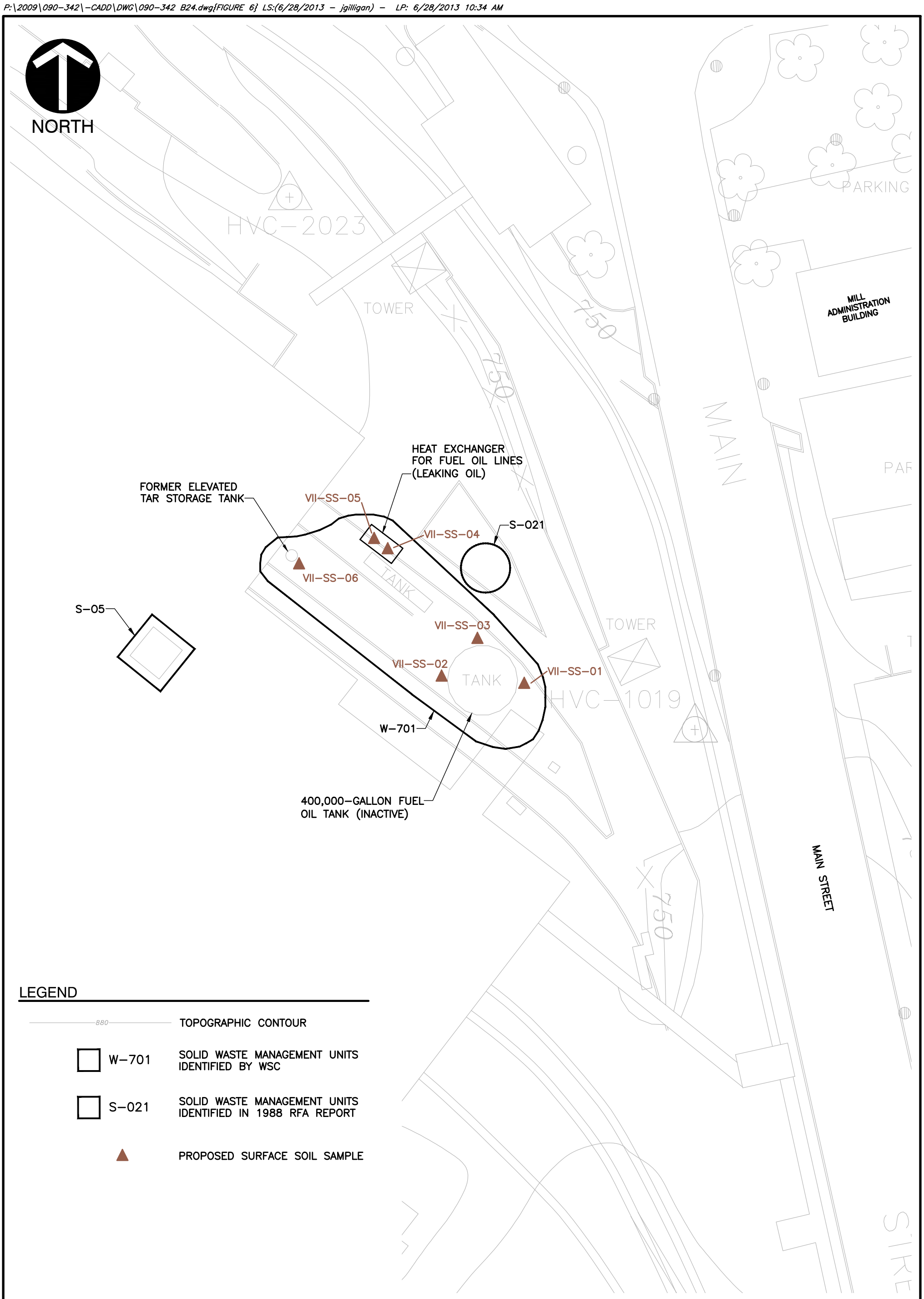
DATE:	JUNE 28, 2013	DWG SCALE:	1"=1000'	PROJECT NO:	090-342

SAMPLE LOCATIONS - CAA VII

FIGURE NO.: 5



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SCALE IN FEET

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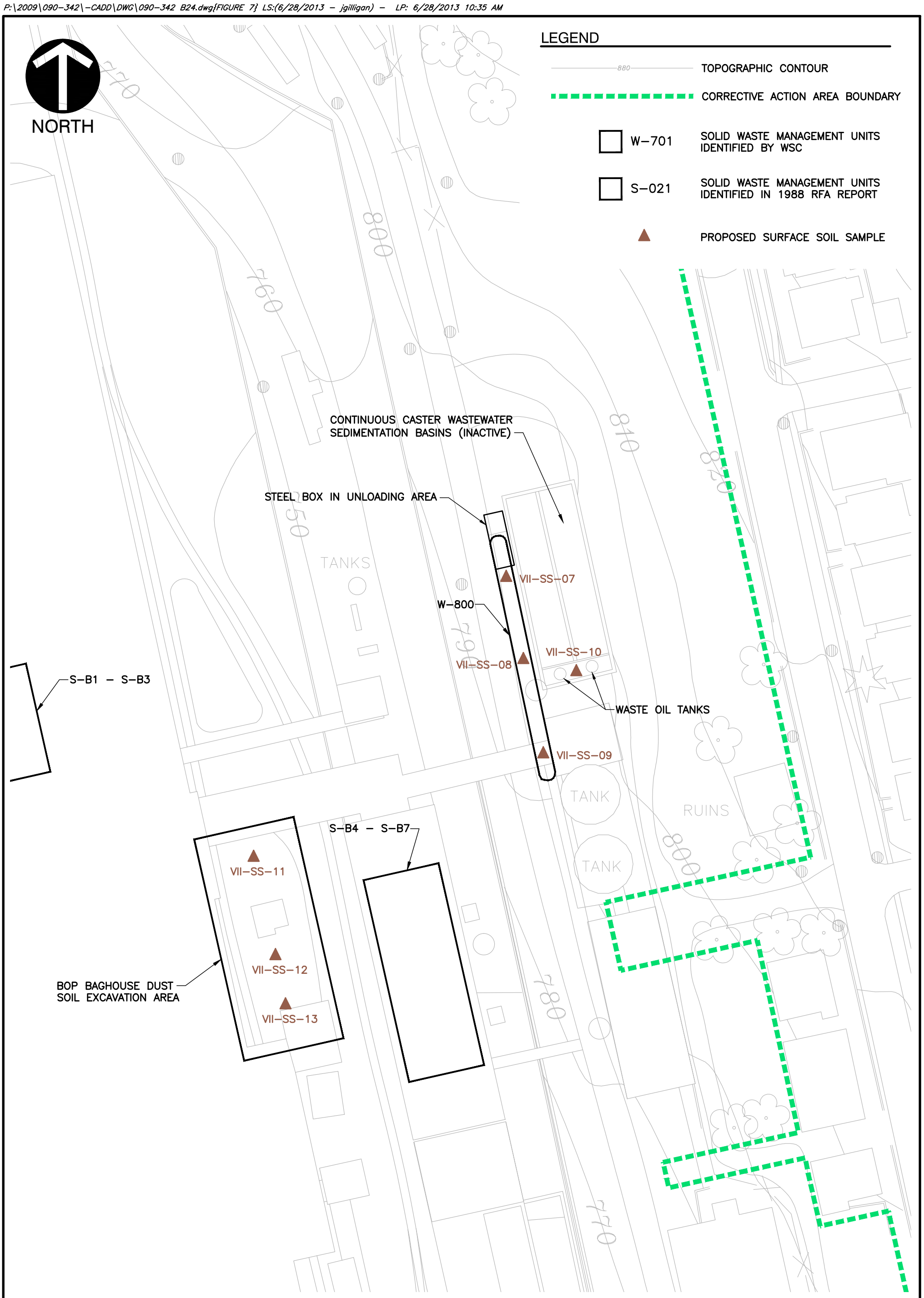
CAA VI/VII RFI WORK PLAN
WEIRTON, WEST VIRGINIA

SAMPLE LOCATIONS
400,000-GALLON FUEL OIL TANK

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO	DRAWING NO.:	6
DATE:	JUNE 28, 2013	DWG SCALE:	1"=50'	PROJECT NO:	090-342.0016		



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SCALE IN FEET

0 50 100

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ARCELORMITTAL WEIRTON, INC. FACILITY
CAA VI/VII RFI WORK PLAN
WEIRTON, WEST VIRGINIA

SAMPLE LOCATIONS
BOP BAGHOUSE AND CASTER SED. BASINS

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO	DRAWING NO.:	7
DATE:	JUNE 28, 2013	DWG SCALE:	1"=50'	PROJECT NO:	090-342.0016		

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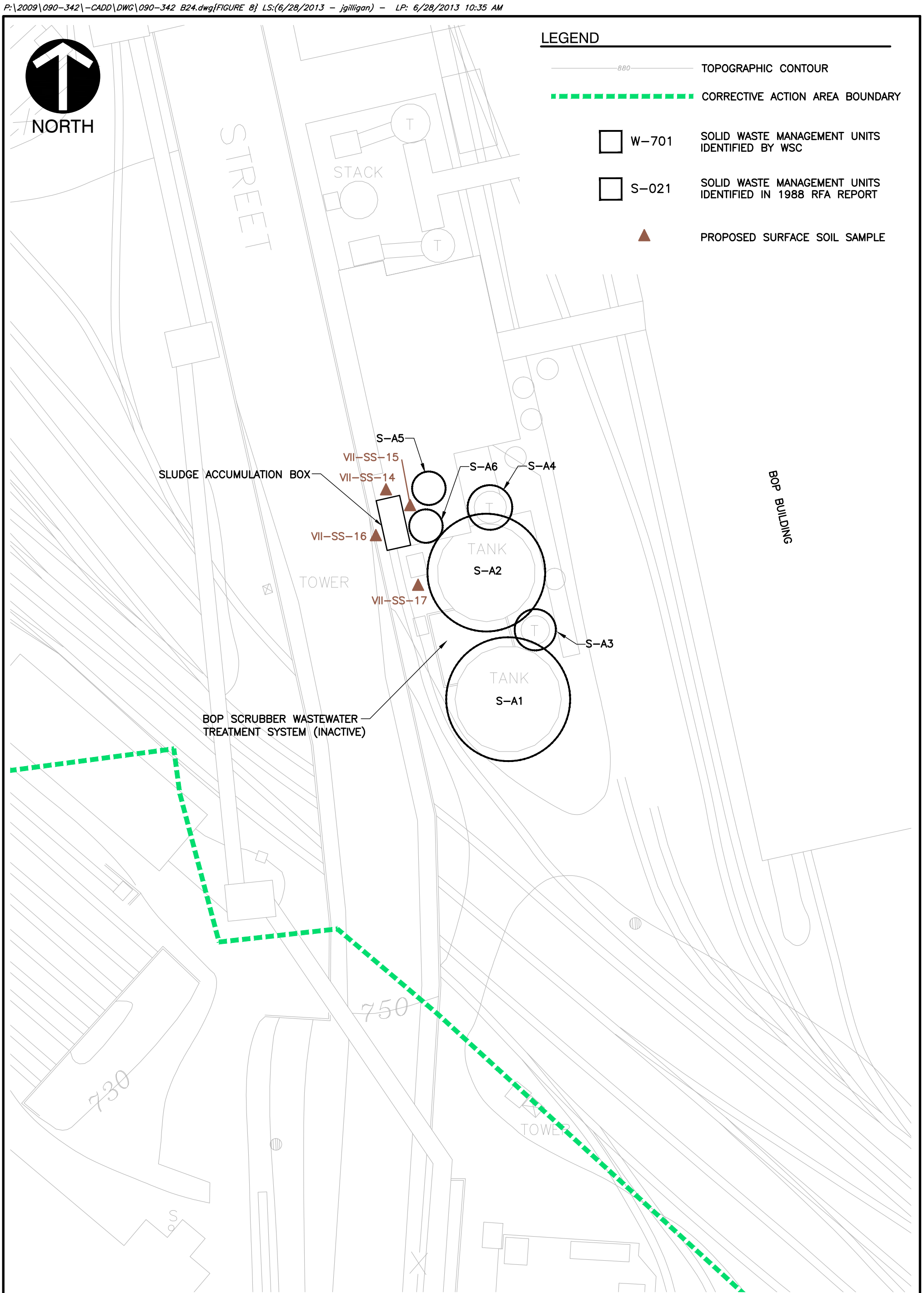

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SCALE IN FEET

0 50 100

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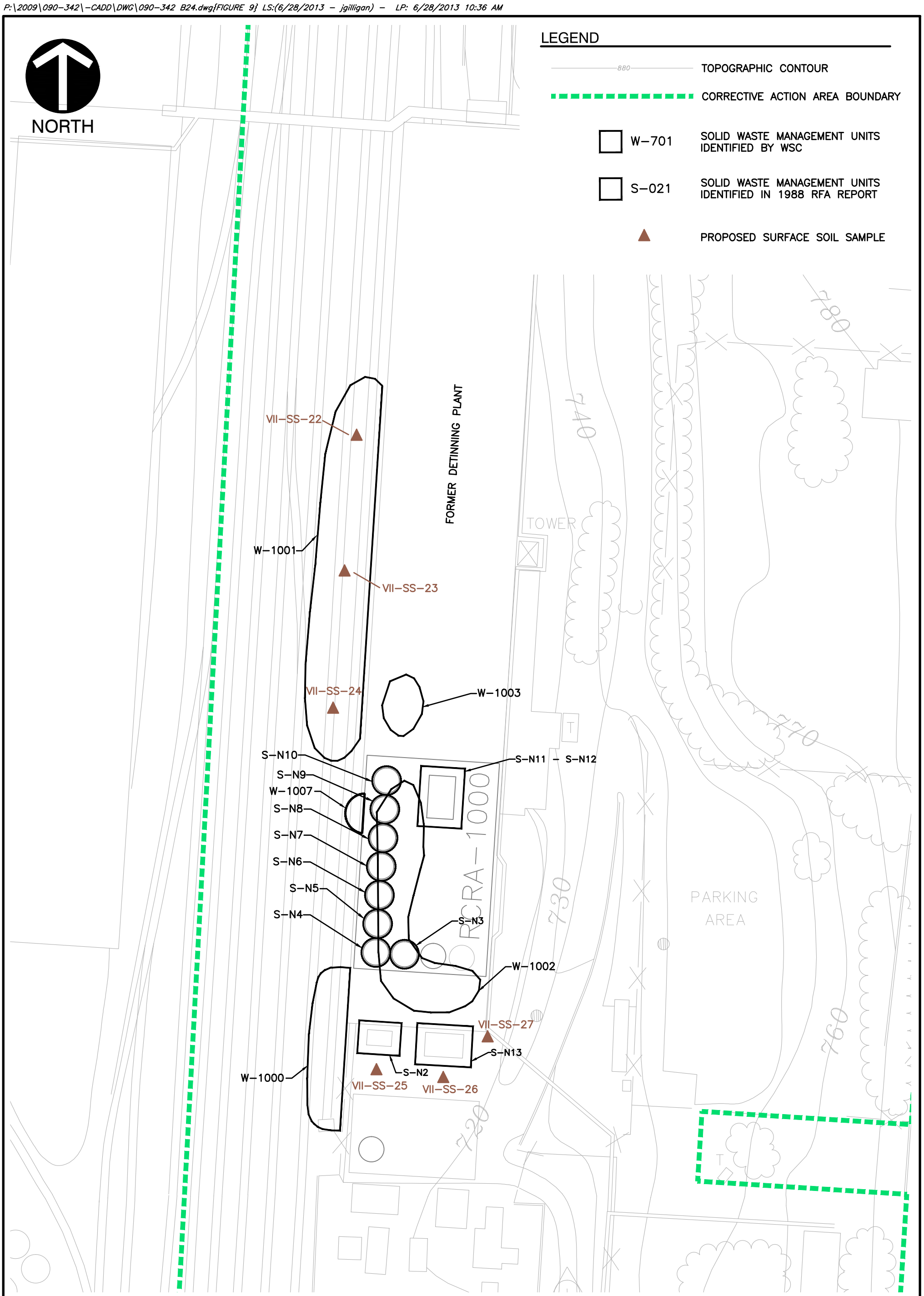
ARCELORMITTAL WEIRTON, INC. FACILITY
CAA VI/VII RFI WORK PLAN
WEIRTON, WEST VIRGINIA

SAMPLE LOCATIONS
BOP SCRUBBER WWTP

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO	DRAWING NO.:	8
DATE:	JUNE 28, 2013	DWG SCALE:	1"=50'	PROJECT NO:	090-342.0016		

P:\2009\090-342\-CADD\DWG\090-342 B24.dwg{FIGURE 9} LS:(6/28/2013 - jgilligan) - LP: 6/28/2013 10:36 AM



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SCALE IN FEET

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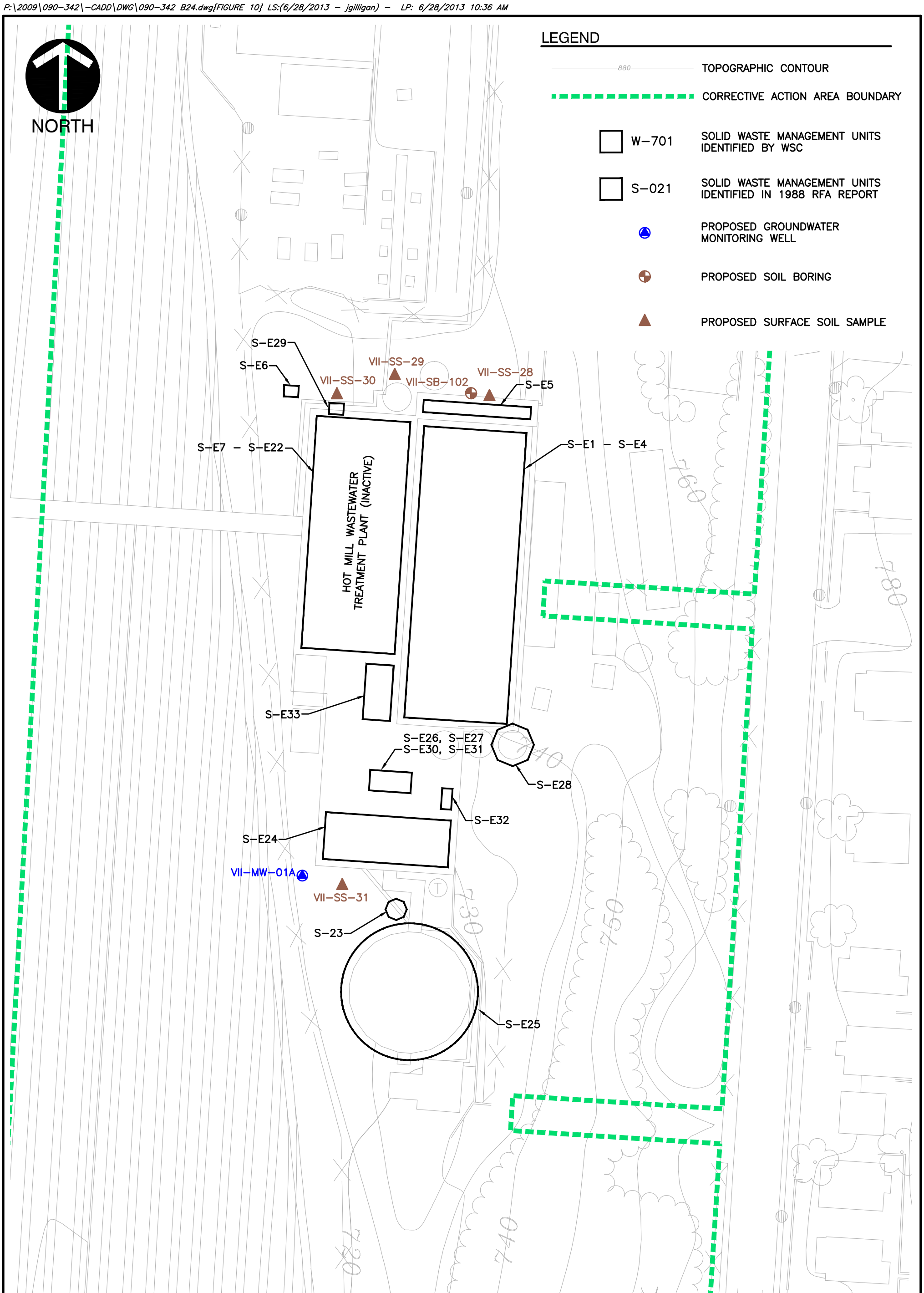
ARCELORMITTAL WEIRTON, INC. FACILITY
CAA VI/VII RFI WORK PLAN
WEIRTON, WEST VIRGINIA

SAMPLE LOCATIONS
DETINNING PLANT

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO	DRAWING NO.:	9
DATE:	JUNE 28, 2013	DWG SCALE:	1"=50'	PROJECT NO:	090-342.0016		



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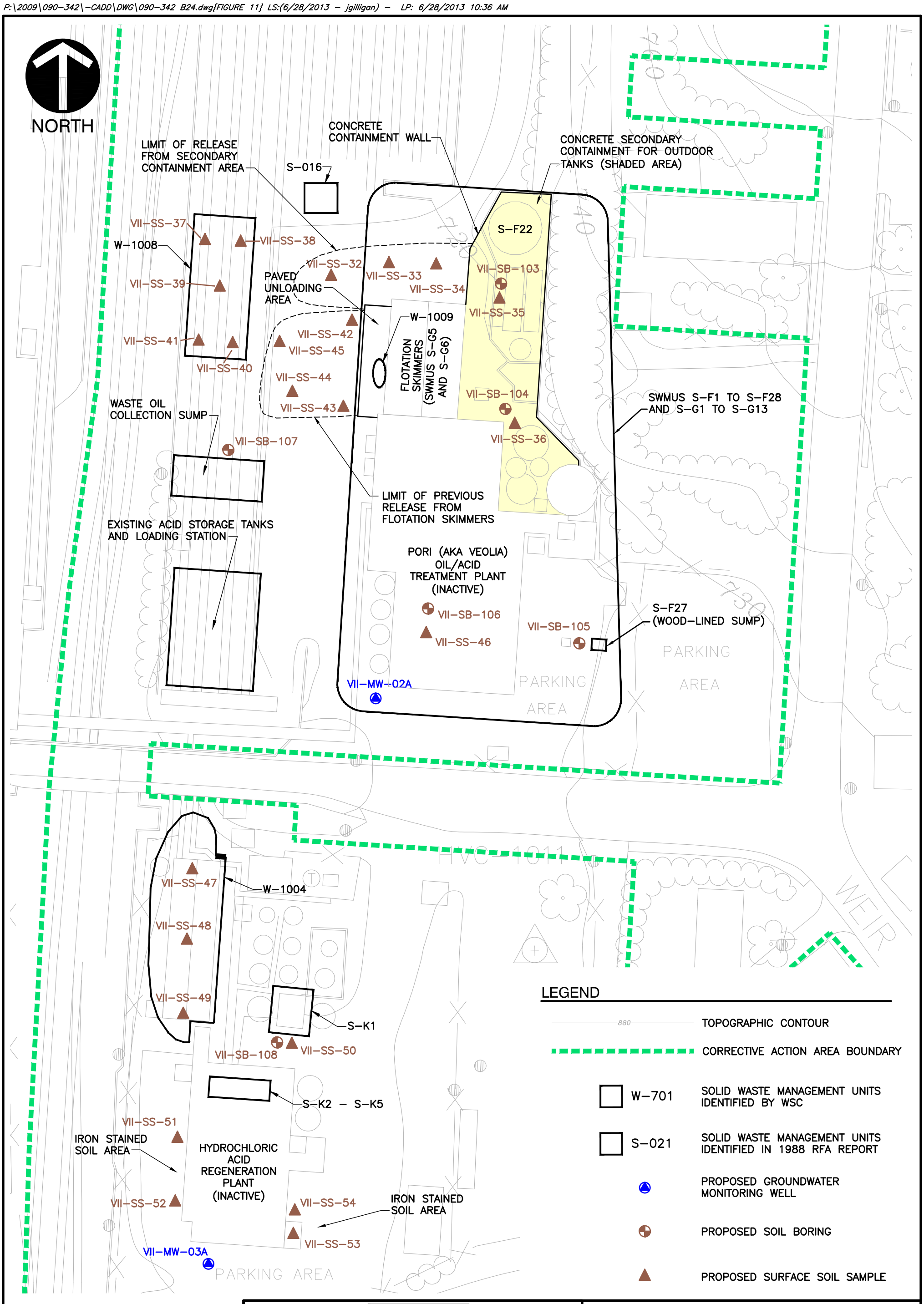
ARCELORMITTAL WEIRTON, INC. FACILITY
CAA VI/VII RFI WORK PLAN
WEIRTON, WEST VIRGINIA

SAMPLE LOCATIONS
HOT MILL WWTP

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO	DRAWING NO.:	10
DATE:	JUNE 28, 2013	DWG SCALE:	1"=50'	PROJECT NO:	090-342.0016		

P:\2009\090-342\-CADD\DWG\090-342 B24.dwg{FIGURE 11} LS:(6/28/2013 - jgilligan) - LP: 6/28/2013 10:36 AM



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ARCELORMITTAL WEIRTON, INC. FACILITY
CAA VI/VII RFI WORK PLAN
WEIRTON, WEST VIRGINIA

SAMPLE LOCATIONS
PORI AND HARP PLANTS

DRAWN BY:	JHG	CHECKED BY:	EAG	APPROVED BY:	*DNO	DRAWING NO.:	11
DATE:	JUNE 28, 2013	DWG SCALE:	1"=50'	PROJECT NO:	090-342.0016		

FIGURE 12
INVESTIGATION SCHEDULE
CAA VI IRON-MAKING AND CAA VII STEEL-MAKING
ARCELORMITTAL WEIRTON INC. FACILITY

Task Description	Duration (Weeks)	Months							
			1	2	3	4	5	6	7	8
EPA Approval of CAA VI/VII Work Plan	0									
Mobilization	4									
Surface Soil Sampling	2									
Soil Borings and Monitoring Well Installation	2									
Monitor Well Development	1									
Site Survey	1 (day)									
Soil Analyses	5									
Groundwater Sampling (Round 1)	1									
Groundwater Analyses (Round 1)	2									
Groundwater Sampling (Round 2)	1									
Groundwater Analyses (Round 2)	2									
Preliminary Investigation Report Preparation	24									
Submit Preliminary Investigation Report	0									

NOTE: A third round of groundwater sampling is planned for completion of the RFI for CAAs VI/VII. The schedule for the third round of sampling and submission of the Draft RFI Report will be established after EPA's review of the Preliminary Investigation Report.

The durations of field activities are reasonable-case estimates and do not take into consideration the potential for delays caused by unanticipated weather conditions, mechanical failures, or other occurrences that are beyond the total control of ArcelorMittal Weirton, or their consultant(s). Such occurrences will result in corresponding delays of dependent field activities and report preparation/submittal activities, equal to the time of the delay and any necessary remobilization or related activities.

Similarly, this schedule does not account for the possibility that additional drilling or sampling activities may be determined to be necessary. Should such a determination be made, the schedule will be adjusted to allow for the additional activities, including activities related to preparing addenda to the Work Plan and receipt of agency approval. The Draft RFI Report submittal schedule will also be adjusted to allow for the completion of these additional activities and the inclusion of additional data into the Draft RFI Report submittal.

APPENDIX A

PREVIOUS INVESTIGATION RESULTS

- **Yard Office Interim Measure SWMU W-700**
- **Detinning Plant Interim Measure**

Yard Office Interim Measure SWMU W-700

INTERIM MEASURES REPORT
REMOVAL OF PETROLEUM IMPACTED SOIL
FORMER YARD OFFICE LOCOMOTIVE FUELING STATION
(SWMU W-700)
MITTAL STEEL USA – WEIRTON FACILITY

This report was prepared by Civil & Environmental Consultants, Inc. (CEC) and provides a description of the work completed as part of the interim measure (IM) completed under the RCRA Corrective Action Program at the former Yard Office locomotive fueling station (SWMU W-700) located at the Mittal Steel USA Facility in Weirton, West Virginia. The work was completed in accordance with the IM Work Plan submitted to U.S. Environmental Protection Agency (U.S. EPA) on October 27, 2006 and approved via email dated November 21, 2006. The original IM Scope of Work was revised to incorporate dewatering activities and was submitted to U.S. EPA via email on April 5, 2007. The revised Scope of Work was approved by U.S. EPA via email on April 13, 2007.

1.0 BACKGROUND

The former Yard Office served as the railroad office and locomotive fueling station for the plant through 1990 when these operations were moved to the Walnut Street rail yard. The Yard Office facility consisted of a three-story steel frame building (office and locker/lunch room) and a fueling station that consisted of two elevated above-ground diesel storage tanks (60,000 and 10,000-gallon) with related steel support structures and piping. Diesel fuel was delivered by truck to an unloading station located approximately 100 feet east of the office building, where it was pumped via an underground pipeline to the 60,000-gallon storage tank. Locomotives were fueled primarily along the western side of the fueling station and less commonly along the eastern side. Soils in the Yard Office area had been impacted as a result of releases during former railroad and fueling operations. Figure 1 shows the site layout.

Several borings and test pits were advanced in the Yard Office area prior to the start of the IM activities to characterize subsurface conditions. Based on those borings and test pits, the subsurface conditions were found to consist of 4 to 6 feet of slag and other fill materials underlain by natural silty-clay soil. The preliminary excavations and test pits also revealed that only the fill materials had been impacted by the former fuel releases and that contamination had not migrated into the underlying soil.

2.0 DEMOLITION ACTIVITIES

The majority of the above-ground structures associated with the former Yard Office were demolished and removed from the site prior to the initiation of soil excavation activities (refer to Figure 1). Demolition activities were performed by Independence Excavating, Inc. of Independence, Ohio. The demolition activities were performed at two separate times. The fueling storage tanks were demolished in the later part of 2006, and the office/locker building and two sand tanks were demolished in March of 2007. Scrap metal and wiring were segregated and salvaged. The remaining demolition debris (177 tons) was loaded in trucks and hauled to the Allied Waste CLD landfill in Salem, Ohio on March 8, 2007. Finally, during the excavation, the former scales were removed and salvaged.

Additionally, several sets of inactive railroad tracks were removed as the excavation advanced. Steel rails were scrapped or stockpiled while the wooden ties were either stockpiled or loaded into roll-off containers and taken to the Waste Management Arden Landfill in Washington, Pennsylvania.

3.0 PRE-EXCAVATION SAMPLING AND ANALYSIS

Samples were collected from two soil borings on the immediate west and east sides of the former fuel storage tanks prior to the start of the IM activities. The samples were combined and analyzed for the purpose of characterizing the contaminated soil for waste disposal purposes. The results of these analyses were utilized to obtain approval for disposal from the Allied Waste BFI Imperial Landfill in Imperial, Pennsylvania and from the Pennsylvania Department of Environmental Protection.

4.0 PRE-EXCAVATION DEWATERING

Dewatering operations were consistently conducted during the excavation. The initial plan was to dewater the proposed excavation area by digging several construction sumps through the fill materials and into the underlying natural soil to dewater the site. The plan was to pump water from these sumps to the local storm sewer manholes that eventually discharged at the facility's C&E Wastewater Treatment Plant. However, the local storm sewer that runs along the outside of the Slab Storage Building east of the Yard Office (Figure 1) was clogged. During rain events, storm water backed up in the sewer and related manholes and saturated the proposed excavation area. After several attempts to open the sewer had failed, it was decided to utilize the basement of the office/locker room building as a holding area for water pumped from various locations in the excavation. A 440-volt pump was installed in the basement along with 1,300 feet of fire hose to reach the nearest open storm sewer to the south. An automated float switch was installed to periodically pump the water from the basement to the remote sewer opening.

At the start of the excavation, a dewatering sump, as described in the April 5, 2007 revised IM Work Plan, was excavated through the fill and into the natural soil just north of the office/locker room building. Water was pumped for several days prior to the start of excavation activities to dewater the excavation area. As the excavation advanced, runoff was controlled by creating and pumping from temporary sumps as well as pumping water from local sewer manholes. To handle runoff, several 110-volt submersible pumps with flexible fire hose were utilized to piggyback water from various locations within the excavation and local storm sewer manholes to the basement holding area. The original dewatering sump eventually dried up and was removed.

5.0 CONTAMINATED SOIL EXCAVATION AND DISPOSAL

The purpose of this IM was to remove as much petroleum impacted soil (fill materials) as practical from the former Yard Office area. In several areas, the lateral extent of excavation was limited by the existence of building foundations, sewer lines, and active rail lines and roadways. The depth of the excavation was guided by the fill/natural soil interface. In general, all fill materials and several inches of underlying natural soil were removed within the excavation area. The lateral extent of excavation is shown on Figure 2. The excavation and off-site disposal activities are described in more detail below.

Excavation began in the area immediately north of the office/locker basement near the dewatering sump described above. The excavation continued north to the foundation of the former fuel tanks. The excavation moved to the east and continued north, bounded by the former fuel tank foundations on the west and the active rail line to the east. Excavation of the contaminated soils was then conducted along the north end of the former fuel tank foundations. The excavation then progressed southward, being bound by the former fuel tank foundations on the east and an active roadway which runs parallel to an active rail line on the west. The area east of the former scales was then excavated to the limits bound by the active rail line to the east and the foundation of the former elevated sand tanks to the south.

As the excavation advanced and concrete structures were exposed, contaminated soils adhering to the foundation walls were removed by hand. After hand cleaning and field inspection, concrete structures that did not extend into the natural soil and had contaminated fill materials below their footings were removed. During the removal of these concrete structures, what was believed to be the basement of a former sand house was uncovered (see Figure 2). The removed concrete was stockpiled adjacent to the excavation.

In areas where concrete foundations extended into the natural soil and the fill materials adjacent to the foundation wall appeared contaminated, the fill materials and underlying natural soil adjacent to the foundation wall were removed down to the concrete footings. This overexcavation was performed primarily in two areas: the eastern side of both the former scales and sand house basement. Overexcavation was also performed along the active rail line in the southern portion of the excavation where the fill material covering a sewer line appeared contaminated.

The initial plan was to limit the lateral extent of the excavation 10 to 15 feet to the north of the former fueling station. However, when excavating in this area, additional concrete structures were uncovered to the north and field inspection revealed additional contamination (more like oil than diesel fuel). After some historical research, the additional concrete structures were found to be a former locomotive service pit (see Figure 2). Mittal decided to continue excavating to the north and west until the contamination diminished or as far as practical given the constraint of the rail lines. The excavation ceased at the farthest northwest position feasible without the removal of active roadways and rail lines.

Lastly, soil in the fuel unloading area was removed to the extent possible without disturbing active rail lines and the foundation of the Slab Storage Building. A large concrete slab, which covered the fuel unloading area, was removed before excavation. The excavation was bounded by the Slab Storage Building to the east and north and the active rail line to the west. The southern limit of the excavation was determined by field screening.

During excavation in the fuel unloading area, an underground fuel line was identified that extended from the fuel unloading station to the southern end of the former locker room/office building where it apparently went above ground and ran along the building to the fuel storage tanks. This pipeline was removed and no signs of leaks were observed.

Excavated soil was either loaded directly into dump trucks or temporarily stockpiled within the limits of the excavation prior to being loaded. No excavated soils were stockpiled outside the limits of the excavation as anticipated in the IM Scope of Work. All contaminated soils (4,545 tons) were hauled via dump truck to the Allied Waste BFI Imperial Landfill in Imperial, Pennsylvania during the period of April 25 to July 11, 2007.

6.0 POST-EXCAVATION SOIL SAMPLING AND ANALYSIS

Upon completion of the excavation activities described above, soil samples were obtained from the base and sidewalls of the excavations on July 12 and 13, 2007 per the IM Scope of Work. One bottom sample was collected for every 900 square feet of bottom area, and one sidewall sample was collected for every 30 linear feet of sidewall. A total of 26 sidewall samples and 11 bottom samples were collected from the primary excavation area, and four sidewall samples and one bottom sample were collected from the fuel unloading excavation area. The sample locations are shown on Figure 2.

At each sample location, the upper 1-inch of sidewall or floor was scrapped away with a stainless steel spoon, and then a sample of the underlying soil was collected with the spoon and placed directly in an 8 ounce laboratory-supplied sample jar with a teflon-lined lid. The stainless spoons were decontaminated between sampling locations. Along the sidewalls, samples were collected from the area with the highest potential for contamination based on field screening (black staining, odors, or high PID readings). Typically, this zone was from 1 to 2 feet above the base of the fill materials. At four locations along the eastern and western sidewalls of the primary excavation (Sample Locations 03, 09, 15, and 21), an additional sample was collected above the zone of suspected contamination for comparative purposes. At these locations, the lower sample (from the potentially contaminated zone) was designated with an "A" and the overlying sample was designated with a "B". Special sampling procedures were required at Sample Locations 22, 23, and 24 due to unsafe "trench-like" conditions that existed in that area (see Figure 2). At each of these sampling locations, a backhoe was used to scoop a portion of soil from the sidewall; the sample was then collected from the center of the scoop where no contact had taken place between the soil and backhoe bucket. The sample was then collected with a stainless spoon and placed directly in the laboratory-supplied sample jars.

Two field duplicates were collected throughout the sampling process, one at Sample Location 19 and one at Sample Location 39. Matrix spike and matrix spike duplicates were also collected for quality assurance purposes. These samples were collected at Locations 18 and 38. One equipment rinsate blank sample was collected during each day of sampling, for a total of two, EB-1 and EB-2.

All samples were submitted to and analyzed by Severn Trent Laboratories of Pittsburgh, Pennsylvania. Each sample was analyzed for BTEX (benzene, toluene, ethylbenzene, and xylenes), Polynuclear Aromatic Hydrocarbons (PAHs), and Polychlorinated Biphenyls (PCBs). Sample analyses were performed in accordance with the protocol outlined in Attachments A (Quality Assurance Project Plan) and B (Field Sampling and Analysis Plan) contained in the RFI Work Plan for the facility.

The analytical laboratory results are presented in Appendix A and are summarized in Table 1 (primary excavation) and Table 2 (fuel unloading area excavation). Tables 1 and 2 also provide a preliminary screening of the analytical results against the U.S. EPA Region 3 Industrial Risk Based Concentrations (RBCs) and Soil Screening Levels (SSLs) for soil migration to groundwater. Review of Tables 1 and 2 reveals the following:

- BTEX compounds were not detected in any of the samples.
- PAHs were detected in many of the sidewall samples at relatively low concentrations, generally within an order of magnitude of the screening criteria. Higher concentrations (two orders of magnitude above the screening criteria) were

detected in Samples 19 and 20. Benzo(a)pyrene was the only constituent that exceeded an Industrial RBC in sidewall samples from the primary excavation. Other PAHs, including benzo(a)anthracene, benzo(b)flouranthene, and indeno(1,2,3-cd)pyrene, also exceeded the Industrial RBC in sidewall samples from the fuel unloading area excavation.

PAHs were detected sporadically and at relatively low concentrations marginally above the screening criteria in bottom samples from the primary excavation. No PAHs were detected above the screening criteria in the bottom sample from the fuel unloading area excavation.

- Two PCB congeners (Aroclor 1248 and 1254) were detected at low concentrations (<40 μg/kg), well below the screening criteria (1400 μg/kg RBC and 1100 μg/kg SSL).

7.0 BACKFILLING THE EXCAVATION

The excavation was backfilled between July 20 and August 9, 2007 in several stages as described below.

Concrete that was removed during the excavation and stockpiled locally was placed in the basements of the former office/locker building, weigh scales, sand house, and locomotive service pit prior to the start of backfilling activities.

Clean soil (from an off-site borrow area) was hauled on-site and used to backfill the excavation(s) to within 3 feet of the surrounding ground surface. Slag obtained from within the facility was then used to backfill the remainder of the excavation. A dozer was used to spread and compact the soil and slag fill as it was being placed.

8.0 CONCLUSIONS AND RECOMMENDATIONS

This IM was successful at removing the majority of the impacted soil associated with the former Yard Office operations. The analytical results of soil samples collected from the bottom of the excavation indicate that the depth of the excavation was adequate (bottom samples were relatively clean). However, the analytical results of sidewall samples indicate that some contamination (relatively low concentrations of PAHs) remains. This is not surprising given that the lateral extent of the primary excavation was limited in several areas by active rail lines and roadways, and the fuel unloading area excavation was limited by the foundation of the Slab Storage Building as well as an active rail line. It should be noted, however, that the remaining contamination will not pose a risk to site workers given the relatively low constituent concentrations as well as the depth of the remaining contamination (a thin band of effected soil several feet below the ground surface). Risks to construction workers that may perform future excavations in this area will be controlled through the implementation of the facility-wide Excavation Health & Safety Plan and Policy that was developed as part of the Environmental Indicators program.

Further evaluation of this area should be performed during the RFI in Corrective Action Area VII. The evaluation should focus on the lateral extent of soil contamination as well as potential impacts to groundwater.

