

Periodic Review Report

*Tecumseh Phase III Business Park
Site III-1
Lackawanna, New York
BCP Site C915199*

December 2017

0071-014-630

Prepared For:

Tecumseh Redevelopment Inc.
Richfield, Ohio

Prepared By:



PERIODIC REVIEW REPORT

**TECUMSEH PHASE III BUSINESS PARK
SITE III- 1
(BCP SITE No. C915199)**

**2303 HAMBURG TURNPIKE
LACKAWANNA, NEW YORK**

December 2017

0071-014-630

Prepared for:

Tecumseh Redevelopment Inc.

Prepared By:



TurnKey Environmental Restoration, LLC
Benchmark Environmental Engineering & Science, PLLC
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716)856-0599

PERIODIC REVIEW REPORT

Sites III- 1: C915199

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PERIODIC REVIEW REPORT

Sites III- 1: C915199

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1.0 INTRODUCTION

TurnKey Environmental Restoration, LLC in association with Benchmark Environmental Engineering and Science, PLLC (Benchmark) has prepared this Periodic Review Report (PRR) to summarize the post-remedial status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C915199, located at 2303 Hamburg Turnpike in the City of Lackawanna, Erie County, New York.

This PRR has been prepared for the Subject BCP Sites in accordance with NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* (Ref 1). Institutional and Engineering Control (IC/EC) Certification Forms have been completed for the Sites and are included in Appendix A.

This PRR and the associated certifications have been completed on behalf of Tecumseh Redevelopment, Inc. to document post-remedial activities covered by the Site Management Plan (Ref. 2). The post remedial period covered by this PRR is: December 15, 2015 to March 15, 2017.

1.1 Site Background

In March of 2007 Tecumseh Redevelopment Inc. (Tecumseh) entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) to investigate and remediate an approximate 150-acre property located in Lackawanna, New York. The property, deemed the “Phase III Business Park Site” is located in the County of Erie, New York and encompasses tax parcel numbers 141.15-1-1, 141.15-1-2, and part of tax parcel number 141.11-1-50 per Erie County Tax Map records. The Phase III Business Park Site is bounded by Gateway Metroport Ship Canal and property owned by Gateway Trade Center to the north; the South Buffalo Railroad Company to the south; Phase II Business Park Site and the South Return Water Trench (SRWT) to the east; and other Tecumseh property to the west (see Figures 1 and 2). The 150-acre Phase III Business Park was originally deemed Brownfield Cleanup Program (BCP) Site No. C915199, but was subsequently subdivided into ten smaller parcels to facilitate remediation and redevelopment (see Figure 2). On August 20, 2012, the original BCA for Site C915199 was amended to cover the smaller Site III-1, with separate BCAs

issued and executed for the remaining nine BCP Sites (i.e., Sites III-2 through III-10, having BCP Site Nos. C915199b through C915199j).

Site III-1 encompassing 14.62 acres was remediated to industrial use standards for use as a lumber storage and distribution yard in accordance with the NYSDEC approved Interim Remedial Measures (IRM) Work Plan dated September 2011 (Ref-4).

1.2 Remedial History

1.2.1 Phase III Business Park

The approximate 150-acre Phase III Business Park was formerly part of the Bethlehem Steel Corporation (BSC) Lackawanna Works and housed several facilities used in BSC's steel manufacturing processes. Specific processes and steel making facilities performed on or proximate to the subject BCP Sites included:

- Open Hearth Furnaces
- Basic Oxygen Furnace
- Mold Warming and Preparation
- Electrical Substations
- Wastewater Treatment

Remedial Investigation (RI) activities on the Phase III Business Park were initiated in August 2008, with additional activities undertaken in late 2009 through early 2010. Some supplemental investigation work was also completed in April 2012.

The RI identified several Constituents of Concern (COCs) that were generally present across widespread areas of the Phase III Business Park site, primarily in site soils and to a lesser extent in groundwater. These included polyaromatic hydrocarbons (PAHs), arsenic, lead, and mercury. Isolated areas of petroleum impact were also encountered. The Remedial Investigation/Alternatives Analysis (RI/AA) Report (Ref. 3) recommended remediation of "hotspot" slag/fill (characterized by more pronounced levels of COCs) and isolated groundwater/saturated soil impacts (affecting only select sites in the Phase III Business Park), with cover placement recommended as the final remedial measure under a

Track 4 Cleanup approach. Additional requirements included development and adherence to a Site Management Plan (SMP) and filing of an Environmental Easement to restrict use of the Phase III Business Park property to commercial and industrial applications and to place other limitations on post-redevelopment activities.

1.2.2 Site III- 1

Investigative activities specific to Site III-1 were performed in August 2008 and included the completion of eight test pits (identified as BP3-TP-61, BP3-TP-62, BP3-TP-63, BP3-TP-64, BP3-TP-65, BP3-TP-66, BP3-TP-79, and BP3-TP-80) and the installation of two monitoring wells (identified as MWS-30A and MWS-33A). Soil and groundwater samples were collected as detailed in the Work Plan.

The nature and extent of metals contamination at the Site is consistent with the former site use as a steel manufacturing facility. Fill soil exceeds unrestricted and residential use site cleanup objectives (SCOs). When compared to the commercial SCOs, arsenic and mercury are found to exceed the SCOs. Arsenic was found ranging from 6.3 ppm to 25.7 ppm exceeding the commercial SCO of 16 ppm in 6 of 7 of the samples. Mercury was found from 0.029 ppm to 4.8 ppm exceeding the commercial SCO of 2.8 ppm in only one sample. The only SVOCs exceeding commercial SCOs were benzo(a)pyrene from 0.055 ppm to 2.8 ppm with a SCO of 1 ppm and dibenzo(a,h)anthracene from 0.16 ppm to 0.6 ppm exceeding the SCO of 0.56 ppm.