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]														
					IM-W700-S-01			IM-W700-S-02			IM-W700-S-03A[3]			IM-W700-S-03B[3]			IM-W700-S-04		
					7/12/2007			7/12/2007			7/12/2007			7/12/2007			7/12/2007		
			RBC	SSL	Sidewall			Sidewall			Sidewall			Sidewall			Sidewall		
BTEX																			
Benzene	ug/kg	SW846 8260B	52000	1.9		1.2	U		1.2	U		1.2	U		1.2	U		1.2	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		1.4	U		1.4	U		1.3	U		1.3	U		1.4	U
Toluene	ug/kg	SW846 8260B	8200000	27000		0.93	U		0.95	U		0.88	U		0.88	U		0.91	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		4.1	U		4.2	U		3.9	U		3.9	U		4.1	U
PAH's																			
Acenaphthene	ug/kg	SW846 8310	6100000	100000		140	U		29	U		54	U		27	U		56	U
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		2400			1500			6000			950			3800	
Anthracene	ug/kg	SW846 8310	31000000	470000		670			250			260			120			420	
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		310	PG		290	PG		280	PG		300			650	
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		*450*	PG		*430*			*520*			*500*			*660*	
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		1500			800			1300			730			1400	
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		72	J, PG		240			330			480			340	
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		300			200	PG		280	PG		220	PG		370	PG
Chrysene	ug/kg	SW846 8310	390000	48000		730			420			520			250			910	
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		25	U		5.1	U		9.5	U		4.7	U		9.8	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		27	U		840			10	U		510	PG		2300	
Fluorene	ug/kg	SW846 8310	4100000	140000		620			220			220			49			300	
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		210	PG		380			640			740			630	
Naphthalene	ug/kg	SW846 8310	2000000	150		720	J, PG		370			410	PG		190			560	
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		2100			670			710			290			1000	
Pyrene	ug/kg	SW846 8310	3100000	680000		1900	PG		900	PG		1100	PG		470	PG		2400	PG
PCB's																			
Aroclor 1016	ug/kg	SW846 8310	41000	4200		2.9	U		3	U		2.8	U		2.8	U		2.8	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		3.7	U		3.8	U		3.5	U		3.5	U		3.6	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.3	U		3.4	U		3.2	U		3.2	U		3.3	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		3.2	U		3.2	U		3	U		3	U		3.1	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		1.8	U		1.9	U		1.8	U		1.7	U		1.8	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		2.8	U		2.8	U		2.6	U		38			2.7	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		2.8	U		2.8	U		2.6	U		2.6	U		2.7	U
Indicator Parameters																			
Percent Solids	%	MCAWW 160.3 MOD	--	--		84.9			83.6			89.9			90.1			86.9	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]														
					IM-W700-S-05			IM-W700-S-06			IM-W700-S-07			IM-W700-S-08			IM-W700-S-09A[3]		
					7/12/2007			7/12/2007			7/12/2007			7/12/2007			7/12/2007		
			RBC	SSL	Sidewall			Sidewall			Sidewall			Sidewall			Sidewall		
BTEX																			
Benzene	ug/kg	SW846 8260B	52000	1.9		1.2	U		1.4	U		1.3	U		1.3	U		1.4	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		1.4	U		1.6	U		1.4	U		1.5	U		1.6	U
Toluene	ug/kg	SW846 8260B	8200000	27000		0.94	U		1.1	U		0.96	U		1	U		1.1	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		4.2	U		4.7	U		4.3	U		4.5	U		4.8	U
PAH's																			
Acenaphthene	ug/kg	SW846 8310	6100000	100000		29	U		32	U		47	U		31	U		420	J, PG
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		3200			170	J		350			1600			370	J
Anthracene	ug/kg	SW846 8310	31000000	470000		130			55	PG		140	PG		270			340	PG
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		96	PG		130			150			200			170	J, PG
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		190			120			170			180			220	J
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		680			230			350			440			550	
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		120			64			83			100			140	J
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		5.1	U		96			88	PG		99	PG		130	J, PG
Chrysene	ug/kg	SW846 8310	390000	48000		170	PG		190			210			300			290	
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		5	U		5.7	U		8.2	U		5.4	U		35	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		5.4	U		6.1	U		640			950			38	U
Fluorene	ug/kg	SW846 8310	4100000	140000		160	PG		63			300			370			1800	
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		160			63	PG		84	PG		110	PG		140	J, PG
Naphthalene	ug/kg	SW846 8310	2000000	150		540			35	J, PG		460			450			800	J
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		600			220			890			630			2200	
Pyrene	ug/kg	SW846 8310	3100000	680000		5.6	U		430	PG		620	PG		850	PG		38	U
PCB's																			
Aroclor 1016	ug/kg	SW846 8310	41000	4200		2.9	U		3.3	U		3	U		3.2	U		3.4	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		3.8	U		4.2	U		3.8	U		4.1	U		4.3	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.4	U		3.8	U		3.4	U		3.6	U		3.9	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		3.2	U		3.6	U		3.3	U		3.5	U		3.7	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		20			2.1	U		1.9	U		2	U		2.1	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		2.8	U		3.2	U		2.9	U		3	U		3.2	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		2.8	U		3.2	U		2.9	U		3	U		3.2	U
Indicator Parameters																			
Percent Solids	%	MCAWW 160.3 MOD	--	--		84.6			75			82.8			78.4			73.5	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]														
					IM-W700-S-09B[3]			IM-W700-S-10			IM-W700-S-11			IM-W700-S-12			IM-W700-S-13		
					7/12/2007			7/12/2007			7/12/2007			7/12/2007			7/12/2007		
			RBC	SSL	Sidewall			Sidewall			Sidewall			Sidewall			Sidewall		
BTEX																			
Benzene	ug/kg	SW846 8260B	52000	1.9		1.1	U		1.4	U		1.3	U		1.4	U		1.5	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		1.3	U		1.6	U		1.5	U		1.6	U		1.7	U
Toluene	ug/kg	SW846 8260B	8200000	27000		0.87	U		1.1	U		0.99	U		1.1	U		1.1	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		3.9	U		4.7	U		4.4	U		4.8	U		5.1	U
PAH's																			
Acenaphthene	ug/kg	SW846 8310	6100000	100000		27	U		32	U		30	U		330	J, PG		2000	
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		740			1600			1200			130	J		5800	
Anthracene	ug/kg	SW846 8310	31000000	470000		73			240	PG		120	PG		160	PG		650	PG
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		220			150	PG		50	PG		42	J, PG		320	PG
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		240			240			80			36	J, PG		200	PG
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		440			580			220			240			2500	
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		210			110			46			50	J		89	J, PG
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		160	PG		5.7	U		5.4	U		12	U		25	U
Chrysene	ug/kg	SW846 8310	390000	48000		230			260			81			84	J		26	U
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		4.7	U		5.6	U		5.3	U		12	U		24	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		400	PG		6.1	U		5.8	U		13	U		26	U
Fluorene	ug/kg	SW846 8310	4100000	140000		35	J		660			720			1100	PG		4100	
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		280			210			91			75	J		100	J, PG
Naphthalene	ug/kg	SW846 8310	2000000	150		87	J		630			700			630			210	J
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		290			750			260	PG		1100			6100	
Pyrene	ug/kg	SW846 8310	3100000	680000		360	PG		6.2	U		5.9	U		13	U		27	U
PCB's																			
Aroclor 1016	ug/kg	SW846 8310	41000	4200		2.7	U		3.3	U		3.1	U		3.4	U		3.6	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		3.4	U		4.2	U		4	U		4.3	U		4.6	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.1	U		3.8	U		3.6	U		3.9	U		4.1	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		2.9	U		3.6	U		3.4	U		3.7	U		3.9	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		1.7	U		20	J		2	U		2.1	U		39	
Aroclor 1254	ug/kg	SW846 8082	1400	1100		2.6	U		3.2	U		3	U		3.2	U		3.4	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		2.6	U		3.1	U		3	U		3.2	U		3.4	U
Indicator Parameters																			
Percent Solids	%	MCAWW 160.3 MOD	--	--		91.3			75.3			79.7			73.6			69.5	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]														
					IM-W700-S-14			IM-W700-S-15A[3]			IM-W700-S-15B[3]			IM-W700-S-16			IM-W700-S-17		
					7/12/2007			7/12/2007			7/12/2007			7/12/2007			7/12/2007		
			RBC	SSL	Sidewall			Sidewall			Sidewall			Sidewall			Sidewall		
BTEX																			
Benzene	ug/kg	SW846 8260B	52000	1.9		1.4	U		1.5	U		1.1	U		1.6	U		1.4	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		1.5	U		1.7	U		1.3	U		1.8	U		1.6	U
Toluene	ug/kg	SW846 8260B	8200000	27000		1	U		1.2	U		0.88	U		1.2	U		1.1	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		4.6	U		5.2	U		3.9	U		5.4	U		4.7	U
PAH's																			
Acenaphthene	ug/kg	SW846 8310	6100000	100000		520	J, PG		180	U		27	U		520	PG		140	J, PG
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		190	J		4300			5	U		5100			4500	
Anthracene	ug/kg	SW846 8310	31000000	470000		390	PG		160	J, PG		97			320	PG		280	PG
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		110	J, PG		93	J, PG		310			120	PG		140	PG
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		60	J, PG		110	J		220			170			150	
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		670	PG		430	PG		410			620			660	
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		34	U		32	U		190			81			25	J, PG
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		34	U		32	U		200			6.6	U		5.7	U
Chrysene	ug/kg	SW846 8310	390000	48000		35	U		33	U		290			280			5.9	U
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		33	U		31	U		4.7	U		6.5	U		5.7	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		36	U		34	U		530	PG		7.1	U		6.1	U
Fluorene	ug/kg	SW846 8310	4100000	140000		2500	PG		860	PG		37			1800			1500	
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		48	J, PG		86	J		290			160			59	PG
Naphthalene	ug/kg	SW846 8310	2000000	150		1300			590	J		110	J		450			950	
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		4500			2500			180	PG		1600			1500	
Pyrene	ug/kg	SW846 8310	3100000	680000		1600	PG		1400	PG		510	PG		940	PG		720	PG
PCB's																			
Aroclor 1016	ug/kg	SW846 8310	41000	4200		3.2	U		3.7	U		2.7	U		3.8	U		3.3	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		4.1	U		4.7	U		3.5	U		4.9	U		4.2	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.7	U		4.2	U		3.1	U		4.4	U		3.8	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		3.5	U		4	U		3	U		4.2	U		3.6	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		31			2.3	U		1.7	U		36			2.1	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		3.1	U		3.5	U		2.6	U		3.7	U		3.2	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		3.1	U		3.5	U		2.6	U		3.6	U		3.2	U
Indicator Parameters																			
Percent Solids	%	MCAWW 160.3 MOD	--	--		76.7			67.6			90.4			64.9			75.1	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]														
					IM-W700-S-18			IM-W700-S-19			IM-W700-S-19D[3]			IM-W700-S-20			IM-W700-S-21A[3]		
					7/12/2007			7/12/2007			7/12/2007			7/12/2007			7/12/2007		
			RBC	SSL	Sidewall			Sidewall			Sidewall			Sidewall			Sidewall		
BTEX																			
Benzene	ug/kg	SW846 8260B	52000	1.9		6.5	U		1.3	U		1.3	U		1.4	U		1.3	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		7.5	U		1.5	U		1.5	U		1.6	U		1.5	U
Toluene	ug/kg	SW846 8260B	8200000	27000		5	U		1	U		0.97	U		1.1	U		0.98	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		22	U		4.5	U		4.3	U		4.8	U		4.4	U
PAH's																			
Acenaphthene	ug/kg	SW846 8310	6100000	100000		37	U		120	U		130	U		500	U		30	U
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		2400			13000			11000			35000			2400	
Anthracene	ug/kg	SW846 8310	31000000	470000		220	PG		360	PG		290	PG		1500	PG		64	PG
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		110	PG		190	PG		150	J, PG		560	J, PG		42	PG
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		170			120	J, PG		170			530	J		37	J, PG
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		550			980			540	PG		2100	PG		320	
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		44	J PG		78	J		74	J		290	J		35	J, PG
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		6.5	U		22	U		22	U		89	U		5.3	U
Chrysene	ug/kg	SW846 8310	390000	48000		230			330			310			920	PG		120	
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		6.4	U		22	U		22	U		88	U		5.3	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		7	U		24	U		24	U		95	U		5.7	U
Fluorene	ug/kg	SW846 8310	4100000	140000		860			820	PG		750	PG		5100	PG		250	PG
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		70	PG		22	U		86	J, PG		150	J, PG		130	
Naphthalene	ug/kg	SW846 8310	2000000	150		1100			2400			2000			11000			1100	
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		670			2600			2200			18000			620	
Pyrene	ug/kg	SW846 8310	3100000	680000		730	PG		1500	PG		1400	PG		6700	PG		5.8	U
PCB's																			
Aroclor 1016	ug/kg	SW846 8310	41000	4200		3.1	U		3.2	U		3	U		3.4	U		3	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		4	U		4.1	U		3.9	U		4.4	U		3.9	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.6	U		3.7	U		3.5	U		3.9	U		3.5	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		3.4	U		3.5	U		3.3	U		3.7	U		3.3	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		2	U		2	U		27			2.2	U		1.9	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		3	U		3	U		2.9	U		3.3	U		2.9	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		3	U		3	U		2.9	U		3.3	U		2.9	U
Indicator Parameters																			
Percent Solids	%	MCAWW 160.3 MOD	--	--		79.1			77.9			81.3			72.7			80.8	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]														
					IM-W700-S-21B[3]			IM-W700-S-22			IM-W700-S-23			IM-W700-S-24			IM-W700-S-25		
					7/12/2007			7/13/2007			7/13/2007			7/13/2007			7/13/2007		
			RBC	SSL	Sidewall			Sidewall			Sidewall			Sidewall			Sidewall		
BTEX																			
Benzene	ug/kg	SW846 8260B	52000	1.9		1.1	U		1.1	U		1.2	U		1.2	U		1.3	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		1.3	U		1.3	U		1.3	U		1.4	U		1.5	U
Toluene	ug/kg	SW846 8260B	8200000	27000		0.85	U		0.87	U		0.88	U		0.93	U		0.99	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		3.8	U		3.9	U		3.9	U		4.1	U		4.4	U
PAH's																			
Acenaphthene	ug/kg	SW846 8310	6100000	100000		36	U		16	U		53	U		45	U		30	U
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		3200			570			2500			880			2100	
Anthracene	ug/kg	SW846 8310	31000000	470000		240			23	PG		140	PG		210			71	PG
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		170	PG		80	PG		300	PG		370			49	PG
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		240			110			*400*			*700*			77	
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		400	PG		210	PG		620			1100			230	PG
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		99	PG		82			220	PG		310	PG		33	J, PG
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		140	PG		67	PG		290			410			5.4	U
Chrysene	ug/kg	SW846 8310	390000	48000		260			150			410			430			140	
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		6.3	U		2.8	U		9.4	U		8	U		5.3	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		950	PG		460			740	PG		760	PG		5.8	U
Fluorene	ug/kg	SW846 8310	4100000	140000		140	PG		26			93	PG		130			410	
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		220			110			450			720			44	PG
Naphthalene	ug/kg	SW846 8310	2000000	150		560			33	J, PG		400	PG		520			870	
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		670			150			530			620			1000	
Pyrene	ug/kg	SW846 8310	3100000	680000		1000	PG		570	PG		820	PG		940	PG		410	PG
PCB's																			
Aroclor 1016	ug/kg	SW846 8310	41000	4200		2.6	U		2.7	U		2.8	U		2.9	U		3.1	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		3.4	U		3.5	U		3.5	U		3.7	U		4	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3	U		3.1	U		3.2	U		3.3	U		3.6	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		2.9	U		3	U		3	U		3.2	U		3.4	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		8.3	J		1.7	U		1.8	U		1.8	U		2	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		2.5	U		2.6	U		2.6	U		2.8	U		3	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		2.5	U		2.6	U		2.6	U		2.8	U		3	U
Indicator Parameters																			
Percent Solids	%	MCAWW 160.3 MOD	--	--		93.2			90.8			89.7			85.4			80	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]													
					IM-W700-S-26			IM-W700-S-27			IM-W700-S-28			IM-W700-S-29			IM-W700-S-30	
					7/13/2007			7/12/2007			7/12/2007			7/12/2007			7/12/2007	
			RBC	SSL	Sidewall			Floor			Floor			Floor			Floor	
BTEX																		
Benzene	ug/kg	SW846 8260B	52000	1.9		1.2	U		1.3	U		1.2	U		1.2	U		1.3	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		1.4	U		1.5	U		1.4	U		1.4	U		1.4	U
Toluene	ug/kg	SW846 8260B	8200000	27000		0.92	U		1	U		0.95	U		0.91	U		0.96	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		4.1	U		4.6	U		4.2	U		4	U		4.3	U
PAH's																		
Acenaphthene	ug/kg	SW846 8310	6100000	100000		84	U		6.2	U		29	U		5.5	U		18	U
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		1100			5.8	U		290			450			1100	
Anthracene	ug/kg	SW846 8310	31000000	470000		200			1.2	J, PG		35	J		40			28	PG
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		310			1.1	U		210			33	PG		27	PG
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		370			1.7	J		440			29	PG		34	
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		750			4.4	J, PG		650			86	PG		110	PG
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		270			1.1	U		400			18	PG		11	J, PG
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		230	PG		1.1	U		300			0.99	U		3.1	U
Chrysene	ug/kg	SW846 8310	390000	48000		400			1.8	J, PG		220			70			68	
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		15	U		1.1	U		5.1	U		0.97	U		3.1	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		710	PG		1.2	U		210			160			3.3	U
Fluorene	ug/kg	SW846 8310	4100000	140000		75	J, PG		2.7	J		24	J, PG		34			44	PG
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		410			1.1	U		560			0.97	U		23	J, PG
Naphthalene	ug/kg	SW846 8310	2000000	150		220	J		7.8	J		79	J		92			230	
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		490			8.2	J, PG		78	PG		99	PG		290	
Pyrene	ug/kg	SW846 8310	3100000	680000		770	PG		1.2	U		260	PG		230	PG		210	PG
PCB's																		
Aroclor 1016	ug/kg	SW846 8310	41000	4200		2.8	U		3.2	U		3	U		2.8	U		3	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		3.7	U		4.1	U		3.8	U		3.6	U		3.8	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.3	U		3.7	U		3.4	U		3.3	U		3.4	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		3.1	U		3.5	U		3.2	U		3.1	U		3.2	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		1.8	U		2	U		1.9	U		1.8	U		1.9	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		2.7	U		3.1	U		2.8	U		2.7	U		2.8	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		2.7	U		3.1	U		2.8	U		2.7	U		2.8	U
Indicator Parameters																		
Percent Solids	%	MCAWW 160.3 MOD	--	--		86.2			77			83.6			87.3			82.8	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]														
					IM-W700-S-31			IM-W700-S-32			IM-W700-S-33			IM-W700-S-34			IM-W700-S-35		
					7/12/2007			7/12/2007			7/12/2007			7/12/2007			7/12/2007		
			RBC	SSL	Floor			Floor			Floor			Floor			Floor		
BTEX																			
Benzene	ug/kg	SW846 8260B	52000	1.9		1.2	U		1.2	U		1.2	U		1.2	U		1.2	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		1.4	U		1.4	U		1.4	U		1.4	U		1.4	U
Toluene	ug/kg	SW846 8260B	8200000	27000		0.94	U		0.92	U		0.93	U		0.91	U		0.91	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		4.2	U		4.1	U		4.1	U		4.1	U		4.1	U
PAH's																			
Acenaphthene	ug/kg	SW846 8310	6100000	100000		5.7	U		5.6	U		11	J, PG		17	U		5.5	U
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		5.3	U		620			18	J		660			63	
Anthracene	ug/kg	SW846 8310	31000000	470000		2.6	J		23	PG		2	J, PG		24	PG		2.5	J
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		6.2	J		33	PG		1.2	J, PG		42	PG		1.7	J, PG
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		12			38	PG		2.6	J		72			2.8	J
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		15			260			32	PG		210			6.4	J, PG
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		6.8	J		40			4.6	J		26	PG		1.5	J, PG
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		4.8	J, PG		0.99	U		1.5	J		3	U		0.98	U
Chrysene	ug/kg	SW846 8310	390000	48000		6.7	J		24	PG		2.4	J		78			1	U
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		1	U		0.98	U		0.99	U		2.9	U		0.97	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		11			1.1	U		1.1	U		3.2	U		1.1	U
Fluorene	ug/kg	SW846 8310	4100000	140000		3.6	J, PG		67			7.6	J, PG		43	PG		3.6	J
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		10			63			2.1	J, PG		66			2.8	J, PG
Naphthalene	ug/kg	SW846 8310	2000000	150		8.1	J		170	PG		7.5	J, PG		82	J		7.2	J
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		11	PG		190			12	PG		180			14	
Pyrene	ug/kg	SW846 8310	3100000	680000		11	PG		130	PG		7	J, PG		270	PG		11	PG
PCB's																			
Aroclor 1016	ug/kg	SW846 8310	41000	4200		2.9	U		2.9	U		2.9	U		2.9	U		2.9	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		3.8	U		3.7	U		3.7	U		3.7	U		3.7	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.4	U		3.3	U		3.4	U		3.3	U		3.3	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		3.2	U		3.1	U		3.2	U		3.1	U		3.1	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		1.9	U		1.8	U		1.9	U		1.8	U		1.8	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		2.8	U		2.7	U		2.8	U		2.7	U		2.7	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		2.8	U		2.7	U		2.8	U		2.7	U		2.7	U
Indicator Parameters																			
Percent Solids	%	MCAWW 160.3 MOD	--	--		84.4			86.5			84.9			86.7			86.7	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]					
					IM-W700-S-36			IM-W700-S-37		
					7/13/2007			7/13/2007		
			RBC	SSL	Floor			Floor		
BTEX										
Benzene	ug/kg	SW846 8260B	52000	1.9		1.3	U		1.3	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		1.4	U		1.5	U
Toluene	ug/kg	SW846 8260B	8200000	27000		0.97	U		0.99	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		4.3	U		4.4	U
PAH's										
Acenaphthene	ug/kg	SW846 8310	6100000	100000		55	J, PG		6.1	U
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		130	J		81	
Anthracene	ug/kg	SW846 8310	31000000	470000		24	J, PG		8.8	
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		8.6	U		11	
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		8.2	U		11	
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		32	J, PG		24	PG
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		8.4	U		8.3	J
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		8.4	U		1.1	U
Chrysene	ug/kg	SW846 8310	390000	48000		8.7	U		8.9	PG
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		8.3	U		1.1	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		9	U		1.2	U
Fluorene	ug/kg	SW846 8310	4100000	140000		230			12	
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		8.3	U		7.9	J, PG
Naphthalene	ug/kg	SW846 8310	2000000	150		42	U		12	J, PG
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		720			37	
Pyrene	ug/kg	SW846 8310	3100000	680000		90	PG		37	PG
PCB's										
Aroclor 1016	ug/kg	SW846 8310	41000	4200		3	U		3.1	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		3.9	U		4	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.5	U		3.6	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		3.3	U		3.4	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		1.9	U		2	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		2.9	U		3	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		2.9	U		3	U
Indicator Parameters										
Percent Solids	%	MCAWW 160.3 MOD	--	--		81.5			79.7	

TABLE 1
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - PRIMARY EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

1 - Screening criteria from Table 1-9 of the RFI Work Plan updated based on the most recent Region III Risk-Based Concentration Table (4/6/07). Industrial land use Risk-Based Concentrations are provided. RBCs for noncarcinogenic chemicals divided by 10 to account for potential cumulative effects. SSLs based on DAF of 20. Naphthalene was used as surrogate for noncarcinogenic PAHs without criteria (acenaphthylene, benzo(g,h,i)perylene, and phenanthrene).

Bold italics numbers indicate exceedance of the RBC
Shading indicates an exceedance of the SSL

2 - General sample information provided in column headings, including field sample number, and sampling date. Table qualifier codes are consistent with Region III data qualifiers related to identification and quantitation and are as follows:

Data Qualifiers

--	Indicates that no screening criteria are present for the given constiuent
U	Not Detected. The associated number indicates an approximate sample concentration necessary to be detected.
UJ	Not Detected. Quantitation limit may be inaccurate or imprecise.
J	Dectected. Sample result is above the laboratory detection limit (MDL) but below the laboratory reporting limit and may be inaccurate or imprecise.
PG	The difference between the original results and the laboratory confirmation analysis is greater than 40%.

3- Sample ID's ending in "A" were taken in the zone with the greatest potential for contamination based on field screening (just above the base of fill). Sample ID's ending in "B" were taken several feet above the apparent area of contamination (above the "A" samples). Sample IM-W700-S-19D is a field duplicate of sample IM-W700-S-19.

TABLE 2
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - FUEL UNLOADING AREA EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

Constituents	Units	Analytical Method	Screening Criteria[1]		Sample Information[2]												Sample Information[2]				
					IM-W700-S-38			IM-W700-S-39			IM-W700-S-39D[3]			IM-W700-S-40			IM-W700-S-41			IM-W700-S-42	
					7/13/2007			7/13/2007			7/13/2007			7/13/2007			7/13/2007			7/13/2007	
			RBC	SSL	Sidewall			Sidewall			Sidewall			Sidewall			Sidewall			Floor	
BTEX																					
Benzene	ug/kg	SW846 8260B	52000	1.9		2.4	U		1.3	U		1.2	U		1.3	U		1.3	U		1.3	U
Ethylbenzene	ug/kg	SW846 8260B	10000000	15000		2.7	U		1.4	U		1.4	U		1.5	U		1.5	U		1.4	U
Toluene	ug/kg	SW846 8260B	8200000	27000		1.8	U		0.96	U		0.94	U		1	U		1	U		0.96	U
Xylenes (total)	ug/kg	SW846 8260B	20000000	3000		8	U		4.3	U		4.2	U		4.5	U		4.5	U		4.3	U
PAH's																					
Acenaphthene	ug/kg	SW846 8310	6100000	100000		720	J, PG		120	U		780	U		19	U		640	U		5.9	U
Acenaphthylene[1]	ug/kg	SW846 8310	2000000	150		380	U		1500			2200	J		620			600	U		16	J
Anthracene	ug/kg	SW846 8310	31000000	470000		1300	PG		370	PG		4300			58			2800			8.7	
Benzo(a)anthracene	ug/kg	SW846 8310	3900	480		2200			740			4500			80	PG		8700			12	PG
Benzo(a)pyrene	ug/kg	SW846 8310	390	120		1200			900			4100			210			4600			14	
Benzo(b)fluoranthene	ug/kg	SW846 8310	3900	1500		2300			1500			6900			440			8700			26	PG
Benzo(ghi)perylene[1]	ug/kg	SW846 8310	2000000	150		650			430			1700			160			2400			12	
Benzo(k)fluoranthene	ug/kg	SW846 8310	39000	15000		1000			550			2600			3.3	U		3700			8	J, PG
Chrysene	ug/kg	SW846 8310	390000	48000		2000			780			4000			160			7200			16	
Dibenz(a,h)anthracene	ug/kg	SW846 8310	390	460		73	U		22	U		140	U		3.3	U		110	U		1	U
Fluoranthene	ug/kg	SW846 8310	4100000	6300000		8000			3000			21000			210			14000	PG		60	
Fluorene	ug/kg	SW846 8310	4100000	140000		1700			590			3100			36			1900			5.9	J
Indeno(1,2,3-cd)pyrene	ug/kg	SW846 8310	3900	4200		1000			570	PG		3100			310			4600			16	PG
Naphthalene	ug/kg	SW846 8310	2000000	150		360	U		1800			7500			210			3900	J		20	J
Phenanthrene[1]	ug/kg	SW846 8310	2000000	150		6000			1600			12000			270			8800			23	
Pyrene	ug/kg	SW846 8310	3100000	680000		6400	PG		2800	PG		15000	PG		460	PG		12000	PG		45	PG
PCB's																					
Aroclor 1016	ug/kg	SW846 8310	41000	4200		2.8	U		3	U		2.9	U		3.2	U		3.1	U		3	U
Aroclor 1221	ug/kg	SW846 8082	1400	--		3.6	U		3.9	U		3.8	U		4.1	U		4	U		3.9	U
Aroclor 1232	ug/kg	SW846 8082	1400	--		3.2	U		3.5	U		3.4	U		3.7	U		3.6	U		3.5	U
Aroclor 1242	ug/kg	SW846 8082	1400	--		3.1	U		3.3	U		3.2	U		3.5	U		3.4	U		3.3	U
Aroclor 1248	ug/kg	SW846 8082	1400	--		1.8	U		1.9	U		27			2	U		2	U		1.9	U
Aroclor 1254	ug/kg	SW846 8082	1400	1100		23			2.9	U		2.8	U		3.1	U		3	U		2.9	U
Aroclor 1260	ug/kg	SW846 8082	1400	-		2.7	U		2.9	U		2.8	U		3.1	U		3	U		2.9	U
Indicator Parameters																					
Percent Solids	%	MCAWW 160.3 MOD	--	--		87.9			82.2			84			77.7			78.9			82.4	

TABLE 2
ANALYTICAL AND SCREENING RESULTS
YARD OFFICE INTERIM MEASURE - FUEL UNLOADING AREA EXCAVATION
MITTAL STEEL USA - WEIRTON, WV

1 - Screening criteria from Table 1-9 of the RFI Work Plan updated based on the most recent Region III Risk-Based Concentration Table (4/6/07). Industrial land use Risk-Based Concentrations are provided. RBCs for noncarcinogenic chemicals divided by 10 to account for potential cumulative effects. SSLs based on DAF of 20. Naphthalene was used as surrogate for noncarcinogenic PAHs without criteria (acenaphthylene, benzo(g,h,i)perylene, and phenanthrene).

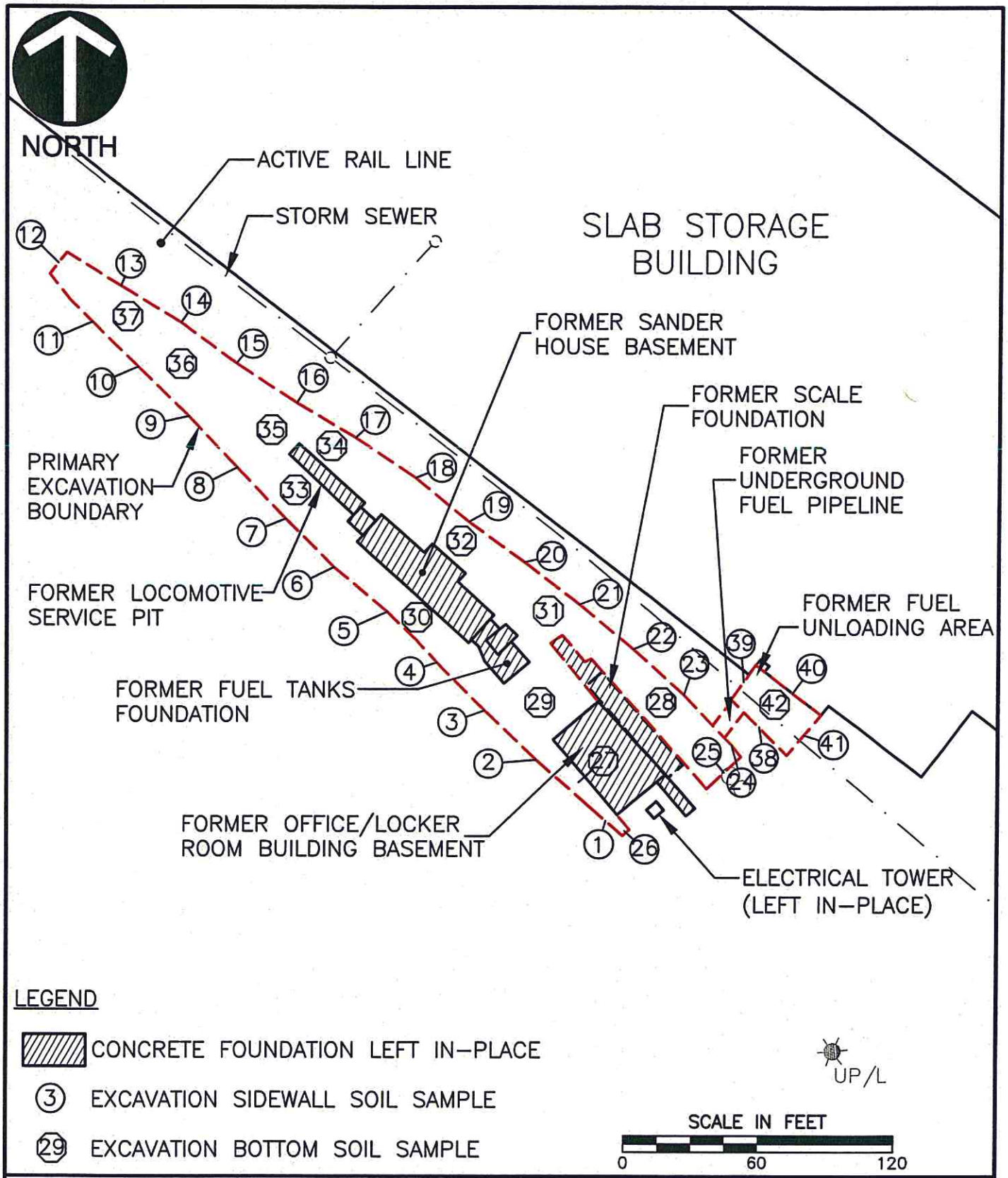
Bold italics numbers indicate exceedance of the RBC
Shading indicates an exceedance of the SSL

2 - General sample information provided in column headings, including field sample number, and sampling date. Table qualifier codes are consistent with Region III data qualifiers related to identification and quantitation and are as follows:

Data Qualifiers

--	Indicates that no screening criteria are present for the given constiuent
U	Not Detected. The associated number indicates an approximate sample concentration necessary to be detected.
UJ	Not Detected. Quantitation limit may be inaccurate or imprecise.
J	Dectected. Sample result is above the laboratory detection limit (MDL) but below the laboratory reporting limit and may be inaccurate or imprecise.
PG	The difference between the original results and the laboratory confirmation analysis is greater than 40%.

3- Sample IM-W700-S-39D is a field duplicate of sample IM-W700-S-39.



Civil & Environmental Consultants, Inc.
Four Triangle Lane - Export, PA 15632
(724)327-5200 • (800)899-3610
Chicago, IL • Cincinnati, OH • Columbus, OH • Indianapolis, IN • Nashville, TN • St. Louis, MO

EXCAVATION BOUNDARIES AND SAMPLE LOCATIONS
YARD OFFICE INTERIM MEASURE
MITTAL STEEL USA–WEIRTON PLANT

DWN. BY: CAF	SCALE:	DATE:	PROJECT NO.:	
CHKD. BY: DMC	AS SHOWN	09/24/07	051–241	FIGURE NO. 2

G:_2005 CAD PROJECTS\051241\DWG\051241A24.DWG (JGILLIGAN) – OCT 2, 2007 – 15:5:53

Detinning Plant Interim Measure

Antech Ltd.

One Triangle Lane • Export, Pennsylvania 15632 • Phone: (724) 733-1161 • Fax: (724) 327-7793

May 19, 2000

Mr. Mark Vignovic
Weirton Steel Corporation
400 Three Springs Drive
Weirton, WV 26062-4989

Soil Characterization; Purchase Order No. WS9P68977
P96-645-140; Weirton Steel Detinning
Antech Ltd. Project No. 00-2462

Dear Mr. Vignovic:

Enclosed are analytical results for samples submitted by Weirton Steel Corporation. Samples were received and logged in for analysis on May 17, 2000.

Appropriate U.S. Environmental Protection Agency methods were used and are indicated accordingly on the data tables. Appropriate quality assurance/quality control analyses were performed in accordance with Antech Ltd.'s Statement of Qualifications. If you have any questions, please call me.

Sincerely,

Kathryn L. Goodson
for Penelope J. Morris
Project Manager

PJM:csh

Enclosures

ANTECH LTD.
CASE NARRATIVE

I. PROJECT LOGIN INFORMATION:

A: PROJECT NUMBERS:

ANTECH LTD.: 00-2462
CLIENT: Purchase Order Number: WS9P68977

B: SAMPLE IDENTIFICATIONS:

Antech ID	Client ID	Antech ID	Client ID
0005-2479	DT-PB-IM-01	0005-2480	DT-PB-IM-02
0005-2481	DT-PB-IM-03		

C: SHIPPING/RECEIVING COMMENTS:

None

II. PREPARATION/ANALYSIS COMMENTS:

A: GENERAL CHEMISTRY:
The negative value for Amenable Cyanide is due to matrix interferences referenced in Standard Methods 19th edition, 4500-CN, Section G-1.

B: METALS:
Sample results reported on an "as received" basis.

III. GENERAL COMMENTS:

Trailing zeroes and decimal places appearing on the data should not be interpreted as precision of the analytical procedure, but rather as a result of reporting format.

Table 1
General Data Table
Wairton Steel Corporation
Antech Ltd. Project No. 00-2462
Soil Characterization; P96-645-140
Purchase Order No. WS9P68977; Weirton Steel Detinning

Parameter	Analytical Method	Units	Sample Identification 0005-2479 DT-PB-IM-01 (5/16/00)
Cyanide (Amenable)	9012 (1)	mg/kg	-4.687
Cyanide (Total)	9012 (1)	mg/kg	12
Total Metals:			
Silver (Total)	6010 (1)	mg/kg	3.0
Aluminum (Total)	6010 (1)	mg/kg	6400
Arsenic (Total)	6010 (1)	mg/kg	1.6
Barium (Total)	6010 (1)	mg/kg	160
Beryllium (Total)	6010 (1)	mg/kg	<0.20
Calcium (Total)	6010 (1)	mg/kg	67000
Cadmium (Total)	6010 (1)	mg/kg	12
Cobalt (Total)	6010 (1)	mg/kg	3.6
Chromium (Total)	6010 (1)	mg/kg	720
Copper (Total)	6010 (1)	mg/kg	54
Iron (Total)	6010 (1)	mg/kg	74000
Mercury (Total)	7471 (1)	mg/kg	0.20
Potassium (Total)	6010 (1)	mg/kg	1100
Magnesium (Total)	6010 (1)	mg/kg	25000
Manganese (Total)	6010 (1)	mg/kg	8700
Sodium (Total)	6010 (1)	mg/kg	890
Nickel (Total)	6010 (1)	mg/kg	11
Lead (Total)	6010 (1)	mg/kg	160
Antimony (Total)	6010 (1)	mg/kg	5.9
Selenium (Total)	6010 (1)	mg/kg	<1.0
Thallium (Total)	6010 (1)	mg/kg	<0.80
Vanadium (Total)	6010 (1)	mg/kg	230
Zinc (Total)	6010 (1)	mg/kg	560

(1) U.S. Environmental Protection Agency, 1987, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

Table 2
General Data Table
Weirton Steel Corporation
Antech Ltd. Project No. 00-2462
Soil Characterization; P96-645-140
Purchase Order No. WS9P68977; Weirton Steel Detinning

Parameter	Analytical Method	Units	Sample Identification 0005-2480 DT-PB-IM-02 (5/16/00)
Cyanide (Amenable)	9012 (1)	mg/kg	-21.64
Cyanide (Total)	9012 (1)	mg/kg	37
Total Metals:			
Silver (Total)	6010 (1)	mg/kg	1.0
Aluminum (Total)	6010 (1)	mg/kg	15000
Arsenic (Total)	6010 (1)	mg/kg	16
Barium (Total)	6010 (1)	mg/kg	200
Beryllium (Total)	6010 (1)	mg/kg	2.1
Calcium (Total)	6010 (1)	mg/kg	55000
Cadmium (Total)	6010 (1)	mg/kg	20
Cobalt (Total)	6010 (1)	mg/kg	3.4
Chromium (Total)	6010 (1)	mg/kg	17
Copper (Total)	6010 (1)	mg/kg	120
Iron (Total)	6010 (1)	mg/kg	17000
Mercury (Total)	7471 (1)	mg/kg	<0.10
Potassium (Total)	6010 (1)	mg/kg	2100
Magnesium (Total)	6010 (1)	mg/kg	6400
Manganese (Total)	6010 (1)	mg/kg	3700
Sodium (Total)	6010 (1)	mg/kg	<200
Nickel (Total)	6010 (1)	mg/kg	7.1
Lead (Total)	6010 (1)	mg/kg	210
Antimony (Total)	6010 (1)	mg/kg	<0.50
Selenium (Total)	6010 (1)	mg/kg	<1.0
Thallium (Total)	6010 (1)	mg/kg	<0.80
Vanadium (Total)	6010 (1)	mg/kg	10
Zinc (Total)	6010 (1)	mg/kg	15000

(1) U.S. Environmental Protection Agency, 1987, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

Table 3
General Data Table
Weirton Steel Corporation
Antech Ltd. Project No. 00-2462
Soil Characterization; P96-645-140
Purchase Order No. WS9P68977; Weirton Steel Detinning

Parameter	Analytical Method	Units	Sample Identification 0005-2481 DT-PB-IM-03 (5/16/00)
Cyanide (Amenable)	9012 (1)	mg/kg	-2.896
Cyanide (Total)	9012 (1)	mg/kg	12
Total Metals:			
Silver (Total)	6010 (1)	mg/kg	1.1
Aluminum (Total)	6010 (1)	mg/kg	13000
Arsenic (Total)	6010 (1)	mg/kg	1.8 ✓
Barium (Total)	6010 (1)	mg/kg	130
Beryllium (Total)	6010 (1)	mg/kg	2.0
Calcium (Total)	6010 (1)	mg/kg	61000
Cadmium (Total)	6010 (1)	mg/kg	4.1
Cobalt (Total)	6010 (1)	mg/kg	3.9
Chromium (Total)	6010 (1)	mg/kg	120 ✓
Copper (Total)	6010 (1)	mg/kg	66
Iron (Total)	6010 (1)	mg/kg	27000 ✓
Mercury (Total)	7471 (1)	mg/kg	<0.10
Potassium (Total)	6010 (1)	mg/kg	1900
Magnesium (Total)	6010 (1)	mg/kg	17000
Manganese (Total)	6010 (1)	mg/kg	2900
Sodium (Total)	6010 (1)	mg/kg	<200
Nickel (Total)	6010 (1)	mg/kg	17
Lead (Total)	6010 (1)	mg/kg	68
Antimony (Total)	6010 (1)	mg/kg	0.98
Selenium (Total)	6010 (1)	mg/kg	<1.0
Thallium (Total)	6010 (1)	mg/kg	<0.80
Vanadium (Total)	6010 (1)	mg/kg	47 ✓
Zinc (Total)	6010 (1)	mg/kg	1300

(1) U.S. Environmental Protection Agency, 1987, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

Table 4
General Data Table
Weirton Steel Corporation
Antech Ltd. Project No. 00-2462
Soil Characterization; P96-645-140
Purchase Order No. WS9P68977; Weirton Steel Detinning

Parameter	Analytical Method	Units	Sample Identification 0005-2482 Method Blank (5/17/00)
Cyanide (Amenable)	9012 (1)	mg/kg	<1.0
Cyanide (Total)	9012 (1)	mg/kg	<1.0
Total Metals:			
Silver (Total)	6010 (1)	mg/kg	<0.20
Aluminum (Total)	6010 (1)	mg/kg	<10
Arsenic (Total)	6010 (1)	mg/kg	<0.50
Barium (Total)	6010 (1)	mg/kg	<2.0
Beryllium (Total)	6010 (1)	mg/kg	<0.20
Calcium (Total)	6010 (1)	mg/kg	<200
Cadmium (Total)	6010 (1)	mg/kg	<0.20
Cobalt (Total)	6010 (1)	mg/kg	<1.0
Chromium (Total)	6010 (1)	mg/kg	<0.20
Copper (Total)	6010 (1)	mg/kg	<1.0
Iron (Total)	6010 (1)	mg/kg	<5.0
Mercury (Total)	7471 (1)	mg/kg	<0.10
Potassium (Total)	6010 (1)	mg/kg	<100
Magnesium (Total)	6010 (1)	mg/kg	<50
Manganese (Total)	6010 (1)	mg/kg	<1.0
Sodium (Total)	6010 (1)	mg/kg	<200
Nickel (Total)	6010 (1)	mg/kg	<2.0
Lead (Total)	6010 (1)	mg/kg	<0.50
Antimony (Total)	6010 (1)	mg/kg	<0.50
Selenium (Total)	6010 (1)	mg/kg	<1.0
Thallium (Total)	6010 (1)	mg/kg	<0.80
Vanadium (Total)	6010 (1)	mg/kg	<1.0
Zinc (Total)	6010 (1)	mg/kg	<1.0

(1) U.S. Environmental Protection Agency, 1987, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

Table 1
General Data Table
Weirton Steel Corporation
Antech Ltd. Project No. 00-2463
Soil Characterization; P96-645-140
Purchase Order No. WS9P68977; Weirton Steel Detinning

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2483 DT-OS-IM-01 (5/16/00)
Total Metals:				
Silver (Total)	7440-22-4	6010[2]	mg/kg	1.4
Aluminum (Total)	7429-90-5	6010[2]	mg/kg	13000
Arsenic (Total)	7440-38-2	6010[2]	mg/kg	0.74 ✓
Barium (Total)	7440-39-3	6010[2]	mg/kg	190
Beryllium (Total)	7440-41-7	6010[2]	mg/kg	2.4
Calcium (Total)	7440-70-2	6010[2]	mg/kg	55000
Cadmium (Total)	7440-43-9	6010[2]	mg/kg	10
Cobalt (Total)	7440-48-4	6010[2]	mg/kg	4.7
Chromium (Total)	7440-47-3	6010[2]	mg/kg	120 ✓
Copper (Total)	7440-50-8	6010[2]	mg/kg	130
Iron (Total)	7439-89-6	6010[2]	mg/kg	44000 ✓
Mercury (Total)	7439-97-6	7471[2]	mg/kg	<0.10
Potassium (Total)	7440-09-7	6010[2]	mg/kg	1000
Magnesium (Total)	7439-95-4	6010[2]	mg/kg	13000
Manganese (Total)	7439-96-5	6010[2]	mg/kg	2400
Sodium (Total)	7440-23-5	6010[2]	mg/kg	<200
Nickel (Total)	7440-02-0	6010[2]	mg/kg	33
Lead (Total)	7439-92-1	6010[2]	mg/kg	290
Antimony (Total)	7440-36-0	6010[2]	mg/kg	1.0
Selenium (Total)	7782-49-2	6010[2]	mg/kg	<1.0
Thallium (Total)	7440-28-0	6010[2]	mg/kg	<0.80
Vanadium (Total)	7440-62-2	6010[2]	mg/kg	16
Zinc (Total)	7440-66-6	6010[2]	mg/kg	3800

See footnotes at end of table.

Table 1
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2483 DT-OS-IM-01 (5/16/00)
Volatile Organic Analysis:				
Acetone	67-64-1	8260[2]	µg/kg	68
Benzene	71-43-2	8260[2]	µg/kg	<2.3
Bromodichloromethane	75-27-4	8260[2]	µg/kg	<2.3
Bromoform	75-25-2	8260[2]	µg/kg	<3.4
Bromomethane	74-83-9	8260[2]	µg/kg	<3.4
2-Butanone (MEK)	78-93-3	8260[2]	µg/kg	26
Carbon disulfide	75-15-0	8260[2]	µg/kg	<2.3
Carbon tetrachloride	56-23-5	8260[2]	µg/kg	<3.4
Chlorobenzene	108-90-7	8260[2]	µg/kg	<3.4
Chlorodibromomethane	124-48-1	8260[2]	µg/kg	<2.3
Chloroethane	75-00-3	8260[2]	µg/kg	<2.3
Chloromethane	74-87-3	8260[2]	µg/kg	<2.3
Chloroform	67-66-3	8260[2]	µg/kg	<2.3
1,1-Dichloroethane	75-34-3	8260[2]	µg/kg	<3.4
1,2-Dichloroethane	107-06-2	8260[2]	µg/kg	<3.4
1,1-Dichloroethene	75-35-4	8260[2]	µg/kg	<2.3
cis-1,2-Dichloroethene	156-59-2	8260[2]	µg/kg	<5.7
trans-1,2-Dichloroethene	156-60-5	8260[2]	µg/kg	<5.7
1,2-Dichloropropane	78-87-5	8260[2]	µg/kg	<2.3
cis-1,3-Dichloropropene	10061-01-5	8260[2]	µg/kg	<2.3
trans-1,3-Dichloropropene	10061-02-6	8260[2]	µg/kg	<2.3
Ethylbenzene	100-41-4	8260[2]	µg/kg	<2.3
2-Hexanone	591-78-6	8260[2]	µg/kg	<9.0
Methylene chloride	75-09-2	8260[2]	µg/kg	<6.8
4-Methyl-2-pentanone (MIBK)	108-10-1	8260[2]	µg/kg	<4.5
Styrene	100-42-5	8260[2]	µg/kg	<3.4
1,1,2,2-Tetrachloroethane	79-34-5	8260[2]	µg/kg	<2.3
Tetrachloroethene	127-18-4	8260[2]	µg/kg	<3.4
Toluene	108-88-3	8260[2]	µg/kg	<3.4
1,1,1-Trichloroethane	71-55-6	8260[2]	µg/kg	<2.3
1,1,2-Trichloroethane	79-00-5	8260[2]	µg/kg	<3.4
Trichloroethene	79-01-6	8260[2]	µg/kg	<3.4
Vinyl chloride	75-01-4	8260[2]	µg/kg	<2.3
Xylenes (Total)	1330-20-7	8260[2]	µg/kg	<3.4

See footnotes at end of table.

Table 1
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2483 DT-OS-IM-01 (5/16/00)
Semivolatile Organic Analysis:				
Acenaphthene	83-32-9	8270[2]	µg/kg	<17000
Acenaphthylene	208-96-8	8270[2]	µg/kg	<17000
Anthracene	120-12-7	8270[2]	µg/kg	<17000
Bis(2-chloro-1-methylethyl)ether	108-60-1	8270[2]	µg/kg	<17000
Bis(2-chloroethyl)ether	111-44-4	8270[2]	µg/kg	<17000
Bis(2-chloroethoxy)methane	111-91-1	8270[2]	µg/kg	<17000
Bis(2-ethylhexyl)phthalate	117-81-7	8270[2]	µg/kg	<17000
Benzo(a)pyrene	50-32-8	8270[2]	µg/kg	<17000
Benzo(a)anthracene	56-55-3	8270[2]	µg/kg	<17000
Benzo(b)fluoranthene	205-99-2	8270[2]	µg/kg	<17000
Benzo(ghi)perylene	191-24-2	8270[2]	µg/kg	<17000
Benzo(k)fluoranthene	207-08-9	8270[2]	µg/kg	<17000
4-Bromophenyl phenyl ether	101-55-3	8270[2]	µg/kg	<17000
Butyl benzyl phthalate	85-68-7	8270[2]	µg/kg	<17000
Carbazole	86-74-8	8270[2]	µg/kg	<17000
Chrysene	218-01-9	8270[2]	µg/kg	<17000
2-Chloronaphthalene	91-58-7	8270[2]	µg/kg	<17000
2-Chlorophenol	95-57-8	8270[2]	µg/kg	<17000
4-Chlorophenyl phenyl ether	7005-72-3	8270[2]	µg/kg	<17000
o-Cresol	95-48-7	8270[2]	µg/kg	<17000
p-Cresol	106-44-5	8270[2]	µg/kg	<17000
Dibenz(a,h)anthracene	53-70-3	8270[2]	µg/kg	<17000
Dibenzofuran	132-64-9	8270[2]	µg/kg	<17000
2,4-Dichlorophenol	120-83-2	8270[2]	µg/kg	<17000
1,2-Dichlorobenzene	95-50-1	8270[2]	µg/kg	<17000
1,3-Dichlorobenzene	541-73-1	8270[2]	µg/kg	<17000
1,4-Dichlorobenzene	106-46-7	8270[2]	µg/kg	<17000
3,3'-Dichlorobenzidine	91-94-1	8270[2]	µg/kg	<17000
Diethyl phthalate	84-66-2	8270[2]	µg/kg	<17000
Dimethyl phthalate	131-11-3	8270[2]	µg/kg	<17000
2,4-Dimethylphenol	105-67-9	8270[2]	µg/kg	<17000
Di-n-butyl phthalate	84-74-2	8270[2]	µg/kg	<17000

See footnotes at end of table.

Table 1
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2483 DT-OS-IM-01 (5/16/00)
4,6-Dinitro-o-cresol	534-52-1	8270[2]	µg/kg	<42000
2,4-Dinitrotoluene	121-14-2	8270[2]	µg/kg	<17000
2,6-Dinitrotoluene	606-20-2	8270[2]	µg/kg	<17000
Di-n-octyl phthalate	117-84-0	8270[2]	µg/kg	<17000
2,4-Dinitrophenol	51-28-5	8270[2]	µg/kg	<42000
Fluoranthene	206-44-0	8270[2]	µg/kg	30000
Fluorene	86-73-7	8270[2]	µg/kg	<17000
Hexachlorocyclopentadiene	77-47-4	8270[2]	µg/kg	<17000
Hexachlorobenzene	118-74-1	8270[2]	µg/kg	<17000
Hexachlorobutadiene	87-68-3	8270[2]	µg/kg	<17000
Hexachloroethane	67-72-1	8270[2]	µg/kg	<17000
Indeno(1,2,3-cd)pyrene	193-39-5	8270[2]	µg/kg	<17000
Isophorone	78-59-1	8270[2]	µg/kg	<17000
2-Methylnaphthalene	91-57-6	8270[2]	µg/kg	<17000
N-nitrosodiphenylamine	86-30-6	8270[2]	µg/kg	<17000
N-nitroso-di-n-propylamine	621-64-7	8270[2]	µg/kg	<17000
Naphthalene	91-20-3	8270[2]	µg/kg	<17000
2-Nitroaniline	88-74-4	8270[2]	µg/kg	<42000
3-Nitroaniline	99-09-2	8270[2]	µg/kg	<42000
4-Nitroaniline	100-01-6	8270[2]	µg/kg	<42000
Nitrobenzene	98-95-3	8270[2]	µg/kg	<17000
2-Nitrophenol	88-75-5	8270[2]	µg/kg	<17000
4-Nitrophenol	100-02-7	8270[2]	µg/kg	<42000
p-Chloroaniline	106-47-8	8270[2]	µg/kg	<17000
p-Chloro-m-cresol	59-50-7	8270[2]	µg/kg	<17000
Pentachlorophenol	87-86-5	8270[2]	µg/kg	<42000
Phenanthrene	85-01-8	8270[2]	µg/kg	37000
Phenol	108-95-2	8270[2]	µg/kg	<17000
Pyrene	129-00-0	8270[2]	µg/kg	22000
1,2,4-Trichlorobenzene	120-82-1	8270[2]	µg/kg	<17000
2,4,5-Trichlorophenol	95-95-4	8270[2]	µg/kg	<42000
2,4,6-Trichlorophenol	88-06-2	8270[2]	µg/kg	<17000

(1) CAS = Chemical Abstracts Services.
(2) U.S. Environmental Protection Agency, 1987, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

Table 2
General Data Table
Weirton Steel Corporation
Antech Ltd. Project No. 00-2463
Soil Characterization; P96-645-140
Purchase Order No. WS9P68977; Weirton Steel Detinning

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2484 DT-OS-IM-02 (5/16/00)
Total Metals:				
Silver (Total)	7440-22-4	6010[2]	mg/kg	2.4
Aluminum (Total)	7429-90-5	6010[2]	mg/kg	14000
Arsenic (Total)	7440-38-2	6010[2]	mg/kg	1.7 ✓
Barium (Total)	7440-39-3	6010[2]	mg/kg	170
Beryllium (Total)	7440-41-7	6010[2]	mg/kg	2.7
Calcium (Total)	7440-70-2	6010[2]	mg/kg	50000
Cadmium (Total)	7440-43-9	6010[2]	mg/kg	13
Cobalt (Total)	7440-48-4	6010[2]	mg/kg	7.0
Chromium (Total)	7440-47-3	6010[2]	mg/kg	110 ✓
Copper (Total)	7440-50-8	6010[2]	mg/kg	160
Iron (Total)	7439-89-6	6010[2]	mg/kg	60000 ✓
Mercury (Total)	7439-97-6	7471[2]	mg/kg	<0.10
Potassium (Total)	7440-09-7	6010[2]	mg/kg	1200
Magnesium (Total)	7439-95-4	6010[2]	mg/kg	12000
Manganese (Total)	7439-96-5	6010[2]	mg/kg	2000
Sodium (Total)	7440-23-5	6010[2]	mg/kg	<200
Nickel (Total)	7440-02-0	6010[2]	mg/kg	56
Lead (Total)	7439-92-1	6010[2]	mg/kg	350
Antimony (Total)	7440-36-0	6010[2]	mg/kg	1.7
Selenium (Total)	7782-49-2	6010[2]	mg/kg	<1.0
Thallium (Total)	7440-28-0	6010[2]	mg/kg	<0.80
Vanadium (Total)	7440-62-2	6010[2]	mg/kg	2.9
Zinc (Total)	7440-66-6	6010[2]	mg/kg	3700

See footnotes at end of table.

Table 2
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2484 DT-OS-IM-02 (5/16/00)
Volatile Organic Analysis:				
Acetone	67-64-1	8260[2]	µg/kg	30
Benzene	71-43-2	8260[2]	µg/kg	<2.0
Bromodichloromethane	75-27-4	8260[2]	µg/kg	<2.0
Bromoform	75-25-2	8260[2]	µg/kg	<3.0
Bromomethane	74-83-9	8260[2]	µg/kg	<3.0
2-Butanone (MEK)	78-93-3	8260[2]	µg/kg	7.3
Carbon disulfide	75-15-0	8260[2]	µg/kg	<2.0
Carbon tetrachloride	56-23-5	8260[2]	µg/kg	<3.0
Chlorobenzene	108-90-7	8260[2]	µg/kg	<3.0
Chlorodibromomethane	124-48-1	8260[2]	µg/kg	<2.0
Chloroethane	75-00-3	8260[2]	µg/kg	<2.0
Chloromethane	74-87-3	8260[2]	µg/kg	<2.0
Chloroform	67-66-3	8260[2]	µg/kg	<2.0
1,1-Dichloroethane	75-34-3	8260[2]	µg/kg	<3.0
1,2-Dichloroethane	107-06-2	8260[2]	µg/kg	<3.0
1,1-Dichloroethene	75-35-4	8260[2]	µg/kg	<2.0
cis-1,2-Dichloroethene	156-59-2	8260[2]	µg/kg	<5.0
trans-1,2-Dichloroethene	156-60-5	8260[2]	µg/kg	<5.0
1,2-Dichloropropane	78-87-5	8260[2]	µg/kg	<2.0
cis-1,3-Dichloropropene	10061-01-5	8260[2]	µg/kg	<2.0
trans-1,3-Dichloropropene	10061-02-6	8260[2]	µg/kg	<2.0
Ethylbenzene	100-41-4	8260[2]	µg/kg	<2.0
2-Hexanone	591-78-6	8260[2]	µg/kg	<8.0
Methylene chloride	75-09-2	8260[2]	µg/kg	6.3
4-Methyl-2-pentanone (MIBK)	108-10-1	8260[2]	µg/kg	<4.0
Styrene	100-42-5	8260[2]	µg/kg	<3.0
1,1,2,2-Tetrachloroethane	79-34-5	8260[2]	µg/kg	<2.0
Tetrachloroethene	127-18-4	8260[2]	µg/kg	<3.0
Toluene	108-88-3	8260[2]	µg/kg	<3.0
1,1,1-Trichloroethane	71-55-6	8260[2]	µg/kg	<2.0
1,1,2-Trichloroethane	79-00-5	8260[2]	µg/kg	<3.0
Trichloroethene	79-01-6	8260[2]	µg/kg	<3.0
Vinyl chloride	75-01-4	8260[2]	µg/kg	<2.0
Xylenes (Total)	1330-20-7	8260[2]	µg/kg	<3.0

See footnotes at end of table.

Table 2
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2484 DT-OS-IM-02 (5/16/00)
Semivolatile Organic Analysis:				
Acenaphthene	83-32-9	8270[2]	µg/kg	<3300
Acenaphthylene	208-96-8	8270[2]	µg/kg	<3300
Anthracene	120-12-7	8270[2]	µg/kg	<3300
Bis(2-chloro-1-methylethyl)ether	108-60-1	8270[2]	µg/kg	<3300
Bis(2-chloroethyl)ether	111-44-4	8270[2]	µg/kg	<3300
Bis(2-chloroethoxy)methane	111-91-1	8270[2]	µg/kg	<3300
Bis(2-ethylhexyl)phthalate	117-81-7	8270[2]	µg/kg	<3300
Benzo(a)pyrene	50-32-8	8270[2]	µg/kg	7200 ✓
Benzo(a)anthracene	56-55-3	8270[2]	µg/kg	4300 ✓
Benzo(b)fluoranthene	205-99-2	8270[2]	µg/kg	9500 ✓
Benzo(ghi)perylene	191-24-2	8270[2]	µg/kg	<3300
Benzo(k)fluoranthene	207-08-9	8270[2]	µg/kg	4000 ✓
4-Bromophenyl phenyl ether	101-55-3	8270[2]	µg/kg	<3300
Butyl benzyl phthalate	85-68-7	8270[2]	µg/kg	<3300
Carbazole	86-74-8	8270[2]	µg/kg	<3300
Chrysene	218-01-9	8270[2]	µg/kg	5200
2-Chloronaphthalene	91-58-7	8270[2]	µg/kg	<3300
2-Chlorophenol	95-57-8	8270[2]	µg/kg	<3300
4-Chlorophenyl phenyl ether	7005-72-3	8270[2]	µg/kg	<3300
o-Cresol	95-48-7	8270[2]	µg/kg	<3300
p-Cresol	106-44-5	8270[2]	µg/kg	<3300
Dibenz(a,h)anthracene	53-70-3	8270[2]	µg/kg	<3300
Dibenzofuran	132-64-9	8270[2]	µg/kg	<3300
2,4-Dichlorophenol	120-83-2	8270[2]	µg/kg	<3300
1,2-Dichlorobenzene	95-50-1	8270[2]	µg/kg	<3300
1,3-Dichlorobenzene	541-73-1	8270[2]	µg/kg	<3300
1,4-Dichlorobenzene	106-46-7	8270[2]	µg/kg	<3300
3,3'-Dichlorobenzidine	91-94-1	8270[2]	µg/kg	<3300
Diethyl phthalate	84-66-2	8270[2]	µg/kg	<3300
Dimethyl phthalate	131-11-3	8270[2]	µg/kg	<3300
2,4-Dimethylphenol	105-67-9	8270[2]	µg/kg	<3300
Di-n-butyl phthalate	84-74-2	8270[2]	µg/kg	<3300

See footnotes at end of table.

Table 2
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2484 DT-OS-IM-02 (5/16/00)
4,6-Dinitro-o-cresol	534-52-1	8270[2]	µg/kg	<8300
2,4-Dinitrotoluene	121-14-2	8270[2]	µg/kg	<3300
2,6-Dinitrotoluene	606-20-2	8270[2]	µg/kg	<3300
Di-n-octyl phthalate	117-84-0	8270[2]	µg/kg	<3300
2,4-Dinitrophenol	51-28-5	8270[2]	µg/kg	<8300
Fluoranthene	206-44-0	8270[2]	µg/kg	6300
Fluorene	86-73-7	8270[2]	µg/kg	<3300
Hexachlorocyclopentadiene	77-47-4	8270[2]	µg/kg	<3300
Hexachlorobenzene	118-74-1	8270[2]	µg/kg	<3300
Hexachlorobutadiene	87-68-3	8270[2]	µg/kg	<3300
Hexachloroethane	67-72-1	8270[2]	µg/kg	<3300
Indeno(1,2,3-cd)pyrene	193-39-5	8270[2]	µg/kg	5200 ✓
Isophorone	78-59-1	8270[2]	µg/kg	<3300
2-Methylnaphthalene	91-57-6	8270[2]	µg/kg	<3300
N-nitrosodiphenylamine	86-30-6	8270[2]	µg/kg	<3300
N-nitroso-di-n-propylamine	621-64-7	8270[2]	µg/kg	<3300
Naphthalene	91-20-3	8270[2]	µg/kg	<3300
2-Nitroaniline	88-74-4	8270[2]	µg/kg	<8300
3-Nitroaniline	99-09-2	8270[2]	µg/kg	<8300
4-Nitroaniline	100-01-6	8270[2]	µg/kg	<8300
Nitrobenzene	98-95-3	8270[2]	µg/kg	<3300
2-Nitrophenol	88-75-5	8270[2]	µg/kg	<3300
4-Nitrophenol	100-02-7	8270[2]	µg/kg	<8300
p-Chloroaniline	106-47-8	8270[2]	µg/kg	<3300
p-Chloro-m-cresol	59-50-7	8270[2]	µg/kg	<3300
Pentachlorophenol	87-86-5	8270[2]	µg/kg	<8300
Phenanthrene	85-01-8	8270[2]	µg/kg	<3300
Phenol	108-95-2	8270[2]	µg/kg	<3300
Pyrene	129-00-0	8270[2]	µg/kg	5500
1,2,4-Trichlorobenzene	120-82-1	8270[2]	µg/kg	<3300
2,4,5-Trichlorophenol	95-95-4	8270[2]	µg/kg	<8300
2,4,6-Trichlorophenol	88-06-2	8270[2]	µg/kg	<3300

(1) CAS = Chemical Abstracts Services.
(2) U.S. Environmental Protection Agency, 1987, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

Table 3
General Data Table
Weirton Steel Corporation
Antech Ltd. Project No. 00-2463
Soil Characterization; P96-645-140
Purchase Order No. WS9P68977; Weirton Steel Detinning

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2485 Method Blank (5/17/00)
Total Metals:				
Silver (Total)	7440-22-4	6010[2]	mg/kg	<0.20
Aluminum (Total)	7429-90-5	6010[2]	mg/kg	<10
Arsenic (Total)	7440-38-2	6010[2]	mg/kg	<0.50
Barium (Total)	7440-39-3	6010[2]	mg/kg	<2.0
Beryllium (Total)	7440-41-7	6010[2]	mg/kg	<0.20
Calcium (Total)	7440-70-2	6010[2]	mg/kg	<200
Cadmium (Total)	7440-43-9	6010[2]	mg/kg	<0.20
Cobalt (Total)	7440-48-4	6010[2]	mg/kg	<1.0
Chromium (Total)	7440-47-3	6010[2]	mg/kg	<0.20
Copper (Total)	7440-50-8	6010[2]	mg/kg	<1.0
Iron (Total)	7439-89-6	6010[2]	mg/kg	<5.0
Mercury (Total)	7439-97-6	7471[2]	mg/kg	<0.10
Potassium (Total)	7440-09-7	6010[2]	mg/kg	<100
Magnesium (Total)	7439-95-4	6010[2]	mg/kg	<50
Manganese (Total)	7439-96-5	6010[2]	mg/kg	<1.0
Sodium (Total)	7440-23-5	6010[2]	mg/kg	<200
Nickel (Total)	7440-02-0	6010[2]	mg/kg	<2.0
Lead (Total)	7439-92-1	6010[2]	mg/kg	<0.50
Antimony (Total)	7440-36-0	6010[2]	mg/kg	<0.50
Selenium (Total)	7782-49-2	6010[2]	mg/kg	<1.0
Thallium (Total)	7440-28-0	6010[2]	mg/kg	<0.80
Vanadium (Total)	7440-62-2	6010[2]	mg/kg	<1.0
Zinc (Total)	7440-66-6	6010[2]	mg/kg	<1.0

See footnotes at end of table.

Table 3
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2485 Method Blank (5/17/00)
Volatile Organic Analysis:				
Acetone	67-64-1	8260[2]	µg/kg	18
Benzene	71-43-2	8260[2]	µg/kg	<2.0
Bromodichloromethane	75-27-4	8260[2]	µg/kg	<2.0
Bromoform	75-25-2	8260[2]	µg/kg	<3.0
Bromomethane	74-83-9	8260[2]	µg/kg	<3.0
2-Butanone (MEK)	78-93-3	8260[2]	µg/kg	<2.0
Carbon disulfide	75-15-0	8260[2]	µg/kg	<2.0
Carbon tetrachloride	56-23-5	8260[2]	µg/kg	<3.0
Chlorobenzene	108-90-7	8260[2]	µg/kg	<3.0
Chlorodibromomethane	124-48-1	8260[2]	µg/kg	<2.0
Chloroethane	75-00-3	8260[2]	µg/kg	<2.0
Chloromethane	74-87-3	8260[2]	µg/kg	<2.0
Chloroform	67-66-3	8260[2]	µg/kg	<2.0
1,1-Dichloroethane	75-34-3	8260[2]	µg/kg	<3.0
1,2-Dichloroethane	107-06-2	8260[2]	µg/kg	<3.0
1,1-Dichloroethene	75-35-4	8260[2]	µg/kg	<2.0
cis-1,2-Dichloroethene	156-59-2	8260[2]	µg/kg	<5.0
trans-1,2-Dichloroethene	156-60-5	8260[2]	µg/kg	<5.0
1,2-Dichloropropane	78-87-5	8260[2]	µg/kg	<2.0
cis-1,3-Dichloropropene	10061-01-5	8260[2]	µg/kg	<2.0
trans-1,3-Dichloropropene	10061-02-6	8260[2]	µg/kg	<2.0
Ethylbenzene	100-41-4	8260[2]	µg/kg	<2.0
2-Hexanone	591-78-6	8260[2]	µg/kg	<8.0
Methylene chloride	75-09-2	8260[2]	µg/kg	8.3
4-Methyl-2-pentanone (MIBK)	108-10-1	8260[2]	µg/kg	<4.0
Styrene	100-42-5	8260[2]	µg/kg	<3.0
1,1,2,2-Tetrachloroethane	79-34-5	8260[2]	µg/kg	<2.0
Tetrachloroethene	127-18-4	8260[2]	µg/kg	<3.0
Toluene	108-88-3	8260[2]	µg/kg	<3.0
1,1,1-Trichloroethane	71-55-6	8260[2]	µg/kg	<2.0
1,1,2-Trichloroethane	79-00-5	8260[2]	µg/kg	<3.0
Trichloroethene	79-01-6	8260[2]	µg/kg	<3.0
Vinyl chloride	75-01-4	8260[2]	µg/kg	<2.0
Xylenes (Total)	1330-20-7	8260[2]	µg/kg	<3.0

See footnotes at end of table.

Table 3
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS(1) Number	Analytical Method	Units	Sample Identification 0005-2485 Method Blank (5/17/00)
Semivolatile Organic Analysis:				
Acenaphthene	83-32-9	8270(2)	µg/kg	<330
Acenaphthylene	208-96-8	8270(2)	µg/kg	<330
Anthracene	120-12-7	8270(2)	µg/kg	<330
Bis(2-chloro-1-methylethyl)ether	108-60-1	8270(2)	µg/kg	<330
Bis(2-chloroethyl)ether	111-44-4	8270(2)	µg/kg	<330
Bis(2-chloroethoxy)methane	111-91-1	8270(2)	µg/kg	<330
Bis(2-ethylhexyl)phthalate	117-81-7	8270(2)	µg/kg	<330
Benzo(a)pyrene	50-32-8	8270(2)	µg/kg	<330
Benzo(a)anthracene	56-55-3	8270(2)	µg/kg	<330
Benzo(b)fluoranthene	205-99-2	8270(2)	µg/kg	<330
Benzo(ghi)perylene	191-24-2	8270(2)	µg/kg	<330
Benzo(k)fluoranthene	207-08-9	8270(2)	µg/kg	<330
4-Bromophenyl phenyl ether	101-55-3	8270(2)	µg/kg	<330
Butyl benzyl phthalate	85-68-7	8270(2)	µg/kg	<330
Carbazole	86-74-8	8270(2)	µg/kg	<330
Chrysene	218-01-9	8270(2)	µg/kg	<330
2-Chloronaphthalene	91-58-7	8270(2)	µg/kg	<330
2-Chlorophenol	95-57-8	8270(2)	µg/kg	<330
4-Chlorophenyl phenyl ether	7005-72-3	8270(2)	µg/kg	<330
o-Cresol	95-48-7	8270(2)	µg/kg	<330
p-Cresol	106-44-5	8270(2)	µg/kg	<330
Dibenz(a,h)anthracene	53-70-3	8270(2)	µg/kg	<330
Dibenzofuran	132-64-9	8270(2)	µg/kg	<330
2,4-Dichlorophenol	120-83-2	8270(2)	µg/kg	<330
1,2-Dichlorobenzene	95-50-1	8270(2)	µg/kg	<330
1,3-Dichlorobenzene	541-73-1	8270(2)	µg/kg	<330
1,4-Dichlorobenzene	106-46-7	8270(2)	µg/kg	<330
3,3'-Dichlorobenzidine	91-94-1	8270(2)	µg/kg	<330
Diethyl phthalate	84-66-2	8270(2)	µg/kg	<330
Dimethyl phthalate	131-11-3	8270(2)	µg/kg	<330
2,4-Dimethylphenol	105-67-9	8270(2)	µg/kg	<330
Di-n-butyl phthalate	84-74-2	8270(2)	µg/kg	<330

See footnotes at end of table.

Table 3
Antech Ltd. Project No. 00-2463
(Continued)

Parameter	CAS[1] Number	Analytical Method	Units	Sample Identification 0005-2485 Method Blank (5/17/00)
4,6-Dinitro-o-cresol	534-52-1	8270[2]	µg/kg	<830
2,4-Dinitrotoluene	121-14-2	8270[2]	µg/kg	<330
2,6-Dinitrotoluene	606-20-2	8270[2]	µg/kg	<330
Di-n-octyl phthalate	117-84-0	8270[2]	µg/kg	<330
2,4-Dinitrophenol	51-28-5	8270[2]	µg/kg	<830
Fluoranthene	206-44-0	8270[2]	µg/kg	<330
Fluorene	86-73-7	8270[2]	µg/kg	<330
Hexachlorocyclopentadiene	77-47-4	8270[2]	µg/kg	<330
Hexachlorobenzene	118-74-1	8270[2]	µg/kg	<330
Hexachlorobutadiene	87-68-3	8270[2]	µg/kg	<330
Hexachloroethane	67-72-1	8270[2]	µg/kg	<330
Indeno(1,2,3-cd)pyrene	193-39-5	8270[2]	µg/kg	<330
Isophorone	78-59-1	8270[2]	µg/kg	<330
2-Methylnaphthalene	91-57-6	8270[2]	µg/kg	<330
N-nitrosodiphenylamine	86-30-6	8270[2]	µg/kg	<330
N-nitroso-di-n-propylamine	621-64-7	8270[2]	µg/kg	<330
Naphthalene	91-20-3	8270[2]	µg/kg	<330
2-Nitroaniline	88-74-4	8270[2]	µg/kg	<830
3-Nitroaniline	99-09-2	8270[2]	µg/kg	<830
4-Nitroaniline	100-01-6	8270[2]	µg/kg	<830
Nitrobenzene	98-95-3	8270[2]	µg/kg	<330
2-Nitrophenol	88-75-5	8270[2]	µg/kg	<330
4-Nitrophenol	100-02-7	8270[2]	µg/kg	<830
p-Chloroaniline	106-47-8	8270[2]	µg/kg	<330
p-Chloro-m-cresol	59-50-7	8270[2]	µg/kg	<330
Pentachlorophenol	87-86-5	8270[2]	µg/kg	<830
Phenanthrene	85-01-8	8270[2]	µg/kg	<330
Phenol	108-95-2	8270[2]	µg/kg	<330
Pyrene	129-00-0	8270[2]	µg/kg	<330
1,2,4-Trichlorobenzene	120-82-1	8270[2]	µg/kg	<330
2,4,5-Trichlorophenol	95-95-4	8270[2]	µg/kg	<830
2,4,6-Trichlorophenol	88-06-2	8270[2]	µg/kg	<330

(1) CAS = Chemical Abstracts Services.
(2) U.S. Environmental Protection Agency, 1987, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

APPENDIX B

ANALYTICAL RESULTS FOR DOWNGRADIENT MONITORING WELLS

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]																							
		RSL	*MCL*	CA-MW-01A 9/14/1999 9909-2249 Upgradient		CA-MW-01A 11/12/1999 9911-2138 Upgradient		CA-MW-01A 6/28/2005 Upgradient		SC-MW-01A 11/6/2003 C3K070280001 Sheet Mill		SC-MW-01A 5/11/2004 C4E120272006 Sheet Mill		SC-MW-01A 5/1/2007 C7E040357001 Sheet Mill		SC-MW-01A 10/4/2007 C7J100293 Sheet Mill		SC-MW-01A 4/15/2008 C8D16299 Sheet Mill		SC-MW-01A 10/14/2008 C8J16103 Sheet Mill		SC-MW-01A 10/27/2009 L09100697 Sheet Mill		SC-MW-01A 11/2/2010 L10110170 Sheet Mill		SC-MW-01A 10/31/2011 L11110162 Sheet Mill		SC-MW-01A 10/26/2012 180-15816-1 Sheet Mill	
Volatiile Organic Compounds																											
1,1,1-Trichloroethane	ug/L	750	200	300	U	2	U	5	U	5	U	5	U	0.79	U	0.79	U	0.79	U	1	U	0.25	U	0.25	U	0.25	U	0.29	U
1,1,2,2-Tetrachloroethane	ug/L	0.066	- -	2	U	2	U	5	U	5	U	5	U	0.63	U	0.63	U	0.63	U	0.93	U	0.125	U	0.2	U	0.2	U	0.2	U
1,1,2-Trichloroethane	ug/L	0.24	5	3	U	3	U	5	U	5	U	5	U	0.79	U	0.79	U	0.79	U	1.2	U	0.25	U	0.25	U	0.25	U	0.2	U
1,1-Dichloroethane	ug/L	2.4	- -	3	U	3	U	5	U	5	U	5	U	1	U	1	U	1	U	1	U	0.125	U	0.125	U	0.125	U	0.12	U
1,1-Dichloroethene	ug/L	26	7	2	U	2	U	5	U	5	U	5	U	0.87	U	0.87	U	0.87	U	1.1	U	0.5	U	0.5	U	0.5	U	0.3	U
1,2-Dichloroethane	ug/L	0.15	5	3	U	3	U	5	U	5	U	5	U	0.64	U	0.64	U	0.64	U	0.96	U	0.25	U	0.25	U	0.25	U	0.21	U
1,2-Dichloroethene (total)	ug/L	13	- -					5	U	5	U	5	U	1.9	U	1.9	U	1.9	U	0.95	U	0.25	U	0.25	U	0.25	U	0.51	U
1,2-Dichloropropane	ug/L	0.38	5	2	U	2	U	5	U	5	U	5	U	0.67	U	0.67	U	0.67	U	1.3	U	0.2	U	0.2	U	0.2	U	0.095	U
2-Butanone (MEK)	ug/L	490	- -	2	UR	2	UR	5	U	5	U	5	U	0.73	U	0.73	UJ	0.73	U	1.1	U	2.5	U	2.5	U	2.5	U	0.55	U
2-Hexanone	ug/L	3.4	- -	8	U	8	U	5	U	5	U	5	U	0.45	U	0.45	U	0.45	U	0.57	U	2.5	U	2.5	U	2.5	U	0.16	U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	ug/L	100	- -	4	U	4	U	5	U	5	U	5	U	0.46	U	0.46	U	0.46	U	0.59	U	2.5	U	2.5	U	2.5	U	0.53	U
Acetone	ug/L	1200	- -	12	UJ	95	K	20	U	20	U	20	U	0.83	UR	5	UJ	5	UJ	5	U	2.5	UR	2.5	U	2.5	UR	2.5	U
Benzene	ug/L	0.39	5	2	U	2	U	5	U	5	U	5	U	0.81	U	0.81	U	0.81	U	0.99	U	0.125	U	0.125	U	0.125	U	0.11	U
Bromodichloromethane	ug/L	0.12	80	2	U	2	U	5	U	5	U	5	U	0.58	U	0.58	U	0.58	U	0.93	U	0.25	U	0.25	U	0.25	U	0.13	U
Bromoform	ug/L	7.9	80	3	UR	3	U	5	U	5	U	5	U	0.37	U	0.37	U	0.37	U	1.1	U	0.5	U	0.5	U	0.5	U	0.19	U
Bromomethane	ug/L	0.7	- -	3	U	3	U	5	U	5	U	5	U	0.75	U	0.75	U	0.75	U	1.6	U	0.5	U	0.5	U	0.5	U	0.31	U
Carbon disulfide	ug/L	72	- -	2	U	2	U	5	U	5	U	5	U	1.1	U	1.1	U	1.1	U	1.1	U	0.5	U	0.5	U	0.5	U	0.21	U
Carbon tetrachloride	ug/L	0.39	5	3	U	3	U	5	U	5	U	5	U	0.91	U	0.91	U	0.91	U	1.1	U	0.25	U	0.25	U	0.25	U	0.14	U
Chlorobenzene	ug/L	7.2	100	3	U	3	U	5	U	5	U	5	U	0.71	U	0.71	U	0.71	U	0.53	U	0.125	U	0.125	U	0.125	U	0.14	U
Chloroethane (Ehtyl Chloride)	ug/L	2100	- -	2	U	2	U	5	UR	5	U	5	U	1.1	UJ	1.1	U	1.1	U	0.75	U	0.5	U	0.5	U	0.5	U	0.21	U
Chloroform	ug/L	0.19	80	2	U	1	K	0.85	J	2.7	J	1.8	J	4.5	J	0.83	J	0.89	J	1.1	J	0.65	J	1.12	J	0.377	J	0.57	J
Chloromethane	ug/L	19	- -	2	U	2	U	5	U	5	U	5	U	0.87	U	0.87	U	0.87	U	1.4	U	0.25	U	0.5	U	0.5	U	0.28	U
cis-1,2-Dichloroethene[1]	ug/L	2.8	70	1	U	1	U	5	U	NA		NA		1	U	1	U	1	U	0.67	U	0.25	U	0.25	U	0.25	U	0.24	U
cis-1,3-Dichloropropene	ug/L	0.41	- -	2	U	2	U	5	U	5	U	5	U	0.79	U	0.79	U	0.79	U	0.73	U	0.25	U	0.25	U	0.25	U	0.19	U
Dibromochloromethane	ug/L	0.15	80	2	U	2	U	5	U	5	U	5	U	0.5	U	0.5	U	0.5	U	0.65	U	0.25	U	0.25	U	0.25	U	0.14	U
Ethylbenzene	ug/L	1.3	700	2	U	2	U	5	U	5	U	5	U	0.58	U	0.58	U	0.58	U	0.62	U	0.25	U	0.25	U	0.25	U	0.23	U
Methyl(tert)butyl ether	ug/L	12	- -	NA		NA		NA		NA		5	U	NA		NA		NA		NA		0.5	U	0.5	U	0.5	U	0.18	U
Methylene chloride	ug/L	9.9	5	6	U	6	U	5	U	5	U	5	U	0.75	U	0.75	U	0.75	U	1.1	U	0.25	U	0.25	U	0.25	U	0.15	U
Naphthalene	ug/L	0.14	- -	NA		NA		NA		NA		NA		0.38	U	0.38	UJ	0.38	U	0.47	U	0.2	U	0.2	U	0.2	U	0.078	U
Styrene	ug/L	110	100	3	U	3	U	5	U	5	U	5	U	0.8	U	0.8	U	0.8	U	0.64	U	0.125	U	0.125	U	0.125	U	0.097	U
Tetrachloroethene	ug/L	9.7	5	3	U	3	U	5	U	3.2	J	5	U	0.98	J	0.57	U	1	J	0.82	U	1.98	J	1.65	J	0.973	J	1.8	
Toluene	ug/L	86	1000	3	U	3	U	5	U	5	U	5	U	0.8	U	0.8	U	0.8	U	0.85	U	0.25	U	0.25	U	0.25	U	0.15	U
trans-1,2-Dichloroethene[1]	ug/L	8.6	100	1	U	1	U	5	U	NA		NA		0.9	U	0.9	U	0.9	U	0.75	U	0.25	U	0.25	U	0.25	U	0.17	U
trans-1,3-Dichloropropene	ug/L	0.41	- -	2	U	2	U	5	U	5	U	5	U	0.57	U	0.57	U	0.57	U	0.58	U	0.5	UL	0.5	U	0.5	U	0.15	U
Trichloroethene	ug/L	0.44	5	3	U	3	U	5	U	5	U	5	U	0.88	U	0.88	U	0.88	U	0.8	U	0.25	U	0.25	U	0.25	U	0.14	U
Vinyl chloride	ug/L	0.015	2	2	U	2	U	5	U	5	U	5	U	0.94	U	0.94	U	0.94	U	1.3	U	0.25	U	0.25	U	0.25	U	0.23	U
m, p - Xylene	ug/L	19	- -	2	U	2	U	NA		NA		NA		NA		NA		NA		NA		NA		0.5	U	0.5	U	0.41	U
o - Xylene	ug/L	19	- -	1	U	1	U	NA		NA		NA		NA		NA		NA		NA		NA		0.25	U	0.25	U	0.11	U
Xylenes (total)	ug/L	19	10000	NA		NA		15	U	15	U	15	U	2.4	U	2.4	U	2.4	U	2	U	0.5	U	0.5	U	0.5	U	0.49	U
Semi-volatile Organic Compounds																											
1,2,4-Trichlorobenzene	ug/L	0.99	70	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
1,2-Dichlorobenzene	ug/L	28	600	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
1,3-Dichlorobenzene	ug/L	- -	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
1,4-Dichlorobenzene	ug/L	0.42	75	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2,2'-oxybis(1-Chloropropane)	ug/L	- -	- -	NA		NA		9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2,4,5-Trichlorophenol	ug/L	89	- -	24	UR	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2,4,6-Trichlorophenol	ug/L	3.5	- -	24	UR	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2,4-Dichlorophenol	ug/L	3.5	- -	24	UR	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2,4-Dimethylphenol	ug/L	27	- -	24	UR	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2,4-Dinitrophenol	ug/L	3	- -	120	UR	50	UJ	48	U	60	U	52	U	NA		NA		NA		NA		NA		NA		NA	
2,4-Dinitrotoluene	ug/L	0.2	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2,6-Dinitrotoluene	ug/L	1.5	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2-Chloronaphthalene	ug/L	55	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2-Chlorophenol	ug/L	7.1	- -	24	UR	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2-Methylnaphthalene	ug/L	2.7	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2-Methylphenol (o-Cresol)	ug/L	72	- -	24	UR	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
2-Nitroaniline	ug/L	15	- -	120	UJ	50	U	48	U	60	U	52	U	NA		NA		NA		NA		NA		NA		NA	
2-Nitrophenol	ug/L	- -	- -	24	UR	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
3,3'-Dichlorobenzidine	ug/L	0.11	- -	49	UJ	20	U	48	U	60	U	52	U	NA		NA		NA		NA		NA		NA		NA	
3-Nitroaniline	ug/L	- -	- -	120	UJ	50	U	48	U	60	U	52	U	NA		NA		NA		NA		NA		NA		NA	
4,6-Dinitro-2-methylphenol	ug/L	0.12	- -	120	UR	50	U	48	U	60	U	52	U	NA		NA		NA		NA		NA		NA		NA	
4-Bromophenyl phenyl ether	ug/L	- -	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
4-Chloro-3-methylphenol	ug/L	110	- -	49	UR	20	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
4-Chloroaniline	ug/L	0.32	- -	49	UJ	20	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
4-Chlorophenyl phenyl ether	ug/L	- -	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
4-Methylphenol (p-Cresol)	ug/L	140	- -	24	UR	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
4-Nitroaniline	ug/L	3.3	- -	49	UJ	20	U	48	U	60	U	52	U	NA		NA		NA		NA		NA		NA		NA	
4-Nitrophenol	ug/L	3	- -	120	UR	50	U	48	U	60	U	52	U	NA		NA		NA		NA		NA		NA		NA	
Acenaphthene	ug/L	40	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	
Acenaphthylene[1]	ug/L	40	- -	24	UJ	10	U	9.6	U	12	U	10	U	NA		NA		NA		NA		NA		NA		NA	

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	CA-MW-01A 9/14/1999 9909-2249 Upgradient	CA-MW-01A 11/12/1999 9911-2138 Upgradient	CA-MW-01A 6/28/2005 Upgradient	SC-MW-01A 11/6/2003 C3K070280001 Sheet Mill	SC-MW-01A 5/11/2004 C4E120272006 Sheet Mill	SC-MW-01A 5/1/2007 C7E040357001 Sheet Mill	SC-MW-01A 10/4/2007 C7J100293 Sheet Mill	SC-MW-01A 4/15/2008 C8D16299 Sheet Mill	SC-MW-01A 10/14/2008 C8J16103 Sheet Mill	SC-MW-01A 10/27/2009 L09100697 Sheet Mill	SC-MW-01A 11/2/2010 L10110170 Sheet Mill	SC-MW-01A 10/31/2011 L11110162 Sheet Mill	SC-MW-01A 10/26/2012 180-15816-1 Sheet Mill
Anthracene	ug/L	130	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	0.029	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	0.0029	0.2	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	0.029	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene[1]	ug/L	8.7	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	0.29	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy)methane	ug/L	4.6	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroethyl)ether	ug/L	0.012	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroisopropyl)ether	ug/L	0.31	- -	24 UJ	10 U											
Bis(2-ethylhexyl)phthalate	ug/L	4.8	6	24 UJ	10 U	9.6 U	12 U	6.4 J	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	ug/L	14	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	130	- -			9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	2.9	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	ug/L	0.0029	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	0.58	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	ug/L	1100	- -	24 UJ	4 B	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	ug/L	- -	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	ug/L	67	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	ug/L	19	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	63	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	22	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.042	1	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.26	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	2.2	50	24 UJ	10 U	48 U	60 U	52 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	0.79	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	0.029	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	67	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	0.14	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	0.12	- -	24 UJ	10 U	0.17 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine	ug/L	0.0093	- -	24 UJ	10 U	0.12 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	10	- -	24 UJ	10 U	1.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	0.035	1	49 UR	20 U	48 U	60 U	52 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene[1]	ug/L	130	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	- -	24 UR	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	8.7	- -	24 UJ	10 U	9.6 U	12 U	10 U	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																
Aroclor-1016	ug/L	0.96	- -	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.004	- -	0.16 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.004	- -	0.36 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.034	- -	0.24 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.034	- -	0.24 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.034	- -	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.034	- -	0.12 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls	ug/L	- -	- -	0.36 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Inorganics																
Aluminum	ug/L	1600	- -	444	565	20 J	338	1840 K	106	138 K	91.9 K	218 K	172	952	166	NA
Antimony	ug/L	0.6	6	1.2 U	1.2 U	2 UL	3.7 J	10 U	0.047 U	0.049 B	0.18 B	0.047 U	1.25 U	0.5 U	2.5 U	NA
Arsenic(1)	ug/L	0.045	10	0.9 U	1.2 L	0.28 J	10 U	10 U	0.14 UL	0.14 U	0.53 J	0.14 U	5 U	19.5	17.9 B	NA
Barium	ug/L	290	2000	80.7 *	39.6 B	18.9	56.9 J	40.2 J	29.2	28.1	26	30.3	22.8	38	30.8	NA
Beryllium	ug/L	1.6	4	0.8 UL	1.3 B	1 U	0.69 B	0.9 B	0.084 J	0.086 B	0.068 U	0.068 UL	0.5 U	0.806 J	5 U	NA
Cadmium(1)	ug/L	0.69	5	0.8 U	0.8 U	1 U	1.7 J	5 U	2.4 K	4.5	1.9	2.8	2.5 U	2.5 U	5 U	NA
Calcium	ug/L	- -	- -	153000	122000	203000	109000	76900	86000	84800 K	71800 K	71700	69600	92700	68400 B	NA
Chromium(1)	ug/L	1600	100	3.3 B	7.6 *	4.9	5 U	5.1	2.8 B	2.2	1.8 J	11 J	2.5 U	2.5 U	10 U	NA
Cobalt	ug/L	0.47	- -	1.5 B	1.4 B	0.3 J	9 J	0.82 B	2	2.8	1.4	2.3	2.5 U	12.4 J	10 U	NA
Copper	ug/L	62	1300	13.9 *	4.9 *	0.6 K	1.4 J	2.9 J	1.3 K	1.3 K	0.83 K	1.6 J	5 U	5 U	10 U	NA
Iron	ug/L	1100	- -	1180 L	632	34.5 B	142 K	3640 K	55.7 L	38.6 J	80.9 K	350	536	200	418	NA
Lead	ug/L	- -	15	3.7	1.3 *	0.12 B	3 UL	4.2	0.11 B	0.11 B	0.19 B	0.32 J	3.82 B	2.5 U	2.5 U	NA
Magnesium	ug/L	- -	- -	25900	21200	26000	35000	24800	27400	22400	20400	19600	23100	26600	22100	NA
Manganese(1)	ug/L	32	- -	2780	689	1470 L	1460	117	697	1100 K	527	631 L	16.4	2010	398	NA
Mercury(1)	ug/L	0.063	2	0.2 UJ	0.2 UL	0.2 UL	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	30	- -	5 B	31.8 *	6.8	34.4 J	8.6 J	30.2 K	33.8 J	19.5	22.7 J	5.65 J	48.1	20 U	NA
Potassium	ug/L	- -	- -	5660	6240	7610 L	2740 J	1770 L	2230	2170	1790	1740 L	1560	2210	1620	NA
Selenium	ug/L	7.8	50	1 U	1 UL	1.1 J	2.6 L	5 U	2.2 L	2.9 J	2.3 J	3.1 B	2.63 J	2.67	2.96 K	NA
Silver	ug/L	7.1	- -	1.2 UL	1.2 U	1 U	5 U	0.37 B	0.077 U	0.077 U	0.077 U	0.077 UL	5 U	5 U	5 U	NA
Sodium	ug/L	- -	- -	55800	51700	61400 L	105000	79900	74100	74000	70700 J	72300 L	61100	94200	70100	NA
Thallium	ug/L	0.016	2	2 U	2 UL	0.19 B	10 U	10 U	0.25 J	0.02 B	0.1 B	0.018 U	0.25 U	0.1 U	0.5 U	NA
Vanadium	ug/L	7.8	- -	9.9 *	41.6 B	0.71 J	50 U	3.2 J	0.097 U	0.097 U	0.1 J	4.1 L	5 U	5 U	5 U	NA
Zinc	ug/L	470	- -	77.7	45.1	6.4 K	407	43.3	1720 K	2730 K	1150 K	1210 K	72.9	559	381	NA

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	CA-MW-01A 9/14/1999 9909-2249 Upgradient	CA-MW-01A 11/12/1999 9911-2138 Upgradient	CA-MW-01A 6/28/2005 Upgradient	SC-MW-01A 11/6/2003 C3K070280001 Sheet Mill	SC-MW-01A 5/11/2004 C4E120272006 Sheet Mill	SC-MW-01A 5/1/2007 C7E040357001 Sheet Mill	SC-MW-01A 10/4/2007 C7J100293 Sheet Mill	SC-MW-01A 4/15/2008 C8D16299 Sheet Mill	SC-MW-01A 10/14/2008 C8J16103 Sheet Mill	SC-MW-01A 10/27/2009 L09100697 Sheet Mill	SC-MW-01A 11/2/2010 L10110170 Sheet Mill	SC-MW-01A 10/31/2011 L11110162 Sheet Mill	SC-MW-01A 10/26/2012 180-15816-1 Sheet Mill
Dissolved Inorganics																
Aluminum	ug/L	1600	- -	NA	NA	NA	NA	NA	76.7	NA	NA	NA	NA	NA	NA	680
Antimony	ug/L	0.6	6	NA	NA	NA	NA	NA	0.1 J	NA	NA	NA	NA	NA	NA	0.44 B
Arsenic(1)	ug/L	0.045	10	NA	NA	NA	NA	NA	0.14 UL	NA	NA	NA	NA	NA	NA	1.8 B
Barium	ug/L	290	2000	NA	NA	NA	NA	NA	29.3	NA	NA	NA	NA	NA	NA	42
Beryllium	ug/L	1.6	4	NA	NA	NA	NA	NA	0.093 J	NA	NA	NA	NA	NA	NA	0.44 B
Cadmium(1)	ug/L	0.69	5	NA	NA	NA	NA	NA	2.8 K	NA	NA	NA	NA	NA	NA	6 J
Calcium	ug/L	- -	- -	NA	NA	NA	NA	NA	85600	NA	NA	NA	NA	NA	NA	110000
Chromium(1)	ug/L	1600	100	NA	NA	NA	NA	NA	2.8 B	NA	NA	NA	NA	NA	NA	12
Cobalt	ug/L	0.47	- -	NA	NA	NA	NA	NA	2.1	NA	NA	NA	NA	NA	NA	7.2
Copper	ug/L	62	1300	NA	NA	NA	NA	NA	1.4 K	NA	NA	NA	NA	NA	NA	5.3
Iron	ug/L	1100	- -	NA	NA	NA	NA	NA	7.4 UL	NA	NA	NA	NA	NA	NA	16 B
Lead	ug/L	- -	15	NA	NA	NA	NA	NA	0.19 J	NA	NA	NA	NA	NA	NA	0.14 B
Magnesium	ug/L	- -	- -	NA	NA	NA	NA	NA	25400	NA	NA	NA	NA	NA	NA	32000
Manganese(1)	ug/L	32	- -	NA	NA	NA	NA	NA	759	NA	NA	NA	NA	NA	NA	1500
Nickel	ug/L	30	- -	NA	NA	NA	NA	NA	32.8 K	NA	NA	NA	NA	NA	NA	54
Potassium	ug/L	- -	- -	NA	NA	NA	NA	NA	2250	NA	NA	NA	NA	NA	NA	3700 J
Selenium	ug/L	7.8	50	NA	NA	NA	NA	NA	2.8 L	NA	NA	NA	NA	NA	NA	4.4 B
Silver	ug/L	7.1	- -	NA	NA	NA	NA	NA	0.077 U	NA	NA	NA	NA	NA	NA	0.086 B
Sodium	ug/L	- -	- -	NA	NA	NA	NA	NA	69100	NA	NA	NA	NA	NA	NA	89000
Thallium	ug/L	0.016	2	NA	NA	NA	NA	NA	0.2 J	NA	NA	NA	NA	NA	NA	0.096 B
Vanadium	ug/L	7.8	- -	NA	NA	NA	NA	NA	0.34 B	NA	NA	NA	NA	NA	NA	2.2
Zinc	ug/L	470	- -	NA	NA	NA	NA	NA	2140 K	NA	NA	NA	NA	NA	NA	2400
Other Parameters																
Cyanide	ug/L	0.14	200	10 U	10 U	10 U	10 U	8 B	11.2	5.8 B	3.8 J	5.4 B	5 U	5 U	5 U	1.5 U

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	MCL	SC-MW-01D 11/6/2003 C3K070280002 Sheet Mill	SC-MW-01D-D 11/6/2003 C3K070280003 Duplicate	SC-MW-01D 5/11/2004 C4E120272007 Sheet Mill	SC-MW-01D 5/1/2007 C7E040357002 Sheet Mill	SC-MW-01D 10/4/2007 C7J100293 Sheet Mill	SC-MW-01D 4/15/2008 C8D16299 Sheet Mill	SC-MW-01D 10/14/2008 C8J16103 Sheet Mill	SC-MW-01D 10/27/2009 L09100697 Sheet Mill	SC-MW-01D 11/2/2010 L10110170 Sheet Mill	SC-MW-01D 10/21/2011 L11100818 Sheet Mill	SC-MW-01D 10/26/2012 180-15816-1 Sheet Mill	SC-MW-02A 11/5/2003 C3K060379005 Strip Mill	SC-MW-02A 5/11/2004 C4E120272005 Strip Mill
Volatiile Organic Compounds																
1,1,1-Trichloroethane	ug/L	750	200	5 U	5 U	5 U	0.79 U	0.79 U	0.79 U	1 U	0.25 U	0.25 U	0.25 U	0.29 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	0.066	- -	5 U	5 U	5 U	0.63 U	0.63 U	0.63 U	0.93 U	0.125 U	0.2 U	0.2 U	0.2 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	0.24	5	5 U	5 U	5 U	0.79 U	0.79 U	0.79 U	1.2 U	0.25 U	0.25 U	0.25 U	0.2 U	5 U	5 U
1,1-Dichloroethane	ug/L	2.4	- -	5 U	5 U	5 U	1 U	1 J	1 U	1.1 J	0.787 J	1.24 J	1.16 J	0.89 J	5 U	5 U
1,1-Dichloroethene	ug/L	26	7	5 U	5 U	5 U	0.87 U	0.87 U	0.87 U	1.1 U	0.5 U	0.5 U	0.52 J	0.37 J	5 U	5 U
1,2-Dichloroethane	ug/L	0.15	5	5 U	5 U	5 U	0.64 U	0.64 U	0.64 U	0.96 U	0.25 U	0.25 U	0.25 U	0.21 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	13	- -	5 U	5 U	5 U	4.7 J	4.5 J	3.6 J	5.1	3.01 J	4.62	5.36	3.8 J	5 U	8.7
1,2-Dichloropropane	ug/L	0.38	5	5 U	5 U	5 U	0.67 U	0.67 U	0.67 U	1.3 U	0.2 U	0.2 U	0.2 U	0.095 U	5 U	5 U
2-Butanone (MEK)	ug/L	490	- -	5 U	5 U	5 U	0.73 U	0.73 UJ	0.73 U	1.1 U	2.5 U	2.5 U	2.5 U	0.55 U	5 U	5 U
2-Hexanone	ug/L	3.4	- -	5 U	5 U	5 U	0.45 U	0.45 U	0.45 U	0.57 U	2.5 U	2.5 U	2.5 U	0.16 U	5 U	5 U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	ug/L	100	- -	5 U	5 U	5 U	0.46 U	0.46 U	0.46 U	0.59 U	2.5 U	2.5 U	2.5 U	0.53 U	5 U	5 U
Acetone	ug/L	1200	- -	20 U	20 U	20 U	0.83 UR	5 UJ	5 UJ	5 U	2.5 U	2.5 U	2.5 UR	2.5 U	20 U	20 U
Benzene	ug/L	0.39	5	5 U	5 U	5 U	0.81 U	0.81 U	0.81 U	0.99 U	0.125 U	0.125 U	0.125 U	0.11 U	5 U	5 U
Bromodichloromethane	ug/L	0.12	80	5 U	5 U	5 U	0.58 U	0.58 U	0.58 U	0.93 U	0.25 U	0.25 U	0.25 U	0.13 U	5 U	5 U
Bromoform	ug/L	7.9	80	5 U	5 U	5 U	0.37 U	0.37 U	0.37 U	1.1 U	0.5 U	0.5 U	0.5 U	0.19 U	5 U	5 U
Bromomethane	ug/L	0.7	- -	5 U	5 U	5 U	0.75 U	0.75 U	0.75 U	1.6 U	0.5 U	0.5 U	0.5 U	0.31 U	5 U	5 U
Carbon disulfide	ug/L	72	- -	5 U	5 U	5 U	1.1 U	1.1 U	1.1 U	1.1 U	0.5 U	0.5 U	0.5 U	0.21 U	5 U	5 U
Carbon tetrachloride	ug/L	0.39	5	5 U	5 U	5 U	0.91 U	0.91 U	0.91 U	1.1 U	0.25 U	0.25 U	0.25 U	0.14 U	5 U	5 U
Chlorobenzene	ug/L	7.2	100	5 U	5 U	5 U	0.71 U	0.71 U	0.71 U	0.53 U	0.125 U	0.125 U	0.125 U	0.14 U	5 U	5 U
Chloroethane (Ehtyl Chloride)	ug/L	2100	- -	5 U	5 U	5 U	1.1 UJ	1.1 U	1.1 U	0.75 U	0.5 U	0.5 U	0.5 U	0.21 U	5 U	5 U
Chloroform	ug/L	0.19	80	5 U	5 U	5 U	0.78 U	0.78 U	0.78 U	1 U	0.296 J	0.125 U	0.125 U	0.17 U	3.7 J	5 U
Chloromethane	ug/L	19	- -	5 U	5 U	5 U	0.87 U	0.87 U	0.87 U	1.4 U	0.426 J	0.5 U	0.5 U	0.28 U	5 U	5 U
cis-1,2-Dichloroethene[1]	ug/L	2.8	70	NA	NA	NA	4.7 J	4.5 J	3.6 J	5.1	3.01 J	4.62 J	5.36	3.8	NA	NA
cis-1,3-Dichloropropene	ug/L	0.41	- -	5 U	5 U	5 U	0.79 U	0.79 U	0.79 U	0.73 U	0.25 U	0.25 U	0.25 U	0.19 U	5 U	5 U
Dibromochloromethane	ug/L	0.15	80	5 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.65 U	0.25 U	0.25 U	0.25 U	0.14 U	5 U	5 U
Ethylbenzene	ug/L	1.3	700	5 U	5 U	5 U	0.58 U	0.58 U	0.58 U	0.62 U	0.25 U	0.25 U	0.25 U	0.23 U	5 U	5 U
Methyl(tert)butyl ether	ug/L	12	- -	NA	NA	5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.18 U	NA	5 U
Methylene chloride	ug/L	9.9	5	5 U	5 U	5 U	0.75 U	0.75 U	0.75 U	1.1 U	0.25 U	0.25 U	0.25 U	0.15 U	5 U	5 U
Naphthalene	ug/L	0.14	- -	NA	NA	NA	0.38 U	0.38 UJ	0.38 U	0.47 U	0.2 U	0.2 U	0.2 U	0.078 U	NA	NA
Styrene	ug/L	110	100	5 U	5 U	5 U	0.8 U	0.8 U	0.8 U	0.64 U	0.125 U	0.125 U	0.125 U	0.097 U	5 U	5 U
Tetrachloroethene	ug/L	9.7	5	5 U	5 U	5 U	0.57 U	0.57 U	0.57 U	0.82 U	0.25 U	0.25 U	0.25 U	0.17 J	5 U	5 U
Toluene	ug/L	86	1000	5 U	5 U	5 U	0.8 U	0.8 U	0.8 U	0.85 U	0.25 U	0.25 U	0.25 U	0.15 U	5 U	5 U
trans-1,2-Dichloroethene[1]	ug/L	8.6	100	NA	NA	NA	0.9 U	0.9 U	0.9 U	0.75 U	0.25 U	0.25 U	0.25 U	0.17 U	NA	NA
trans-1,3-Dichloropropene	ug/L	0.41	- -	5 U	5 U	5 U	0.57 U	0.57 U	0.57 U	0.58 U	0.5 U	0.5 U	0.5 U	0.15 U	5 U	5 U
Trichloroethene	ug/L	0.44	5	5 U	5 U	5 U	0.88 U	0.88 U	0.88 U	0.8 U	0.25 U	0.25 U	0.25 U	0.18 J	5 U	5 U
Vinyl chloride	ug/L	0.015	2	5 U	5 U	5 U	0.94 U	0.94 U	0.94 U	1.3 U	0.25 U	0.25 U	0.25 U	0.23 U	5 U	5 U
m, p - Xylene	ug/L	19	- -	NA	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	0.41 U	NA	NA
o - Xylene	ug/L	19	- -	NA	NA	NA	NA	NA	NA	NA	NA	0.25 U	0.25 U	0.11 U	NA	NA
Xylenes (total)	ug/L	19	10000	15 U	15 U	15 U	2.4 U	2.4 U	2.4 U	2 U	0.5 U	0.5 U	0.5 U	0.49 U	15 U	15 U
Semi-volatile Organic Compounds																
1,2,4-Trichlorobenzene	ug/L	0.99	70	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
1,2-Dichlorobenzene	ug/L	28	600	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
1,3-Dichlorobenzene	ug/L	- -	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
1,4-Dichlorobenzene	ug/L	0.42	75	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2,2'-oxybis(1-Chloropropane)	ug/L	- -	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2,4,5-Trichlorophenol	ug/L	89	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2,4,6-Trichlorophenol	ug/L	3.5	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2,4-Dichlorophenol	ug/L	3.5	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2,4-Dimethylphenol	ug/L	27	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2,4-Dinitrophenol	ug/L	3	- -	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
2,4-Dinitrotoluene	ug/L	0.2	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2,6-Dinitrotoluene	ug/L	1.5	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2-Chloronaphthalene	ug/L	55	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2-Chlorophenol	ug/L	7.1	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2-Methylnaphthalene	ug/L	2.7	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2-Methylphenol (o-Cresol)	ug/L	72	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
2-Nitroaniline	ug/L	15	- -	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
2-Nitrophenol	ug/L	- -	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
3,3'-Dichlorobenzidine	ug/L	0.11	- -	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
3-Nitroaniline	ug/L	- -	- -	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
4,6-Dinitro-2-methylphenol	ug/L	0.12	- -	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
4-Bromophenyl phenyl ether	ug/L	- -	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
4-Chloro-3-methylphenol	ug/L	110	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
4-Chloroaniline	ug/L	0.32	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
4-Chlorophenyl phenyl ether	ug/L	- -	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
4-Methylphenol (p-Cresol)	ug/L	140	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
4-Nitroaniline	ug/L	3.3	- -	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
4-Nitrophenol	ug/L	3	- -	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
Acenaphthene	ug/L	40	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Acenaphthylene[1]	ug/L	40	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-01D 11/6/2003 C3K070280002 Sheet Mill	SC-MW-01D-D 11/6/2003 C3K070280003 Duplicate	SC-MW-01D 5/11/2004 C4E120272007 Sheet Mill	SC-MW-01D 5/1/2007 C7E040357002 Sheet Mill	SC-MW-01D 10/4/2007 C7J100293 Sheet Mill	SC-MW-01D 4/15/2008 C8D16299 Sheet Mill	SC-MW-01D 10/14/2008 C8J16103 Sheet Mill	SC-MW-01D 10/27/2009 L09100697 Sheet Mill	SC-MW-01D 11/2/2010 L10110170 Sheet Mill	SC-MW-01D 10/21/2011 L11100818 Sheet Mill	SC-MW-01D 10/26/2012 180-15816-1 Sheet Mill	SC-MW-02A 11/5/2003 C3K060379005 Strip Mill	SC-MW-02A 5/11/2004 C4E120272005 Strip Mill
Anthracene	ug/L	130	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Benzo(a)anthracene	ug/L	0.029	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Benzo(a)pyrene	ug/L	0.0029	0.2	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Benzo(b)fluoranthene	ug/L	0.029	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Benzo(ghi)perylene[1]	ug/L	8.7	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Benzo(k)fluoranthene	ug/L	0.29	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Bis(2-chloroethoxy)methane	ug/L	4.6	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Bis(2-chloroethyl)ether	ug/L	0.012	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Bis(2-chloroisopropyl)ether	ug/L	0.31	- -													
Bis(2-ethylhexyl)phthalate	ug/L	4.8	6	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Butyl benzyl phthalate	ug/L	14	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Carbazole	ug/L	130	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Chrysene	ug/L	2.9	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Dibenz(a,h)anthracene	ug/L	0.0029	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Dibenzofuran	ug/L	0.58	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Diethyl phthalate	ug/L	1100	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Dimethyl phthalate	ug/L	- -	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Di-n-butyl phthalate	ug/L	67	- -	9.4 U	1 J	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Di-n-octyl phthalate	ug/L	19	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Fluoranthene	ug/L	63	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Fluorene	ug/L	22	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Hexachlorobenzene	ug/L	0.042	1	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Hexachlorobutadiene	ug/L	0.26	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Hexachlorocyclopentadiene	ug/L	2.2	50	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
Hexachloroethane	ug/L	0.79	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Indeno(1,2,3-cd)pyrene	ug/L	0.029	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Isophorone	ug/L	67	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Naphthalene	ug/L	0.14	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Nitrobenzene	ug/L	0.12	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
N-Nitrosodi-n-propylamine	ug/L	0.0093	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
N-Nitrosodiphenylamine	ug/L	10	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Pentachlorophenol	ug/L	0.035	1	47 U	52 U	57 U	NA	NA	NA	NA	NA	NA	NA	NA	48 U	55 U
Phenanthrene[1]	ug/L	130	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Phenol	ug/L	450	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
Pyrene	ug/L	8.7	- -	9.4 U	10 U	11 U	NA	NA	NA	NA	NA	NA	NA	NA	9.5 U	11 U
PCBs																
Aroclor-1016	ug/L	0.96	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.004	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.004	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Inorganics																
Aluminum	ug/L	1600	- -	1690	3690	4970 K	2600	2240 K	2550 K	1940 K	1930	1950	2530	NA	241	445 K
Antimony	ug/L	0.6	6	10 U	10 U	10 U	0.047 U	0.052 B	0.15 B	0.047 U	1.25 U	0.5 U	0.5 U	NA	10 UL	10 U
Arsenic(1)	ug/L	0.045	10	10 U	10 U	10 U	0.14 UL	0.14 U	0.59 J	0.14 U	5 U	18.7	29.8	NA	10 U	6.2 J
Barium	ug/L	290	2000	34.6 J	50.6 J	25.1 J	20.1	18.4	21.4	17.3	23.6	25.2	18.3	NA	37.2 J	22.9 J
Beryllium	ug/L	1.6	4	1.6 B	1.8 B	2.4 B	0.8 J	0.65 J	0.74 J	0.81 L	0.8 J	1.14 J	5 U	NA	4 U	0.8 B
Cadmium(1)	ug/L	0.69	5	4.7 J	4.7 J	4.9 J	3.5 K	3.9	3.4	3.9	3.49 J	2.82 B	5 U	NA	5 U	5 U
Calcium	ug/L	- -	- -	111000	110000	104000	92900	97800 K	91700 K	97700	99000	109000	108000	NA	88000	127000
Chromium(1)	ug/L	1600	100	2.2 B	5	1.8 J	2.8 B	2.1	1.8 J	10.5 J	2.5 U	2.5 U	10 U	NA	5 U	3.1 J
Cobalt	ug/L	0.47	- -	19.2 J	19.5 J	9.7 J	6.9	5.9	5.6	5.9	5.7 J	5.01 J	10 U	NA	50 U	16.9 J
Copper	ug/L	62	1300	3.7 J	6.3 J	6.8 J	6.6 K	6.4 K	5.9 K	7.7 J	5.21 J	5 U	10 U	NA	25 U	25 U
Iron	ug/L	1100	- -	4200 K	6910 K	829 K	243 L	114	134 K	776	137	147	608	NA	320	7650 K
Lead	ug/L	- -	15	3 UL	3.4 L	3 U	0.3 J	0.24 B	0.34 J	0.25 J	5.88 B	2.5 U	2.5 U	NA	3 UL	2 J
Magnesium	ug/L	- -	- -	26000	26100	24000	20800	20200	19800	20100	23200	23200	24600	NA	16100	19600
Manganese(1)	ug/L	32	- -	4830	4800	1980	1400	1510 K	1300	1290 L	1220	1250	1240	NA	152	9130
Mercury(1)	ug/L	0.063	2	0.2 U	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U
Nickel	ug/L	30	- -	38 J	38.9 J	28 J	22.7 K	18.1 J	17.5	20.8 J	19.4 J	18.3 J	20 U	NA	4 J	7.2 J
Potassium	ug/L	- -	- -	3730 J	4220 J	3610 L	2620	2570	2770	2440 L	3080	3150	3010	NA	5750	2930 L
Selenium	ug/L	7.8	50	5 UL	5 UL	5 U	2.3 L	0.6 J	0.62 J	1.9 B	2.73 J	2.17	2.67 J	NA	5 UL	5 U
Silver	ug/L	7.1	- -	5 U	5 U	0.45 B	0.077 U	0.077 U	0.077 U	0.077 UL	5 U	5 U	5 U	NA	5 U	0.65 B
Sodium	ug/L	- -	- -	22900	22900	23600	22300	24500	22100	23300 L	24400	29000	28400	NA	115000	56300
Thallium	ug/L	0.016	2	10 U	10 U	10 U	0.095 B	0.031 B	0.15 B	0.018 U	0.379 B	0.1 U	0.1 U	NA	10 U	10 U
Vanadium	ug/L	7.8	- -	50 U	4 J	50 U	0.2 B	0.097 U	0.6 J	4.6 L	5 U	5 U	5 U	NA	50 U	1.2 J
Zinc	ug/L	470	- -	454	475	469	407 K	379 K	324 K	355 K	360	321	364	NA	12.2 B	14.3 J

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-01D 11/6/2003 C3K070280002 Sheet Mill	SC-MW-01D-D 11/6/2003 C3K070280003 Duplicate	SC-MW-01D 5/11/2004 C4E120272007 Sheet Mill	SC-MW-01D 5/1/2007 C7E040357002 Sheet Mill	SC-MW-01D 10/4/2007 C7J100293 Sheet Mill	SC-MW-01D 4/15/2008 C8D16299 Sheet Mill	SC-MW-01D 10/14/2008 C8J16103 Sheet Mill	SC-MW-01D 10/27/2009 L09100697 Sheet Mill	SC-MW-01D 11/2/2010 L10110170 Sheet Mill	SC-MW-01D 10/21/2011 L11100818 Sheet Mill	SC-MW-01D 10/26/2012 180-15816-1 Sheet Mill	SC-MW-02A 11/5/2003 C3K060379005 Strip Mill	SC-MW-02A 5/11/2004 C4E120272005 Strip Mill
Dissolved Inorganics																
Aluminum	ug/L	1600	- -	NA	NA	NA	1900	NA	NA	NA	NA	NA	NA	1400	NA	NA
Antimony	ug/L	0.6	6	NA	NA	NA	0.067 J	NA	NA	NA	NA	NA	NA	0.27 J	NA	NA
Arsenic(1)	ug/L	0.045	10	NA	NA	NA	0.14 UL	NA	NA	NA	NA	NA	NA	2.7 B	NA	NA
Barium	ug/L	290	2000	NA	NA	NA	15	NA	NA	NA	NA	NA	NA	14	NA	NA
Beryllium	ug/L	1.6	4	NA	NA	NA	0.9 J	NA	NA	NA	NA	NA	NA	0.63 J	NA	NA
Cadmium(1)	ug/L	0.69	5	NA	NA	NA	4.1 K	NA	NA	NA	NA	NA	NA	2.5	NA	NA
Calcium	ug/L	- -	- -	NA	NA	NA	95700	NA	NA	NA	NA	NA	NA	86000	NA	NA
Chromium(1)	ug/L	1600	100	NA	NA	NA	2.4 B	NA	NA	NA	NA	NA	NA	11	NA	NA
Cobalt	ug/L	0.47	- -	NA	NA	NA	6.5	NA	NA	NA	NA	NA	NA	4.5	NA	NA
Copper	ug/L	62	1300	NA	NA	NA	4.2 K	NA	NA	NA	NA	NA	NA	8.7	NA	NA
Iron	ug/L	1100	- -	NA	NA	NA	57.8 L	NA	NA	NA	NA	NA	NA	36 B	NA	NA
Lead	ug/L	- -	15	NA	NA	NA	0.28 J	NA	NA	NA	NA	NA	NA	0.17 B	NA	NA
Magnesium	ug/L	- -	- -	NA	NA	NA	22900	NA	NA	NA	NA	NA	NA	19000	NA	NA
Manganese(1)	ug/L	32	- -	NA	NA	NA	1350	NA	NA	NA	NA	NA	NA	970	NA	NA
Nickel	ug/L	30	- -	NA	NA	NA	21.6 K	NA	NA	NA	NA	NA	NA	16	NA	NA
Potassium	ug/L	- -	- -	NA	NA	NA	2770	NA	NA	NA	NA	NA	NA	2700	NA	NA
Selenium	ug/L	7.8	50	NA	NA	NA	0.64 L	NA	NA	NA	NA	NA	NA	7.1 B	NA	NA
Silver	ug/L	7.1	- -	NA	NA	NA	0.077 U	NA	NA	NA	NA	NA	NA	0.036 U	NA	NA
Sodium	ug/L	- -	- -	NA	NA	NA	25300	NA	NA	NA	NA	NA	NA	18000	NA	NA
Thallium	ug/L	0.016	2	NA	NA	NA	0.077 B	NA	NA	NA	NA	NA	NA	0.21 B	NA	NA
Vanadium	ug/L	7.8	- -	NA	NA	NA	0.097 U	NA	NA	NA	NA	NA	NA	0.49 B	NA	NA
Zinc	ug/L	470	- -	NA	NA	NA	442 K	NA	NA	NA	NA	NA	NA	290	NA	NA
Other Parameters																
Cyanide	ug/L	0.14	200	5 J	8 J	8 B	5.5 J	9.8 B	7.2 J	8.4 B	5.53 J	6.79 J	5 U	5.7 J	4 J	8 B

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-02A 4/25/2007 C7D270221001 Strip Mill	SC-MW-02A 10/3/2007 C7J100293 Strip Mill	SC-MW-02A 4/15/2008 C8D16299 Strip Mill	SC-MW-02A 10/14/2008 C8J16103 Strip Mill	SC-MW-02A 10/27/2009 DRY Strip Mill	SC-MW-02A 11/2/2010 L10110170 Strip Mill	SC-MW-02A 10/21/2011 L11100818 Strip Mill	SC-MW-02A 11/2/2012 180-16028-1 Strip Mill	SC-MW-02D 11/5/2003 C3K060379006 Strip Mill	SC-MW-02D 5/11/2004 C4E120272001 Strip Mill	SC-MW-02D 4/25/2007 C7D270221002 Strip Mill	SC-MW-02D 10/3/2007 C7J100293 Strip Mill	SC-MW-02D 4/15/2008 C8D16299 Strip Mill
Volatiile Organic Compounds																
1,1,1-Trichloroethane	ug/L	750	200	0.79 U	0.79 U	0.79 U	1 U	DRY	0.25 U	0.25 U	0.29 U	5 U	5 U	0.79 U	0.79 U	0.79 U
1,1,2,2-Tetrachloroethane	ug/L	0.066	- -	0.63 U	0.63 U	0.63 U	0.93 U	DRY	0.2 U	0.2 U	0.2 U	5 U	5 U	0.63 U	0.63 U	0.63 U
1,1,2-Trichloroethane	ug/L	0.24	5	0.79 U	0.79 U	0.79 U	1.2 U	DRY	0.25 U	0.25 U	0.2 U	5 U	5 U	0.79 U	0.79 U	0.79 U
1,1-Dichloroethane	ug/L	2.4	- -	1 U	1 U	1 U	1 U	DRY	0.125 U	0.125 U	0.12 U	5 U	5 U	3.3 J	2.4 J	1.6 J
1,1-Dichloroethene	ug/L	26	7	0.87 U	0.87 U	0.87 U	1.1 U	DRY	0.5 U	0.5 U	0.3 U	5 U	5 U	1.9 J	1.2 J	0.91 J
1,2-Dichloroethane	ug/L	0.15	5	0.64 U	0.64 U	0.64 U	0.96 U	DRY	0.25 U	0.25 U	0.21 U	5 U	5 U	0.64 U	0.64 U	0.64 U
1,2-Dichloroethene (total)	ug/L	13	- -	1.9 U	1.9 U	1.9 U	0.95 U	DRY	0.25 U	0.25 U	0.51 U	9.3	5 U	18	14	8.5
1,2-Dichloropropane	ug/L	0.38	5	0.67 U	0.67 U	0.67 U	1.3 U	DRY	0.2 U	0.2 U	0.095 U	5 U	5 U	0.67 U	0.67 U	0.67 U
2-Butanone (MEK)	ug/L	490	- -	0.73 U	0.73 UJ	0.73 U	1.1 U	DRY	2.5 U	2.5 U	0.55 U	5 U	5 U	0.73 U	0.73 UJ	0.73 U
2-Hexanone	ug/L	3.4	- -	0.45 U	0.45 U	0.45 U	0.57 U	DRY	2.5 U	2.5 U	0.16 U	5 U	5 U	0.45 U	0.45 U	0.45 U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	ug/L	100	- -	0.46 U	0.46 U	0.46 U	0.59 U	DRY	2.5 U	2.5 U	0.53 U	5 U	5 U	0.46 U	0.46 U	0.46 U
Acetone	ug/L	1200	- -	0.83 U	5 UJ	5 UJ	5 U	DRY	2.5 U	2.5 UR	2.5 U	20 U	20 U	0.83 U	5 UJ	5 UJ
Benzene	ug/L	0.39	5	0.81 U	0.81 U	0.81 U	0.99 U	DRY	0.125 U	0.125 U	0.11 U	5 U	5 U	0.81 U	0.81 U	0.81 U
Bromodichloromethane	ug/L	0.12	80	0.58 U	0.58 U	0.58 U	0.93 U	DRY	0.25 U	0.25 U	0.13 U	5 U	5 U	0.58 U	0.58 U	0.58 U
Bromoform	ug/L	7.9	80	0.37 U	0.37 U	0.37 U	1.1 U	DRY	0.5 U	0.5 U	0.19 U	5 U	5 U	0.37 U	0.37 U	0.37 U
Bromomethane	ug/L	0.7	- -	0.75 U	0.75 U	0.75 U	1.6 U	DRY	0.5 U	0.5 UJ	0.31 U	5 U	5 U	0.75 U	0.75 U	0.75 U
Carbon disulfide	ug/L	72	- -	1.1 U	1.1 U	1.1 U	1.1 U	DRY	0.5 U	0.5 U	0.21 U	5 U	5 U	1.1 U	1.1 U	1.1 U
Carbon tetrachloride	ug/L	0.39	5	0.91 U	0.91 U	0.91 U	1.1 U	DRY	0.25 U	0.25 U	0.14 U	5 U	5 U	0.91 U	0.91 U	0.91 U
Chlorobenzene	ug/L	7.2	100	0.71 U	0.71 U	0.71 U	0.53 U	DRY	0.125 U	0.125 U	0.14 U	5 U	5 U	0.71 U	0.71 U	0.71 U
Chloroethane (Ehtyl Chloride)	ug/L	2100	- -	1.1 U	1.1 U	1.1 U	0.75 U	DRY	0.5 U	0.5 U	0.21 U	5 U	5 U	1.1 U	1.1 U	1.1 U
Chloroform	ug/L	0.19	80	0.78 U	1 J	0.78 U	1.6 J	DRY	0.289 J	0.44 J	0.17 U	5 U	3.2 J	0.78 U	0.78 U	0.78 U
Chloromethane	ug/L	19	- -	0.87 U	0.87 U	0.87 U	1.4 U	DRY	0.5 U	0.5 U	0.28 U	5 U	5 U	0.87 U	0.87 U	0.87 U
cis-1,2-Dichloroethene[1]	ug/L	2.8	70	1 U	1 U	1 U	0.67 U	DRY	0.25 U	0.25 U	0.24 U	NA	NA	18	14	8.5
cis-1,3-Dichloropropene	ug/L	0.41	- -	0.79 U	0.79 U	0.79 U	0.73 U	DRY	0.25 U	0.25 U	0.19 U	5 U	5 U	0.79 U	0.79 U	0.79 U
Dibromochloromethane	ug/L	0.15	80	0.5 U	0.5 U	0.5 U	0.65 U	DRY	0.25 U	0.25 U	0.14 U	5 U	5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L	1.3	700	0.58 U	0.58 U	0.58 U	0.62 U	DRY	0.25 U	0.25 U	0.23 U	5 U	5 U	0.58 U	0.58 U	0.58 U
Methyl(tert)butyl ether	ug/L	12	- -	NA	NA	NA	NA	DRY	0.5 U	0.5 U	0.18 U	NA	5 U	NA	NA	NA
Methylene chloride	ug/L	9.9	5	0.75 U	0.75 U	0.75 U	1.1 U	DRY	0.25 U	0.25 U	0.15 U	5 U	5 U	0.75 U	0.75 U	0.75 U
Naphthalene	ug/L	0.14	- -	0.38 U	0.38 UJ	0.38 U	0.47 U	DRY	0.2 U	0.2 U	0.078 U	NA	NA	0.38 U	0.38 UJ	0.38 U
Styrene	ug/L	110	100	0.8 U	0.8 U	0.8 U	0.64 U	DRY	0.125 U	0.125 U	0.097 U	5 U	5 U	0.8 U	0.8 U	0.8 U
Tetrachloroethene	ug/L	9.7	5	0.57 U	0.57 U	0.57 U	0.82 U	DRY	0.25 U	0.25 U	0.57 J	5 U	5 U	0.57 U	0.57 U	0.57 U
Toluene	ug/L	86	1000	0.8 U	0.8 U	0.8 U	0.85 U	DRY	0.25 U	0.25 U	0.15 U	5 U	5 U	0.8 U	0.8 U	0.8 U
trans-1,2-Dichloroethene[1]	ug/L	8.6	100	0.9 U	0.9 U	0.9 U	0.75 U	DRY	0.25 U	0.25 U	0.17 U	NA	NA	0.9 U	0.9 U	0.9 U
trans-1,3-Dichloropropene	ug/L	0.41	- -	0.57 U	0.57 U	0.57 U	0.58 U	DRY	0.5 U	0.5 U	0.15 U	5 U	5 U	0.57 U	0.57 U	0.57 U
Trichloroethene	ug/L	0.44	5	0.88 U	0.88 U	0.88 U	0.8 U	DRY	0.25 U	0.25 U	0.14 U	0.65 J	5 U	0.88 U	0.88 U	0.88 U
Vinyl chloride	ug/L	0.015	2	0.94 U	0.94 U	0.94 U	1.3 U	DRY	0.25 U	0.25 U	0.23 U	5 U	5 U	0.94 U	0.94 U	0.94 U
m, p - Xylene	ug/L	19	- -	NA	NA	NA	NA	DRY	0.5 U	0.5 U	0.41 U	NA	NA	NA	NA	NA
o - Xylene	ug/L	19	- -	NA	NA	NA	NA	DRY	0.25 U	0.25 U	0.11 U	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	19	10000	2.4 U	2.4 U	2.4 U	2 U	DRY	0.5 U	0.5 U	0.49 U	15 U	15 U	2.4 U	2.4 U	2.4 U
Semi-volatile Organic Compounds																
1,2,4-Trichlorobenzene	ug/L	0.99	70	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
1,2-Dichlorobenzene	ug/L	28	600	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
1,3-Dichlorobenzene	ug/L	- -	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
1,4-Dichlorobenzene	ug/L	0.42	75	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2,2'-oxybis(1-Chloropropane)	ug/L	- -	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	89	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	3.5	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2,4-Dichlorophenol	ug/L	3.5	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2,4-Dimethylphenol	ug/L	27	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2,4-Dinitrophenol	ug/L	3	- -	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
2,4-Dinitrotoluene	ug/L	0.2	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2,6-Dinitrotoluene	ug/L	1.5	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2-Chloronaphthalene	ug/L	55	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2-Chlorophenol	ug/L	7.1	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2-Methylnaphthalene	ug/L	2.7	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2-Methylphenol (o-Cresol)	ug/L	72	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
2-Nitroaniline	ug/L	15	- -	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
2-Nitrophenol	ug/L	- -	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.11	- -	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
3-Nitroaniline	ug/L	- -	- -	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	0.12	- -	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	- -	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
4-Chloro-3-methylphenol	ug/L	110	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
4-Chloroaniline	ug/L	0.32	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	- -	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
4-Methylphenol (p-Cresol)	ug/L	140	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
4-Nitroaniline	ug/L	3.3	- -	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
4-Nitrophenol	ug/L	3	- -	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
Acenaphthene	ug/L	40	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Acenaphthylene[1]	ug/L	40	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-02A 4/25/2007 C7D270221001 Strip Mill	SC-MW-02A 10/3/2007 C7J100293 Strip Mill	SC-MW-02A 4/15/2008 C8D16299 Strip Mill	SC-MW-02A 10/14/2008 C8J16103 Strip Mill	SC-MW-02A 10/27/2009 DRY Strip Mill	SC-MW-02A 11/2/2010 L10110170 Strip Mill	SC-MW-02A 10/21/2011 L11100818 Strip Mill	SC-MW-02A 11/2/2012 180-16028-1 Strip Mill	SC-MW-02D 11/5/2003 C3K060379006 Strip Mill	SC-MW-02D 5/11/2004 C4E120272001 Strip Mill	SC-MW-02D 4/25/2007 C7D270221002 Strip Mill	SC-MW-02D 10/3/2007 C7J100293 Strip Mill	SC-MW-02D 4/15/2008 C8D16299 Strip Mill
Anthracene	ug/L	130	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Benzo(a)anthracene	ug/L	0.029	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Benzo(a)pyrene	ug/L	0.0029	0.2	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Benzo(b)fluoranthene	ug/L	0.029	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Benzo(ghi)perylene[1]	ug/L	8.7	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Benzo(k)fluoranthene	ug/L	0.29	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Bis(2-chloroethoxy)methane	ug/L	4.6	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Bis(2-chloroethyl)ether	ug/L	0.012	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Bis(2-chloroisopropyl)ether	ug/L	0.31	- -					DRY								
Bis(2-ethylhexyl)phthalate	ug/L	4.8	6	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Butyl benzyl phthalate	ug/L	14	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Carbazole	ug/L	130	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Chrysene	ug/L	2.9	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Dibenz(a,h)anthracene	ug/L	0.0029	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Dibenzofuran	ug/L	0.58	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Diethyl phthalate	ug/L	1100	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Dimethyl phthalate	ug/L	- -	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Di-n-butyl phthalate	ug/L	67	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Di-n-octyl phthalate	ug/L	19	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Fluoranthene	ug/L	63	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Fluorene	ug/L	22	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Hexachlorobenzene	ug/L	0.042	1	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Hexachlorobutadiene	ug/L	0.26	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	2.2	50	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
Hexachloroethane	ug/L	0.79	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	0.029	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Isophorone	ug/L	67	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Naphthalene	ug/L	0.14	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Nitrobenzene	ug/L	0.12	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
N-Nitrosodi-n-propylamine	ug/L	0.0093	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	10	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Pentachlorophenol	ug/L	0.035	1	NA	NA	NA	NA	DRY	NA	NA	NA	48 U	52 U	NA	NA	NA
Phenanthrene[1]	ug/L	130	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Phenol	ug/L	450	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
Pyrene	ug/L	8.7	- -	NA	NA	NA	NA	DRY	NA	NA	NA	9.6 U	10 U	NA	NA	NA
PCBs																
Aroclor-1016	ug/L	0.96	- -	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.004	- -	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.004	- -	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.034	- -	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.034	- -	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.034	- -	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.034	- -	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls	ug/L	- -	- -	NA	NA	NA	NA	DRY	NA	NA	NA	NA	NA	NA	NA	NA
Total Inorganics																
Aluminum	ug/L	1600	- -	790	317 K	524 K	615 K	DRY	1070	843	NA	323	1020 K	187	512 K	230 K
Antimony	ug/L	0.6	6	0.15 B	0.2 B	0.12 B	0.11 J	DRY	0.5 U	0.5 U	NA	10 UL	10 U	0.067 B	0.15 B	0.14 B
Arsenic(1)	ug/L	0.045	10	0.92 J	0.26 K	0.95 J	0.68 B	DRY	17.2	21	NA	4.7 J	10 U	7.8	5 K	3.9
Barium	ug/L	290	2000	36	28.2	31.7	28.3	DRY	1580	30.2	NA	23.3 J	37.3 J	17.3	19.2	16.7
Beryllium	ug/L	1.6	4	0.068 U	0.068 U	0.068 U	0.068 UL	DRY	0.5 U	5 U	NA	4 U	0.76 B	0.068 U	0.068 U	0.068 U
Cadmium(1)	ug/L	0.69	5	0.11 U	0.11 U	0.11 U	0.13 B	DRY	2.5 U	5 U	NA	5 U	5 U	0.35 K	1.4	0.8 J
Calcium	ug/L	- -	- -	100000 K	90100 K	85700 K	77800	DRY	68400	88200	NA	125000	98300	113000 K	118000 K	122000 K
Chromium(1)	ug/L	1600	100	3 B	3.1	2.5	10.8 J	DRY	3.59 J	10 U	NA	3.4 B	1.5 J	1.4 B	11.2	2.2
Cobalt	ug/L	0.47	- -	0.67	0.26 B	0.35 J	0.59	DRY	2.5 U	10 U	NA	16.5 J	50 U	8.2	10.6	12.7
Copper	ug/L	62	1300	2 K	0.74 K	56.6 K	1.7 J	DRY	6.61 J	10 U	NA	1.3 B	25 U	1.1 K	2.2 K	1.8 K
Iron	ug/L	1100	- -	1510	551	884 K	939	DRY	1430	1570	NA	8460	1460 K	8080	8180	5470 K
Lead	ug/L	- -	15	1.3	0.37 B	0.58 J	0.62 J	DRY	2.5 U	2.5 U	NA	3 UL	3 U	0.43 J	1.4	1.3
Magnesium	ug/L	- -	- -	18400	16900	13900	12900	DRY	11300	13300	NA	19400	17800	17600	19200	17500
Manganese(1)	ug/L	32	- -	49.9	15.9 K	21.7	22.3 L	DRY	37.8	28.5	NA	9440	35.8	7510	8720 K	8140
Mercury(1)	ug/L	0.063	2	NA	NA	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA
Nickel	ug/L	30	- -	4.7	3.3 J	3.3	5.4 J	DRY	5 U	20 U	NA	5.8 J	6.1 J	3.1	3.5 J	4.3
Potassium	ug/L	- -	- -	5970 L	5100	4960	4760 L	DRY	5910	5070	NA	3700 J	5000 L	3510 L	3610	3120
Selenium	ug/L	7.8	50	1.8 B	2.2 J	1.3 J	1.4 B	DRY	2.43	2.55 J	NA	5 UL	5 U	0.63 B	0.61 J	0.21 U
Silver	ug/L	7.1	- -	0.077 U	0.077 U	0.077 U	0.077 UL	DRY	5 U	5 U	NA	5 U	5 U	0.077 U	0.077 U	0.077 U
Sodium	ug/L	- -	- -	126000	119000	118000	84500 L	DRY	124000	106000	NA	62700	102000	56500	66300	45600
Thallium	ug/L	0.016	2	0.12 B	0.076 B	0.081 B	0.16 B	DRY	0.1 U	0.1 U	NA	10 U	10 U	0.059 B	0.047 B	0.057 B
Vanadium	ug/L	7.8	- -	1.2	0.097 U	0.85 J	3.6 L	DRY	5 U	5 U	NA	50 U	1.5 J	0.56 J	2	1.1
Zinc	ug/L	470	- -	30 B	6.4 K	7.7 K	13.3 K	DRY	656	10.5 J	NA	15 B	7.8 B	39.9 B	13.9 K	17.8 K

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-02A 4/25/2007 C7D270221001 Strip Mill	SC-MW-02A 10/3/2007 C7J100293 Strip Mill	SC-MW-02A 4/15/2008 C8D16299 Strip Mill	SC-MW-02A 10/14/2008 C8J16103 Strip Mill	SC-MW-02A 10/27/2009 DRY Strip Mill	SC-MW-02A 11/2/2010 L10110170 Strip Mill	SC-MW-02A 10/21/2011 L11100818 Strip Mill	SC-MW-02A 11/2/2012 180-16028-1 Strip Mill	SC-MW-02D 11/5/2003 C3K060379006 Strip Mill	SC-MW-02D 5/11/2004 C4E120272001 Strip Mill	SC-MW-02D 4/25/2007 C7D270221002 Strip Mill	SC-MW-02D 10/3/2007 C7J100293 Strip Mill	SC-MW-02D 4/15/2008 C8D16299 Strip Mill
Dissolved Inorganics																
Aluminum	ug/L	1600	- -	3.1 J	NA	NA	NA	DRY	NA	NA	2.6 U	NA	NA	2.1 J	NA	NA
Antimony	ug/L	0.6	6	0.16 B	NA	NA	NA	DRY	NA	NA	0.019 U	NA	NA	0.096 B	NA	NA
Arsenic(1)	ug/L	0.045	10	0.5 J	NA	NA	NA	DRY	NA	NA	0.37 B	NA	NA	7.4	NA	NA
Barium	ug/L	290	2000	30.5	NA	NA	NA	DRY	NA	NA	80	NA	NA	15.9	NA	NA
Beryllium	ug/L	1.6	4	0.068 U	NA	NA	NA	DRY	NA	NA	0.037 U	NA	NA	0.068 U	NA	NA
Cadmium(1)	ug/L	0.69	5	0.11 U	NA	NA	NA	DRY	NA	NA	0.33 J	NA	NA	0.11 U	NA	NA
Calcium	ug/L	- -	- -	101000 K	NA	NA	NA	DRY	NA	NA	240000	NA	NA	110000 K	NA	NA
Chromium(1)	ug/L	1600	100	2.3	NA	NA	NA	DRY	NA	NA	1.3 J	NA	NA	1.5 B	NA	NA
Cobalt	ug/L	0.47	- -	0.16 J	NA	NA	NA	DRY	NA	NA	0.41 J	NA	NA	7.7	NA	NA
Copper	ug/L	62	1300	0.78 K	NA	NA	NA	DRY	NA	NA	1.6 J	NA	NA	0.67 K	NA	NA
Iron	ug/L	1100	- -	9.2 B	NA	NA	NA	DRY	NA	NA	30 B	NA	NA	7520	NA	NA
Lead	ug/L	- -	15	0.16 J	NA	NA	NA	DRY	NA	NA	0.047 B	NA	NA	0.12 J	NA	NA
Magnesium	ug/L	- -	- -	18600	NA	NA	NA	DRY	NA	NA	39000	NA	NA	16700	NA	NA
Manganese(1)	ug/L	32	- -	2.9	NA	NA	NA	DRY	NA	NA	8.6	NA	NA	7240	NA	NA
Nickel	ug/L	30	- -	4.2	NA	NA	NA	DRY	NA	NA	9	NA	NA	2.9	NA	NA
Potassium	ug/L	- -	- -	5910 L	NA	NA	NA	DRY	NA	NA	8500	NA	NA	3380 L	NA	NA
Selenium	ug/L	7.8	50	1.9 J	NA	NA	NA	DRY	NA	NA	3.5 B	NA	NA	0.82 B	NA	NA
Silver	ug/L	7.1	- -	0.077 U	NA	NA	NA	DRY	NA	NA	0.036 U	NA	NA	0.077 U	NA	NA
Sodium	ug/L	- -	- -	128000	NA	NA	NA	DRY	NA	NA	220000	NA	NA	53200	NA	NA
Thallium	ug/L	0.016	2	0.078 B	NA	NA	NA	DRY	NA	NA	0.02 B	NA	NA	0.036 B	NA	NA
Vanadium	ug/L	7.8	- -	0.83 J	NA	NA	NA	DRY	NA	NA	1.4	NA	NA	0.097 U	NA	NA
Zinc	ug/L	470	- -	29.9 K	NA	NA	NA	DRY	NA	NA	16	NA	NA	16.3 K	NA	NA
Other Parameters																
Cyanide	ug/L	0.14	200	2.2 B	3.7 B	1.8 J	1.9 B	DRY	5 U	11.3	1.5 U	4 J	8 B	3.6 B J	5.8 B	1.9 J

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	MCL	SC-MW-02D 10/14/2008 C8J16103 Strip Mill	SC-MW-02D 10/27/2009 L09100697 Strip Mill	SC-MW-02D D 10/27/2009 L09100697 Duplicate	SC-MW-02D 11/2/2010 L10110170 Strip Mill	SC-MW-02D 10/21/2011 L11100818 Strip Mill	SC-MW-02D 10/26/2012 180-15816-1 Strip Mill	SC-MW-03A 11/5/2003 C3K060379007 Strip Mill	SC-MW-03A 5/5/2004 C4E070306004 Strip Mill	SC-MW-03A 4/27/2007 C7E010239001 Strip Mill	SC-MW-03A 10/3/2007 C7J030392 Strip Mill	SC-MW-03A 4/15/2008 C8D16299 Strip Mill	SC-MW-03A 10/13/2008 C8J16103 Strip Mill	SC-MW-03A 10/26/2009 L09100697 Strip Mill
Volatiile Organic Compounds																
1,1,1-Trichloroethane	ug/L	750	200	1 U	0.25 U	0.25 U	0.25 U	0.25 U	0.29 U	5 U	5 U	0.79 U	0.79 U	0.79 U	1 U	0.25 U
1,1,2,2-Tetrachloroethane	ug/L	0.066	- -	0.93 U	0.125 U	0.125 U	0.2 U	0.2 U	0.2 U	5 U	5 U	0.63 U	0.63 U	0.63 U	0.93 U	0.125 U
1,1,2-Trichloroethane	ug/L	0.24	5	1.2 U	0.25 U	0.25 U	0.25 U	0.25 U	0.2 U	5 U	5 U	0.79 U	0.79 U	0.79 U	1.2 U	0.25 U
1,1-Dichloroethane	ug/L	2.4	- -	2.8 J	2.7 J	2.79 J	2.34 J	2.6 J	2.6	5 U	5 U	1 U	1 U	1 U	1 U	0.125 U
1,1-Dichloroethene	ug/L	26	7	1.4 J	1.42 J	1.48 J	0.907 J	1.36 J	1.1	5 U	5 U	0.87 U	0.87 U	0.87 U	1.1 U	0.5 U
1,2-Dichloroethane	ug/L	0.15	5	0.96 U	0.25 U	0.25 U	0.25 U	0.25 U	0.21 U	5 U	5 U	0.64 U	0.64 U	0.64 U	0.96 U	0.25 U
1,2-Dichloroethene (total)	ug/L	13	- -	13	11.5	11.5	9.11	11.7	9.4	5 U	5 U	1.9 U	1.9 U	1.9 U	0.95 U	0.25 U
1,2-Dichloropropane	ug/L	0.38	5	1.3 U	0.2 U	0.2 U	0.2 U	0.2 U	0.095 U	5 U	5 U	0.67 U	0.67 U	0.67 U	1.3 U	0.2 U
2-Butanone (MEK)	ug/L	490	- -	1.1 U	2.5 U	2.5 U	2.5 U	2.5 U	0.55 U	5 U	5 U	0.73 U	0.73 U	0.73 U	1.1 U	2.5 U
2-Hexanone	ug/L	3.4	- -	0.57 U	2.5 U	2.5 U	2.5 U	2.5 U	0.16 U	5 U	5 U	0.45 U	0.45 U	0.45 U	0.57 U	2.5 U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	ug/L	100	- -	0.59 U	2.5 U	2.5 U	2.5 U	2.5 U	0.53 U	5 U	5 U	0.46 U	0.46 U	0.46 U	0.59 U	2.5 U
Acetone	ug/L	1200	- -	5 U	2.5 U	2.5 U	2.5 U	2.5 UR	2.5 U	20 U	20 U	0.83 U	8.3 J	5 UJ	5 U	2.5 UR
Benzene	ug/L	0.39	5	0.99 U	0.125 U	0.125 U	0.125 U	0.125 U	0.11 U	5 U	5 U	0.81 U	0.81 U	0.81 U	0.99 U	0.125 U
Bromodichloromethane	ug/L	0.12	80	0.93 U	0.25 U	0.25 U	0.25 U	0.25 U	0.13 U	5 U	5 U	0.58 U	0.58 U	0.58 U	0.93 U	0.25 U
Bromoform	ug/L	7.9	80	1.1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.19 U	5 U	5 U	0.37 U	0.37 U	0.37 U	1.1 U	0.5 U
Bromomethane	ug/L	0.7	- -	1.6 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.31 U	5 U	5 U	0.75 U	0.75 U	0.75 U	1.6 U	0.5 U
Carbon disulfide	ug/L	72	- -	1.1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.21 U	5 U	5 U	1.1 U	1.1 U	1.1 U	1.1 U	0.5 U
Carbon tetrachloride	ug/L	0.39	5	1.1 U	0.25 U	0.25 U	0.25 U	0.25 U	0.14 U	5 U	5 U	0.91 U	0.91 U	0.91 U	1.1 U	0.25 U
Chlorobenzene	ug/L	7.2	100	0.53 U	0.125 U	0.125 U	0.125 U	0.125 U	0.14 U	5 U	5 U	0.71 U	0.71 U	0.71 U	0.53 U	0.125 U
Chloroethane (Ehtyl Chloride)	ug/L	2100	- -	0.75 U	0.5 U	0.5 U	0.5 U	0.5 U	0.21 U	5 U	5 U	1.1 U	1.1 U	1.1 U	0.75 U	0.5 U
Chloroform	ug/L	0.19	80	1 U	0.125 U	0.125 U	0.125 U	0.125 U	0.17 U	3.7 J	2.6 J	0.78 U	0.78 U	0.78 U	1 U	0.46 J
Chloromethane	ug/L	19	- -	1.4 U	0.25 U	0.25 U	0.5 U	0.5 U	0.28 U	5 U	5 U	0.87 U	0.87 U	0.87 U	1.4 U	0.25 U
cis-1,2-Dichloroethene[1]	ug/L	2.8	70	13	11.5	11.5	9.11	11.7	9.4	NA	NA	1 U	1 U	1 U	0.67 U	0.25 U
cis-1,3-Dichloropropene	ug/L	0.41	- -	0.73 U	0.25 U	0.25 U	0.25 U	0.25 U	0.19 U	5 U	5 U	0.79 U	0.79 U	0.79 U	0.73 U	0.25 U
Dibromochloromethane	ug/L	0.15	80	0.65 U	0.25 U	0.25 U	0.25 U	0.25 U	0.14 U	5 U	5 U	0.5 U	0.5 U	0.5 U	0.65 U	0.25 U
Ethylbenzene	ug/L	1.3	700	0.62 U	0.25 U	0.25 U	0.25 U	0.25 U	0.23 U	5 U	5 U	0.58 U	0.58 U	0.58 U	0.62 U	0.25 U
Methyl(tert)butyl ether	ug/L	12	- -	NA	0.5 U	0.5 U	0.5 U	0.5 U	0.18 U	NA	5 U	NA	NA	NA	NA	0.5 U
Methylene chloride	ug/L	9.9	5	1.1 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	5 U	5 U	0.75 U	0.75 U	0.75 U	1.1 U	0.25 U
Naphthalene	ug/L	0.14	- -	0.47 U	0.2 U	0.2 U	0.2 U	0.2 U	0.078 U	NA	NA	0.38 U	0.38 U	0.38 U	0.47 U	0.2 U
Styrene	ug/L	110	100	0.64 U	0.125 U	0.125 U	0.125 U	0.125 U	0.097 U	5 U	5 U	0.8 U	0.8 U	0.8 U	0.64 U	0.125 U
Tetrachloroethene	ug/L	9.7	5	0.82 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 J	5 U	5 U	0.57 U	0.57 U	0.57 U	0.82 U	0.25 U
Toluene	ug/L	86	1000	0.85 U	0.25 U	0.25 U	0.25 U	0.25 U	0.15 U	5 U	5 U	0.8 U	0.8 U	0.8 U	0.85 U	0.25 U
trans-1,2-Dichloroethene[1]	ug/L	8.6	100	0.75 U	0.25 U	0.25 U	0.25 U	0.25 U	0.17 U	NA	NA	0.9 U	0.9 U	0.9 U	0.75 U	0.25 U
trans-1,3-Dichloropropene	ug/L	0.41	- -	0.58 U	0.5 U	0.5 U	0.5 U	0.5 U	0.15 U	5 U	5 U	0.57 U	0.57 U	0.57 U	0.58 U	0.5 UR
Trichloroethene	ug/L	0.44	5	0.8 U	0.515 J	0.561 J	0.356 J	0.477 J	0.32 J	5 U	5 U	0.88 U	0.88 U	0.88 U	0.8 U	0.52 J
Vinyl chloride	ug/L	0.015	2	1.3 U	0.25 U	0.25 U	0.25 U	0.25 U	0.23 U	5 U	5 U	0.94 U	0.94 U	0.94 U	1.3 U	0.25 U
m, p - Xylene	ug/L	19	- -	NA	NA	NA	0.5 U	0.5 U	0.41 U	NA	NA	NA	NA	NA	NA	NA
o - Xylene	ug/L	19	- -	NA	NA	NA	0.25 U	0.25 U	0.11 U	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	ug/L	19	10000	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.49 U	15 U	15 U	2.4 U	2.4 U	2.4 U	2 U	0.5 U
Semi-volatile Organic Compounds																
1,2,4-Trichlorobenzene	ug/L	0.99	70	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	28	600	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	0.42	75	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane)	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	89	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	3.5	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	3.5	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	27	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	3	- -	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	0.2	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	1.5	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	55	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	7.1	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	2.7	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2-Methylphenol (o-Cresol)	ug/L	72	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	15	- -	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.11	- -	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	0.12	- -	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	ug/L	110	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	0.32	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
4-Methylphenol (p-Cresol)	ug/L	140	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	3.3	- -	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	3	- -	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
Acenaphthene	ug/L	40	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Acenaphthylene[1]	ug/L	40	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-02D 10/14/2008 C8J16103 Strip Mill	SC-MW-02D 10/27/2009 L09100697 Strip Mill	SC-MW-02D D 10/27/2009 L09100697 Duplicate	SC-MW-02D 11/2/2010 L10110170 Strip Mill	SC-MW-02D 10/21/2011 L11100818 Strip Mill	SC-MW-02D 10/26/2012 180-15816-1 Strip Mill	SC-MW-03A 11/5/2003 C3K060379007 Strip Mill	SC-MW-03A 5/5/2004 C4E070306004 Strip Mill	SC-MW-03A 4/27/2007 C7E010239001 Strip Mill	SC-MW-03A 10/3/2007 C7J030392 Strip Mill	SC-MW-03A 4/15/2008 C8D16299 Strip Mill	SC-MW-03A 10/13/2008 C8J16103 Strip Mill	SC-MW-03A 10/26/2009 L09100697 Strip Mill
Anthracene	ug/L	130	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	0.029	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	0.0029	0.2	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	0.029	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(ghi)perylene[1]	ug/L	8.7	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	0.29	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Bis(2-chloroethoxy)methane	ug/L	4.6	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Bis(2-chloroethyl)ether	ug/L	0.012	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Bis(2-chloroisopropyl)ether	ug/L	0.31	- -													
Bis(2-ethylhexyl)phthalate	ug/L	4.8	6	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Butyl benzyl phthalate	ug/L	14	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Carbazole	ug/L	130	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Chrysene	ug/L	2.9	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	ug/L	0.0029	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	0.58	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Diethyl phthalate	ug/L	1100	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Dimethyl phthalate	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Di-n-butyl phthalate	ug/L	67	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Di-n-octyl phthalate	ug/L	19	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Fluoranthene	ug/L	63	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Fluorene	ug/L	22	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.042	1	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.26	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	2.2	50	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	0.79	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	0.029	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Isophorone	ug/L	67	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Naphthalene	ug/L	0.14	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	0.12	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine	ug/L	0.0093	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	10	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	0.035	1	NA	NA	NA	NA	NA	NA	50 U	52 U	NA	NA	NA	NA	NA
Phenanthrene[1]	ug/L	130	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Phenol	ug/L	450	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
Pyrene	ug/L	8.7	- -	NA	NA	NA	NA	NA	NA	10 U	10 U	NA	NA	NA	NA	NA
PCBs																
Aroclor-1016	ug/L	0.96	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.004	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.004	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Inorganics																
Aluminum	ug/L	1600	- -	506 K	50 U	240	4550	368	NA	430	3690	614	576 K	716 K	1090 K	1630
Antimony	ug/L	0.6	6	0.047 U	1.25 U	0.25 U	2.55	0.5 U	NA	10 UL	3.7 B	0.047 U	0.047 U	0.084 B	0.047 U	6.09
Arsenic(1)	ug/L	0.045	10	2.6 K	7.71 J	5 U	25.3	30.1	NA	10 U	10 U	0.14 U	0.65 J	0.65 J	0.2 B	5 U
Barium	ug/L	290	2000	18.6	17.1	18.5	1340	17.8	NA	28.8 J	56.3	19.3	15.8	17.8	21	24.5
Beryllium	ug/L	1.6	4	0.068 UL	0.5 U	0.5 U	0.57 J	5 U	NA	0.35 B	0.91 B	0.28 J	0.35 K	0.3 J	0.48 L	0.8 J
Cadmium(1)	ug/L	0.69	5	1	2.5 U	2.5 U	8.69 B	5 U	NA	6.1	5.5	3.5 K	3.3 K	3.5	4.7	6.43 J
Calcium	ug/L	- -	- -	124000	121000	131000	103000	119000	NA	129000	135000	119000 K	124000	114000 K	114000	102000
Chromium(1)	ug/L	1600	100	11.1 J	2.5 U	2.5 U	8.07 J	10 U	NA	1.8 B	5.8	1.8 J	3.2	2.3	11.3 J	2.86 J
Cobalt	ug/L	0.47	- -	11	10.8 J	12 J	6.31 J	10 U	NA	7.7 J	8.4 J	5.4	4.8	4.5	6.4	10.4 J
Copper	ug/L	62	1300	2.8 J	5 U	5 U	17 J	10 U	NA	1.8 B	3.7 J	1.5 K	1.3 K	1.3 K	2.7 J	5 U
Iron	ug/L	1100	- -	5680	5470	5510	12300	6710	NA	265	6960 K	778	934	1070 K	1970	3010
Lead	ug/L	- -	15	1.2	7.24 B	2.5 U	5.59	2.5 U	NA	3 UL	6	0.54 J	0.51 J	0.63 J	1.1	9.51 B
Magnesium	ug/L	- -	- -	17000	18900	20100	15100	18300	NA	22600	24800	19200	16900 K	18200	17300	18400
Manganese(1)	ug/L	32	- -	7440 L	6790	7340	5460	6410	NA	5050	4060	2780	2580	2490	3390 L	4880
Mercury(1)	ug/L	0.063	2	NA	NA	NA	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA
Nickel	ug/L	30	- -	7.3 J	5.1 J	5.07 J	9.28 J	20 U	NA	65.7	67.1	41.9	41.1	40.4	52.7 J	64.7
Potassium	ug/L	- -	- -	3250 L	3320	3440	6560	3590	NA	13800	12700 L	13800 L	14900	13000	12600 L	11100
Selenium	ug/L	7.8	50	0.58 B	2.5 U	2.5 U	0.663 J	0.992 J	NA	5 UL	5 UL	2.7 J	2.3 J	2.6 J	2.1 B	2.5 U
Silver	ug/L	7.1	- -	0.077 UL	5 U	5 U	5 U	5 U	NA	5 U	0.64 B	0.077 U	0.077 U	0.077 U	0.077 UL	5 U
Sodium	ug/L	- -	- -	47800 L	49700	50700	51900	58900	NA	158000	160000	122000	126000 K	116000	121000 L	118000
Thallium	ug/L	0.016	2	0.067 B	0.25 U	0.05 U	0.1 U	0.1 U	NA	10 U	10 U	0.039 B	0.051 B	0.068 B	0.096 B	0.345 B
Vanadium	ug/L	7.8	- -	6 L	5 U	5 U	11.3	5 U	NA	50 U	6 J	1.1	1.3	1.2	6.6 L	5 U
Zinc	ug/L	470	- -	10.8 K	9.02 J	13.1 B	598	18.6 J	NA	33.4	55.4	49.2 K	28.8 K	27.6 K	37.3 K	62.9

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-02D 10/14/2008 C8J16103 Strip Mill	SC-MW-02D 10/27/2009 L09100697 Strip Mill	SC-MW-02D D 10/27/2009 L09100697 Duplicate	SC-MW-02D 11/2/2010 L10110170 Strip Mill	SC-MW-02D 10/21/2011 L11100818 Strip Mill	SC-MW-02D 10/26/2012 180-15816-1 Strip Mill	SC-MW-03A 11/5/2003 C3K060379007 Strip Mill	SC-MW-03A 5/5/2004 C4E070306004 Strip Mill	SC-MW-03A 4/27/2007 C7E010239001 Strip Mill	SC-MW-03A 10/3/2007 C7J030392 Strip Mill	SC-MW-03A 4/15/2008 C8D16299 Strip Mill	SC-MW-03A 10/13/2008 C8J16103 Strip Mill	SC-MW-03A 10/26/2009 L09100697 Strip Mill
Dissolved Inorganics																
Aluminum	ug/L	1600	- -	NA	NA	NA	NA	NA	3.1 B	NA	NA	301	NA	NA	NA	NA
Antimony	ug/L	0.6	6	NA	NA	NA	NA	NA	0.27 B	NA	NA	0.047 U	NA	NA	NA	NA
Arsenic(1)	ug/L	0.045	10	NA	NA	NA	NA	NA	5.3	NA	NA	0.14 U	NA	NA	NA	NA
Barium	ug/L	290	2000	NA	NA	NA	NA	NA	21	NA	NA	14.3	NA	NA	NA	NA
Beryllium	ug/L	1.6	4	NA	NA	NA	NA	NA	0.037	NA	NA	0.26 J	NA	NA	NA	NA
Cadmium(1)	ug/L	0.69	5	NA	NA	NA	NA	NA	0.11	NA	NA	3.4 K	NA	NA	NA	NA
Calcium	ug/L	- -	- -	NA	NA	NA	NA	NA	110000	NA	NA	122000 K	NA	NA	NA	NA
Chromium(1)	ug/L	1600	100	NA	NA	NA	NA	NA	11	NA	NA	2	NA	NA	NA	NA
Cobalt	ug/L	0.47	- -	NA	NA	NA	NA	NA	5.5	NA	NA	4.8	NA	NA	NA	NA
Copper	ug/L	62	1300	NA	NA	NA	NA	NA	2.1	NA	NA	1.2 K	NA	NA	NA	NA
Iron	ug/L	1100	- -	NA	NA	NA	NA	NA	4800	NA	NA	14.4 B	NA	NA	NA	NA
Lead	ug/L	- -	15	NA	NA	NA	NA	NA	0.047 B	NA	NA	0.12 J	NA	NA	NA	NA
Magnesium	ug/L	- -	- -	NA	NA	NA	NA	NA	17000	NA	NA	19500	NA	NA	NA	NA
Manganese(1)	ug/L	32	- -	NA	NA	NA	NA	NA	5800	NA	NA	2610	NA	NA	NA	NA
Nickel	ug/L	30	- -	NA	NA	NA	NA	NA	2.8	NA	NA	41.3	NA	NA	NA	NA
Potassium	ug/L	- -	- -	NA	NA	NA	NA	NA	8400	NA	NA	14300 L	NA	NA	NA	NA
Selenium	ug/L	7.8	50	NA	NA	NA	NA	NA	0.42	NA	NA	3.2 J	NA	NA	NA	NA
Silver	ug/L	7.1	- -	NA	NA	NA	NA	NA	0.036 U	NA	NA	0.077 U	NA	NA	NA	NA
Sodium	ug/L	- -	- -	NA	NA	NA	NA	NA	47000	NA	NA	126000	NA	NA	NA	NA
Thallium	ug/L	0.016	2	NA	NA	NA	NA	NA	0.11 B	NA	NA	0.036 B	NA	NA	NA	NA
Vanadium	ug/L	7.8	- -	NA	NA	NA	NA	NA	2.4	NA	NA	0.097 U	NA	NA	NA	NA
Zinc	ug/L	470	- -	NA	NA	NA	NA	NA	4.8 J	NA	NA	45.3 K	NA	NA	NA	NA
Other Parameters																
Cyanide	ug/L	0.14	200	1.7 U	5 U	5 U	5 U	25.1	1.5 U	4 J	10 U	1.7 B	3.6 B	1.7 U	1.8 B	5 U

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	MCL	SC-MW-03A 11/2/2010 L10110170 Strip Mill	SC-MW-03A 10/20/2011 L11100818 Strip Mill	SC-MW-03A 11/1/2012 180-16028-1 Strip Mill	SC-MW-03D 11/5/2003 C3K060379008 Strip Mill	SC-MW-03D 5/5/2004 C4E070306005 Strip Mill	SC-MW-03D 4/20/2007 C7D240247001 Strip Mill	SC-MW-03D 10/3/2007 C7J030392 Strip Mill	SC-MW-03D 4/15/2008 C8D16299 Strip Mill	SC-MW-03D 10/14/2008 C8J16103 Strip Mill	SC-MW-03D 10/26/2009 L09100697 Strip Mill	SC-MW-03D 11/2/2010 L10110170 Strip Mill	SC-MW-03D D 11/2/2010 L10110170 Duplicate	SC-MW-03D 10/20/2011 L11100818 Strip Mill
Volatiile Organic Compounds																
1,1,1-Trichloroethane	ug/L	750	200	0.25 U	0.25 U	0.29 U	1.1 J	5 U	0.76 U	0.79 U	0.79 U	1 U	0.461 J	0.401 J	0.376 J	0.297 J
1,1,2,2-Tetrachloroethane	ug/L	0.066	- -	0.2 U	0.2 U	0.2 U	5 U	5 U	0.46 U	0.63 U	0.63 U	0.93 U	0.125 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	ug/L	0.24	5	0.25 U	0.25 U	0.2 U	5 U	5 U	0.41 U	0.79 U	0.79 U	1.2 U	0.25 U	0.25 U	0.25 U	0.25 U
1,1-Dichloroethane	ug/L	2.4	- -	0.125 U	0.125 U	0.12 U	27	21	19	16	16	32	20	13.9	15.7	12.5
1,1-Dichloroethene	ug/L	26	7	0.5 U	0.5 U	0.3 U	1.3 J	5 U	0.83 J	0.87 U	0.87 U	1.1 U	0.724 J	0.5 U	0.5 U	0.5 U
1,2-Dichloroethane	ug/L	0.15	5	0.25 U	0.25 U	0.21 U	5 U	5 U	0.48 U	0.64 U	0.64 U	0.96 U	0.25 U	0.25 U	0.25 U	0.25 U
1,2-Dichloroethene (total)	ug/L	13	- -	0.25 U	0.25 U	0.51 U	33	22	19	21	20	35	0.25 U	17.7	18.5	14.5
1,2-Dichloropropane	ug/L	0.38	5	0.2 U	0.2 U	0.095 U	5 U	5 U	0.35 U	0.67 U	0.67 U	1.3 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Butanone (MEK)	ug/L	490	- -	2.5 U	2.5 U	0.55 U	5 U	5 U	1 U	0.73 U	0.73 U	1.1 U	2.5 U	2.5 U	2.5 U	2.5 U
2-Hexanone	ug/L	3.4	- -	2.5 U	2.5 U	0.16 U	5 U	5 U	0.84 U	0.45 U	0.45 U	0.57 U	2.5 U	2.5 U	2.5 U	2.5 U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	ug/L	100	- -	2.5 U	2.5 U	0.53 U	5 U	5 U	0.54 U	0.46 U	0.46 U	0.59 U	2.5 U	2.5 U	2.5 U	2.5 U
Acetone	ug/L	1200	- -	2.5 U	2.5 UR	2.5 U	20 U	20 U	2.7 U	8.3 J	5 UJ	5 U	2.5 UR	2.5 U	2.5 U	2.5 UR
Benzene	ug/L	0.39	5	0.125 U	0.125 U	0.11 U	5 U	5 U	0.23 U	0.81 U	0.81 U	0.99 U	0.125 U	0.125 U	0.125 U	0.125 U
Bromodichloromethane	ug/L	0.12	80	0.25 U	0.25 U	0.13 U	5 U	5 U	0.48 U	0.58 U	0.58 U	0.93 U	0.25 U	0.25 U	0.25 U	0.25 U
Bromoform	ug/L	7.9	80	0.5 U	0.5 U	0.19 U	5 U	5 U	0.65 U	0.37 U	0.37 U	1.1 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L	0.7	- -	0.5 U	0.5 UJ	0.31 U	5 U	5 U	0.61 U	0.75 U	0.75 U	1.6 U	0.5 U	0.5 U	0.5 U	0.5 UJ
Carbon disulfide	ug/L	72	- -	0.5 U	0.5 U	0.21 U	5 U	5 U	0.2 U	1.1 U	1.1 U	1.1 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon tetrachloride	ug/L	0.39	5	0.25 U	0.25 U	0.14 U	5 U	5 U	0.45 U	0.91 U	0.91 U	1.1 U	0.25 U	0.25 U	0.25 U	0.25 U
Chlorobenzene	ug/L	7.2	100	0.125 U	0.125 U	0.14 U	5 U	5 U	0.28 U	0.71 U	0.71 U	0.53 U	0.125 U	0.125 U	0.125 U	0.125 U
Chloroethane (Ehtyl Chloride)	ug/L	2100	- -	0.5 U	0.5 U	0.21 U	5 U	5 U	0.54 U	1.1 U	1.1 U	0.75 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L	0.19	80	0.337 J	0.242 J	0.27 J	5 U	5.8	0.4 U	0.78 U	0.78 U	1 U	0.266 J	0.241 J	0.272 J	0.198 J
Chloromethane	ug/L	19	- -	0.5 U	0.5 U	0.28 U	5 U	5 U	0.25 U	0.87 U	0.87 U	1.4 U	0.25 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene[1]	ug/L	2.8	70	0.25 U	0.25 U	0.24 U	NA	NA	19	21	20	34	23.4	17.7	18.2	14.5
cis-1,3-Dichloropropene	ug/L	0.41	- -	0.25 U	0.25 U	0.19 U	5 U	5 U	0.35 U	0.79 U	0.79 U	0.73 U	0.25 U	0.25 U	0.25 U	0.25 U
Dibromochloromethane	ug/L	0.15	80	0.25 U	0.25 U	0.14 U	5 U	5 U	0.36 U	0.5 U	0.5 U	0.65 U	0.25 U	0.25 U	0.25 U	0.25 U
Ethylbenzene	ug/L	1.3	700	0.25 U	0.25 U	0.23 U	5 U	5 U	0.53 U	0.58 U	0.58 U	0.62 U	0.25 U	0.25 U	0.25 U	0.25 U
Methyl(tert)butyl ether	ug/L	12	- -	0.5 U	0.5 U	0.18 U	NA	5 U	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	ug/L	9.9	5	0.25 U	0.25 U	0.15 U	5 U	5 U	1.3 U	0.75 U	0.75 U	1.1 U	0.25 U	0.25 U	0.25 U	0.25 U
Naphthalene	ug/L	0.14	- -	0.2 U	0.2 U	0.078 U	NA	NA	0.33 U	0.38 U	0.38 U	0.47 U	0.2 U	0.2 U	0.2 U	0.2 U
Styrene	ug/L	110	100	0.125 U	0.125 U	0.097 U	5 U	5 U	0.18 U	0.8 U	0.8 U	0.64 U	0.125 U	0.125 U	0.125 U	0.125 U
Tetrachloroethene	ug/L	9.7	5	0.25 U	0.25 U	0.15 U	3.9 J	1.2 J	3 J	2.4 J	3.5 J	4.2 J	4.69 J	4.27 J	4.07 J	3.64 J
Toluene	ug/L	86	1000	0.25 U	0.25 U	0.15 U	5 U	5 U	0.29 U	0.8 U	0.8 U	0.85 U	0.25 U	0.25 U	0.25 U	0.25 U
trans-1,2-Dichloroethene[1]	ug/L	8.6	100	0.25 U	0.25 U	0.17 U	NA	NA	0.55 U	0.9 U	0.9 U	0.75 U	0.366 J	0.25 U	0.318 J	0.25 U
trans-1,3-Dichloropropene	ug/L	0.41	- -	0.5 U	0.5 U	0.15 U	5 U	5 U	0.35 U	0.57 U	0.57 U	0.58 U	0.5 UL	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L	0.44	5	0.31 J	0.339 J	0.26 J	4 J	1.9 J	2.7 J	2.3 J	2.4 J	3.8 J	3.23 J	2.71 J	2.42 J	2.36 J
Vinyl chloride	ug/L	0.015	2	0.25 U	0.25 U	0.23 U	1.2 J	5 U	0.65 J	0.94 U	0.94 U	1.3 U	0.835 J	0.25 U	0.482 J	0.25 U
m, p - Xylene	ug/L	19	- -	0.5 U	0.5 U	0.41 U	NA	NA	NA	NA	NA	NA	NA	0.5 U	0.5 U	0.5 U
o - Xylene	ug/L	19	- -	0.25 U	0.25 U	0.11 U	NA	NA	NA	NA	NA	NA	NA	0.25 U	0.25 U	0.25 U
Xylenes (total)	ug/L	19	10000	0.5 U	0.5 U	0.49 U	15 U	15 U	0.76 U	2.4 U	2.4 U	2 U	0.5 U	0.5 U	0.5 U	0.5 U
Semi-volatile Organic Compounds																
1,2,4-Trichlorobenzene	ug/L	0.99	70	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ug/L	28	600	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ug/L	- -	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ug/L	0.42	75	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2,2'-oxybis(1-Chloropropane)	ug/L	- -	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ug/L	89	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ug/L	3.5	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ug/L	3.5	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ug/L	27	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ug/L	3	- -	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ug/L	0.2	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ug/L	1.5	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	ug/L	55	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ug/L	7.1	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	ug/L	2.7	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylphenol (o-Cresol)	ug/L	72	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitroaniline	ug/L	15	- -	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ug/L	- -	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ug/L	0.11	- -	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ug/L	- -	- -	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/L	0.12	- -	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ug/L	- -	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	ug/L	110	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ug/L	0.32	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ug/L	- -	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Methylphenol (p-Cresol)	ug/L	140	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ug/L	3.3	- -	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ug/L	3	- -	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	ug/L	40	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene[1]	ug/L	40	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-03A 11/2/2010 L10110170 Strip Mill	SC-MW-03A 10/20/2011 L11100818 Strip Mill	SC-MW-03A 11/1/2012 180-16028-1 Strip Mill	SC-MW-03D 11/5/2003 C3K060379008 Strip Mill	SC-MW-03D 5/5/2004 C4E070306005 Strip Mill	SC-MW-03D 4/20/2007 C7D240247001 Strip Mill	SC-MW-03D 10/3/2007 C7J030392 Strip Mill	SC-MW-03D 4/15/2008 C8D16299 Strip Mill	SC-MW-03D 10/14/2008 C8J16103 Strip Mill	SC-MW-03D 10/26/2009 L09100697 Strip Mill	SC-MW-03D 11/2/2010 L10110170 Strip Mill	SC-MW-03D D 11/2/2010 L10110170 Duplicate	SC-MW-03D 10/20/2011 L11100818 Strip Mill
Anthracene	ug/L	130	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	ug/L	0.029	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ug/L	0.0029	0.2	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	ug/L	0.029	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene[1]	ug/L	8.7	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ug/L	0.29	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy)methane	ug/L	4.6	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroethyl)ether	ug/L	0.012	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-chloroisopropyl)ether	ug/L	0.31	- -													
Bis(2-ethylhexyl)phthalate	ug/L	4.8	6	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	ug/L	14	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	ug/L	130	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	ug/L	2.9	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	ug/L	0.0029	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	ug/L	0.58	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	ug/L	1100	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	ug/L	- -	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	ug/L	67	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	ug/L	19	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	ug/L	63	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	ug/L	22	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ug/L	0.042	1	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ug/L	0.26	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ug/L	2.2	50	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	ug/L	0.79	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/L	0.029	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	ug/L	67	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	ug/L	0.14	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	ug/L	0.12	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine	ug/L	0.0093	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ug/L	10	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ug/L	0.035	1	NA	NA	NA	53 U	48 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene[1]	ug/L	130	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	ug/L	450	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	ug/L	8.7	- -	NA	NA	NA	11 U	9.7 U	NA	NA	NA	NA	NA	NA	NA	NA
PCBs																
Aroclor-1016	ug/L	0.96	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.004	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.004	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Inorganics																
Aluminum	ug/L	1600	- -	1350	1500	NA	2380	1540	1720	1650 K	1750 K	1490 K	1720	1920	1820	1810
Antimony	ug/L	0.6	6	0.5 U	0.5 U	NA	10 UL	5.1 B	0.047 U	0.047 U	0.12 B	0.047 U	1.25 U	0.5 U	0.5 U	0.5 U
Arsenic(1)	ug/L	0.045	10	18.2	31.1	NA	10 U	10 U	0.14 U	0.14 U	0.14 U	0.14 UJ	5 U	15.4	19.1	28.2
Barium	ug/L	290	2000	20 B	21.8	NA	17.8 J	18.2 J	13.8	14.3	13.8	14.6	14.6	13.8 B	13.2 B	13.3
Beryllium	ug/L	1.6	4	1.07 J	5 U	NA	0.63 B	0.82 B	0.47 J	0.49 K	0.42 J	0.5 L	0.63 J	1.3 J	1.2 J	5 U
Cadmium(1)	ug/L	0.69	5	5.93 B	7.33 J	NA	18.9	14.5	16	17.6 K	18	17.3 J	16.4	16.3 B	15.5 B	18.3
Calcium	ug/L	- -	- -	122000	140000	NA	77600	76300	71400	77400	70700 K	67300	71200	80400	77000	75700
Chromium(1)	ug/L	1600	100	2.5 U	10 U	NA	5.3	4.1 J	3.3 B	2.8	1.6 J	9.6 J	2.5 U	2.5 U	2.5 U	10 U
Cobalt	ug/L	0.47	- -	9.37 J	10 U	NA	20.9 J	18 J	16.6	18.7	17.4	14.8 J	17.1 J	17.3 J	16.5 J	16.3 J
Copper	ug/L	62	1300	5 U	10 U	NA	5.7 J	6.3 J	4.4 K	4.8 K	4.4 K	4.9 J	5 U	5.92 J	5.7 J	10 U
Iron	ug/L	1100	- -	1190	2570	NA	625	336 K	97.1 L	184	55.3 B	51.3 J	75.2 J	204	231	966
Lead	ug/L	- -	15	2.5 U	2.5 U	NA	3 UL	2.8 J	0.39 J	0.44 J	0.27 J	0.33 J	7.17 B	2.5 U	2.5 U	2.5 U
Magnesium	ug/L	- -	- -	19400	22800	NA	17500	16800	14500	14400 K	15000	14000	16300	16800	15600	17000
Manganese(1)	ug/L	32	- -	5070	4730	NA	17300	16300	15700 L	17200	15300	13400 L	14100	14700	14000	13900
Mercury(1)	ug/L	0.063	2	NA	NA	NA	0.2 U	0.2 U	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	30	- -	67.8	67.3	NA	77.8	71.4	66.3 K	68.1	64.1	57.6 J	63.9	70	66.7	66.8
Potassium	ug/L	- -	- -	12700	14300	NA	5130	4080 L	4930	5260	4630	4520 L	4840	5250	5020	5060
Selenium	ug/L	7.8	50	3.65	4.33 J	NA	5 UL	5 UL	0.21 U	0.21 U	0.56 J	2.3 B	2.5 U	1.67	2.17	1.9 J
Silver	ug/L	7.1	- -	5.33 J	5 U	NA	5 U	1.4 B	0.077 U	0.077 U	0.077 U	0.077 UL	5 U	5 U	5 U	5 U
Sodium	ug/L	- -	- -	145000	158000	NA	77100	69800	75200	75200 K	71200	71200 L	74000	86400	82200	79300
Thallium	ug/L	0.016	2	0.1 U	0.1 U	NA	10 U	10 U	0.18 B	0.17 B	0.21 J	0.23 J	0.415 B	0.185 J	0.206	0.18 J
Vanadium	ug/L	7.8	- -	5 U	5 U	NA	50 U	50 U	7.2 L	0.48 B	0.097 U	5.1 L	5 U	5 U	5 U	5 U
Zinc	ug/L	470	- -	56.2	58.6	NA	12700	10400	10500 K	12200 K	11200 K	9120 K	11000	10300	9800	10600

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]												
		RSL	*MCL*	SC-MW-03A 11/2/2010 L10110170 Strip Mill	SC-MW-03A 10/20/2011 L11100818 Strip Mill	SC-MW-03A 11/1/2012 180-16028-1 Strip Mill	SC-MW-03D 11/5/2003 C3K060379008 Strip Mill	SC-MW-03D 5/5/2004 C4E070306005 Strip Mill	SC-MW-03D 4/20/2007 C7D240247001 Strip Mill	SC-MW-03D 10/3/2007 C7J030392 Strip Mill	SC-MW-03D 4/15/2008 C8D16299 Strip Mill	SC-MW-03D 10/14/2008 C8J16103 Strip Mill	SC-MW-03D 10/26/2009 L09100697 Strip Mill	SC-MW-03D 11/2/2010 L10110170 Strip Mill	SC-MW-03D D 11/2/2010 L10110170 Duplicate	SC-MW-03D 10/20/2011 L11100818 Strip Mill
Dissolved Inorganics																
Aluminum	ug/L	1600	- -	NA	NA	440	NA	NA	1660	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	0.6	6	NA	NA	0.019 U	NA	NA	0.047 U	NA	NA	NA	NA	NA	NA	NA
Arsenic(1)	ug/L	0.045	10	NA	NA	0.29 U	NA	NA	0.14 U	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	290	2000	NA	NA	16	NA	NA	13.6	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	1.6	4	NA	NA	0.51 J	NA	NA	0.46 J	NA	NA	NA	NA	NA	NA	NA
Cadmium(1)	ug/L	0.69	5	NA	NA	5.9	NA	NA	15.6	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	- -	- -	NA	NA	95000	NA	NA	70000	NA	NA	NA	NA	NA	NA	NA
Chromium(1)	ug/L	1600	100	NA	NA	1.4 J	NA	NA	3.9 L	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	0.47	- -	NA	NA	7.7	NA	NA	16.6	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	62	1300	NA	NA	1.2 J	NA	NA	4.4 K	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	1100	- -	NA	NA	6.1 U	NA	NA	51.8 L	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	- -	15	NA	NA	0.077 B	NA	NA	0.43 J	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	- -	- -	NA	NA	17000	NA	NA	14200	NA	NA	NA	NA	NA	NA	NA
Manganese(1)	ug/L	32	- -	NA	NA	4300	NA	NA	15400 L	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	30	- -	NA	NA	57	NA	NA	65.8 K	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	- -	- -	NA	NA	11000	NA	NA	4840	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	7.8	50	NA	NA	4.3 B	NA	NA	0.21 U	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	7.1	- -	NA	NA	0.036 U	NA	NA	0.077 U	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	- -	- -	NA	NA	140000	NA	NA	73700	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	0.016	2	NA	NA	0.06 B	NA	NA	0.18 B	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	7.8	- -	NA	NA	1.9 B	NA	NA	12.3 L	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	470	- -	NA	NA	52	NA	NA	10500 K	NA	NA	NA	NA	NA	NA	NA
Other Parameters																
Cyanide	ug/L	0.14	200	5 U	5 U	1.5 U	5 J	10 U	6.9 J	4.7 B	8.3 J	3.4 B	5 U	5 U	5 U	5.47 J

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]																											
		RSL	*MCL*	SC-MW-03D 11/1/2012 180-16028-1 Strip Mill		MA-MW-01A 11/8/1999		MA-MW-01A 1/11/2000		MA-MW-01A 6/27/2000		MA-MW-01A 4/12/2007		MA-MW-01D 11/8/1999		MA-MW-01D 1/11/2000		MA-MW-01D 6/27/2000		MA-MW-01DD 6/27/2000		MA-MW-01D 4/13/2007		MA-MW-01DD 4/13/2007		MA-MW-07A 11/10/1999		MA-MW-07A 1/10/2000		MA-MW-07A 6/28/2000	
Volatiile Organic Compounds																															
1,1,1-Trichloroethane	ug/L	750	200	0.29	U	1	L	1	L	0.8	L	0.79	U	2	U	2	U	2	U	2	U	0.79	U	0.79	U	2		2	L	2	L
1,1,2,2-Tetrachloroethane	ug/L	0.066	- -	0.2	U	2	U	2	U	2	U	0.63	U	2	U	2	U	2	U	2	U	0.63	U	0.63	U	2	U	2	U	2	U
1,1,2-Trichloroethane	ug/L	0.24	5	0.2	U	3	U	3	U	3	U	0.79	U	3	U	3	U	3	U	3	U	0.79	U	0.79	U	3	U	3	U	3	U
1,1-Dichloroethane	ug/L	2.4	- -	9.7		3	U	3	U	3	U	1	U	3	U	3	U	3	U	3	U	1	U	1	U	3	U	3	U	3	U
1,1-Dichloroethene	ug/L	26	7	0.38	J	2	U	2	U	2	U	0.87	U	2	U	2	U	2	U	2	U	0.87	U	0.87	U	3	L	4	L	5	L
1,2-Dichloroethane	ug/L	0.15	5	0.21	U	3	U	3	U	3	U	0.64	U	3	U	3	U	3	U	3	U	0.64	U	0.64	U	3	U	3	U	3	U
1,2-Dichloroethene (total)	ug/L	13	- -	12		NA		NA		NA		1.9	U	NA		NA		NA		NA		1.9	U	1.9	U	NA		NA		NA	
1,2-Dichloropropane	ug/L	0.38	5	0.095	U	2	U	2	U	2	U	0.67	U	2	U	2	U	2	U	2	U	0.67	U	0.67	U	2	U	2	U	2	U
2-Butanone (MEK)	ug/L	490	- -	0.55	U	2	UR	2	U	2	UR	0.73	U	2	UR	2	U	2	UR	2	UR	0.73	U	0.73	U	2	UR	2	U	2	UR
2-Hexanone	ug/L	3.4	- -	0.16	U	8	U	8	U	8	U	0.45	U	8	U	8	U	8	U	8	U	0.45	U	0.45	U	8	U	8	U	8	U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	ug/L	100	- -	0.53	U	4	U	4	U	4	U	0.46	U	4	U	4	U	4	U	4	U	0.46	U	0.46	U	4	U	4	U	4	U
Acetone	ug/L	1200	- -	2.5	U	12	U	12	UJ	12	UJ	0.83	U	12	U	12	UJ	12	UJ	12	UJ	0.83	U	0.83	U	12	U	12	UJ	12	UJ
Benzene	ug/L	0.39	5	0.11	U	2	U	2	U	2	U	0.81	U	2	U	2	U	2	U	2	U	0.81	U	0.81	U	2	U	1	L	2	U
Bromodichloromethane	ug/L	0.12	80	0.13	U	2	U	2	U	2	U	0.58	U	2	U	2	U	2	U	2	U	0.58	U	0.58	U	2	U	2	U	2	U
Bromoform	ug/L	7.9	80	0.19	U	3	U	3	U	3	UR	0.37	U	3	U	3	U	3	UR	3	UR	0.37	U	0.37	U	3	U	3	U	3	UR
Bromomethane	ug/L	0.7	- -	0.31	U	3	U	3	U	3	U	0.75	U	3	U	3	U	3	U	3	U	0.75	U	0.75	U	3	U	3	U	3	U
Carbon disulfide	ug/L	72	- -	0.21	U	2	U	2	U	2	U	1.1	U	2	U	2	U	2	U	2	U	1.1	U	1.1	U	2	U	2	U	2	U
Carbon tetrachloride	ug/L	0.39	5	0.14	U	3	U	3	U	3	U	0.91	U	3	U	3	U	3	U	3	U	0.91	U	0.91	U	3	U	3	U	3	U
Chlorobenzene	ug/L	7.2	100	0.14	U	3	U	3	U	3	U	0.71	U	3	U	3	U	3	U	3	U	0.71	U	0.71	U	3	U	3	U	3	U
Chloroethane (Ehtyl Chloride)	ug/L	2100	- -	0.21	U	2	U	2	U	2	U	1.1	U	2	U	2	U	2	U	2	U	1.1	U	1.1	U	2	U	2	U	2	U
Chloroform	ug/L	0.19	80	0.22	J	1	L	1	L	1	L	0.78	U	2	U	2	U	2	U	2	U	0.78	U	0.78	U	2	L	2	L	2	L
Chloromethane	ug/L	19	- -	0.28	U	2	U	2	U	2	U	0.87	U	2	U	2	U	2	U	2	U	0.87	U	0.87	U	2	U	2	U	2	U
cis-1,2-Dichloroethene[1]	ug/L	2.8	70	12		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
cis-1,3-Dichloropropene	ug/L	0.41	- -	0.19	U	2	U	2	U	2	U	0.79	U	2	U	2	U	2	U	2	U	0.79	U	0.79	U	2	U	2	U	2	U
Dibromochloromethane	ug/L	0.15	80	0.14	U	2	U	2	U	2	U	0.5	U	2	U	2	U	2	U	2	U	0.5	U	0.5	U	2	U	2	U	2	U
Ethylbenzene	ug/L	1.3	700	0.23	U	2	U	2	U	2	U	0.58	U	2	U	2	U	2	U	2	U	0.58	U	0.58	U	2	U	2	U	2	U
Methyl(tert)butyl ether	ug/L	12	- -	0.18	U																										
Methylene chloride	ug/L	9.9	5	0.15	U	6	U	6	U	6	U	0.75	U	6	U	6	U	6	U	6	U	0.75	U	0.75	U	6	U	6	U	6	U
Naphthalene	ug/L	0.14	- -	0.078	U	NA		NA		NA		0.38	U	NA		NA		NA		NA		0.38	U	0.38	U	NA		NA		NA	
Styrene	ug/L	110	100	0.097	U	3	U	3	U	3	U	0.8	U	3	U	3	U	3	U	3	U	0.8	U	0.8	U	3	U	3	U	3	U
Tetrachloroethene	ug/L	9.7	5	3		3	U	3	U	3	U	0.57	U	1	L	1	L	1	L	1	K	0.57	U	0.57	U	1	L	1	L	2	L
Toluene	ug/L	86	1000	0.15	U	3	U	3	U	3	U	0.8	U	3	U	3	U	3	U	3	U	0.8	U	0.8	U	3	U	3	U	3	U
trans-1,2-Dichloroethene[1]	ug/L	8.6	100	0.24	J	1	U	1	U	1	U	0.9	U	1	U	1	U	1	U	1	U	0.9	U	0.9	U	1	U	1	U	1	U
trans-1,3-Dichloropropene	ug/L	0.41	- -	0.15	U	2	U	2	U	2	U	0.57	U	2	U	2	U	2	U	2	U	0.57	U	0.57	U	2	U	2	U	2	U
Trichloroethene	ug/L	0.44	5	2.1		3	U	3	U	3	U	0.88	U	3	U	3	U	3	U	3	U	0.88	U	0.88	U	2	L	1	L	2	K
Vinyl chloride	ug/L	0.015	2	0.36	J	2	U	2	U	2	U	0.94	U	2	U	2	U	2	U	2	U	0.94	U	0.94	U	2	U	2	U	2	U
m, p - Xylene	ug/L	19	- -	0.41	U	2	U	2	U	2	U	NA		2	U	2	U	2	U	2	U	NA		NA		2	U	2	U	2	U
o - Xylene	ug/L	19	- -	0.11	U	1	U	1	U	1	U	NA		1	U	1	U	1	U	1	U	NA		NA		1	U	1	U	1	U
Xylenes (total)	ug/L	19	10000	0.49	U	NA		NA		NA		2.4	U	NA		NA		NA		NA		2.4	U	2.4	U	NA		NA		NA	
Semi-volatile Organic Compounds																															
1,2,4-Trichlorobenzene	ug/L	0.99	70	NA		10	U	10	U	5	U	6	U	10	U	10	U	10	U	6	U	5.9	U	5.8	U	10	U	10	U	5	U
1,2-Dichlorobenzene	ug/L	28	600	NA		10	U	10	U	5	U	7.3	U	10	U	10	U	10	U	6	U	7.1	U	7	U	10	U	10	U	5	U
1,3-Dichlorobenzene	ug/L	- -	- -	NA		10	U	10	U	5	U	5.1	U	10	U	10	U	10	U	6	U	5	U	4.9	U	10	U	10	U	5	U
1,4-Dichlorobenzene	ug/L	0.42	75	NA		10	U	10	U	5	U	5	U	10	U	10	U	10	U	6	U	4.9	U	4.9	U	10	U	10	U	5	U
2,2'-oxybis(1-Chloropropane)	ug/L	- -	- -	NA		10	U	10	U	5	U	6.1	U	10	U	10	U	10	U	6	U	6	U	5.9	U	10	U	10	U	5	U
2,4,5-Trichlorophenol	ug/L	89	- -	NA		10	U	10	U	5	U	3.8	U	10	U	10	U	10	U	6	U	3.8	U	3.7	U	10	U	10	U	5	U
2,4,6-Trichlorophenol	ug/L	3.5	- -	NA		10	U	10	U	5	U	3	U	10	U	10	U	10	U	6	U	3	U	2.9	U	10	U	10	U	5	U
2,4-Dichlorophenol	ug/L	3.5	- -	NA		10	U	10	U	5	U	3.3	U	10	U	10	U	10	U	6	U	3.2	U	3.2	U	10	U	10	U	5	U
2,4-Dimethylphenol	ug/L	27	- -	NA		10	U	10	U	5	U	3.4	U	10	U	10	U	10	U	6	U	3.4	U	3.3	U	10	U	10	U	5	U
2,4-Dinitrophenol	ug/L	3	- -	NA		50	U	50	U	27	UJ	22	U	50	U	50	U	50	UJ	28	UJ	21	U	21	U	50	U	50	U	26	U
2,4-Dinitrotoluene	ug/L	0.2	- -	NA		10	U	10	U	5	U	5.1	U	10	U	10	U	10	U	6	U	5	U	5	U	10	U	10	U	5	U
2,6-Dinitrotoluene	ug/L	1.5	- -	NA		10	U	10	U	5	U	1.1	U	10	U	10	U	10	U	6	U	1.1	U	1	U	10	U	10	U	5	U
2-Chloronaphthalene	ug/L	55	- -	NA		10	U	10	U	5	U	5.8	U	10	U	10	U	10	U	6	U	5.7	U	5.6	U	10	U	10	U	5	U
2-Chlorophenol	ug/L	7.1	- -	NA		10	U	10	U	5	U	2.9	U	10	U	10	U	10	U	6	U	2.8	U	2.8	U	10	U	10	U	5	U
2-Methylnaphthalene	ug/L	2.7	- -	NA		10	U	10	U	5	U	2.1	U	10	U	10	U	10	U	6	U	2	U	2	U	10	U	10	U	5	U
2-Methylphenol (o-Cresol)	ug/L	72	- -	NA		10	U	10	U	5	U	2.6	U	10	U	10	U	10	U	6	U	2.5	U	2.5	U	10	U	10	U	5	U
2-Nitroaniline	ug/L	15	- -	NA		50	U	50	U	27	U	8.3	U	50	U	50	U	50	U	28	U	8.2	U	8.1	U	50	U	50	U	26	U
2-Nitrophenol	ug/L	- -	- -	NA		10	U	10	U	5	U	3.4	U	10	U	10	U	10	U	6	U	3.3	U	3.3	U	10	U	10	U	5	U
3,3'-Dichlorobenzidine	ug/L	0.11	- -	NA		20	U	20	U	11	U	6.7	U	20	U	20	U	20	U	11	U	6.6	U	6.5	U	20	U	20	U	11	U
3-Nitroaniline	ug/L	- -	- -	NA		50	U	50	U	27	U	10	U	50	U	50	U	50	U	28	U	9.8	U	9.7	U	50	U	50	U	26	U
4,6-Dinitro-2-methylphenol	ug/L	0.12	- -	NA		50	U	50	U	27	U	19	U	50	U	50	U	50	U	28	U	19	U	19	U	50	U	50	U	26	U
4-Bromophenyl phenyl ether	ug/L	- -	- -	NA		10	U	10	U	5	U	0.98	U	10	U	10	U	10	U	6	U	0.96	U	0.95	U	10	U	10	U	5	U
4-Chloro-3-methylphenol	ug/L	110	- -	NA		20	U	20	U	11	U	1.1	U	20	U	20	U	20	U	11	U	1	U	1	U	20	U	20	U	11	U
4-Chloroaniline	ug/L	0.32	- -	NA		20	U	20	U	11	U	1	U	20	U	20	U	20	U	11	U	1	U	1	U	20	U	20	U	11	U
4-Chlorophenyl phenyl ether	ug/L	- -	- -	NA		10	U	10	U	5	U	1.4	U	10	U	10	U	10	U	6	U	1.4	U	1.4	U	10	U	10	U	5	U
4-Methylphenol (p-Cresol)	ug/L	140	- -	NA		10	U	10	U	5	U	1.5	U	10	U	10	U	10	U	6	U	1.4	U	1.4	U	10	U	10	U	5	U
4-Nitroaniline	ug/L	3.3	- -	NA		20	U	20	U	11	U	13	U	20	U	20	U	20	U	11	U	12	U	12	U	20	U	20	U	11	U
4-Nitrophenol	ug/L	3	- -	NA		50	U	50	U	27	U	16	U	50	U	50	U	50	U	28	U	16	U	16	U	50	U	50	U	26	U
Acenaphthene	ug/L	40	- -	NA		10	U	10	U	5	U	6.3	U	10	U	10	U	10	U	6	U	6.2	U	6.1	U	10	U	10	U	5	U
Acenaphthylene[1]	ug/L	40	- -	NA		10	U	10	U	5	U	4.4	U	10	U	10	U	10	U	6	U	4.3	U	4.2	U	10	U	10	U	5	U

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1] RSL	MCL	Sample Information[2] SC-MW-03D 11/1/2012 180-16028-1 Strip Mill	MA-MW-01A 11/8/1999	MA-MW-01A 1/11/2000	MA-MW-01A 6/27/2000	MA-MW-01A 4/12/2007	MA-MW-01D 11/8/1999	MA-MW-01D 1/11/2000	MA-MW-01D 6/27/2000	MA-MW-01DD 6/27/2000	MA-MW-01D 4/13/2007	MA-MW-01DD 4/13/2007	MA-MW-07A 11/10/1999	MA-MW-07A 1/10/2000	MA-MW-07A 6/28/2000
Anthracene	ug/L	130	- -	NA	10 U	10 U	5 U	1.5 U	10 U	10 U	10 U	6 U	1.4 U	1.4 U	10 U	10 U	5 U
Benzo(a)anthracene	ug/L	0.029	- -	NA	10 U	10 U	5 U	1.4 U	10 U	10 U	10 U	6 U	1.4 U	1.4 U	10 U	10 U	5 U
Benzo(a)pyrene	ug/L	0.0029	0.2	NA	10 U	10 U	5 U	3.6 U	10 U	10 U	10 U	6 U	3.5 U	3.5 U	10 U	10 U	5 U
Benzo(b)fluoranthene	ug/L	0.029	- -	NA	10 U	10 U	5 U	1.4 U	10 U	10 U	10 U	6 U	1.3 U	1.3 U	10 U	10 U	5 U
Benzo(ghi)perylene[1]	ug/L	8.7	- -	NA	10 U	10 U	5 U	2.7 U	10 U	10 U	10 U	6 U	2.6 U	2.6 U	10 U	10 U	5 U
Benzo(k)fluoranthene	ug/L	0.29	- -	NA	10 U	10 U	5 U	2.6 U	10 U	10 U	10 U	6 U	2.5 U	2.5 U	10 U	10 U	5 U
Bis(2-chloroethoxy)methane	ug/L	4.6	- -	NA	10 U	10 U	5 U	3.9 U	10 U	10 U	10 U	6 U	3.8 U	3.8 U	10 U	10 U	5 U
Bis(2-chloroethyl)ether	ug/L	0.012	- -	NA	10 U	10 U	5 U	2.4 U	10 U	10 U	10 U	6 U	2.3 U	2.3 U	10 U	10 U	5 U
Bis(2-chloroisopropyl)ether	ug/L	0.31	- -														
Bis(2-ethylhexyl)phthalate	ug/L	4.8	6	NA	4 B	4 B	8	1.5 U	3 B	4 B	2 J	3 J	1.5 U	1.5 U	10 U	38 B	6
Butyl benzyl phthalate	ug/L	14	- -	NA	10 U	10 U	5 U	2.8 U	10 U	10 U	10 U	6 U	2.8 U	2.8 U	10 U	10 U	5 U
Carbazole	ug/L	130	- -	NA	NA	NA	NA	3.5 U	NA	NA	NA	NA	3.4 U	3.4 U	NA	NA	NA
Chrysene	ug/L	2.9	- -	NA	10 U	10 U	5 U	1.3 U	10 U	10 U	10 U	6 U	1.3 U	1.3 U	10 U	10 U	5 U
Dibenz(a,h)anthracene	ug/L	0.0029	- -	NA	10 U	10 U	5 U	0.37 U	10 U	10 U	10 U	6 U	0.36 U	0.36 U	10 U	10 U	5 U
Dibenzofuran	ug/L	0.58	- -	NA	10 U	10 U	5 U	6 U	10 U	10 U	10 U	6 U	5.9 U	5.8 U	10 U	10 U	5 U
Diethyl phthalate	ug/L	1100	- -	NA	10 U	10 U	5 U	1.4 U	10 U	10 U	10 U	6 U	1.4 U	1.4 U	10 U	10 U	5 U
Dimethyl phthalate	ug/L	- -	- -	NA	10 U	10 U	5 U	1.2 U	10 U	10 U	10 U	6 U	1.2 U	1.2 U	10 U	10 U	5 U
Di-n-butyl phthalate	ug/L	67	- -	NA	10 U	10 U	5 U	1.2 U	10 U	10 U	10 U	6 U	1.2 U	1.2 U	10 U	1 J	5 U
Di-n-octyl phthalate	ug/L	19	- -	NA	10 U	10 U	5 U	1.6 U	10 U	10 U	10 U	6 U	1.6 U	1.5 U	10 U	10 U	5 U
Fluoranthene	ug/L	63	- -	NA	10 U	10 U	5 U	1.7 U	10 U	10 U	10 U	6 U	1.7 U	1.7 U	10 U	10 U	5 U
Fluorene	ug/L	22	- -	NA	10 U	10 U	5 U	1.5 U	10 U	10 U	10 U	6 U	1.5 U	1.4 U	10 U	10 U	5 U
Hexachlorobenzene	ug/L	0.042	1	NA	10 U	10 U	5 U	6.7 U	10 U	10 U	10 U	6 U	6.5 U	6.5 U	10 U	10 U	5 U
Hexachlorobutadiene	ug/L	0.26	- -	NA	10 U	10 U	5 U	8.1 U	10 U	10 U	10 U	6 U	7.9 U	7.8 U	10 U	10 U	5 U
Hexachlorocyclopentadiene	ug/L	2.2	50	NA	10 U	10 U	5 U	1 U	10 U	10 U	10 U	6 U	1 U	1 U	10 U	10 U	5 U
Hexachloroethane	ug/L	0.79	- -	NA	10 U	10 U	5 U	7 U	10 U	10 U	10 U	6 U	6.9 U	6.8 U	10 U	10 U	5 U
Indeno(1,2,3-cd)pyrene	ug/L	0.029	- -	NA	10 U	10 U	5 U	2.3 U	10 U	10 U	10 U	6 U	2.2 U	2.2 U	10 U	10 U	5 U
Isophorone	ug/L	67	- -	NA	10 U	10 U	5 U	6.2 U	10 U	10 U	10 U	6 U	6 U	6 U	10 U	10 U	5 U
Naphthalene	ug/L	0.14	- -	NA	10 U	10 U	5 U	2.4 U	10 U	10 U	10 U	6 U	2.3 U	2.3 U	10 U	10 U	5 U
Nitrobenzene	ug/L	0.12	- -	NA	10 U	10 U	5 U	2.3 U	10 U	10 U	10 U	6 U	2.2 U	2.2 U	10 U	10 U	5 U
N-Nitrosodi-n-propylamine	ug/L	0.0093	- -	NA	10 U	10 U	5 U	3.8 U	10 U	10 U	10 U	6 U	3.8 U	3.7 U	10 U	10 U	5 U
N-Nitrosodiphenylamine	ug/L	10	- -	NA	10 U	10 U	5 U	3.1 U	10 U	10 U	10 U	6 U	3 U	3 U	10 U	10 U	5 U
Pentachlorophenol	ug/L	0.035	1	NA	20 U	20 U	11 U	21 U	20 U	20 U	20 U	11 U	20 U	20 U	20 U	20 U	11 U
Phenanthrene[1]	ug/L	130	- -	NA	10 U	10 U	5 U	5.9 U	10 U	10 U	10 U	6 U	5.8 U	5.7 U	10 U	10 U	5 U
Phenol	ug/L	450	- -	NA	10 U	10 U	5 U	2.7 U	10 U	10 U	10 U	6 U	2.7 U	2.6 U	10 U	10 U	5 U
Pyrene	ug/L	8.7	- -	NA	10 U	10 U	5 U	3.9 U	10 U	10 U	10 U	6 U	3.8 U	3.7 U	10 U	10 U	5 U
PCBs																	
Aroclor-1016	ug/L	0.96	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	ug/L	0.004	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	ug/L	0.004	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	ug/L	0.034	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Polychlorinated Biphenyls	ug/L	- -	- -	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Inorganics																	
Aluminum	ug/L	1600	- -	NA	376 B	109 B	1580	380 K	189 B	135 B	51.3 U	NA	94.6 K	96.6 K	206 B	54.3 B	51.3 U
Antimony	ug/L	0.6	6	NA	1.4 *	1.2 U	1.2 U	0.047 U	1.2 U	1.2 U	1.2 U	NA	0.047 U	0.047 U	1.2 U	1.2 U	1.2 U
Arsenic(1)	ug/L	0.045	10	NA	0.9 UL	0.9 U	0.9 U	6.8	0.9 UL	0.9 U	0.9 U	NA	0.14 U	0.35 J	0.9 UL	0.9 U	0.9 U
Barium	ug/L	290	2000	NA	43.3 B	35.5 B	84 *	114	29.5 B	27.5 B	21.1 *	NA	18.4	17.9	38.2 B	30.7 B	27.2 *
Beryllium	ug/L	1.6	4	NA	1.3 B	0.8 U	0.8 U	0.068 U	1.2 B	0.8 U	0.8 U	NA	0.068 U	0.068 U	1.2 B	0.8 U	0.8 U
Cadmium(1)	ug/L	0.69	5	NA	0.8 U	0.8 U	0.8 U	0.11 U	0.8 U	0.8 U	0.8 U	NA	0.11 U	0.11 U	0.8 U	0.8 U	0.8 U
Calcium	ug/L	- -	- -	NA	93600	92800	96400	75900	159000	165000	173000	NA	119000	119000	121000	120000	132000
Chromium(1)	ug/L	1600	100	NA	7.5 *	0.9 U	2.7 B	4 J	1.2 *	0.9 U	1 U	NA	3.2 J	3.4 J	0.9 U	1.5 B	4.2 B
Cobalt	ug/L	0.47	- -	NA	0.96 B	0.4 U	1.8 B	0.95	1.3 B	0.79 B	0.4 U	NA	1.1	1.1	0.59 B	0.85 B	0.4 U
Copper	ug/L	62	1300	NA	6.3 *	1.8 *	3.5 B	0.86 K	9.9 B	1.8 *	1.2 B	NA	0.77 K	0.77 K	0.7 U	0.77 *	3.4 B
Iron	ug/L	1100	- -	NA	398	157	2610 J	9820	256	322	168 J	NA	258	261	275	181	273 J
Lead	ug/L	- -	15	NA	1.7 *	1.1 B	3.8 B	0.21 L	2.3 *	1.2 B	0.9 U	NA	0.23 L	0.21 L	1.2 *	0.9 U	0.9 U
Magnesium	ug/L	- -	- -	NA	13400	13600	13800	11100 J	35200	36400	38000	NA	22400 J	22200 J	35200	34900	37800
Manganese(1)	ug/L	32	- -	NA	55.1	29	1120	3990	74.6	71.9	29.5	NA	99.4	86.3	109	7.1 B	28.4
Mercury(1)	ug/L	0.063	2	NA	0.2 UL	0.2 UL	0.2	NA	0.2 UL	0.2 UL	0.2 U	NA	NA	NA	0.2 U	0.2 UL	0.2 U
Nickel	ug/L	30	- -	NA	2.5 *	0.92 B	4.7 B	0.73 L	1.8 *	1.8 B	0.6 U	NA	1 L	0.97 L	2.7 *	1.5 B	3.6 B
Potassium	ug/L	- -	- -	NA	12800	12000	14500	6750	4670 *	4270 *	4530 *	NA	3670	3660	11900	11000	11400
Selenium	ug/L	7.8	50	NA	2.7 L	1 UL	7.6	1.5 J	1 UL	1 UL	1 U	NA	1.3 J	1.4 J	1.8 L	1.8 L	5.2
Silver	ug/L	7.1	- -	NA	1.2 U	1.2 U	1.3 B	0.077 U	1.2 U	1.2 U	1.2 UL	NA	0.077 U	0.077 U	1.2 U	1.2 U	1.2 UL
Sodium	ug/L	- -	- -	NA	72400	71900	74000	51700	87400	90600	92900	NA	55300	54500	124000	124000	136000
Thallium	ug/L	0.016	2	NA	2 UL	2 U	2 U	0.18 B	2 UL	2 U	2 U	NA	0.045 B	0.024 B	2 UL	2 U	2 U
Vanadium	ug/L	7.8	- -	NA	32.2 B	13.3 *	21 *	18.2 L	27.8 B	14.7 *	9.7 U	NA	15.4 L	16.6 L	37.9 B	12.7 *	9.7 U
Zinc	ug/L	470	- -	NA	14.8 *	154	19.2 *	4.6 K	12.9 *	32.2	5.7 *	NA	3.3 K	3 K	13 *	22.9	13.1 *

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]														
		RSL	*MCL*	SC-MW-03D 11/1/2012 180-16028-1 Strip Mill		MA-MW-01A 11/8/1999	MA-MW-01A 1/11/2000	MA-MW-01A 6/27/2000	MA-MW-01A 4/12/2007	MA-MW-01D 11/8/1999	MA-MW-01D 1/11/2000	MA-MW-01D 6/27/2000	MA-MW-01DD 6/27/2000	MA-MW-01D 4/13/2007	MA-MW-01DD 4/13/2007	MA-MW-07A 11/10/1999	MA-MW-07A 1/10/2000	MA-MW-07A 6/28/2000
Dissolved Inorganics																		
Aluminum	ug/L	1600	- -	1300		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	ug/L	0.6	6	0.019	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic(1)	ug/L	0.045	10	0.89	B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	ug/L	290	2000	13		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	ug/L	1.6	4	0.33	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium(1)	ug/L	0.69	5	13		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	ug/L	- -	- -	57000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium(1)	ug/L	1600	100	1.8	J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	ug/L	0.47	- -	13		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	ug/L	62	1300	7.2		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	ug/L	1100	- -	110		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	ug/L	- -	15	0.2	B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	ug/L	- -	- -	13000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese(1)	ug/L	32	- -	11000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	ug/L	30	- -	54		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	ug/L	- -	- -	3700		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	ug/L	7.8	50	3.4	B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	ug/L	7.1	- -	0.036	U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	ug/L	- -	- -	64000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	ug/L	0.016	2	0.13	B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	ug/L	7.8	- -	2.1		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	ug/L	470	- -	9300		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other Parameters																		
Cyanide	ug/L	0.14	200	1.5	U	47.2	37.1	30.7	30.5	42.8	61.1	77.6	0.0811	25.7	28.9	108	152	132

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]									
		RSL	*MCL*	MA-MW-07A 4/12/2007		MA-MW-07D 11/10/1999		MA-MW-07D 1/10/2000		MA-MW-07D 6/28/2000		MA-MW-07D 4/12/2007	
Volatiile Organic Compounds													
1,1,1-Trichloroethane	ug/L	750	200	0.79	U	2	L	2	L	2	L	0.79	U
1,1,2,2-Tetrachloroethane	ug/L	0.066	- -	0.63	U	2	U	2	U	2	U	0.63	U
1,1,2-Trichloroethane	ug/L	0.24	5	0.79	U	3	U	3	U	3	U	0.79	U
1,1-Dichloroethane	ug/L	2.4	- -	1	U	1	L	1	L	0.9	L	1	U
1,1-Dichloroethene	ug/L	26	7	0.87	U	2	L	2	L	4	L	0.87	U
1,2-Dichloroethane	ug/L	0.15	5	0.64	U	3	U	3	U	3	U	0.64	U
1,2-Dichloroethene (total)	ug/L	13	- -	1.9	U	NA		NA		NA		1.9	U
1,2-Dichloropropane	ug/L	0.38	5	0.67	U	2	U	2	U	2	U	0.67	U
2-Butanone (MEK)	ug/L	490	- -	0.73	U	2	UR	2	U	2	UR	0.73	U
2-Hexanone	ug/L	3.4	- -	0.45	U	8	U	8	U	8	U	0.45	U
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	ug/L	100	- -	0.46	U	4	U	4	U	4	U	0.46	U
Acetone	ug/L	1200	- -	0.83	U	12	U	12	UJ	12	UJ	0.83	U
Benzene	ug/L	0.39	5	0.81	U	2	U	2	U	2	U	0.81	U
Bromodichloromethane	ug/L	0.12	80	0.58	U	2	U	2	U	2	U	0.58	U
Bromoform	ug/L	7.9	80	0.37	U	3	U	3	U	3	UR	0.37	U
Bromomethane	ug/L	0.7	- -	0.75	U	3	U	3	U	3	U	0.75	U
Carbon disulfide	ug/L	72	- -	1.1	U	2	U	2	U	2	U	1.1	U
Carbon tetrachloride	ug/L	0.39	5	0.91	U	3	U	3	U	3	U	0.91	U
Chlorobenzene	ug/L	7.2	100	0.71	U	3	U	3	U	3	U	0.71	U
Chloroethane (Ehtyl Chloride)	ug/L	2100	- -	1.1	U	2	U	2	U	2	U	1.1	U
Chloroform	ug/L	0.19	80	5.3		1	L	1	L	2	L	2.2	J
Chloromethane	ug/L	19	- -	0.87	U	2	U	2	U	2	U	0.87	U
cis-1,2-Dichloroethene[1]	ug/L	2.8	70	1	U	1	L	1	L	0.6	L	1	U
cis-1,3-Dichloropropene	ug/L	0.41	- -	0.79	U	2	U	2	U	2	U	0.79	U
Dibromochloromethane	ug/L	0.15	80	0.5	U	2	U	2	U	2	U	0.5	U
Ethylbenzene	ug/L	1.3	700	0.58	U	2	U	2	U	2	U	0.58	U
Methyl(tert)butyl ether	ug/L	12	- -										
Methylene chloride	ug/L	9.9	5	0.75	U	6	U	6	U	6	U	0.75	U
Naphthalene	ug/L	0.14	- -	0.38	U	NA		NA		NA		0.38	U
Styrene	ug/L	110	100	0.8	U	3	U	3	U	3	U	0.8	U
Tetrachloroethene	ug/L	9.7	5	0.57	U	3	L	3	L	3	L	1.3	J
Toluene	ug/L	86	1000	0.8	U	3	U	3	U	3	U	0.8	U
trans-1,2-Dichloroethene[1]	ug/L	8.6	100	0.9	U	1	U	1	U	1	U	0.9	U
trans-1,3-Dichloropropene	ug/L	0.41	- -	0.57	U	2	U	2	U	2	U	0.57	U
Trichloroethene	ug/L	0.44	5	0.88	U	2	L	2	L	2	K	0.88	U
Vinyl chloride	ug/L	0.015	2	0.94	U	2	U	2	U	2	U	0.94	U
m, p - Xylene	ug/L	19	- -	NA		2	U	2	U	2	U	NA	
o - Xylene	ug/L	19	- -	NA		1	U	1	U	1	U	NA	
Xylenes (total)	ug/L	19	10000	2.4	U	NA		NA		NA		2.4	U
Semi-volatile Organic Compounds													
1,2,4-Trichlorobenzene	ug/L	0.99	70	5.9	U	10	U	10	U	6	U	5.9	U
1,2-Dichlorobenzene	ug/L	28	600	7.1	U	10	U	10	U	6	U	7.1	U
1,3-Dichlorobenzene	ug/L	- -	- -	5	U	10	U	10	U	6	U	5	U
1,4-Dichlorobenzene	ug/L	0.42	75	4.9	U	10	U	10	U	6	U	4.9	U
2,2'-oxybis(1-Chloropropane)	ug/L	- -	- -	6	U	10	U	10	U	6	U	6	U
2,4,5-Trichlorophenol	ug/L	89	- -	3.8	U	10	U	10	U	6	U	3.8	U
2,4,6-Trichlorophenol	ug/L	3.5	- -	3	U	10	U	10	U	6	U	3	U
2,4-Dichlorophenol	ug/L	3.5	- -	3.2	U	10	U	10	U	6	U	3.2	U
2,4-Dimethylphenol	ug/L	27	- -	3.4	U	10	U	10	U	6	U	3.4	U
2,4-Dinitrophenol	ug/L	3	- -	21	U	50	U	50	U	30	U	21	U
2,4-Dinitrotoluene	ug/L	0.2	- -	5	U	10	U	10	U	6	U	5	U
2,6-Dinitrotoluene	ug/L	1.5	- -	1.1	U	10	U	10	U	6	U	1.1	U
2-Chloronaphthalene	ug/L	55	- -	5.7	U	10	U	10	U	6	U	5.7	U
2-Chlorophenol	ug/L	7.1	- -	2.8	U	10	U	10	U	6	U	2.8	U
2-Methylnaphthalene	ug/L	2.7	- -	2	U	10	U	10	U	6	U	2	U
2-Methylphenol (o-Cresol)	ug/L	72	- -	2.5	U	10	U	10	U	6	U	2.5	U
2-Nitroaniline	ug/L	15	- -	8.2	U	50	U	50	U	30	U	8.2	U
2-Nitrophenol	ug/L	- -	- -	3.3	U	10	U	10	U	6	U	3.3	U
3,3'-Dichlorobenzidine	ug/L	0.11	- -	6.6	U	20	U	20	U	12	U	6.6	U
3-Nitroaniline	ug/L	- -	- -	9.8	U	50	U	50	U	30	U	9.8	U
4,6-Dinitro-2-methylphenol	ug/L	0.12	- -	19	U	50	U	50	U	30	U	19	U
4-Bromophenyl phenyl ether	ug/L	- -	- -	0.96	U	10	U	10	U	6	U	0.96	U
4-Chloro-3-methylphenol	ug/L	110	- -	1	U	20	U	20	U	12	U	1	U
4-Chloroaniline	ug/L	0.32	- -	1	U	20	U	20	U	12	U	1	U
4-Chlorophenyl phenyl ether	ug/L	- -	- -	1.4	U	10	U	10	U	6	U	1.4	U
4-Methylphenol (p-Cresol)	ug/L	140	- -	1.4	U	10	U	10	U	6	U	1.4	U
4-Nitroaniline	ug/L	3.3	- -	12	U	20	U	20	U	12	U	12	U
4-Nitrophenol	ug/L	3	- -	16	U	50	U	50	U	30	U	16	U
Acenaphthene	ug/L	40	- -	6.2	U	10	U	10	U	6	U	6.2	U
Acenaphthylene[1]	ug/L	40	- -	4.3	U	10	U	10	U	6	U	4.3	U

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]									
				MA-MW-07A 4/12/2007		MA-MW-07D 11/10/1999		MA-MW-07D 1/10/2000		MA-MW-07D 6/28/2000		MA-MW-07D 4/12/2007	
		RSL	*MCL*										
Anthracene	ug/L	130	- -	1.4	U	10	U	10	U	6	U	1.4	U
Benzo(a)anthracene	ug/L	0.029	- -	1.4	U	10	U	10	U	6	U	1.4	U
Benzo(a)pyrene	ug/L	0.0029	0.2	3.5	U	10	U	10	U	6	U	3.5	U
Benzo(b)fluoranthene	ug/L	0.029	- -	1.3	U	10	U	10	U	6	U	1.3	U
Benzo(ghi)perylene[1]	ug/L	8.7	- -	2.6	U	10	U	10	U	6	U	2.6	U
Benzo(k)fluoranthene	ug/L	0.29	- -	2.5	U	10	U	10	U	6	U	2.5	U
Bis(2-chloroethoxy)methane	ug/L	4.6	- -	3.8	U	10	U	10	U	6	U	3.8	U
Bis(2-chloroethyl)ether	ug/L	0.012	- -	2.3	U	10	U	10	U	6	U	2.3	U
Bis(2-chloroisopropyl)ether	ug/L	0.31	- -										
Bis(2-ethylhexyl)phthalate	ug/L	4.8	6	1.5	U	10	U	23	B	8		1.5	U
Butyl benzyl phthalate	ug/L	14	- -	2.8	U	10	U	10	U	6	U	2.8	U
Carbazole	ug/L	130	- -	3.4	U	NA		NA		NA		3.4	U
Chrysene	ug/L	2.9	- -	1.3	U	10	U	10	U	6	U	1.3	U
Dibenz(a,h)anthracene	ug/L	0.0029	- -	0.36	U	10	U	10	U	6	U	0.36	U
Dibenzofuran	ug/L	0.58	- -	5.9	U	10	U	10	U	6	U	5.9	U
Diethyl phthalate	ug/L	1100	- -	1.4	U	10	U	10	U	6	U	1.4	U
Dimethyl phthalate	ug/L	- -	- -	1.2	U	10	U	10	U	6	U	1.2	U
Di-n-butyl phthalate	ug/L	67	- -	1.2	U	10	U	2	J	6	U	1.2	U
Di-n-octyl phthalate	ug/L	19	- -	1.6	U	10	U	10	U	6	U	1.6	U
Fluoranthene	ug/L	63	- -	1.7	U	10	U	10	U	6	U	1.7	U
Fluorene	ug/L	22	- -	1.5	U	10	U	10	U	6	U	1.5	U
Hexachlorobenzene	ug/L	0.042	1	6.5	U	10	U	10	U	6	U	6.5	U
Hexachlorobutadiene	ug/L	0.26	- -	7.9	U	10	U	10	U	6	U	7.9	U
Hexachlorocyclopentadiene	ug/L	2.2	50	1	U	10	U	10	U	6	U	1	U
Hexachloroethane	ug/L	0.79	- -	6.9	U	10	U	10	U	6	U	6.9	U
Indeno(1,2,3-cd)pyrene	ug/L	0.029	- -	2.2	U	10	U	10	U	6	U	2.2	U
Isophorone	ug/L	67	- -	6	U	10	U	10	U	6	U	6	U
Naphthalene	ug/L	0.14	- -	2.3	U	10	U	10	U	6	U	2.3	U
Nitrobenzene	ug/L	0.12	- -	2.2	U	10	U	10	U	6	U	2.2	U
N-Nitrosodi-n-propylamine	ug/L	0.0093	- -	3.8	U	10	U	10	U	6	U	3.8	U
N-Nitrosodiphenylamine	ug/L	10	- -	3	U	10	U	10	U	6	U	3	U
Pentachlorophenol	ug/L	0.035	1	20	U	20	U	20	U	12	U	20	U
Phenanthrene[1]	ug/L	130	- -	5.8	U	10	U	10	U	6	U	5.8	U
Phenol	ug/L	450	- -	2.7	U	10	U	10	U	6	U	2.7	U
Pyrene	ug/L	8.7	- -	3.8	U	10	U	10	U	6	U	3.8	U
PCBs													
Aroclor-1016	ug/L	0.96	- -	NA		NA		NA		NA		NA	
Aroclor-1221	ug/L	0.004	- -	NA		NA		NA		NA		NA	
Aroclor-1232	ug/L	0.004	- -	NA		NA		NA		NA		NA	
Aroclor-1242	ug/L	0.034	- -	NA		NA		NA		NA		NA	
Aroclor-1248	ug/L	0.034	- -	NA		NA		NA		NA		NA	
Aroclor-1254	ug/L	0.034	- -	NA		NA		NA		NA		NA	
Aroclor-1260	ug/L	0.034	- -	NA		NA		NA		NA		NA	
Polychlorinated Biphenyls	ug/L	- -	- -	NA		NA		NA		NA		NA	
Total Inorganics													
Aluminum	ug/L	1600	- -	4.7	K	305	B	195	B	51.3	U	23.5	K
Antimony	ug/L	0.6	6	0.047	U	1.7	*	1.2	U	1.2	U	0.047	U
Arsenic(1)	ug/L	0.045	10	0.17	J	0.9	UL	0.9	U	0.9	U	0.14	U
Barium	ug/L	290	2000	36.6		34.1	B	25.1	B	19.2	*	14.7	
Beryllium	ug/L	1.6	4	0.068	U	1.4	B	0.8	U	0.8	U	0.068	U
Cadmium(1)	ug/L	0.69	5	0.11	U	0.8	U	0.8	U	0.8	U	0.11	U
Calcium	ug/L	- -	- -	95100		106000		109000		124000		82700	
Chromium(1)	ug/L	1600	100	3.6	J	2.9	*	1.9	B	1.5	B	3.8	J
Cobalt	ug/L	0.47	- -	0.38	J	1.4	B	1.4	B	0.57	B	0.46	J
Copper	ug/L	62	1300	0.4	K	2.6	*	0.7	U	1.7	B	0.4	K
Iron	ug/L	1100	- -	29.6	J	240		296		138	J	53.5	
Lead	ug/L	- -	15	0.048	L	0.9	U	5.9		0.9	U	0.059	L
Magnesium	ug/L	- -	- -	26300	J	24500		25300		30200		22200	J
Manganese(1)	ug/L	32	- -	0.58	B	117		52.7		30.8		10	B
Mercury(1)	ug/L	0.063	2	NA		0.2	U	0.2	UL	0.2	U	NA	
Nickel	ug/L	30	- -	1.1	L	4.5	*	1.4	B	2.1	B	0.87	L
Potassium	ug/L	- -	- -	8500		20200		20900		21500		9810	
Selenium	ug/L	7.8	50	2.8	J	1.7	L	1.1	L	2.7	*	1.7	J
Silver	ug/L	7.1	- -	0.077	U	1.9	*	1.2	U	1.2	UL	0.077	U
Sodium	ug/L	- -	- -	96000		106000		111000		125000		85900	
Thallium	ug/L	0.016	2	0.018	UL	2	UL	2	U	2	U	0.018	UL
Vanadium	ug/L	7.8	- -	16	L	38.2	B	12	*	9.7	U	17.2	L
Zinc	ug/L	470	- -	3.6	K	20.1		13.6	B	8.8	*	2.3	K

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

Constituent	Units	EPA Regional Screening Levels and Federal MCLs[1]		Sample Information[2]				
		RSL	*MCL*	MA-MW-07A 4/12/2007	MA-MW-07D 11/10/1999	MA-MW-07D 1/10/2000	MA-MW-07D 6/28/2000	MA-MW-07D 4/12/2007
Dissolved Inorganics								
Aluminum	ug/L	1600	- -	NA	NA	NA	NA	NA
Antimony	ug/L	0.6	6	NA	NA	NA	NA	NA
Arsenic(1)	ug/L	0.045	10	NA	NA	NA	NA	NA
Barium	ug/L	290	2000	NA	NA	NA	NA	NA
Beryllium	ug/L	1.6	4	NA	NA	NA	NA	NA
Cadmium(1)	ug/L	0.69	5	NA	NA	NA	NA	NA
Calcium	ug/L	- -	- -	NA	NA	NA	NA	NA
Chromium(1)	ug/L	1600	100	NA	NA	NA	NA	NA
Cobalt	ug/L	0.47	- -	NA	NA	NA	NA	NA
Copper	ug/L	62	1300	NA	NA	NA	NA	NA
Iron	ug/L	1100	- -	NA	NA	NA	NA	NA
Lead	ug/L	- -	15	NA	NA	NA	NA	NA
Magnesium	ug/L	- -	- -	NA	NA	NA	NA	NA
Manganese(1)	ug/L	32	- -	NA	NA	NA	NA	NA
Nickel	ug/L	30	- -	NA	NA	NA	NA	NA
Potassium	ug/L	- -	- -	NA	NA	NA	NA	NA
Selenium	ug/L	7.8	50	NA	NA	NA	NA	NA
Silver	ug/L	7.1	- -	NA	NA	NA	NA	NA
Sodium	ug/L	- -	- -	NA	NA	NA	NA	NA
Thallium	ug/L	0.016	2	NA	NA	NA	NA	NA
Vanadium	ug/L	7.8	- -	NA	NA	NA	NA	NA
Zinc	ug/L	470	- -	NA	NA	NA	NA	NA
Other Parameters								
Cyanide	ug/L	0.14	200	26.3	43.5	32	33.9	22

TABLE B-1
GROUNDWATER ANALYTICAL AND HUMAN HEALTH SCREENING RESULTS
ARCELORMITTAL WEIRTON INC.

1 - Screening criteria from Table 1-9 of the RFI Work Plan updated based on the most recent USEPA Regional Screening Table (November 2012). Screening criteria include regional screening levels (RSLs) for tapwater and federal Primary and Secondary Maximum Contaminant Levels (MCLs) for Drinking Water.

RSL value for arsenic based on potential carcinogenic effects.
RSL for cadmium is for cadmium in water.
RSL for chromium is for trivalent valence state.
RSL for manganese is non-food value.
RSL value for total 1,3-dichloropropene was used for cis-1,3-dichloropropene and trans-1,3-dichloropropene

Shading indicates an exceedance of the RSL for Tapwater.
Bold italics numbers indicate exceedance of the Primary or Secondary MCL.

2 - General sample information provided in column headings includes sample identification number and sampling date. Table qualifier codes are consistent with Region III data qualifiers related to identification and quantitation and are as follows:

Data Qualifiers

-- - Screening Criterion not available for this chemical constituent.
U - Not detected. The associated number indicates approximate sample concentration necessary to be detected.
B - Not detected substantially above the level reported in laboratory or field blanks (prior to October/November 2012 sampling event).
B - Analyte found in the blank and sample (October/November 2012 sampling event).
R - Unusable result. Analyte may or may not be present in the sample.
J - Analyte present. Reported value may not be accurate or precise. Reported value may be less than the reporting limit.
K - Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L - Analyte present. Reported value may be biased low. Actual value is expected to be higher.
UR - Not detected. Unusable result. Analyte may or may not be present in the sample.
UJ - Not detected. Quantitation limit may be inaccurate or imprecise.
UL - Not detected. Quantitation limit is probably higher.
NA - Not Analyzed

ATTACHMENT 8

RCRA CORRECTIVE ACTION ORDER

U.S. EPA-REGION 3-RHC
FILED-26SEP2018PM5:27

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

1650 ARCH STREET

PHILADELPHIA, PENNSYLVANIA 19103-2029

IN THE MATTER OF:	)
	)
Mingo Junction Steel Works, LLC 500 Seneca Street -Suite 504 Buffalo, New York 1420	) ADMINISTRATIVE ORDER) ON CONSENT)
	)) DOCKET NO.
Regarding the former Weirton Steel facility located at:	)) RCRA-03-2018- 0144CA
	)
Main Street Weirton, West Virginia 26062	))
	) Proceeding under Section
RESPONDENT	) 3008(h) of the Resource
	) Conservation and Recovery) Act, as amended, 42 U.S.C.
	) Section 6928(h)

ADMINISTRATIVE ORDER ON CONSENT

The parties to this Administrative Order on Consent (Consent Order or Order), the United States Environmental Protection Agency (EPA) and Mingo Junction Steel Works, LLC (MJSW or Respondent), having agreed to entry of this Consent Order, it is therefore Ordered and Agreed that:

I. JURISDICTION

A. This Consent Order is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency by Section 3008(h) of the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (collectively referred to hereinafter as RCRA), 42 U.S.C. § 6928(h). The authority vested in the Administrator has been delegated to the Director of the Land and Chemicals Division by EPA Delegation No. 8-32 dated June 21, 2004.

B. On May 29, 1986, EPA granted the State of West Virginia (the State) authorization to operate a hazardous waste program in lieu of the federal program, pursuant to Section 3006(b) of RCRA, 42 U.S.C. Section 6926(b). EPA has also subsequently authorized additional revisions to the State's authorized program. The State, however, does not have authority to enforce Section 3008(h) of RCRA. The State of West Virginia has been given notice of the issuance of this Order.

C. This Consent Order is issued to Respondent, the owner and/or operator of a facility located at 1244, 1810, 1816, 1822, 1830, 1836, and 1838 Main Street, Weirton, West Virginia 26062 (the Facility) which is part of the former Weirton Steel facility as also defined in Section IV.C, below, and depicted in Attachment A to this Consent Order and made a part thereof.

D. Respondent consents to issuance of this Consent Order, agrees to comply with its terms and will not contest EPA's authority to issue this Consent Order and to enforce its terms. Further, Respondent will not contest EPA's jurisdiction to: compel compliance with this Consent Order in any subsequent enforcement proceeding, either administrative or judicial; require Respondent's compliance with the terms of this Consent Order; or impose sanctions for violations of this Consent Order.

II. PARTIES BOUND

A. This Consent Order shall apply to and be binding upon EPA, Respondent and their agents, successors and assigns.

B. No change in ownership of any property covered by this Consent Order, or in the corporate or partnership status of Respondent, shall in any way alter, diminish, or otherwise affect Respondent's obligations and responsibilities under this Consent Order.

C. Respondent shall provide a copy of this Consent Order to all supervisory personnel, contractors, subcontractors, laboratories, and consultants retained to conduct and/or monitor any portion of the work performed pursuant to this Consent Order and shall do so within thirty (30) calendar days of the effective date of this Consent Order or date of such retention, whichever is later. All contracts, agreements or other arrangements with such persons shall require such persons to conduct and/or monitor the work in accordance with the requirements of this Consent Order. Notwithstanding the terms of any such contract, agreement or arrangement, Respondent is responsible for complying with this Consent Order and for ensuring that all such persons perform such work in accordance with this Consent Order.

D. In the event of any change in ownership or operation of the Facility and/or in the event of any change in majority ownership or control of the Respondent, Respondent shall notify EPA in writing of the nature of any such change no later than fifteen (15) calendar days after the effective date of such change. In addition, Respondent shall provide a copy of this Consent Order to any successor to the Respondent and/or to the Facility at least fifteen (15) calendar days prior to the effective date of such change.

III. STATEMENT OF PURPOSE

In entering into this Consent Order, the mutual objectives of EPA and Respondent are to 1) perform a RCRA Facility Investigation (RFI) to determine fully the nature and extent of any release of hazardous waste and/or hazardous constituents at or from the Facility; 2) perform a Corrective Measures Study (CMS) to identify and evaluate alternatives for corrective action necessary to prevent or mitigate migration or releases of solid wastes or hazardous wastes and/or hazardous constituents at or from the Facility; 3) implement corrective measures, if any are selected by EPA in Final Decision(s) and Response to Comments (FDRTCs), necessary to protect human health and the environment; and 4) perform Interim Measures (IM) as necessary, to prevent or mitigate threats to human health or the environment.

IV. FINDINGS OF FACT

Respondent neither admits nor denies the following Findings of Fact.

A. Respondent is a corporation and is a person as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

B. Respondent is the owner and/or operator of the Facility.

C. The Facility is part of the former Weirton Steel facility which was a facility authorized to operate under Section 3005(e) of RCRA, 42 U.S.C. § 6925(e), for purposes of Section 3008(h) of RCRA, 42 U.S.C. § 6928(h).

D. From approximately 1908 through the 1984, the former Weirton Steel facility was operated as a totally integrated steel mill that produced hot rolled steel, cold rolled steel, tin mill products, galvanized products and other coated flat rolled products. Currently Respondent is engaged in demolition and scrapping activities at the Facility.. The portion of the former Weirton Steel facility currently owned and/or operated by Respondent occupies approximately 1,110 acres of property (see Attachment A).

E. Results of sampling conducted by ArcelorMittal Weirton LLC (ArcelorMittal)at the Facility in March 1994, September 1994, and March 1995 show that benzene, arsenic, cadmium, chromium and lead are present in groundwater at levels above their respective Maximum Contaminant Levels (MCLs) promulgated pursuant to Section 1412 of the Safe Drinking Water Act, 42 U.S.C. §§ 300g-l, and codified/promulgated at 40 C.F.R. Part 141.

F. Based on the findings above, EPA has determined that there are potential adverse environmental or human health impacts associated with the hazardous wastes which are present at or released at or from the Facility.

G. On September 16, 1996, EPA issued a Unilateral Administrative Order to Weirton Steel Corporation (Docket No. RCRA-3-083CA) (1996 UAO) for certain work now addressed by this Order.

H. Subsequent to the issuance of the 1996 UAO, ArcelorMittal became the owner of the former Weirton Steel facility. On January 31, 2017, ArcelorMittal conveyed a portion of the former Weirton Steel facility to Respondent. On February 14, 2017, MJSW conveyed the "Central Machine Shop" area of the Facility to Business Development Corporation of the Northern Panhandle. Respondent and the Business Development Corporation of the Northern Panhandle are now the owners of the Facility, as shown in Attachment A. .

I. Pursuant to the terms of the 1996 UAO, various plans and reports were submitted to and/or approved by EPA (Submitted Documents).

J. Submitted Documents include, but are not limited to, those listed in Attachment B. The EPA Approved Documents identified in Attachment B apply to the Corrective Action Area(s) (CAA) that were defined in the EPA approved RFI Workplan(s) submitted to EPA pursuant to the 1996 UAO. Respondent shall inform EPA how it intends to use any previously approved Work to fulfill its obligations under this Order taking into account any subdivisions that occurred subsequent to the 1996 UAO.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

EPA hereby determines that there is or has been a release of hazardous waste within the

meaning of 3008(h) of RCRA, 42 U.S.C. § 6928(h), into the environment from the Facility and that the corrective action and/or other response measures required by this Consent Order are necessary to protect human health or the environment.

VI. WORK TO BE PERFORMED

EPA acknowledges that Respondent has completed some of the tasks required by this Consent Order and that Respondent has available some of the information and data required by this Consent Order. To the extent that this previous work has been performed by Respondent and approved by EPA, it may be used to meet the requirements of this Consent Order, upon written approval by EPA.

Respondent acknowledges that ArcelorMittal will be required to perform work on the Facility Property in order to comply with a related Order entered into by EPA and ArcelorMittal (Docket No. RCRA-03-2018-0143CA). Respondent is required to cooperate with ArcelorMittal to allow ArcelorMittal to comply with its Order (Attachment C).

Pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), Respondent agrees to and is hereby ordered to implement the following work in the time and manner specified herein. All work undertaken pursuant to this Consent Order shall be developed and performed, as appropriate and approved by EPA, in accordance with: the Scope of Work for a RCRA Facility Investigation (RFI), the Scope of Work for a Corrective Measures Study (CMS), the Scope of Work for Corrective Measures Implementation, the Scope of Work for Interim Measures, the Scope of Work for Health and Safety Plan; and RCRA, its implementing regulations and relevant EPA guidance documents. EPA's Scopes of Work and relevant guidance are available at:

https://www.epa.gov/hwcorrectiveactionsites/corrective-action-resources-specific-epas-region-3 and are incorporated herein by reference.

Days as used herein shall mean calendar days unless otherwise specified. Respondent may request reasonable extensions of time for the submission of the Work required under Section VI, which may be granted at the sole discretion of EPA.

Work as used herein shall mean all activities and obligations that Respondent is required to perform under this Order. Respondent may perform the work pursuant to, in furtherance of, and/or in satisfaction of any and all requirements of this Consent Order in phases or on a parcel by parcel basis. The parties further agree that Respondent shall propose the boundaries of the individual parcel(s) required to be addressed pursuant to this Consent Order.

A. RCRA FACILITY INVESTIGATION ("RFI")

1. Within sixty (60) calendar days of the Effective Date of this Consent Order, Respondent shall submit to EPA for approval a description of the conditions at the Facility (Description). This Description shall be developed in accordance with the RFI Scope of Work. Upon receipt of a written request from Respondent, EPA may, in its sole discretion not subject to dispute resolution, waive the requirement for Respondent to submit the Description.

2. Within sixty (60) calendar days of the Effective Date of this Consent Order, Respondent shall submit to EPA, for approval, a Workplan for a RCRA Facility Investigation (RFI Workplan). The RFI Workplan shall be developed in accordance with, at a minimum, the RFI Scope of Work, RCRA, its applicable implementing regulations, and relevant EPA guidance documents.

3. The RFI Workplan shall be designed to determine the presence, magnitude, extent, direction, and rate of movement of any, hazardous wastes and/or hazardous constituents from Respondent's manufacture of printed circuit boards at or from the Facility. The RFI Workplan shall document the procedures Respondent shall use to conduct those investigations necessary to: (A) characterize the potential pathways of contaminant migration; (B) characterize the source(s) of contamination; (C) define the degree and extent of contamination; (D) identify actual or potential human and/or ecological receptors; (E) support the development of alternatives from which a corrective measure(s) will be selected by EPA; and (F) evaluate the effectiveness of the existing pump and treat system and submit a proposal to modify the system as appropriate. A specific schedule for expeditious implementation of all activities shall be included in the RFI Workplan.

4. In accordance with the provisions of the RFI Scope of Work the RFI Workplan shall include: (A) a Project Management Plan; (B) a Data Collection Quality Assurance Plan; (C) a Data Management Plan; (D) a Community Relations Plan; and (E) shall provide for the submission of a draft and final RFI report.

5. Upon receipt of EPA approval of the RFI Workplan, Respondent shall implement the EPA-approved RFI Workplan in accordance with the terms and schedules contained therein. . Upon completion of implementation of the RFI Workplan, Respondent shall submit to EPA for approval draft and final RFI Report(s) and draft and final Laboratory and Bench Scale Studies Report(s) in accordance with the requirements and schedule contained in the RFI Workplan.

B. CORRECTIVE MEASURES STUDY ("CMS")

1. Within ninety (90) calendar days of receipt of EPA approval of the Final RFI Report, Respondent shall submit to EPA for approval a Draft CMS Report(s) in

accordance with the CMS Scope of Work.

2. Within thirty (30) calendar days of receipt of EPA's comments on the Draft CMS Report, Respondent shall submit to EPA the Final CMS Report, revised to respond to all comments received from and/or remedy all deficiencies identified by EPA on the Draft CMS Report.

C. PUBLIC COMMENT AND PARTICIPATION

1. After approval of the Final CMS Report, EPA will make both the Final RFI Report and the Final CMS Report, a description of EPA's proposed Corrective Measures, if any, and EPA's justification for proposing selection of such Corrective Measures (the "Statement of Basis") available to the public for review and comment for at least thirty (30) calendar days.

2. Following the public review and comment period, EPA will issue a Final Decision and Response to Comments (FDRTC), in which it will identify the Corrective Measure(s), if any are so selected. If on the basis of public comments or other relevant information, significant changes are proposed to be made to the corrective measures identified by EPA in the Statement of Basis , EPA may seek additional public comment.

3. Upon issuance of the FDRTC, the FDRTC shall be incorporated into this Consent Order and become a part hereof.

D. CORRECTIVE MEASURE(S) IMPLEMENTATION

1. Corrective Measure Workplan and Design

a. Within ninety (90) days of the issuance of the FDRTC, Respondent shall submit to EPA a Corrective Measures Implementation (CMI) Workplan for implementation of the Corrective Measures if any were selected in the FDRTC. The CMI Workplan is subject to approval by EPA and shall be developed in accordance with the Scope of Work for CMI.

b. Respondent shall include, as part of the CMI Workplan, an Institutional Controls Implementation and Assurance Plan (IC Plan). The IC Plan will establish, document, and report the methods that will be used to implement and monitor compliance with the land and/or groundwater use restrictions, if any, and ensure that they remain in place and effective and run with the land as appropriate.

c. Upon receipt by Respondent of EPA's approval of the CMI Workplan, said Workplan shall be incorporated into and become enforceable under this Consent Order, and Respondent shall implement it in accordance with the schedules and provisions contained therein.

d. Within ninety (90) calendar days of receipt of EPA approval of the CMI Work Plan, Respondent shall submit to EPA, for review and comment, a 30% CMI Design Report (with a list of plans and specifications) which shall be developed in accordance with the Scope of Work for CMI.

e. Within sixty (60) calendar days of receipt of EPA's comments on the 30% CMI Design Report, Respondent shall incorporate those comments and submit to EPA for approval a 90% CMI Design Report (with complete plans and specifications). The 90% CMI Design Report shall be developed in accordance with the Scope of Work for CMI.

f. Upon receipt by Respondent of EPA's approval of the 90% CMI Design Report, said Report shall be incorporated into and become enforceable under this Consent Order, and Respondent shall implement it in accordance with the schedules and provisions contained therein.

2. Corrective Measure Construction

a. For all corrective measures selected in a FDRTC that require construction, Respondent shall commence and complete construction of such Corrective Measures selected in the RCRA FDRTC in accordance with the CMI Scope of Work, the schedules and specifications set forth in the EPA-approved CMI Workplan and the EPA-approved CMI Design Report.

b. Within forty five (45) calendar days of completion of construction of the Corrective Measures selected by EPA in the FDRTC, Respondent shall submit to EPA for approval a CMI Report. The CMI Report shall be developed in accordance with CMI Scope of Work and shall describe activities performed during construction, and provide a preliminary assessment of CMI performance.

c. EPA shall determine, on the basis of the CMI Report and any other relevant information, whether the constructed project is consistent with the EPA-approved CMI Design Report. If EPA determines that the constructed project is consistent with the EPA-approved CMI Design Report and that the Corrective Measures have achieved or are achieving all of the requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report, EPA shall approve the CMI Report.

d. If EPA determines that the constructed project is inconsistent with the EPA-approved CMI Design Report and/or that the Corrective Measures have not achieved or are not achieving all of the requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report, EPA shall notify Respondent in writing of those activities that must be undertaken to complete the corrective measures requirements and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the schedule set forth in the EPA notification.

e. Respondent may, at any time following EPA approval of all pre-design activities

required by the FDRTC as it pertains to the Facility, request that EPA select, for the purpose of this Consent Order, Alternative and/or Supplemental Corrective Measures, subject to EPA's review and approval.

3. Corrective Measures Assessment Reports

a. Within ninety (90) days after approval of the CMI Report pursuant to paragraph VI.D.2.c or d, Respondent shall submit a CMI Assessment Report for EPA approval. The CMI Assessment Report shall provide an evaluation of the Corrective Measures' effectiveness in achieving the requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report.

b. If based on the CMI Assessment Report or any other information, EPA determines that the Corrective Measures are not achieving the requirements set forth in the FDRTC, EPA shall notify Respondent in writing of those activities that must be undertaken to meet the objectives of the Corrective Measures and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the schedule set forth in the EPA notification.

c. No later than five years after the submission of the CMI Assessment Report and every five (5) years thereafter until Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Consent Order, including any additional tasks determined by EPA to be required pursuant to this Consent Order, have been satisfactorily completed, Respondent shall submit a CMI Five-Year Assessment Report. Such Report shall contain an evaluation of the past and projected future effectiveness of the Corrective Measures in achieving the requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report.

d. Respondent may, as part of a CMI Five-Year Assessment Report, request that EPA select an Alternative and/or Supplemental Corrective Measures.

e. In the event EPA selects an Alternative and/or Supplemental Corrective Measure(s) either in response to a request by Respondent pursuant to Section VI.D.3.d, above, or on its own initiative, EPA may provide Respondent with a period of at least sixty (60) calendar days from the date Respondent receives written notice from EPA of the selection of an Alternative and/or Supplemental Corrective Measures within which to reach an agreement with EPA regarding performance of the Alternative and/or Supplemental Corrective Measures in lieu of, or in addition to, the Corrective Measures described in paragraph VI.C.2. Any such agreement between EPA and Respondent shall be incorporated into and become enforceable under this Consent Order and Respondent shall implement the activities required under any such agreement in accordance with any schedule and provisions contained therein.

f. Nothing in paragraph VI.D.3.e., above, shall limit EPA's authority to implement or require performance of Alternative and/or Supplemental Corrective Measure(s) or to take any

other appropriate action under RCRA, 42 U.S.C. §§ 6901 et seq., the Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U.S.C. §§ 9601 et seq. (CERCLA), or any other legal authority, including the issuance of a unilateral administrative order or the filing of a civil action.

4. Completion of Corrective Measures

a. After Respondent has determined that the Corrective Measures in a FDRTC have been fully implemented in accordance with the EPA-approved CMI Design Report, Respondent shall notify EPA in writing and request EPA's approval to discontinue such Corrective Measures. The request shall explain the basis for Respondent's conclusion and include all available documentation supporting such conclusion.

b. Upon receipt of EPA's approval of Respondent's request to discontinue Corrective Measures, Respondent may discontinue such Corrective Measures, except that Respondent shall continue to monitor the groundwater in accordance with the EPA-approved CMI Design Report (including the Sampling and Analysis Plan and Operations and Maintenance Plan), if applicable. Respondent shall submit the results of such post-construction monitoring with the Quarterly Progress Reports in accordance with Section VI.F.3 of this Consent Order.

c. If at any time during the post-construction monitoring program, EPA determines that the level of any hazardous constituent and/or hazardous waste in the groundwater has increased above the media cleanup standards set forth in a FDRTC for such hazardous constituent and/or hazardous waste, EPA may determine if Alternative and/or Supplemental Corrective Measures need to be initiated to achieve the established media cleanup standards. EPA shall notify Respondent in writing of any such determination. Any decision by EPA to require Alternative and/or Supplemental Corrective Measures shall be made pursuant to applicable EPA regulations and consistent with EPA guidance regarding selection of corrective measures under RCRA.

d. If after the post-construction monitoring program is completed to EPA's satisfaction, the media cleanup standards set forth in a FDRTC have been maintained and all other aspects of Corrective Measures Construction and O&M have been completed, Respondent shall submit a Certification of Completion for such corrective measures ("Certification of Completion") to EPA for approval in accordance with Section VI.F. of this Consent Order. The Certification of Completion shall provide documentation sufficient to support a determination that media cleanup standards set forth in the FDRTC have been maintained and include all available documentation supporting such a determination.

E. INTERIM MEASURES (IM)

1. Commencing on the Effective Date of this Consent Order and continuing thereafter, in the event Respondent identifies an immediate or potential threat to human health and/or the environment at the Facility, or discovers new releases of hazardous waste and/or hazardous constituents at or from the Facility not previously identified, Respondent shall notify the EPA Project Coordinator orally within forty eight (48) hours of discovery and notify EPA in writing

within three (3) calendar days of such discovery summarizing the immediacy and magnitude of the potential threat(s) to human health or the environment. Upon written request of EPA, Respondent shall submit to EPA for approval an IM Work Plan in accordance with the IM Scope of Work. If EPA determines that immediate action is required, the EPA Project Coordinator may orally authorize Respondent to act prior to EPA's receipt of the IM Work Plan.

2. Commencing on the Effective Date of this Consent Order and continuing thereafter, if EPA identifies an immediate or potential threat to human health and/or the environment at the Facility, or discovers new releases of hazardous waste and/or the environment at the Facility not previously identified, EPA will notify Respondent in writing. Within ten (10) days of receiving EPA's written notification, Respondent shall submit to EPA for approval an IM Work Plan in accordance with the IM Scope of Work that identifies interim measures which will mitigate the threat. If EPA determines that immediate action is required, the EPA Project Coordinator may orally require Respondent to act prior to Respondent's receipt of EPA's written notification.

3. All IM Work Plans shall ensure that the interim measures are designed to mitigate immediate or potential threat(s) to human health and/or the environment and should be consistent with the objectives of, and contribute to the performance of the corrective measures which may be selected by EPA in a FDRTC or any amendment thereto.

4. Each IM Work Plan shall include the following sections as appropriate and approved by EPA: Interim Measures Objectives, Public Involvement Plan, Data Collection Quality Assurance, Data Management, Design Plans and Specifications, Operation and Maintenance, Project Schedule, Interim Measures Construction Quality Assurance, and Reporting Requirements. Concurrent with submission of an IM Work Plan, Respondent shall submit to EPA an IM Health and Safety Plan.

F. SUBMISSIONS/EPA APPROVAL/ADDITIONAL WORK

1. EPA will review the Work Plans and reports and all other documents submitted by Respondent pursuant to this Consent Order, with the exception of progress reports (Submissions), and will notify Respondent in writing of EPA's approval or disapproval of each such Submission. In the event of EPA's disapproval, EPA shall specify in writing any deficiencies in the Submission. Such disapproval shall not be subject to the Dispute Resolution procedures of Section XV, below.

2. Within thirty (30) calendar days of receipt of EPA's comments on the Submission, or ten (10) calendar days in the case of an IM Work Plan, Respondent shall submit to EPA for approval a revised Submission, which responds to any comments received and/or corrects any deficiencies identified by EPA. In the event that EPA disapproves of the revised Submission, Respondent may invoke the dispute resolution procedures of Section XV, below. In the event EPA disapproves the revised Submission, EPA reserves the right to revise such Submission and seek to recover from Respondent the costs thereof, in accordance with CERCLA and any other applicable law. Any Submission approved or revised by EPA under this Consent Order shall be

deemed incorporated into and made an enforceable part of this Consent Order.

3. Beginning with the first day of the fourth full month following the Effective Date of this Consent Order, and every three months thereafter on the first day of the month, throughout the period that this Consent Order is effective, Respondent shall provide EPA with quarterly progress reports.

4. One (1) copy of all Submissions required by this Consent Order shall be sent by Overnight Mail, Return Receipt Requested, to the Project Coordinator designated pursuant to Section XI (PROJECT COORDINATORS), below. In addition, an electronic copy of all Submissions shall also be sent via email to the designated Project Coordinator.

5. All work performed pursuant to this Consent Order shall be under the direction and supervision of a professional engineer or geologist with expertise in hazardous waste site investigation. Within thirty (30) calendar days after the Effective Date of this Consent Order, Respondent shall submit to EPA, in writing, the name, title, and qualifications of the engineer or geologist and of any contractors or subcontractors to be used in carrying out the terms of this Consent Order. If the Respondent will continue to use an engineer or geologist whose information was previously submitted to EPA under the terms of the 1996 UAO, this submittal is not required. Notwithstanding Respondent's selection of an engineer, geologist, contractor or subcontractor, nothing herein shall relieve Respondent of its obligation to comply with the terms and conditions of this Consent Order. EPA shall have the right to disapprove at any time the use of any professional engineer, geologist, contractor or subcontractor selected by Respondent. EPA's disapproval shall not be subject to review under Section XV (DISPUTE RESOLUTION) of this Consent Order, or otherwise. Within fifteen (15) calendar days of receipt from EPA of written notice disapproving the use of any professional engineer, geologist, contractor or subcontractor, Respondent shall notify EPA, in writing, of the name, title and qualifications of the personnel who will replace the personnel disapproved by EPA. Respondent shall notify EPA ten (10) days prior to changing voluntarily its engineer or geologist, and/or contractors or subcontractors to be used in carrying out the terms of this Consent Order, and shall submit to EPA in writing, the name, title, and qualifications of such person(s).

6. EPA may determine that certain tasks and deliverables including, but not limited to, investigatory work or engineering evaluation require additional work. These tasks and deliverables may or may not have been in the EPA-approved Work Plans. If EPA determines that such additional work is necessary, EPA shall request, in writing, that Respondent perform the additional work and shall specify the reasons for EPA's determination that additional work is necessary. Within fifteen (15) calendar days after the receipt of such request, or as otherwise agreed by the parties, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work EPA has requested. In the event that Respondent agrees to perform the additional work, this Consent Order shall be modified in accordance with Section XXII (SUBSEQUENT MODIFICATION) below, and such work shall be performed in accordance with this Consent Order. In the event Respondent declines or fails to perform the additional work, EPA reserves the right, at a minimum, to order Respondent to perform such additional work; to perform such additional work itself and to seek to recover from Respondent all costs of

performing such additional work; and to disapprove the CMI Work Plans; the CMI Reports and/or any other Submissions. Respondent reserves its rights and defenses to challenge any such action by EPA, subject to Section I.D.

VII. QUALITY ASSURANCE

A. Throughout all sample collection and analysis activities, Respondent shall use EPA-approved quality assurance, quality control, and chain-of-custody procedures, as specified in the EPA-approved Work Plans. In addition, Respondent shall:

1. Ensure that laboratories used by Respondent for analyses perform such analyses according to the EPA methods included in Test Methods for Evaluating Solid Waste (SW-846, November 1986) or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall submit all analytical protocols to be used for analyses to EPA for approval at least thirty (30) calendar days prior to the commencement of analyses and shall obtain EPA approval prior to the use of such analytical protocols.

2. Ensure that laboratories used by Respondent for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA. As part of such a program, and upon request by EPA, such laboratories shall perform analyses of samples provided by EPA to demonstrate the quality of the analytical data.

3. Inform the EPA Project Coordinator at least fourteen (14) calendar days in advance of any laboratory analysis regarding which laboratory will be used by Respondent and ensure that EPA personnel and EPA authorized representatives have reasonable access to the laboratories and personnel used for analysis.

VIII. ON-SITE AND OFF-SITE ACCESS

A. EPA and/or its authorized representatives shall have the authority to enter and freely move about all property at the Facility owned or controlled by Respondent during the pendency of this Consent Order for the purposes of, inter alia: interviewing Facility personnel and contractors controlled by Respondent; inspecting Respondent's records, operating logs, and contracts related to the Facility; reviewing the progress of Respondent in carrying out the terms of this Consent Order; conducting such tests, sampling or monitoring as EPA or its Project Coordinator deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by Respondent. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Consent Order.

B. To the extent that work required by this Consent Order, or by any EPA-approved Work Plan prepared pursuant hereto, must be done on property not owned or controlled by

Respondent, Respondent shall use its best efforts to obtain site access agreement(s) from the present owner(s) and/or lessee(s) of such property, as appropriate, within thirty (30) calendar days of receipt of EPA approval of any Work Plan pursuant to this Consent Order which requires Work on such property. For purposes of this paragraph, best efforts shall include, at a minimum, but shall not be limited to: a) a certified letter from Respondent to the present owner(s) or lessee(s) of such property requesting agreements to permit Respondent, EPA, and its authorized representatives to have access to such property; and b) the payment of reasonable sums of money in consideration of access. Reasonable sums of money means the fair market value of the right of access necessary to implement the requirements of this Consent Order. In the event that such agreements for access are not obtained within thirty (30) calendar days after receipt of EPA approval of any Work Plan pursuant to this Consent Order which requires work on property which is not owned or controlled by Respondent, Respondent shall notify EPA, in writing, within seven (7) calendar days after the conclusion of such thirty-day period, regarding both the efforts undertaken to obtain access and the inability to obtain such agreements. In the event that Respondent fails to obtain off-site access, despite the exercise of best efforts, EPA, in its discretion, may assist Respondent in obtaining off-site access for Respondent. Respondent shall reimburse EPA for all costs incurred by EPA in obtaining access, including, but not limited to, attorney's fees and the amount of any just compensation and costs incurred by EPA.

C. To the extent ArcelorMittal needs access to conduct Work in or around the Facility in order to satisfy ArecorMittal's obligations under a related Order (Docket No. RCRA-03-2018-0143CA)(Attachment C), Respondent shall reasonably cooperate with ArcelorMittal in order to fulfill Work required of ArcelorMittal.

D. Nothing in this Consent Order limits or otherwise affects EPA's rights of access and entry pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

IX. SAMPLING AND DATA/DOCUMENT AVAILABILITY

A. Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, Respondent in accordance with the requirements of this Consent Order.

B. Respondent shall notify EPA, in writing, at least fourteen (14) calendar days in advance of any field activities, including but not limited to, well drilling, installation of equipment, or sampling. At the request of EPA, Respondent shall provide or allow EPA or its authorized representatives to take split or duplicate samples of all samples collected by Respondent pursuant to this Consent Order. Nothing in this Consent Order shall limit or otherwise affect EPA's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

C. Respondent may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Consent Order in the manner described in 40 C.F.R. § 2.203(b). Any assertion of confidentiality shall be adequately substantiated by

Respondent when the assertion is made in accordance with 40 C.F.R. § 2.204(e)(4). Information subject to a confidentiality claim shall be disclosed only to the extent allowed by, and in accordance with, the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to Respondent. Respondent shall not assert any confidentiality claim with regard to any physical, sampling, monitoring, or analytical data.

D. If Respondent wishes to assert a privilege with regard to any document which EPA seeks to inspect or copy pursuant to this Consent Order, Respondent shall identify the document, the privilege claimed, and the basis therefore in writing. For the purposes of this Consent Order, privileged documents are those documents exempt from discovery from the United States in litigation under the Federal Rules of Civil Procedure. Respondent shall not assert a privilege with regard to analytical, sampling and monitoring data.

X. RECORD PRESERVATION

Respondent agrees that it shall preserve, during the pendency of this Consent Order and for a minimum of at least six (6) years after its termination, all data, records and documents in its possession or in the possession of its divisions, officers, directors, employees, agents, contractors, successors, and assigns which relate in any way to this Consent Order or to hazardous waste management and/or disposal at the Facility. After six (6) years, Respondent shall make such records available to EPA for inspection or shall provide copies of such records to EPA. Respondent shall notify EPA at least thirty (30) calendar days prior to the proposed destruction of any such records, and shall provide EPA with a reasonable opportunity to inspect, copy and/or take possession of any such records. Respondent shall not destroy any record to which EPA has requested access for inspection and/or copying until EPA has obtained such access or withdrawn its request for such access. Nothing in this Section X shall in any way limit the authority of EPA under Section 3007 of RCRA, 42 U.S.C. § 6927, or any other access or information-gathering authority.

XI. PROJECT COORDINATORS

A. EPA hereby designates John Hopkins as the EPA Project Coordinator. Within ten (10) calendar days of the Effective Date of this Consent Order, Respondent shall notify EPA, in writing, of the Project Coordinator it has selected. Respondent's legal counsel shall not serve as Respondent's Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of the Consent Order. The EPA Project Coordinator will be EPA's primary designated representative at the Facility. To the maximum extent possible, all communications between Respondent and EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the Project Coordinators.

B. Each party agrees to provide at least seven (7) calendar days written notice to the

other party prior to changing Project Coordinators.

C. If EPA determines that conditions or activities at the Facility, whether or not in compliance with this Consent Order, have caused or may cause a release or threatened release of hazardous wastes, hazardous constituents, hazardous substances, solid wastes, pollutants or contaminants which threaten or may pose a threat to the public health or welfare or to the environment, EPA may direct that Respondent stop further implementation of this Consent Order for such period of time as may be needed to abate any such release or threatened release and/or to undertake any action which EPA determines is necessary to abate such release or threatened release.

D. The absence of the EPA Project Coordinator from the Facility shall not be cause for the delay or stoppage of work.

XII. NOTIFICATION

A. Unless otherwise specified, reports, correspondence, approvals, disapprovals, notices, or other submissions relating to or required under this Consent Order shall be in writing and shall be sent as follows:

1. One electronic and one hard copy of all documents shall be submitted to:

   John Hopkins
   U.S. Environmental Protection Agency, Region III
   Mail Code 3LC10
   1650 Arch St.
   Philadelphia, PA 19103-2029

2. One copy of all documents to be submitted to EPA shall also be sent to:

   Kenan Cetin
   West Virginia Division of Environmental Protection
   Kenan.Cetin@wv.gov

B. Any notice, report, certification, data presentation, or other document submitted by Respondent pursuant to this Consent Order which discusses, describes, demonstrates, or supports any finding or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Consent Order shall be certified by a responsible corporate officer or a duly authorized representative of a responsible corporate officer. A responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of one or more

manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. A person is a duly authorized representative only if: (1) the authorization is made in writing by a person described above; (2) the authorization specifies either an individual or position having responsibility for overall operation of the regulated facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and (3) the written authorization is submitted to the Project Coordinator designated by EPA in Section XI (PROJECT COORDINATORS) of this Consent Order.

C. The certification required by paragraph B, above, shall be in the following form:

I certify that the information contained in or accompanying this [type of submission] is true, accurate, and complete.

As to [the/those identified portion(s)] of this [type of submission] for which I cannot personally verify [its/their] accuracy, I certify under penalty of law that this [type of submission] and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), 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 fines and imprisonment for knowing violations.

Signature : _____

Name : _____

Title : _____

XIII. COST ESTIMATES AND ASSURANCES OF FINANCIAL RESPONSIBILITY

A. Estimated Cost of Work

1. Within sixty (60) days after EPA approval of each of the RFI(s), CMI(s), IM(s) and Additional Work Workplan(s), Respondent shall submit to EPA for approval detailed written estimates, in current dollars, of the cost of hiring a third party to perform the work under such approved Workplan (Cost Estimate). All cost estimates shall be

consistent with the requirements of 40 C.F.R. 264.142 and 264.144. References in these regulations to closure and post-closure shall mean the Work to be Performed under Section VI of this Consent Order.

2. Respondent shall annually adjust the Cost Estimate for inflation and for changes in the scope of the Work until the Work required by this Consent Order is completed. Within sixty (60) days after the close of Respondent's fiscal year, Respondent shall submit each annual Cost Estimate to EPA for review.

3. If at any time EPA determines that a cost estimate provided pursuant to this Section XIII is inadequate, EPA shall notify Respondent in writing, stating the basis for its determination. If at any time Respondent becomes aware of information indicating that any Cost Estimate provided pursuant to this Section XIII is inadequate, Respondent shall notify EPA in writing of such information within twenty (20) days. Within thirty (30) days of EPA's notification, or within thirty (30) days of becoming aware of such information, as the case may be, Respondent shall submit a revised Cost Estimate to EPA for review.

B. <u>Assurances of Financial Responsibility for Completing the Work</u>

1. Within one hundred twenty (120) days after EPA approves the initial Cost Estimate, Respondent shall establish financial assurance for the benefit of EPA. In the event that EPA approval of Respondent's initial Cost Estimate is not received within 30 days after close of Respondent's fiscal year, Respondent shall establish and maintain the financial assurance in the amount of the Cost Estimate submitted pursuant to Paragraph XIII.A.I within ninety (90) days of the end of its fiscal year. Respondent shall maintain adequate financial assurance until EPA releases Respondent from this requirement pursuant to Section XXIV (TERMINATION AND SATISFACTION). Respondent shall update the financial instrument or financial test demonstration to reflect changes to the Cost Estimate within ninety (90) days after the close of the Respondent's fiscal year. Respondent may use one or more of the financial assurance forms described in subparagraphs i - vi immediately below. Any and all financial assurance documents shall be satisfactory in form and substance as determined by EPA.

i. A trust fund established for the benefit of EPA, administered by a trustee;

ii. A surety bond unconditionally guaranteeing performance of the Work in accordance with this Consent Order, or guaranteeing payment at the direction of EPA into a standby trust fund that meets the requirements of the trust fund in subparagraph i above;

iii. An irrevocable letter of credit, payable at the direction of the Director, Land and Chemicals Division, into a standby trust fund that meets the requirements of the trust fund in subparagraph i above;

iv. An insurance policy that provides EPA with rights as a beneficiary, issued for a face amount at least equal to the current Cost Estimate, except where costs not covered by the insurance policy are covered by another financial assurance instrument;

v. A corporate guarantee, executed in favor of the EPA by one or more of the following: (1) a direct or indirect parent company, or (2) a company that has a "substantial business relationship" with Respondent (as defined in 40 C.F.R. § 264.141(h)), to perform the Work required under Section VI of this Consent Order or to establish a trust fund as permitted by subparagraph i above; provided, however, that any company providing such a guarantee shall demonstrate to the satisfaction of the EPA that it satisfies the financial test requirements of 40 C.F.R. § 264.143(f) with respect to the portion of the Cost Estimate that it proposes to guarantee.

vi. A demonstration by Respondent that it meets the financial test criteria of 40 C.F.R. § 264.143(f) with respect to the Cost Estimate, provided that all other requirements of 40 C.F.R. § 264.143(f) are satisfied.

vii.. Another form of financial assurance proposed by Respondent, if approved by EPA.

2. Respondent shall submit all original executed and/or otherwise finalized instruments to Regional Administrator, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029 within thirty (30) days after date of execution or finalization as required to make the documents legally binding. Respondent shall also provide copies to the EPA Project Coordinator.

3. If at any time Respondent provides financial assurance for completion of the Work by means of a corporate guarantee or financial test, Respondent shall also comply with the other relevant requirements of 40 C.F.R. § 264.143(f), 40 C.F.R. § 264.151(f), and 40 C.F.R. § 264.151(h)(1) relating to these methods, and will promptly provide any additional information requested by EPA from Respondent or corporate guarantor within seven (7) calendar days of its receipt of such request from EPA or the corporate guarantor.

4. For purposes of the corporate guarantee or the financial test described above, references in 40 C.F.R. § 264.143(f) to "the sum of current closure and post-closure costs and the current plugging and abandonment cost estimates" shall mean "the sum of all environmental remediation obligations, including, but not limited to, obligations under the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9601 et seq., RCRA, the Underground Injection Control Program promulgated pursuant to the Safe Drinking Water Act, 42 U.S.C. §§ 300f et seq., and the Toxic Substances Control Act, 42 U.S.C. §§ 2601, et seq., and any other federal or state environmental obligation guaranteed by such company or for which such company is otherwise financially obligated in addition to

the Cost Estimate.

5. Respondent may combine more than one mechanism to demonstrate financial assurance for the Work required under Section VI of this Consent Order.

6. Respondent may satisfy its obligation to provide financial assurance for the Work required under Section VI herein by providing a third party who assumes full responsibility for said Work and otherwise satisfies the obligations of the financial assurance requirements of this Consent Order; however, Respondent shall remain responsible for providing financial assurance in the event such third party fails to do so and any financial assurance from a third party shall be in one of the forms provided in subparagraphs XIII.B.1.i. through vi. above.

7. If at any time EPA determines that a financial assurance mechanism provided pursuant to this Section XIII is inadequate, EPA shall notify Respondent in writing. If at any time Respondent becomes aware of information indicating that any financial assurance mechanism(s) provided pursuant to this Section XIII is inadequate, Respondent shall notify EPA in writing of such information within ten (10) days of Respondent's becoming aware of such information. Within ninety (90) days of receipt of notice of EPA's determination, or within ninety (90) days of Respondent's becoming aware of such information, Respondent shall establish and maintain adequate financial assurance for the benefit of the EPA which satisfies all requirements set forth in this Section. Any and all financial assurance documents provided pursuant to this Consent Order shall be submitted to EPA for review in draft form at least forty-five (45) days before they are due to be filed and shall be satisfactory in form and substance as determined by EPA.

8. Respondent's inability or failure to establish or maintain financial assurance for completion of the Work required under Section VI of this Consent Order shall in no way excuse performance of any other requirements of this Consent Order.

9. Modification of Amount and/or Form of Performance Guarantee

i. Reduction of Amount of Financial Assurance. If Respondent believes that the Cost Estimate has diminished below the amount covered by the existing financial assurance provided under this Consent Order, Respondent may, at the same time that Respondent submits its annual Cost Estimate, submit a written proposal to EPA for approval to reduce the amount of the financial assurance to equal the revised Cost Estimate.

ii. Change of Form of Financial Assurance. If Respondent desires to change the form or terms of financial assurance, Respondent may, at the same time that Respondent submits the annual Cost Estimate, submit a written proposal to EPA for approval to change the form of financial assurance. The written proposal shall specify all proposed instruments or other documents required in order to make the

proposed financial assurance legally binding and shall satisfy all requirements set forth in this Section. Within thirty (30) days after receiving written approval of the proposed revised or alternative financial assurance, Respondent shall execute and/or otherwise finalize all instruments or other documents required in order to make the selected financial assurance legally binding. Respondent shall submit all executed and/or otherwise finalized instruments or other documents required in order to make the selected financial assurance legally binding to the Regional Administrator, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029, with a copy to EPA's Project Coordinator, as provided in Section XII (NOTIFICATIONS) above.

10. Release of Financial Assurance. Respondent may submit a written request to the Director, Land and Chemicals Division that EPA release Respondent from the requirement to maintain financial assurance under this Section XIII upon receipt of written notice from EPA pursuant to Section XXIV that, as set forth therein, the terms of this Consent Order have been satisfactorily completed. If said request is granted, the Director, Land and Chemicals Division shall notify both the Respondent and the provider(s) of the financial assurance that Respondent is released from all financial assurance obligations under this Consent Order.

XIV. DELAY IN PERFORMANCE/STIPULATED PENALTIES

A. Unless there has been a written modification of a compliance date by EPA, or excusable delay as defined below in Section XVI (FORCE MAJEURE AND EXCUSABLE DELAY), in the event that Respondent fails to comply with any requirement set forth in this Consent Order, Respondent shall pay stipulated penalties, as set forth below, upon receipt of written demand by EPA. Compliance by Respondent shall include commencement or completion, as appropriate, of any activity, plan, study, or report required by this Consent Order in an acceptable manner and within the specified time schedules in and approved under this Consent Order. Stipulated penalties shall accrue as follows:

1. For failure to commence, perform or complete Work as prescribed in this Consent Order: $ $1,250 per day for one to seven days or part thereof of noncompliance, and $$2,250 per day for each day of noncompliance, or part thereof, thereafter;

2. For failure to comply with the provisions of this Consent Order after receipt of notice of noncompliance by EPA: $ $1,000per day for one to seven days or part thereof of noncompliance, and $$2,000 per day for each day of noncompliance, or part thereof, thereafter; in addition to any stipulated penalties imposed for the underlying noncompliance;

3. For failure to submit deliverables as required by this Consent Order, or for failure to comply with this Consent Order not described in subparagraphs

1 and 2 above: $$500 per day for one to seven days or part thereof of noncompliance, and $$750 per day for each day of noncompliance, or part thereof, thereafter.

B. All penalties shall begin to accrue on the date that complete performance is due or a violation occurs, and shall continue to accrue through the final day of or correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Order.

C. All penalties owed to EPA under this Section XIV shall be due within thirty (30) calendar days of receipt of a demand for payment unless Respondent invokes the dispute resolution procedures in Section XV, below. Such notification shall describe the noncompliance and shall indicate the amount of penalties due. Interest shall begin to accrue on the unpaid balance at the end of the thirty (30)-calendar day period and shall accrue at the United States Tax and Loan Rate.

D. All penalty payments shall be made by certified or cashier's check payable to the Treasurer of the United States of America and shall be remitted to:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Office
P.O. Box 979077
St. Louis, MO 63197-9000

All payments shall reference the name of the Facility, Respondent's name and address, and the EPA Docket Number of this Consent Order. Copies of the transmittal of payment shall be sent simultaneously to the EPA Project Coordinator and the Regional Hearing Clerk (3RC00), U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029.

E. Respondent may dispute EPA's demand for payment of stipulated penalties for any alleged violation of this Consent Order by invoking the dispute resolution procedures below in Section XV (DISPUTE RESOLUTION). Stipulated penalties shall continue to accrue, but need not be paid, for any alleged noncompliance which is the subject of dispute resolution during the period of such dispute resolution. To the extent that Respondent does not prevail upon resolution of the dispute, Respondent shall remit to EPA within seven (7) calendar days of receipt of such resolution any outstanding penalty payment, including any accrued interest, in the manner described above in Paragraph D of this Section XIV. To the extent Respondent prevails upon resolution of the dispute, no penalties shall be payable.

F. Neither the filing of a petition to resolve a dispute nor the payment of penalties shall alter in any way Respondent's obligation to comply with the requirements of this Consent Order.

G. The stipulated penalties set forth in this Section XIV shall not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements of this Consent Order.

XV. DISPUTE RESOLUTION

A. If Respondent disagrees, in whole or in part, with any EPA disapproval, modification or other decision or directive made by EPA pursuant to this Consent Order, Respondent shall notify EPA in writing of its objections, and the basis therefor, within fourteen (14) calendar days of receipt of EPA's disapproval, decision or directive. Such notice shall set forth the specific points of the dispute, the position which Respondent asserts should be adopted as consistent with the requirements of this Consent Order, the basis for Respondent's position, and any matters which it considers necessary for EPA's determination. EPA and Respondent shall have an additional fourteen (14) calendar days from the receipt by EPA of the notification of objection, or such longer period of time that EPA may allow in its sole discretion not subject to dispute resolution , during which time representatives of EPA and Respondent may confer in person or by telephone to resolve any disagreement. If an agreement is reached, the resolution shall be written and signed by an authorized representative of each party. In the event that resolution is not reached within this fourteen (14) calendar day period, or such longer period of time that EPA may allow in its sole discretion not subject to dispute resolution , EPA will furnish to Respondent, in writing, its decision on the pending dispute.

B. The invocation of formal dispute resolution procedures under this Section XV shall not extend, postpone or affect in any way any obligation of Respondent under this Order unless EPA determines otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Order. In the event that Respondent does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIV (DELAY INPERFORMANCE/STIPULATED PENALTIES).

C. Notwithstanding any other provisions of this Consent Order, no action or decision by EPA, including, without limitation, decisions of the Director of Land and Chemicals Division, Region III, pursuant to this Consent Order, shall constitute final agency action giving rise to any right to judicial review prior to EPA's initiation of judicial action to compel Respondent's compliance with this Consent Order.

XVI. FORCE MAJEURE AND EXCUSABLE DELAY

A. Respondent shall perform the requirements of this Consent Order in the manner and within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure. Respondent shall have the burden of proving such a

force majeure. A force majeure is defined as any event arising from causes not reasonably foreseeable and beyond the control of Respondent, which cannot be overcome by due diligence and which delays or prevents performance in the manner or by a date required by this Consent Order. Such events do not include increased costs of performance, changed economic circumstances, reasonably foreseeable weather conditions or weather conditions which could have been overcome by due diligence, or failure to obtain federal, state, or local permits unless applications for such permits were submitted in a timely and complete fashion and such permits were not issued, through no fault of Respondent.

B. Respondent shall notify EPA, in writing, within seven (7) calendar days after it becomes or should have become aware of any event which Respondent claims constitutes a force majeure. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to prevent or minimize the delay, and an estimated timetable for implementation of these measures. Failure to comply with the notice provision of this Section XVI shall constitute a waiver of Respondent's right to assert a force majeure claim with respect to such event. In addition to the above notification requirements, Respondent shall undertake all reasonable actions to prevent or to minimize any delay in achieving compliance with any requirement of this Consent Order after it becomes or should have become aware of any event which may delay such compliance.

C. If EPA determines that there is excusable delay because the failure to comply or delay has been or will be caused by a force majeure, the time for performance of that requirement of this Consent Order may be extended, upon EPA approval, for a period equal to the delay resulting from such force majeure. This shall be accomplished through an amendment to this Consent Order pursuant to Section XXII (SUBSEQUENT MODIFICATION). Such an extension shall not alter the schedule for performance or completion of any other tasks required by this Consent Order, unless these tasks are also specifically altered by amendment of the Consent Order. In the event that EPA and Respondent cannot agree that any delay or failure has been or will be caused by a force majeure, or if there is no agreement on the length of the extension, Respondent may invoke the dispute resolution procedures set forth in Section XV (DISPUTE RESOLUTION).

XVII. RESERVATION OF RIGHTS

A. EPA expressly reserves all rights and defenses that it may have, including the right both to disapprove of work performed by Respondent pursuant to this Consent Order, to require that Respondent correct and/or perform any work disapproved by EPA, and to request that Respondent perform tasks in addition to those stated in the Scope(s) of Work, Work Plans, or other provisions of this Consent Order.

B. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights and remedies, both legal and equitable, including any which may pertain to Respondent's failure to comply with any of the requirements of this Consent Order, including, without limitation, the assessment of penalties under Section 3008(h)(2) of RCRA, 42 U.S.C.§ 6928(h)(2). This

Consent Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory or common law authority.

C. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

D. The signing of this Consent Order and Respondent's consent to comply shall not limit or otherwise preclude EPA from taking additional enforcement action pursuant to RCRA, including but not limited to Sections 3008(a) or (h) of RCRA, 42 U.S.C. §§ 6928(a) or (h), or any other authority, should EPA determine that such action is warranted.

E. This Consent Order is not intended to be, nor shall it be construed as, a permit. This Consent Order does not relieve Respondent of any obligation to obtain and comply with any local, state, or federal permit or approval.

F. EPA reserves the right to perform any portion of the work consented to herein or any additional site characterization, feasibility study, and response/corrective actions it deems necessary to protect public health or welfare or the environment. EPA may exercise its authority under RCRA, CERCLA or any other authority to undertake or require the performance of response actions at any time. EPA reserves the right to seek reimbursement from Respondent for costs incurred by the United States in connection with any such response actions. Notwithstanding compliance with the terms of this Consent Order, Respondent is not released from liability, if any, for the costs of any response actions taken by EPA.

G. EPA reserves whatever rights it may have under CERCLA or any other law, or in equity, to recover from Respondent any costs incurred by EPA in overseeing the implementation of this Consent Order.

XVIII. OTHER CLAIMS

Nothing in this Consent Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership, or corporation, or other entity for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, solid wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

XIX. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations.

Respondent shall obtain or require its authorized representatives to obtain all permits and approvals necessary under such laws and regulations.

XX. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Consent Order. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent or the United States under their various contracts. The United States shall not be deemed to be a party to any contract entered into by Respondent for the purpose of carrying out any activities required by this Consent Order.

XXI. NOTICE OF NON-LIABILITY OF EPA

EPA shall not be deemed a party to any contract involving Respondent and relating to activities at the Facility and shall not be liable for any claim or cause of action arising from or on account of any act, or the omission of Respondent, its officers, employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Consent Order.

XXII. SUBSEQUENT MODIFICATION

A. Except as provided in Paragraph C of this Section XXII, below, this Consent Order may be amended only by mutual agreement of EPA and Respondent. Any such amendment shall be in writing, shall be signed by an authorized representative of each party, shall have as its effective date the date on which it is signed by EPA, and shall be incorporated into this Consent Order.

B. Any reports, plans, specifications, schedules, other submissions, and attachments required by this Consent Order are, upon written approval by EPA, incorporated into this Consent Order. Any noncompliance with such EPA-approved reports, plans, specifications, schedules, other submissions, and attachments shall be considered a violation of this Consent Order and shall subject Respondent to the stipulated penalty provisions included in Section XIV (DELAY IN PERFORMANCE/STIPULATED PENALTIES).

C. Minor modifications in the studies, techniques, procedures, designs, or schedules utilized in carrying out this Consent Order and necessary for the completion of the project may be made by written agreement of the Project Coordinators. Such modifications shall have as an effective date the date on which the agreement is signed by the EPA Project Coordinator.

D. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by Respondent shall be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Consent Order.

XXIII. SEVERABILITY

If any provision or authority of this Consent Order or the application of this Consent Order to any party or circumstance is held by any judicial or administrative authority to be invalid, the application of such provision to other parties or circumstances and the remainder of this Consent Order shall not be affected thereby and shall remain in full force.

XXIV. TERMINATION AND SATISFACTION

The provisions of this Consent Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Consent Order, including any additional tasks determined by EPA to be required pursuant to this Consent Order, have been satisfactorily completed. This notice shall not, however, terminate Respondent's obligation to comply with any continuing obligations hereunder including, but not limited to, Sections X (RECORD PRESERVATION), XVII (RESERVATION OF RIGHTS), XVIII (OTHER CLAIMS), XIX (OTHER APPLICABLE LAWS), and XX (INDEMNIFICATION OF THE UNITED STATES GOVERNMENT).

XXV. SURVIVABILITY/PERMIT INTEGRATION

A. Subsequent to the issuance of this Consent Order, a RCRA permit may be issued to the Facility incorporating the requirements of this Consent Order by reference into the permit.

B. No requirement of this Consent Order shall terminate upon the issuance of a RCRA permit unless such requirement is expressly replaced by a requirement in the permit.

XXVI. ATTORNEYS' FEES

The Respondent shall bear its own costs and attorneys fees.

XXVII. EFFECTIVE DATE/WAIVER OF HEARING

The Effective Date of this Consent Order shall be the date on which a true and correct copy of this Consent Order is received by Respondent. Because this Consent Order was entered with the consent of both parties, Respondent waives its right to request a public hearing pursuant to Section 3008(b) of RCRA, 42 U.S.C. § 6928(b), and 40 C.F.R. Part 24.

XXVIII. TERMINATION OF 1996 UNILATERAL ADMINISTRATIVE ORDER

On September 16, 1996, EPA Region III issued a Unilateral Administrative Order to Weirton Steel Corporation (Docket No. RCRA-3-083CA) for certain work now addressed by this Consent Order and a Consent Order to be issued to ArcelorMittal Weirton LLC. Upon the Effective Date of this Consent Order and the ArcelorMittal Weirton LLC Consent Order, EPA will deem the terms of the 1996 UAO to be satisfactorily completed and the 1996 UAO will be terminated in accordance with Section XXIII (TERMINATION AND SATISFACTION) of the 1996 UAO.

IT IS SO AGREED AND ORDERED:

DATE: 9.26.18 BY: _____

JOHN ARMSTEAD
DIRECTOR
LAND AND CHEMICALS DIVISION
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, REGION III

DATE: 9/21/18 BY: _____

Mingo Junction Steel Works LLC
Name: David P. Franjoine
Title: Managing Member

LEGEND

- RCRA CORRECTIVE ACTION AREA (CAA) BOUNDARY
- CAA SUBDIVISION BOUNDARY*
- RFI AND CMS COMPLETED
- RFI COMPLETED AND NO CMS REQUIRED
- PROPERTY SOLD IN 2004/2005
- PROPERY OWNED BY ARCELORMITTAL
- PROPERTY OWNED BY MINGO JUNCTION STEEL WORKS, LLC (MJSW)
- PROPERTY OWNED BY BUSINESS DEVELOPMENT CORPORATION OF THE NORTHERN PANHANDLE
- COUNTY/STATE BOUNDARY

NOTE*

BECAUSE THE BOUNDARIES OF THE PROPERTIES ACQUIRED BY MJSW DID NOT ALIGN WITH THE CORRECTIVE ACTION AREA (CAA) BOUNDARIES, SEVERAL OF THE CAAS ARE NOW PARTIALLY OWNED BY ARCELORMITTAL AND PARTIALLY OWNED BY MJSW. FOR THOSE AREAS, AN "A" SUFFIX HAS BEEN ADDED TO THE CAA DESIGNATIONS FOR PROPERTY OWNED BY ARCELORMITTAL AND A "M" SUFFIX HAS BEEN ADDED TO THE CAA DESIGNATIONS FOR PROPERTY OWNED BY MJSW. ALL CAAS OWNED ENTIRELY BY ONE ENTITY RETAIN THEIR PRIOR CAA DESIGNATION.

REFERENCE

ESRI WORLD IMAGERY / ARCGIS MAP SERVICE
HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY.
ACCESSED 7/3/2018, IMAGERY DATE: 2016.

CEC
Civil & Environmental Consultants, Inc.
4300 Triangle Lane, Suite 200 - Export, PA 15632
Ph: 724-327-5200 - 800-899-3610
www.cecinc.com

ARCELORMITTAL - WEIRTON PLANT
WEIRTON, WEST VIRGINIA
BROOKE AND HANCOCK COUNTIES

DRAWN BY	CBL	CHECKED BY	NJH	APPROVED BY	DNO*
DATE	5/30/2018	SCALE	1" = 800'	PROJECT NO	090-342,2016

FORMER WEIRTON FACILITY BOUNDARY

FIGURE NO. **A-1**

LEGEND

- RCRA CORRECTIVE ACTION AREA (CAA) BOUNDARY*
- RFI AND CMS COMPLETED
- RFI COMPLETED AND NO CMS REQUIRED
- PROPERTY OWNED BY THE BUSINESS DEVELOPMENT CORP. OF THE NORTHERN PANHANDLE
- PROPERTY OWNED BY MINGO JUNCTION STEEL WORKS, LLC
- COUNTY/STATE BOUNDARY

NOTE*

AS A RESULT OF THE JANUARY 31, 2017 SALE OF A PORTION OF THE FORMER WEIRTON STEEL FACILITY FROM ARCELORMITTAL WEIRTON LLC TO MINGO JUNCTION STEEL WORKS, LLC, SOME OF THE FORMER CORRECTIVE ACTION AREAS (CAAS) WERE SPLIT INTO TWO PARTS. FOR THOSE SPLIT AREAS, AN "M" SUFFIX HAS BEEN ADDED TO THE CAA DESIGNATION FOR PROPERTY OWNED BY MINGO JUNCTION STEEL WORKS. ALL CAAS OWNED ENTIRELY BY MINGO JUNCTION STEEL WORKS RETAINED THEIR PRIOR CAA DESIGNATIONS.

REFERENCE

ESRI WORLD IMAGERY / ARCGIS MAP SERVICE:
HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY,
ACCESSED 7/3/2018, IMAGERY DATE: 2016.

CEC
Civil & Environmental Consultants, Inc.
4000 Triangle Lane, Suite 200 - Export, PA 15632
Ph: 724-327-5200 - 800-859-3610
www.cecinc.com

MINGO JUNCTION STEEL WORKS PROPERTY
WEIRTON, WEST VIRGINIA
BROOKE AND HANCOCK COUNTIES

DRAWN BY	CBL	CHECKED BY	NJH	APPROVED BY	DWG#
DATE	5/30/2018	SCALE	1" = 800'	PROJECT NO.	090-342.0014

CURRENT FACILITY SUBJECT TO THIS ORDER

FIGURE NO. **A-2**

Attachment B

Status of Documents Submitted to USEPA under 1996 Unilateral Administrative Order[1]

1. Approved Documents

The documents listed below have been approved by USEPA under the terms of the 1996 Unilateral Administrative Order.

- Final Corrective Measures Study for Corrective Action Area XI
- RCRA Facility Investigation Report for Corrective Action Area I (C&E Outfall Area)
- RCRA Facility Investigation Report for Corrective Action Area II (Mainland Coke Plant)
- RCRA Facility Investigation Report for Corrective Action Area XI (Former BOC/Air Products Area)
- Interim Summary Report of Findings for Parcels B-11 and B19 in Corrective Action Area IX (Former Standard Lafarge Slag Processing Area)
- RCRA Facility Wide RFI Work Plan (Revised June 1999), including:
    - RCRA Facility Investigation Work Plan for Corrective Action Area I (C&E Outfall Area)
    - RCRA Facility Investigation Work Plan for Corrective Action Area II (Mainland Coke Plant)
- RCRA Facility Investigation Work Plan for Corrective Action Area III (Browns Island)
- RCRA Facility Investigation Work Plan for Corrective Action Area VI (Iron-making Area) and VII (Steel-making Area)
- RCRA Facility Investigation Work Plan for Corrective Action Area X (Former IMS Slag Processing Area)

[1] This list does not include any documents related to the Interim Measures implemented at the Facility between 1998 and 2007, including Interim Measures conducted at the Detinning Plant, Oil House, Walnut Street Fueling Station, Brown Island Blue Soil, Browns Island Lagoon Soils, Browns Island Coke Oven Vent Pipes, Browns Island Tar Decanter, C&E Outfall Sumps, and Yard Office.

- RCRA Facility Investigation Work Plan for Corrective Action Area VIII (Walnut Street Junction Railyard Area) and IX (Former Standard LaFarge Slag Processing Area)
- RCRA Facility Investigation Work Plan for Corrective Action Area XI (Former BOC/Air Products Area)

2. **Most Recently Submitted Documents for Ongoing Investigations**

Several Corrective Action Areas have ongoing RCRA facility investigations. The most recently submitted documents for those Corrective Action Areas, some of which have not yet been reviewed by USEPA, are listed below:

- Draft RCRA Facility Investigation Report for Corrective Action Area III (Browns Island)
- Preliminary RCRA Facility Investigation Report for Corrective Action Area VI/VII (Iron-making/Steel-making)
- Preliminary RCRA Facility Investigation Report for Corrective Action Area VIII/IX
- Draft RCRA Facility Investigation Report for Corrective Action Area X (Former IMS Slag Progressing Area)

ATTACHMENT C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

1650 ARCH STREET

PHILADELPHIA, PENNSYLVANIA 19103-2029

IN THE MATTER OF:	)
	)
ArcelorMittal Weirton LLC 4020 Kinross Lakes Parkway Richfield, OH 44286-9000	) ADMINISTRATIVE ORDER) ON CONSENT))
	) DOCKET NO.
Regarding the former Weirton Steel facility located at:	)) RCRA-03-2018- 0143CA
	)
100 Pennsylvania Ave. Weirton, West Virginia 26062	))
	) Proceeding under Section
RESPONDENT	) 3008(h) of the Resource
	) Conservation and Recovery) Act, as amended, 42 U.S.C.
	) Section 6928(h)

ADMINISTRATIVE ORDER ON CONSENT

The parties to this Administrative Order on Consent (Consent Order or Order), the United States Environmental Protection Agency (EPA) and ArcelorMittal Weirton LLC (Arcelor or Respondent), having agreed to entry of this Consent Order, it is therefore Ordered and Agreed that:

I. JURISDICTION

A. This Consent Order is issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency by Section 3008(h) of the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984 (collectively referred to hereinafter as RCRA), 42 U.S.C. § 6928(h). The authority vested in the Administrator has been delegated to the Director of the Land and Chemicals Division by EPA Delegation No. 8-32 dated June 21, 2004.

B. On May 29, 1986, EPA granted the State of West Virginia (the State) authorization to operate a hazardous waste program in lieu of the federal program, pursuant to Section 3006(b) of RCRA, 42 U.S.C. Section 6926(b). EPA has also subsequently authorized additional revisions to the State's authorized program. The State, however, does not have authority to enforce Section 3008(h) of RCRA. The State of West Virginia has been given notice of the issuance of this Order.

C. This Consent Order is issued to Respondent, the owner and/or operator of a facility located at 100 Pennsylvania Avenue, Weirton, West Virginia 26062 (the Facility) which is part of the former Weirton Steel facility as also defined in Section IV.C, below, and depicted in Attachment A to this Consent Order and made a part thereof.

D. Respondent consents to issuance of this Consent Order, agrees to comply with its terms and will not contest EPA's authority to issue this Consent Order and to enforce its terms. Further, Respondent will not contest EPA's jurisdiction to: compel compliance with this Consent Order in any subsequent enforcement proceeding, either administrative or judicial; require Respondent's compliance with the terms of this Consent Order; or impose sanctions for violations of this Consent Order.

II. PARTIES BOUND

A. This Consent Order shall apply to and be binding upon EPA, Respondent and their agents, successors and assigns.

B. No change in ownership of any property covered by this Consent Order, or in the corporate or partnership status of Respondent, shall in any way alter, diminish, or otherwise affect Respondent's obligations and responsibilities under this Consent Order.

C. Respondent shall provide a copy of this Consent Order to all supervisory personnel, contractors, subcontractors, laboratories, and consultants retained to conduct and/or monitor any portion of the work performed pursuant to this Consent Order and shall do so within thirty (30) calendar days of the effective date of this Consent Order or date of such retention, whichever is later. All contracts, agreements or other arrangements with such persons shall require such persons to conduct and/or monitor the work in accordance with the requirements of this Consent Order. Notwithstanding the terms of any such contract, agreement or arrangement, Respondent is responsible for complying with this Consent Order and for ensuring that all such persons perform such work in accordance with this Consent Order.

D. In the event of any change in ownership or operation of the Facility and/or in the event of any change in majority ownership or control of the Respondent, Respondent shall notify EPA in writing of the nature of any such change no later than fifteen (15) calendar days after the effective date of such change. In addition, Respondent shall provide a copy of this Consent Order to any successor to the Respondent and/or to the Facility at least fifteen (15) calendar days prior to the effective date of such change.

III. STATEMENT OF PURPOSE

In entering into this Consent Order, the mutual objectives of EPA and Respondent are to 1) perform a RCRA Facility Investigation (RFI) to determine fully the nature and extent of any release of hazardous waste and/or hazardous constituents at or from the Facility; 2) perform a Corrective Measures Study (CMS) to identify and evaluate alternatives for corrective action necessary to prevent or mitigate migration or releases of solid wastes or hazardous wastes and/or hazardous constituents at or from the Facility; 3) implement corrective measures, if any are selected by EPA in Final Decision(s) and Response to Comments (FDRTCs), necessary to protect human health and the environment; and 4) perform Interim Measures (IM) as necessary, to prevent or mitigate threats to human health or the environment.

IV. FINDINGS OF FACT

Respondent neither admits nor denies the following Findings of Fact.

A. Respondent is a corporation and is a person as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

B. Respondent is the owner and/or operator of the Facility.

C. The Facility is part of the former Weirton Steel facility which was a facility authorized to operate under Section 3005(e) of RCRA, 42 U.S.C. § 6925(e), for purposes of Section 3008(h) of RCRA, 42 U.S.C. § 6928(h).

D. From approximately 1908 through the 1984, the former Weirton Steel facility was operated as a totally integrated steel mill that produced hot rolled steel, cold rolled steel, tin mill products, galvanized products and other coated flat rolled products. Currently Respondent operates a steel electroplating operation (Tin Mill) and a rolling mill at the Facility located along the Ohio River, and the remainder of the Facility has been shut down and idled. The portion of the former Weirton Steel facility currently owned and/or operated by Respondent occupies approximately 263.2 acres of property (see Attachment A). For purposes of this Order, the Facility shall include five (5) parcels sold off by Respondent in approximately 2004, and depicted on Attachment A in yellow highlight.

E. Results of sampling conducted by Respondent at the Facility in March 1994, September 1994, and March 1995 show that benzene, arsenic, cadmium, chromium and lead are present in groundwater at levels above their respective Maximum Contaminant Levels (MCLs) promulgated pursuant to Section 1412 of the Safe Drinking Water Act, 42 U.S.C. §§ 300g-l, and codified/promulgated at 40 C.F.R. Part 141.

F. Based on the findings above, EPA has determined that there are potential adverse environmental or human health impacts associated with the hazardous wastes which are present at or released at or from the Facility.

G. On September 16, 1996, EPA issued a Unilateral Administrative Order to Weirton Steel Corporation (Docket No. RCRA-3-083CA) (1996 UAO) for certain work now addressed by this Order.

H. Subsequent to the issuance of the 1996 UAO, Respondent became the owner of the former Weirton Steel facility. On January 31, 2017, Respondent conveyed a portion of the former Weirton Steel facility to Mingo Junction Steel Works, LLC (Mingo Junction). Respondent is now the owner of the Facility, as shown on Attachment A.

I. Pursuant to the terms of the 1996 UAO, various plans and reports were submitted to and/or approved by EPA (Submitted Documents).

J. Submitted Documents include, but are not limited to, those listed in Attachment B. The EPA Approved Documents apply to the Corrective Action Area(s) (CAA) that were defined in the EPA approved RFI Workplan(s) submitted to EPA pursuant to the 1996 UAO. Respondent shall inform EPA how it intends to use any previously approved Work to fulfill its obligations under this Order taking into account any subdivisions that occurred subsequent to the 1996 UAO.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

EPA hereby determines that there is or has been a release of hazardous waste within the meaning of 3008(h) of RCRA, 42 U.S.C. § 6928(h), into the environment from the Facility and that the corrective action and/or other response measures required by this Consent Order are necessary to protect human health or the environment.

VI. WORK TO BE PERFORMED

EPA acknowledges that Respondent has completed some of the tasks required by this Consent Order and that Respondent has available some of the information and data required by this Consent Order. To the extent that this previous work has been performed by Respondent and approved by EPA, it may be used to meet the requirements of this Consent Order, upon written approval by EPA.

Respondent acknowledges that Mingo Junction will be required to perform work on the Facility Property in order to comply with a related Order entered into by EPA and Mingo Junction (Docket No. RCRA-03-2018-0144CA). Respondent is required to cooperate with Mingo Junction to allow Mingo Junction to comply with its Order (Attachment C).

Pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), Respondent agrees to and is hereby ordered to implement the following work in the time and manner specified herein. All work undertaken pursuant to this Consent Order shall be developed and performed, as appropriate and approved by EPA, in accordance with: the Scope of Work for a RCRA Facility Investigation (RFI), the Scope of Work for a Corrective Measures Study (CMS), the Scope of Work for Corrective Measures Implementation, the Scope of Work for Interim Measures, the Scope of Work for Health and Safety Plan; and RCRA, its implementing regulations and relevant EPA guidance documents. EPA's Scopes of Work and relevant guidance are available at:

https://www.epa.gov/hwcorrectiveactionsites/corrective-action-resources-specific-epas-region-3 and are incorporated herein by reference.

Days as used herein shall mean calendar days unless otherwise specified. Respondent may request reasonable extensions of time for the submission of the Work required under Section VI, which may be granted at the sole discretion of EPA.

Work as used herein shall mean all activities and obligations that Respondent is required to perform under this Order. Respondent may perform the work pursuant to, in furtherance of, and/or in satisfaction of any and all requirements of this Consent Order in phases or on a parcel by parcel basis. The parties further agree that Respondent shall propose the boundaries of the individual parcel(s) required to be addressed pursuant to this Consent Order.

A. RCRA FACILITY INVESTIGATION ("RFI")

1. Within sixty (60) calendar days of the Effective Date of this Consent Order, Respondent shall submit to EPA for approval a description of the conditions at the Facility (Description). This Description shall be developed in accordance with the RFI Scope of Work. Upon receipt of a written request from Respondent, EPA may, in its sole discretion not subject to dispute resolution, waive the requirement for Respondent to submit the Description.

2. Within sixty (60) calendar days of the Effective Date of this Consent Order, Respondent shall submit to EPA, for approval, a Workplan for a RCRA Facility Investigation (RFI Workplan). The RFI Workplan shall be developed in accordance with, at a minimum, the RFI Scope of Work, RCRA, its applicable implementing regulations, and relevant EPA guidance documents.

3. The RFI Workplan shall be designed to determine the presence, magnitude, extent, direction, and rate of movement of any, hazardous wastes and/or hazardous constituents from Respondent's manufacture of printed circuit boards at or from the Facility. The RFI Workplan shall document the procedures Respondent shall use to conduct those investigations necessary to: (A) characterize the potential pathways of contaminant migration; (B) characterize the source(s) of contamination; (C) define the degree and extent of contamination; (D) identify actual or potential human and/or ecological receptors; (E) support the development of alternatives from which a corrective measure(s) will be selected by EPA; and (F) evaluate the effectiveness of the existing pump and treat system and submit a proposal to modify the system as appropriate. A specific schedule for expeditious implementation of all activities shall be included in the RFI Workplan.

4. In accordance with the provisions of the RFI Scope of Work the RFI Workplan shall include: (A) a Project Management Plan; (B) a Data Collection Quality Assurance Plan; (C) a Data Management Plan; (D) a Community Relations Plan; and (E) shall provide for the submission of a draft and final RFI report.

5. Upon receipt of EPA approval of the RFI Workplan, Respondent shall implement the EPA-approved RFI Workplan in accordance with the terms and schedules contained therein. . Upon completion of implementation of the RFI Workplan, Respondent shall submit to EPA for approval draft and final RFI Report(s) and draft and final Laboratory and Bench Scale Studies Report(s) in accordance with the requirements and schedule contained in the RFI Workplan.

B. CORRECTIVE MEASURES STUDY ("CMS")

1. Within ninety (90) calendar days of receipt of EPA approval of the Final RFI Report, Respondent shall submit to EPA for approval a Draft CMS Report(s) in accordance with the CMS Scope of Work.

2. Within thirty (30) calendar days of receipt of EPA's comments on the Draft CMS Report, Respondent shall submit to EPA the Final CMS Report, revised to respond to all comments received from and/or remedy all deficiencies identified by EPA on the Draft CMS Report.

C. PUBLIC COMMENT AND PARTICIPATION

1. After approval of the Final CMS Report, EPA will make both the Final RFI Report and the Final CMS Report, a description of EPA's proposed Corrective Measures, if any, and EPA's justification for proposing selection of such Corrective Measures (the "Statement of Basis") available to the public for review and comment for at least thirty (30) calendar days.

2. Following the public review and comment period, EPA will issue a Final Decision and Response to Comments (FDRTC), in which it will identify the Corrective Measure(s), if any are so selected. If on the basis of public comments or other relevant information, significant changes are proposed to be made to the corrective measures identified by EPA in the Statement of Basis , EPA may seek additional public comment.

3. Upon issuance of the FDRTC, the FDRTC shall be incorporated into this Consent Order and become a part hereof.

D. CORRECTIVE MEASURE(S) IMPLEMENTATION

1. Corrective Measure Workplan and Design

a. Within ninety (90) days of the issuance of the FDRTC, Respondent shall submit to EPA a Corrective Measures Implementation (CMI) Workplan for implementation of the Corrective Measures if any were selected in the FDRTC. The CMI Workplan is subject to approval by EPA and shall be developed in accordance with the Scope of Work for CMI.

b. Respondent shall include, as part of the CMI Workplan, an Institutional Controls Implementation and Assurance Plan (IC Plan). The IC Plan will establish, document, and report the methods that will be used to implement and monitor compliance with the land and/or groundwater use restrictions, if any, and ensure that they remain in place and effective and run with the land as appropriate.

c. Upon receipt by Respondent of EPA's approval of the CMI Workplan, said Workplan shall be incorporated into and become enforceable under this Consent Order, and Respondent shall implement it in accordance with the schedules and provisions contained therein.

d. Within ninety (90) calendar days of receipt of EPA approval of the CMI Work Plan, Respondent shall submit to EPA, for review and comment, a 30% CMI Design Report (with a list of plans and specifications) which shall be developed in accordance with the Scope of Work for CMI.

e. Within sixty (60) calendar days of receipt of EPA's comments on the 30% CMI Design Report, Respondent shall incorporate those comments and submit to EPA for approval a 90% CMI Design Report (with complete plans and specifications). The 90% CMI Design Report shall be developed in accordance with the Scope of Work for CMI.

f. Upon receipt by Respondent of EPA's approval of the 90% CMI Design Report, said Report shall be incorporated into and become enforceable under this Consent Order, and Respondent shall implement it in accordance with the schedules and provisions contained therein.

2. Corrective Measure Construction

a. For all corrective measures selected in a FDRTC that require construction, Respondent shall commence and complete construction of such Corrective Measures selected in the RCRA FDRTC in accordance with the CMI Scope of Work, the schedules and specifications set forth in the EPA-approved CMI Workplan and the EPA-approved CMI Design Report.

b. Within forty five (45) calendar days of completion of construction of the Corrective Measures selected by EPA in the FDRTC, Respondent shall submit to EPA for approval a CMI Report. The CMI Report shall be developed in accordance with CMI Scope of Work and shall describe activities performed during construction, and provide a preliminary assessment of CMI performance.

c. EPA shall determine, on the basis of the CMI Report and any other relevant information, whether the constructed project is consistent with the EPA-approved CMI Design Report. If EPA determines that the constructed project is consistent with the EPA-approved CMI Design Report and that the Corrective Measures have achieved or are achieving all of the requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report, EPA shall approve the CMI Report.

d. If EPA determines that the constructed project is inconsistent with the EPA-approved CMI Design Report and/or that the Corrective Measures have not achieved or are not achieving all of the requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report, EPA shall notify Respondent in writing of those activities that must be undertaken to complete the corrective measures requirements and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the schedule set forth in the EPA notification.

e. Respondent may, at any time following EPA approval of all pre-design activities required by the FDRTC as it pertains to the Facility, request that EPA select, for the purpose of this Consent Order, Alternative and/or Supplemental Corrective Measures, subject to EPA's review and approval.

3. Corrective Measures Assessment Reports

a. Within ninety (90) days after approval of the CMI Report pursuant to paragraph VI.D.2.c or d, Respondent shall submit a CMI Assessment Report for EPA approval. The CMI Assessment Report shall provide an evaluation of the Corrective Measures' effectiveness in

achieving the requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report.

b. If based on the CMI Assessment Report or any other information, EPA determines that the Corrective Measures are not achieving the requirements set forth in the FDRTC, EPA shall notify Respondent in writing of those activities that must be undertaken to meet the objectives of the Corrective Measures and shall set forth a schedule for the completion of those activities. Respondent shall complete the activities in accordance with the schedule set forth in the EPA notification.

c. No later than five years after the submission of the CMI Assessment Report and every five (5) years thereafter until Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Consent Order, including any additional tasks determined by EPA to be required pursuant to this Consent Order, have been satisfactorily completed, Respondent shall submit a CMI Five-Year Assessment Report. Such Report shall contain an evaluation of the past and projected future effectiveness of the Corrective Measures in achieving the requirements set forth in the FDRTC and the performance criteria established in the CMI Design Report.

d. Respondent may, as part of a CMI Five-Year Assessment Report, request that EPA select an Alternative and/or Supplemental Corrective Measures.

e. In the event EPA selects an Alternative and/or Supplemental Corrective Measure(s) either in response to a request by Respondent pursuant to Section VI.D.3.d, above, or on its own initiative, EPA may provide Respondent with a period of at least sixty (60) calendar days from the date Respondent receives written notice from EPA of the selection of an Alternative and/or Supplemental Corrective Measures within which to reach an agreement with EPA regarding performance of the Alternative and/or Supplemental Corrective Measures in lieu of, or in addition to, the Corrective Measures described in paragraph VI.C.2. Any such agreement between EPA and Respondent shall be incorporated into and become enforceable under this Consent Order and Respondent shall implement the activities required under any such agreement in accordance with any schedule and provisions contained therein.

f. Nothing in paragraph VI.D.3.e., above, shall limit EPA's authority to implement or require performance of Alternative and/or Supplemental Corrective Measure(s) or to take any other appropriate action under RCRA, 42 U.S.C. §§ 6901 et seq., the Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U.S.C. §§ 9601 et seq. (CERCLA), or any other legal authority, including the issuance of a unilateral administrative order or the filing of a civil action.

4. Completion of Corrective Measures

a. After Respondent has determined that the Corrective Measures in a FDRTC have been fully implemented in accordance with the EPA-approved CMI Design Report, Respondent shall notify EPA in writing and request EPA's approval to discontinue such Corrective Measures. The request shall explain the basis for Respondent's conclusion and include all available

documentation supporting such conclusion.

b. Upon receipt of EPA's approval of Respondent's request to discontinue Corrective Measures, Respondent may discontinue such Corrective Measures, except that Respondent shall continue to monitor the groundwater in accordance with the EPA-approved CMI Design Report (including the Sampling and Analysis Plan and Operations and Maintenance Plan), if applicable. Respondent shall submit the results of such post-construction monitoring with the Quarterly Progress Reports in accordance with Section VI.F.3 of this Consent Order.

c. If at any time during the post-construction monitoring program, EPA determines that the level of any hazardous constituent and/or hazardous waste in the groundwater has increased above the media cleanup standards set forth in a FDRTC for such hazardous constituent and/or hazardous waste, EPA may determine if Alternative and/or Supplemental Corrective Measures need to be initiated to achieve the established media cleanup standards. EPA shall notify Respondent in writing of any such determination. Any decision by EPA to require Alternative and/or Supplemental Corrective Measures shall be made pursuant to applicable EPA regulations and consistent with EPA guidance regarding selection of corrective measures under RCRA.

d. If after the post-construction monitoring program is completed to EPA's satisfaction, the media cleanup standards set forth in a FDRTC have been maintained and all other aspects of Corrective Measures Construction and O&M have been completed, Respondent shall submit a Certification of Completion for such corrective measures ("Certification of Completion") to EPA for approval in accordance with Section VI.F. of this Consent Order. The Certification of Completion shall provide documentation sufficient to support a determination that media cleanup standards set forth in the FDRTC have been maintained and include all available documentation supporting such a determination.

E. INTERIM MEASURES (IM)

1. Commencing on the Effective Date of this Consent Order and continuing thereafter, in the event Respondent identifies an immediate or potential threat to human health and/or the environment at the Facility, or discovers new releases of hazardous waste and/or hazardous constituents at or from the Facility not previously identified, Respondent shall notify the EPA Project Coordinator orally within forty eight (48) hours of discovery and notify EPA in writing within three (3) calendar days of such discovery summarizing the immediacy and magnitude of the potential threat(s) to human health or the environment. Upon written request of EPA, Respondent shall submit to EPA for approval an IM Work Plan in accordance with the IM Scope of Work. If EPA determines that immediate action is required, the EPA Project Coordinator may orally authorize Respondent to act prior to EPA's receipt of the IM Work Plan.

2. Commencing on the Effective Date of this Consent Order and continuing thereafter, if EPA identifies an immediate or potential threat to human health and/or the environment at the Facility, or discovers new releases of hazardous waste and/or the environment at the Facility not previously identified, EPA will notify Respondent in writing. Within ten (10) days of receiving EPA's written notification, Respondent shall submit to EPA for approval an IM Work Plan in accordance with the IM Scope of Work that identifies interim measures which will mitigate the

threat. If EPA determines that immediate action is required, the EPA Project Coordinator may orally require Respondent to act prior to Respondent's receipt of EPA's written notification.

3. All IM Work Plans shall ensure that the interim measures are designed to mitigate immediate or potential threat(s) to human health and/or the environment and should be consistent with the objectives of, and contribute to the performance of the corrective measures which may be selected by EPA in a FDRTC or any amendment thereto.

4. Each IM Work Plan shall include the following sections as appropriate and approved by EPA: Interim Measures Objectives, Public Involvement Plan, Data Collection Quality Assurance, Data Management, Design Plans and Specifications, Operation and Maintenance, Project Schedule, Interim Measures Construction Quality Assurance, and Reporting Requirements. Concurrent with submission of an IM Work Plan, Respondent shall submit to EPA an IM Health and Safety Plan.

F. SUBMISSIONS/EPA APPROVAL/ADDITIONAL WORK

1. EPA will review the Work Plans and reports and all other documents submitted by Respondent pursuant to this Consent Order, with the exception of progress reports (Submissions), and will notify Respondent in writing of EPA's approval or disapproval of each such Submission. In the event of EPA's disapproval, EPA shall specify in writing any deficiencies in the Submission. Such disapproval shall not be subject to the Dispute Resolution procedures of Section XV, below.

2. Within thirty (30) calendar days of receipt of EPA's comments on the Submission, or ten (10) calendar days in the case of an IM Work Plan, Respondent shall submit to EPA for approval a revised Submission, which responds to any comments received and/or corrects any deficiencies identified by EPA. In the event that EPA disapproves of the revised Submission, Respondent may invoke the dispute resolution procedures of Section XV, below. In the event EPA disapproves the revised Submission, EPA reserves the right to revise such Submission and seek to recover from Respondent the costs thereof, in accordance with CERCLA and any other applicable law. Any Submission approved or revised by EPA under this Consent Order shall be deemed incorporated into and made an enforceable part of this Consent Order.

3. Beginning with the first day of the fourth full month following the Effective Date of this Consent Order, and every three months thereafter on the first day of the month, throughout the period that this Consent Order is effective, Respondent shall provide EPA with quarterly progress reports.

4. One (1) copy of all Submissions required by this Consent Order shall be sent by Overnight Mail, Return Receipt Requested, to the Project Coordinator designated pursuant to Section XI (PROJECT COORDINATORS), below. In addition, an electronic copy of all Submissions shall also be sent via email to the designated Project Coordinator.

5. All work performed pursuant to this Consent Order shall be under the direction and supervision of a professional engineer or geologist with expertise in hazardous waste site investigation. Within thirty (30) calendar days after the Effective Date of this Consent Order, Respondent shall submit to EPA, in writing, the name, title, and qualifications of the engineer or geologist and of any contractors or subcontractors to be used in carrying out the terms of this Consent Order. If the Respondent will continue to use an engineer or geologist whose information was previously submitted to EPA under the terms of the 1996 UAO, this submittal is not required. Notwithstanding Respondent's selection of an engineer, geologist, contractor or subcontractor, nothing herein shall relieve Respondent of its obligation to comply with the terms and conditions of this Consent Order. EPA shall have the right to disapprove at any time the use of any professional engineer, geologist, contractor or subcontractor selected by Respondent. EPA's disapproval shall not be subject to review under Section XV (DISPUTE RESOLUTION) of this Consent Order, or otherwise. Within fifteen (15) calendar days of receipt from EPA of written notice disapproving the use of any professional engineer, geologist, contractor or subcontractor, Respondent shall notify EPA, in writing, of the name, title and qualifications of the personnel who will replace the personnel disapproved by EPA. Respondent shall notify EPA ten (10) days prior to changing voluntarily its engineer or geologist, and/or contractors or subcontractors to be used in carrying out the terms of this Consent Order, and shall submit to EPA in writing, the name, title, and qualifications of such person(s).

6. EPA may determine that certain tasks and deliverables including, but not limited to, investigatory work or engineering evaluation require additional work. These tasks and deliverables may or may not have been in the EPA-approved Work Plans. If EPA determines that such additional work is necessary, EPA shall request, in writing, that Respondent perform the additional work and shall specify the reasons for EPA's determination that additional work is necessary. Within fifteen (15) calendar days after the receipt of such request, or as otherwise agreed by the parties, Respondent shall have the opportunity to meet or confer with EPA to discuss the additional work EPA has requested. In the event that Respondent agrees to perform the additional work, this Consent Order shall be modified in accordance with Section XXII (SUBSEQUENT MODIFICATION) below, and such work shall be performed in accordance with this Consent Order. In the event Respondent declines or fails to perform the additional work, EPA reserves the right, at a minimum, to order Respondent to perform such additional work; to perform such additional work itself and to seek to recover from Respondent all costs of performing such additional work; and to disapprove the CMI Work Plans; the CMI Reports and/or any other Submissions. Respondent reserves its rights and defenses to challenge any such action by EPA, subject to Section I.D.

VII. QUALITY ASSURANCE

A. Throughout all sample collection and analysis activities, Respondent shall use EPA-approved quality assurance, quality control, and chain-of-custody procedures, as specified in the EPA-approved Work Plans. In addition, Respondent shall:

1. Ensure that laboratories used by Respondent for analyses perform such analyses according to the EPA methods included in Test Methods for Evaluating Solid Waste (SW-846,

November 1986) or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall submit all analytical protocols to be used for analyses to EPA for approval at least thirty (30) calendar days prior to the commencement of analyses and shall obtain EPA approval prior to the use of such analytical protocols.

2. Ensure that laboratories used by Respondent for analyses participate in a quality assurance/quality control program equivalent to that which is followed by EPA. As part of such a program, and upon request by EPA, such laboratories shall perform analyses of samples provided by EPA to demonstrate the quality of the analytical data.

3. Inform the EPA Project Coordinator at least fourteen (14) calendar days in advance of any laboratory analysis regarding which laboratory will be used by Respondent and ensure that EPA personnel and EPA authorized representatives have reasonable access to the laboratories and personnel used for analysis.

VIII. ON-SITE AND OFF-SITE ACCESS

A. EPA and/or its authorized representatives shall have the authority to enter and freely move about all property at the Facility owned or controlled by Respondent during the pendency of this Consent Order for the purposes of, inter alia: interviewing Facility personnel and contractors controlled by Respondent; inspecting Respondent's records, operating logs, and contracts related to the Facility; reviewing the progress of Respondent in carrying out the terms of this Consent Order; conducting such tests, sampling or monitoring as EPA or its Project Coordinator deem necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by Respondent. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, and other writings, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Consent Order.

B. To the extent that work required by this Consent Order, or by any EPA-approved Work Plan prepared pursuant hereto, must be done on property not owned or controlled by Respondent, Respondent shall use its best efforts to obtain site access agreement(s) from the present owner(s) and/or lessee(s) of such property, as appropriate, within thirty (30) calendar days of receipt of EPA approval of any Work Plan pursuant to this Consent Order which requires Work on such property. For purposes of this paragraph, best efforts shall include, at a minimum, but shall not be limited to: a) a certified letter from Respondent to the present owner(s) or lessee(s) of such property requesting agreements to permit Respondent, EPA, and its authorized representatives to have access to such property; and b) the payment of reasonable sums of money in consideration of access. Reasonable sums of money means the fair market value of the right of access necessary to implement the requirements of this Consent Order. In the event that such agreements for access are not obtained within thirty (30) calendar days after receipt of EPA approval of any Work Plan pursuant to this Consent Order which requires work on property which is not owned or controlled by Respondent, Respondent shall notify EPA, in writing, within seven (7) calendar days after the conclusion of such thirty-day period, regarding both the efforts undertaken to obtain access and the inability to obtain such agreements. In the event that

Respondent fails to obtain off-site access, despite the exercise of best efforts, EPA, in its discretion, may assist Respondent in obtaining off-site access for Respondent. Respondent shall reimburse EPA for all costs incurred by EPA in obtaining access, including, but not limited to, attorney's fees and the amount of any just compensation and costs incurred by EPA.

C. To the extent Mingo Junction Steel Works, LLC (Mingo Junction) needs access to conduct Work in or around the Facility in order to satisfy Mingo Junction's obligations under a related Order (Docket No. RCRA-03-2018-0144CA)(Attachment C), Respondent shall reasonably cooperate with Mingo Junction in order to fulfill Work required of Mingo Junction.

D. Nothing in this Consent Order limits or otherwise affects EPA's rights of access and entry pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

IX. SAMPLING AND DATA/DOCUMENT AVAILABILITY

A. Respondent shall submit to EPA the results of all sampling and/or tests or other data generated by, or on behalf of, Respondent in accordance with the requirements of this Consent Order.

B. Respondent shall notify EPA, in writing, at least fourteen (14) calendar days in advance of any field activities, including but not limited to, well drilling, installation of equipment, or sampling. At the request of EPA, Respondent shall provide or allow EPA or its authorized representatives to take split or duplicate samples of all samples collected by Respondent pursuant to this Consent Order. Nothing in this Consent Order shall limit or otherwise affect EPA's authority to collect samples pursuant to applicable law, including, but not limited to, RCRA and CERCLA.

C. Respondent may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Consent Order in the manner described in 40 C.F.R. § 2.203(b). Any assertion of confidentiality shall be adequately substantiated by Respondent when the assertion is made in accordance with 40 C.F.R. § 2.204(e)(4). Information subject to a confidentiality claim shall be disclosed only to the extent allowed by, and in accordance with, the procedures set forth in 40 C.F.R. Part 2, Subpart B. If no such confidentiality claim accompanies the information when it is submitted to EPA, it may be made available to the public by EPA without further notice to Respondent. Respondent shall not assert any confidentiality claim with regard to any physical, sampling, monitoring, or analytical data.

D. If Respondent wishes to assert a privilege with regard to any document which EPA seeks to inspect or copy pursuant to this Consent Order, Respondent shall identify the document, the privilege claimed, and the basis therefore in writing. For the purposes of this Consent Order, privileged documents are those documents exempt from discovery from the United States in litigation under the Federal Rules of Civil Procedure. Respondent shall not assert a privilege with regard to analytical, sampling and monitoring data.

X. RECORD PRESERVATION

Respondent agrees that it shall preserve, during the pendency of this Consent Order and for a minimum of at least six (6) years after its termination, all data, records and documents in its possession or in the possession of its divisions, officers, directors, employees, agents, contractors, successors, and assigns which relate in any way to this Consent Order or to hazardous waste management and/or disposal at the Facility. After six (6) years, Respondent shall make such records available to EPA for inspection or shall provide copies of such records to EPA. Respondent shall notify EPA at least thirty (30) calendar days prior to the proposed destruction of any such records, and shall provide EPA with a reasonable opportunity to inspect, copy and/or take possession of any such records. Respondent shall not destroy any record to which EPA has requested access for inspection and/or copying until EPA has obtained such access or withdrawn its request for such access. Nothing in this Section X shall in any way limit the authority of EPA under Section 3007 of RCRA, 42 U.S.C. § 6927, or any other access or information-gathering authority.

XI. PROJECT COORDINATORS

A. EPA hereby designates John Hopkins as the EPA Project Coordinator. Within ten (10) calendar days of the Effective Date of this Consent Order, Respondent shall notify EPA, in writing, of the Project Coordinator it has selected. If the Respondent will continue to use the Project Coordinator whose information was previously submitted to EPA under the terms of the 1996 UAO, this submittal is not required. Respondent's Project Coordinator is the Regional Waste Manager for ArcelorMittal USA. Respondent's legal counsel shall not serve as Respondent's Project Coordinator. Each Project Coordinator shall be responsible for overseeing the implementation of the Consent Order. The EPA Project Coordinator will be EPA's primary designated representative at the Facility. To the maximum extent possible, all communications between Respondent and EPA, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order, shall be directed through the Project Coordinators.

B. Each party agrees to provide at least seven (7) calendar days written notice to the other party prior to changing Project Coordinators.

C. If EPA determines that conditions or activities at the Facility, whether or not in compliance with this Consent Order, have caused or may cause a release or threatened release of hazardous wastes, hazardous constituents, hazardous substances, solid wastes, pollutants or contaminants which threaten or may pose a threat to the public health or welfare or to the environment, EPA may direct that Respondent stop further implementation of this Consent Order for such period of time as may be needed to abate any such release or threatened release and/or to undertake any action which EPA determines is necessary to abate such release or threatened release.

D. The absence of the EPA Project Coordinator from the Facility shall not be cause for the delay or stoppage of work.

XII. NOTIFICATION

A. Unless otherwise specified, reports, correspondence, approvals, disapprovals, notices, or other submissions relating to or required under this Consent Order shall be in writing and shall be sent as follows:

1. One electronic and one hard copy of all documents shall be submitted to:

   John Hopkins
   U.S. Environmental Protection Agency, Region III
   Mail Code 3LC10
   1650 Arch St.
   Philadelphia, PA 19103-2029

2. One copy of all documents to be submitted to EPA shall also be sent to:

   Kenan Cetin
   West Virginia Division of Environmental Protection
   Kenan.Cetin@wv.gov

B. Any notice, report, certification, data presentation, or other document submitted by Respondent pursuant to this Consent Order which discusses, describes, demonstrates, or supports any finding or makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Consent Order shall be certified by a responsible corporate officer or a duly authorized representative of a responsible corporate officer. A responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (b) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. A person is a duly authorized representative only if: (1) the authorization is made in writing by a person described above; (2) the authorization specifies either an individual or position having responsibility for overall operation of the regulated facility or activity (a duly authorized representative may thus be either a named individual or any individual occupying a named position); and (3) the written authorization is submitted to the Project Coordinator designated by EPA in Section XI (PROJECT COORDINATORS) of this Consent Order.

C. The certification required by paragraph B, above, shall be in the following form:

   I certify that the information contained in or accompanying this [type of submission] is true, accurate, and complete.

As to [the/those identified portion(s)] of this [type of submission] for which I cannot personally verify [its/their] accuracy, I certify under penalty of law that this [type of submission] and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), 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 fines and imprisonment for knowing violations.

Signature : _____

Name : _____

Title : _____

XIII. COST ESTIMATES AND ASSURANCES OF FINANCIAL RESPONSIBILITY

A. Estimated Cost of Work

1. Within sixty (60) days after EPA approval of each of the RFI(s), CMI(s), IM(s) and Additional Work Workplan(s), Respondent shall submit to EPA for approval detailed written estimates, in current dollars, of the cost of hiring a third party to perform the work under such approved Workplan (Cost Estimate). All cost estimates shall be consistent with the requirements of 40 C.F.R. 264.142 and 264.144. References in these regulations to closure and post-closure shall mean the Work to be Performed under Section VI of this Consent Order.

2. Respondent shall annually adjust the Cost Estimate for inflation and for changes in the scope of the Work until the Work required by this Consent Order is completed. Within sixty (60) days after the close of Respondent's fiscal year, Respondent shall submit each annual Cost Estimate to EPA for review.

3. If at any time EPA determines that a cost estimate provided pursuant to this Section XIII is inadequate, EPA shall notify Respondent in writing, stating the basis for its determination. If at any time Respondent becomes aware of information indicating that any Cost Estimate provided pursuant to this Section XIII is inadequate, Respondent shall notify EPA in writing of such information within twenty (20) days. Within thirty (30) days of EPA's notification, or within thirty (30) days of becoming aware of such

information, as the case may be, Respondent shall submit a revised Cost Estimate to EPA for review.

B. Assurances of Financial Responsibility for Completing the Work

1. Within one hundred twenty (120) days after EPA approves the initial Cost Estimate, Respondent shall establish financial assurance for the benefit of EPA. In the event that EPA approval of Respondent's initial Cost Estimate is not received within 30 days after close of Respondent's fiscal year, Respondent shall establish and maintain the financial assurance in the amount of the Cost Estimate submitted pursuant to Paragraph XIII.A.I within ninety (90) days of the end of its fiscal year. Respondent shall maintain adequate financial assurance until EPA releases Respondent from this requirement pursuant to Section XXIV (TERMINATION AND SATISFACTION). Respondent shall update the financial instrument or financial test demonstration to reflect changes to the Cost Estimate within ninety (90) days after the close of the Respondent's fiscal year. Respondent may use one or more of the financial assurance forms described in subparagraphs i - vi immediately below. Any and all financial assurance documents shall be satisfactory in form and substance as determined by EPA.

i. A trust fund established for the benefit of EPA, administered by a trustee;

ii. A surety bond unconditionally guaranteeing performance of the Work in accordance with this Consent Order, or guaranteeing payment at the direction of EPA into a standby trust fund that meets the requirements of the trust fund in subparagraph i above;

iii. An irrevocable letter of credit, payable at the direction of the Director, Land and Chemicals Division, into a standby trust fund that meets the requirements of the trust fund in subparagraph i above;

iv. An insurance policy that provides EPA with rights as a beneficiary, issued for a face amount at least equal to the current Cost Estimate, except where costs not covered by the insurance policy are covered by another financial assurance instrument;

v. A corporate guarantee, executed in favor of the EPA by one or more of the following: (1) a direct or indirect parent company, or (2) a company that has a "substantial business relationship" with Respondent (as defined in 40 C.F.R. § 264.141(h)), to perform the Work required under Section VI of this Consent Order or to establish a trust fund as permitted by subparagraph i above; provided, however, that any company providing such a guarantee shall demonstrate to the satisfaction of the EPA that it satisfies the financial test requirements of 40 C.F.R. § 264.143(f) with respect to the portion of the Cost Estimate that it proposes to guarantee.

vi. A demonstration by Respondent that it meets the financial test criteria of 40 C.F.R. § 264.143(f) with respect to the Cost Estimate, provided that all other requirements of 40 C.F.R. § 264.143(f) are satisfied.

vii.. Another form of financial assurance proposed by Respondent, if approved by EPA.

2. Respondent shall submit all original executed and/or otherwise finalized instruments to Regional Administrator, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029 within thirty (30) days after date of execution or finalization as required to make the documents legally binding. Respondent shall also provide copies to the EPA Project Coordinator.

3. If at any time Respondent provides financial assurance for completion of the Work by means of a corporate guarantee or financial test, Respondent shall also comply with the other relevant requirements of 40 C.F.R. § 264.143(f), 40 C.F.R. § 264.151(f), and 40 C.F.R. § 264.151(h)(1) relating to these methods, and will promptly provide any additional information requested by EPA from Respondent or corporate guarantor within seven (7) calendar days of its receipt of such request from EPA or the corporate guarantor.

4. For purposes of the corporate guarantee or the financial test described above, references in 40 C.F.R. § 264.143(f) to "the sum of current closure and post-closure costs and the current plugging and abandonment cost estimates" shall mean "the sum of all environmental remediation obligations, including, but not limited to, obligations under the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9601 et seq., RCRA, the Underground Injection Control Program promulgated pursuant to the Safe Drinking Water Act, 42 U.S.C. §§ 300f et seq., and the Toxic Substances Control Act, 42 U.S.C. §§ 2601, et seq., and any other federal or state environmental obligation guaranteed by such company or for which such company is otherwise financially obligated in addition to the Cost Estimate.

5. Respondent may combine more than one mechanism to demonstrate financial assurance for the Work required under Section VI of this Consent Order.

6. Respondent may satisfy its obligation to provide financial assurance for the Work required under Section VI herein by providing a third party who assumes full responsibility for said Work and otherwise satisfies the obligations of the financial assurance requirements of this Consent Order; however, Respondent shall remain responsible for providing financial assurance in the event such third party fails to do so and any financial assurance from a third party shall be in one of the forms provided in subparagraphs XIII.B.1.i. through vi. above.

7. If at any time EPA determines that a financial assurance mechanism provided pursuant to this Section XIII is inadequate, EPA shall notify Respondent in writing. If at any time Respondent becomes aware of information indicating that any financial assurance mechanism(s) provided pursuant to this Section XIII is inadequate, Respondent shall notify EPA in writing of such information within ten (10) days of Respondent's becoming aware of such information. Within ninety (90) days of receipt of notice of EPA's determination, or within ninety (90) days of Respondent's becoming aware of such information, Respondent shall establish and maintain adequate financial assurance for the benefit of the EPA which satisfies all requirements set forth in this Section. Any and all financial assurance documents provided pursuant to this Consent Order shall be submitted to EPA for review in draft form at least forty-five (45) days before they are due to be filed and shall be satisfactory in form and substance as determined by EPA.

8. Respondent's inability or failure to establish or maintain financial assurance for completion of the Work required under Section VI of this Consent Order shall in no way excuse performance of any other requirements of this Consent Order.

9. Modification of Amount and/or Form of Performance Guarantee

i. Reduction of Amount of Financial Assurance. If Respondent believes that the Cost Estimate has diminished below the amount covered by the existing financial assurance provided under this Consent Order, Respondent may, at the same time that Respondent submits its annual Cost Estimate, submit a written proposal to EPA for approval to reduce the amount of the financial assurance to equal the revised Cost Estimate.

ii. Change of Form of Financial Assurance. If Respondent desires to change the form or terms of financial assurance, Respondent may, at the same time that Respondent submits the annual Cost Estimate, submit a written proposal to EPA for approval to change the form of financial assurance. The written proposal shall specify all proposed instruments or other documents required in order to make the proposed financial assurance legally binding and shall satisfy all requirements set forth in this Section. Within thirty (30) days after receiving written approval of the proposed revised or alternative financial assurance, Respondent shall execute and/or otherwise finalize all instruments or other documents required in order to make the selected financial assurance legally binding. Respondent shall submit all executed and/or otherwise finalized instruments or other documents required in order to make the selected financial assurance legally binding to the Regional Administrator, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029, with a copy to EPA's Project Coordinator, as provided in Section XII (NOTIFICATIONS) above.

10. Release of Financial Assurance. Respondent may submit a written request to the Director, Land and Chemicals Division that EPA release Respondent from the requirement to maintain financial assurance under this Section XIII upon receipt of

written notice from EPA pursuant to Section XXIV that, as set forth therein, the terms of this Consent Order have been satisfactorily completed. If said request is granted, the Director, Land and Chemicals Division shall notify both the Respondent and the provider(s) of the financial assurance that Respondent is released from all financial assurance obligations under this Consent Order.

XIV. DELAY IN PERFORMANCE/STIPULATED PENALTIES

A. Unless there has been a written modification of a compliance date by EPA, or excusable delay as defined below in Section XVI (FORCE MAJEURE AND EXCUSABLE DELAY), in the event that Respondent fails to comply with any requirement set forth in this Consent Order, Respondent shall pay stipulated penalties, as set forth below, upon receipt of written demand by EPA. Compliance by Respondent shall include commencement or completion, as appropriate, of any activity, plan, study, or report required by this Consent Order in an acceptable manner and within the specified time schedules in and approved under this Consent Order. Stipulated penalties shall accrue as follows:

1. For failure to commence, perform or complete Work as prescribed in this Consent Order: $1,250 per day for one to seven days or part thereof of noncompliance, and $2,250 per day for each day of noncompliance, or part thereof, thereafter;

2. For failure to comply with the provisions of this Consent Order after receipt of notice of noncompliance by EPA: $1,000 per day for one to seven days or part thereof of noncompliance, and $2,000 per day for each day of noncompliance, or part thereof, thereafter; in addition to any stipulated penalties imposed for the underlying noncompliance;

3. For failure to submit deliverables as required by this Consent Order, or for failure to comply with this Consent Order not described in subparagraphs 1 and 2 above: $500 per day for one to seven days or part thereof of noncompliance, and $750 per day for each day of noncompliance, or part thereof, thereafter.

B. All penalties shall begin to accrue on the date that complete performance is due or a violation occurs, and shall continue to accrue through the final day of or correction of the violation. Nothing herein shall prevent the simultaneous accrual of separate stipulated penalties for separate violations of this Consent Order.

C. All penalties owed to EPA under this Section XIV shall be due within thirty (30) calendar days of receipt of a demand for payment unless Respondent invokes the dispute resolution procedures in Section XV, below. Such notification shall describe the noncompliance and shall indicate the amount of penalties due. Interest shall begin to accrue on the unpaid balance at the end of the thirty (30)-calendar day period and shall accrue at the United States Tax and Loan Rate.

D. All penalty payments shall be made by certified or cashier's check payable to the Treasurer of the United States of America and shall be remitted to:

U.S. Environmental Protection Agency
Fines and Penalties
Cincinnati Finance Office
P.O. Box 979077
St. Louis, MO 63197-9000

All payments shall reference the name of the Facility, Respondent's name and address, and the EPA Docket Number of this Consent Order. Copies of the transmittal of payment shall be sent simultaneously to the EPA Project Coordinator and the Regional Hearing Clerk (3RC00), U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103-2029.

E. Respondent may dispute EPA's demand for payment of stipulated penalties for any alleged violation of this Consent Order by invoking the dispute resolution procedures below in Section XV (DISPUTE RESOLUTION). Stipulated penalties shall continue to accrue, but need not be paid, for any alleged noncompliance which is the subject of dispute resolution during the period of such dispute resolution. To the extent that Respondent does not prevail upon resolution of the dispute, Respondent shall remit to EPA within seven (7) calendar days of receipt of such resolution any outstanding penalty payment, including any accrued interest, in the manner described above in Paragraph D of this Section XIV. To the extent Respondent prevails upon resolution of the dispute, no penalties shall be payable.

F. Neither the filing of a petition to resolve a dispute nor the payment of penalties shall alter in any way Respondent's obligation to comply with the requirements of this Consent Order.

G. The stipulated penalties set forth in this Section XIV shall not preclude EPA from pursuing any other remedies or sanctions which may be available to EPA by reason of Respondent's failure to comply with any of the requirements of this Consent Order.

XV. DISPUTE RESOLUTION

A. If Respondent disagrees, in whole or in part, with any EPA disapproval, modification or other decision or directive made by EPA pursuant to this Consent Order, Respondent shall notify EPA in writing of its objections, and the basis therefor, within fourteen (14) calendar days of receipt of EPA's disapproval, decision or directive. Such notice shall set forth the specific points of the dispute, the position which Respondent asserts should be adopted as consistent with the requirements of this Consent Order, the basis for Respondent's position, and any matters which it considers necessary for EPA's determination. EPA and Respondent shall have an additional fourteen (14) calendar days from the receipt by EPA of the notification

of objection, or such longer period of time that EPA may allow in its sole discretion not subject to dispute resolution , during which time representatives of EPA and Respondent may confer in person or by telephone to resolve any disagreement. If an agreement is reached, the resolution shall be written and signed by an authorized representative of each party. In the event that resolution is not reached within this fourteen (14) calendar day period, or such longer period of time that EPA may allow in its sole discretion not subject to dispute resolution , EPA will furnish to Respondent, in writing, its decision on the pending dispute.

B. The invocation of formal dispute resolution procedures under this Section XV shall not extend, postpone or affect in any way any obligation of Respondent under this Order unless EPA determines otherwise. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Order. In the event that Respondent does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIV (DELAY INPERFORMANCE/STIPULATED PENALTIES).

C. Notwithstanding any other provisions of this Consent Order, no action or decision by EPA, including, without limitation, decisions of the Director of Land and Chemicals Division, Region III, pursuant to this Consent Order, shall constitute final agency action giving rise to any right to judicial review prior to EPA's initiation of judicial action to compel Respondent's compliance with this Consent Order.

XVI. FORCE MAJEURE AND EXCUSABLE DELAY

A. Respondent shall perform the requirements of this Consent Order in the manner and within the time limits set forth herein, unless the performance is prevented or delayed by events which constitute a force majeure. Respondent shall have the burden of proving such a force majeure. A force majeure is defined as any event arising from causes not reasonably foreseeable and beyond the control of Respondent, which cannot be overcome by due diligence and which delays or prevents performance in the manner or by a date required by this Consent Order. Such events do not include increased costs of performance, changed economic circumstances, reasonably foreseeable weather conditions or weather conditions which could have been overcome by due diligence, or failure to obtain federal, state, or local permits unless applications for such permits were submitted in a timely and complete fashion and such permits were not issued, through no fault of Respondent.

B. Respondent shall notify EPA, in writing, within seven (7) calendar days after it becomes or should have become aware of any event which Respondent claims constitutes a force majeure. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to prevent or minimize the delay, and an estimated timetable for implementation of these measures. Failure to comply with the notice provision of this Section XVI shall constitute a waiver of Respondent's right to assert a force majeure claim with respect to such event. In addition to the above

notification requirements, Respondent shall undertake all reasonable actions to prevent or to minimize any delay in achieving compliance with any requirement of this Consent Order after it becomes or should have become aware of any event which may delay such compliance.

C. If EPA determines that there is excusable delay because the failure to comply or delay has been or will be caused by a force majeure, the time for performance of that requirement of this Consent Order may be extended, upon EPA approval, for a period equal to the delay resulting from such force majeure. This shall be accomplished through an amendment to this Consent Order pursuant to Section XXII (SUBSEQUENT MODIFICATION). Such an extension shall not alter the schedule for performance or completion of any other tasks required by this Consent Order, unless these tasks are also specifically altered by amendment of the Consent Order. In the event that EPA and Respondent cannot agree that any delay or failure has been or will be caused by a force majeure, or if there is no agreement on the length of the extension, Respondent may invoke the dispute resolution procedures set forth in Section XV (DISPUTE RESOLUTION).

XVII. RESERVATION OF RIGHTS

A. EPA expressly reserves all rights and defenses that it may have, including the right both to disapprove of work performed by Respondent pursuant to this Consent Order, to require that Respondent correct and/or perform any work disapproved by EPA, and to request that Respondent perform tasks in addition to those stated in the Scope(s) of Work, Work Plans, or other provisions of this Consent Order.

B. EPA hereby reserves all of its statutory and regulatory powers, authorities, rights and remedies, both legal and equitable, including any which may pertain to Respondent's failure to comply with any of the requirements of this Consent Order, including, without limitation, the assessment of penalties under Section 3008(h)(2) of RCRA, 42 U.S.C.§ 6928(h)(2). This Consent Order shall not be construed as a covenant not to sue, or as a release, waiver or limitation of any rights, remedies, powers and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory or common law authority.

C. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws and regulations.

D. The signing of this Consent Order and Respondent's consent to comply shall not limit or otherwise preclude EPA from taking additional enforcement action pursuant to RCRA, including but not limited to Sections 3008(a) or (h) of RCRA, 42 U.S.C. §§ 6928(a) or (h), or any other authority, should EPA determine that such action is warranted.

E. This Consent Order is not intended to be, nor shall it be construed as, a permit. This Consent Order does not relieve Respondent of any obligation to obtain and comply with any local, state, or federal permit or approval.

F. EPA reserves the right to perform any portion of the work consented to herein or any additional site characterization, feasibility study, and response/corrective actions it deems necessary to protect public health or welfare or the environment. EPA may exercise its authority under RCRA, CERCLA or any other authority to undertake or require the performance of response actions at any time. EPA reserves the right to seek reimbursement from Respondent for costs incurred by the United States in connection with any such response actions. Notwithstanding compliance with the terms of this Consent Order, Respondent is not released from liability, if any, for the costs of any response actions taken by EPA.

G. EPA reserves whatever rights it may have under CERCLA or any other law, or in equity, to recover from Respondent any costs incurred by EPA in overseeing the implementation of this Consent Order.

XVIII. OTHER CLAIMS

Nothing in this Consent Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person, firm, partnership, or corporation, or other entity for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous constituents, hazardous substances, hazardous wastes, solid wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

XIX. OTHER APPLICABLE LAWS

All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. Respondent shall obtain or require its authorized representatives to obtain all permits and approvals necessary under such laws and regulations.

XX. INDEMNIFICATION OF THE UNITED STATES GOVERNMENT

Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of Respondent or its agents, independent contractors, receivers, trustees, and assigns in carrying out activities required by this Consent Order. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Respondent or the United States under their various contracts. The United States shall not be deemed to be a party to any contract entered into by Respondent for the purpose of carrying out any activities required by this Consent Order.

XXI. NOTICE OF NON-LIABILITY OF EPA

EPA shall not be deemed a party to any contract involving Respondent and relating to activities at the Facility and shall not be liable for any claim or cause of action arising from or on account of any act, or the omission of Respondent, its officers, employees, contractors, receivers, trustees, agents or assigns, in carrying out the activities required by this Consent Order.

XXII. SUBSEQUENT MODIFICATION

A. Except as provided in Paragraph C of this Section XXII, below, this Consent Order may be amended only by mutual agreement of EPA and Respondent. Any such amendment shall be in writing, shall be signed by an authorized representative of each party, shall have as its effective date the date on which it is signed by EPA, and shall be incorporated into this Consent Order.

B. Any reports, plans, specifications, schedules, other submissions, and attachments required by this Consent Order are, upon written approval by EPA, incorporated into this Consent Order. Any noncompliance with such EPA-approved reports, plans, specifications, schedules, other submissions, and attachments shall be considered a violation of this Consent Order and shall subject Respondent to the stipulated penalty provisions included in Section XIV (DELAY IN PERFORMANCE/STIPULATED PENALTIES).

C. Minor modifications in the studies, techniques, procedures, designs, or schedules utilized in carrying out this Consent Order and necessary for the completion of the project may be made by written agreement of the Project Coordinators. Such modifications shall have as an effective date the date on which the agreement is signed by the EPA Project Coordinator.

D. No informal advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, and any other writing submitted by Respondent shall be construed as relieving Respondent of its obligation to obtain written approval, if and when required by this Consent Order.

XXIII. SEVERABILITY

If any provision or authority of this Consent Order or the application of this Consent Order to any party or circumstance is held by any judicial or administrative authority to be invalid, the application of such provision to other parties or circumstances and the remainder of this Consent Order shall not be affected thereby and shall remain in full force.

XXIV. TERMINATION AND SATISFACTION

The provisions of this Consent Order shall be deemed satisfied upon Respondent's receipt of written notice from EPA that Respondent has demonstrated, to the satisfaction of EPA, that the terms of this Consent Order, including any additional tasks determined by EPA to be required pursuant to this Consent Order, have been satisfactorily completed. This notice shall not, however, terminate Respondent's obligation to comply with any continuing obligations hereunder including, but not limited to, Sections X (RECORD PRESERVATION), XVII (RESERVATION OF RIGHTS), XVIII (OTHER CLAIMS), XIX (OTHER APPLICABLE LAWS), and XX (INDEMNIFICATION OF THE UNITED STATES GOVERNMENT).

XXV. SURVIVABILITY/PERMIT INTEGRATION

A. Subsequent to the issuance of this Consent Order, a RCRA permit may be issued to the Facility incorporating the requirements of this Consent Order by reference into the permit.

B. No requirement of this Consent Order shall terminate upon the issuance of a RCRA permit unless such requirement is expressly replaced by a requirement in the permit.

XXVI. ATTORNEYS' FEES

The Respondent shall bear its own costs and attorneys fees.

XXVII. EFFECTIVE DATE/WAIVER OF HEARING

The Effective Date of this Consent Order shall be the date on which a true and correct copy of this Consent Order is received by Respondent. Because this Consent Order was entered with the consent of both parties, Respondent waives its right to request a public hearing pursuant to Section 3008(b) of RCRA, 42 U.S.C. § 6928(b), and 40 C.F.R. Part 24.

XXVIII. TERMINATION OF 1996 UNILATERAL ADMINISTRATIVE ORDER

On September 16, 1996, EPA Region III issued a Unilateral Administrative Order to Weirton Steel Corporation (Docket No. RCRA-3-083CA) for certain work now addressed by this Consent Order and a Consent Order to be issued to Mingo Junction Steel Works, LLC. Upon the Effective Date of this Consent Order and the Mingo Junction Steel Works, LLC Consent Order, EPA will deem the terms of the 1996 UAO to be satisfactorily completed and the 1996 UAO will be terminated in accordance with Section XXIII (TERMINATION AND SATISFACTION) of the 1996 UAO.

IT IS SO AGREED AND ORDERED:

DATE: 9.26.18 BY: _____

JOHN ARMSTEAD
DIRECTOR
LAND AND CHEMICALS DIVISION
UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, REGION III

DATE: 9/24/18 BY: _____

ArcelorMittal Weirton LLC
Name: Keith Nagel
Title: Director, Environmental Affairs & Real Estate

LEGEND

- RCRA CORRECTIVE ACTION AREA (CAA) BOUNDARY
- CAA SUBDIVISION BOUNDARY*
- RFI AND CMS COMPLETED
- RFI COMPLETED AND NO CMS REQUIRED
- PROPERTY SOLD IN 2004/2005
- PROPERTY OWNED BY ARCELORMITTAL
- PROPERTY OWNED BY MINGO JUNCTION STEEL WORKS LLC (MJSW)
- PROPERTY OWNED BY BUSINESS DEVELOPMENT CORPORATION OF THE NORTHERN PANHANDLE
- COUNTY/STATE BOUNDARY

NOTE*

BECAUSE THE BOUNDARIES OF THE PROPERTIES ACQUIRED BY MJSW DID NOT ALIGN WITH THE CORRECTIVE ACTION AREA (CAA) BOUNDARIES. SEVERAL OF THE CAAS ARE NOW PARTIALLY OWNED BY ARCELORMITTAL AND PARTIALLY OWNED BY MJSW. FOR THOSE AREAS, AN "A" SUFFIX HAS BEEN ADDED TO THE CAA DESIGNATIONS FOR PROPERTY OWNED BY ARCELORMITTAL AND A "M" SUFFIX HAS BEEN ADDED TO THE CAA DESIGNATIONS FOR PROPERTY OWNED BY MJSW. ALL CAAS OWNED ENTIRELY BY ONE ENTITY RETAIN THEIR PRIOR CAA DESIGNATION.

REFERENCE

ESRI WORLD IMAGERY / ARCGIS MAP SERVICE
HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY
ACCESSED 7/3/2018, IMAGERY DATE: 2018.

CEC
Civil & Environmental Consultants, Inc.
4000 Triangle Lane, Suite 200 - Export, PA 15632
Ph: 724-327-6200 - 800-839-3610
www.cecinc.com

ARCELORMITTAL - WEIRTON PLANT
WEIRTON, WEST VIRGINIA
BROOKE AND HANCOCK COUNTIES

DRAWN BY	CBL	CHECKED BY	NJH	APPROVED BY	DWO*
DATE	5/30/2018	SCALE	1" = 800'	PROJECT NO.	090-342.0018

FORMER WEIRTON FACILITY BOUNDARY

FIGURE NO. A-1

LEGEND

- RCRA CORRECTIVE ACTION AREA (CAA) BOUNDARY*
- RFI AND CMS COMPLETED
- RFI COMPLETED AND NO CMS REQUIRED
- PROPERY OWNED BY ARCELORMITTAL
- PROPERTY SOLD IN 2004/2005
- COUNTY/STATE BOUNDARY

NOTE*

AS A RESULT OF THE JANUARY 31, 2017 SALE OF A PORTION OF THE FORMER WEIRTON STEEL FACILITY FROM ARCELORMITTAL WEIRTON LLC TO MINGO JUNCTION STEEL WORKS, LLC, SOME OF THE PREVIOUSLY DESIGNATED CORRECTIVE ACTION AREAS (CAAS) WERE SPLIT INTO TWO PARTS. FOR THOSE SPLIT AREAS, AN "A" SUFFIX HAS BEEN ADDED TO THE CAA DESIGNATION FOR PROPERTY OWNED BY ARCELORMITTAL WEIRTON. ALL CAAS OWNED ENTIRELY BY ARCELORMITTAL WEIRTON RETAINED THEIR PRIOR CAA DESIGNATIONS.

REFERENCE

ESRI WORLD IMAGERY, ARCGIS MAP SERVICE.
HTTP://GO10.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY
ACCESSED 7/3/2018. IMAGERY DATE: 2018.

Civil & Environmental Consultants, Inc.
4000 Triangle Lane, Suite 200 - Export, PA 15632
Ph: 724-327-6200 - 800-899-3610
www.cecinc.com

ARCELORMITTAL - WEIRTON PLANT
WEIRTON, WEST VIRGINIA
BROOKE AND HANCOCK COUNTIES

DRAWN BY CBL	CHECKED BY NJH	APPROVED BY [illegible]	DWG#
DATE 6/30/2018	SCALE 1" = 800'	PROJECT NO 090-342.0018	

CURRENT FACILITY SUBJECT TO THIS ORDER

FIGURE NO **A-2**

Attachment B

Status of Documents Submitted to USEPA under 1996 Unilateral Administrative Order[1]

1. Approved Documents

The documents listed below have been approved by USEPA under the terms of the 1996 Unilateral Administrative Order.

- Final Corrective Measures Study for Corrective Action Area XI
- RCRA Facility Investigation Report for Corrective Action Area I (C&E Outfall Area)
- RCRA Facility Investigation Report for Corrective Action Area II (Mainland Coke Plant)
- RCRA Facility Investigation Report for Corrective Action Area XI (Former BOC/Air Products Area)
- Interim Summary Report of Findings for Parcels B-11 and B19 in Corrective Action Area IX (Former Standard Lafarge Slag Processing Area)
- RCRA Facility Wide RFI Work Plan (Revised June 1999), including:
    - RCRA Facility Investigation Work Plan for Corrective Action Area I (C&E Outfall Area)
    - RCRA Facility Investigation Work Plan for Corrective Action Area II (Mainland Coke Plant)
- RCRA Facility Investigation Work Plan for Corrective Action Area III (Browns Island)
- RCRA Facility Investigation Work Plan for Corrective Action Area VI (Iron-making Area) and VII (Steel-making Area)
- RCRA Facility Investigation Work Plan for Corrective Action Area X (Former IMS Slag Processing Area)

[1] This list does not include any documents related to the Interim Measures implemented at the Facility between 1998 and 2007, including Interim Measures conducted at the Detinning Plant, Oil House, Walnut Street Fueling Station, Brown Island Blue Soil, Browns Island Lagoon Soils, Browns Island Coke Oven Vent Pipes, Browns Island Tar Decanter, C&E Outfall Sumps, and Yard Office.

- RCRA Facility Investigation Work Plan for Corrective Action Area VIII (Walnut Street Junction Railyard Area) and IX (Former Standard LaFarge Slag Processing Area)
- RCRA Facility Investigation Work Plan for Corrective Action Area XI (Former BOC/Air Products Area)

2. Most Recently Submitted Documents for Ongoing Investigations

Several Corrective Action Areas have ongoing RCRA facility investigations. The most recently submitted documents for those Corrective Action Areas, some of which have not yet been reviewed by USEPA, are listed below:

- Draft RCRA Facility Investigation Report for Corrective Action Area III (Browns Island)
- Preliminary RCRA Facility Investigation Report for Corrective Action Area VI/VII (Iron-making/Steel-making)
- Preliminary RCRA Facility Investigation Report for Corrective Action Area VIII/IX
- Draft RCRA Facility Investigation Report for Corrective Action Area X (Former IMS Slag Progressing Area)