Groundwater sampling for SVOCs, VOCs and metals indicates that groundwater at the site does not exceed groundwater quality standards (GwQS). However, the pH of groundwater slightly exceeds GwQS. Site groundwater is not used at the site and is restricted from use for either potable or non-potable purposes without treatment by an environmental easement.

1.2.3 Site III-1 -IRM Activities

Site III-1 was remediated in October and November 2011 in accordance with the remedy selected by the NYSDEC in the IRM Work Plan dated September 2011.

The factors considered during the selection of the remedy are those listed in 6NYCRR 375-1.8. The following are the components of the selected remedy:

1. Construction of a new rail spur into the Site consisting of one foot of stone ballast and rail ties to prevent human exposure to remaining contaminated soil/fill remaining at the Site.
2. Construction and maintenance of a cover system consisting of one foot of Beneficial Use Determination (BUD)-approved slag material (NYSDEC BUD #555-9-15) in areas outside of the newly-constructed rail spur to prevent human exposure to remaining contaminated soil/fill remaining at the Site.
3. Execution and recording of an Environmental Easement to restrict land use, disallow use of untreated groundwater, and prevent future exposure to any contamination remaining at the Site.
4. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting.
5. Periodic certification of the institutional and engineering controls listed above.

1.3 Compliance

At the time of the Site inspection, the Site was fully compliant with the NYSDEC-approved SMP (Ref 2).

1.4 Recommendations

Based on observations recorded during the annual inspection and IC/EC certification, no modifications are recommended at this time.

2.0 SITE OVERVIEW

All of the remediated properties within the Phase III Business Park are subject to a comprehensive, site-wide SMP which identifies requirements for monitoring and maintenance of engineering and institutional controls and procedures for post-remedial excavation and related activities. Specific requirements affecting individual Sites within Phase III Business Park are included as appendices to the comprehensive plan. The SMP is updated as additional Sites within the Phase III Business Park are remediated.

3.0 REMEDY PERFORMANCE

A post-remedial site inspection involving a walk-over of the Sites covered by this PRR was performed to visually observe and document the use of the Site for commercial/industrial use, confirm absence of site groundwater use, inspect the cover system integrity, and verify conformance with other requirements under the SMP. The site inspection completed during this reporting period indicates that the controls are in-place and functioning as intended in accordance with the SMP.

The completed IC/EC Certification forms and site photographs are included in Appendices A and B, respectively.

4.0 SITE MANAGEMENT PLAN

A site-wide SMP was prepared for the Phase III Business Park and approved by the Department in December 2013. Parcel-specific SMP requirements for Site III-1 were added by Addenda in July 2015 and are presented in SMP appendix H1. Key components of the SMP are described below.

4.1 Engineering and Institutional Control (IC/EC) Plan

Since remaining contaminated soil/fill and groundwater exists beneath the Phase III Business Park, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. The Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs on the Sites within the Phase III Business Park.

4.1.1 Institutional Controls

The following institutional controls apply to all Sites within the Phase III Business Park:

- The use and development of the property is restricted to commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- Groundwater cannot be used as a source of potable or process water, without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or County DOH;
- All Sites must comply with the Department approved Site Management Plan; and
- The remedial party or site owner must complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3.)

4.1.2 Engineering Controls

Engineering controls covering Sites within the Phase III Business Park include:

- Cover System – The cover system, including demarcation layer, railroad ballast, and BUD-approved slag (NYSDEC BUD # 555-9-15) must be maintained in compliance with the SMP.

At the time of the site inspection, the Sites covered by this PRR were fully compliant with all engineering and institutional control requirements.

4.2 Excavation Work Plan

An Excavation Work Plan (EWP) was included in the approved-SMP for the Phase III Business Park. The Excavation Work Plan provides guidelines for the management of soil and fill material during any future intrusive activities. Any intrusive work that will penetrate the cover or cap, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system, must be performed in compliance with the EWP and must also be conducted in accordance with a site-specific Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) meeting the minimum requirements of the sample HASP and CAMP included with the SMP.

4.3 Annual Inspection and Certification Program

The Annual Inspection and Certification Program outlines requirements for certifying and attesting that the institutional controls and engineering controls employed on the Sites are unchanged from the original design and/or previous certification. The Annual Certification includes a Site Inspection and completion of the NYSDEC's IC/EC Certification Form. The Site inspection is intended to verify that the IC/ECs:

- Are in place and effective.
- Are performing as designed.
- That nothing has occurred that would impair the ability of the controls to protect the public health and environment.
- That nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls.

- Access is available to the Site to evaluate continued maintenance of such controls.

Inspection of Site III-1 was conducted by Mr. Richard Dubisz of TurnKey-Benchmark on September 15, 2017. Mr. Dubisz meets the requirements of a Qualified Environmental Professional (QEP) per 6NYCRR Part 375.12. At the time of the inspection, no observable indication of intrusive activities was noted during the Site inspection.

The completed Site Management Periodic Review Report Notice – Institutional and Engineering Controls Certification Forms are included in Appendix A. A PRR photo log is included in Appendix B.

4.4 Operation, Monitoring and Maintenance Plan

The remedy for Sites III-1 does not rely on any mechanical systems such as sub-slab depressurization or soil vapor extraction, to protect public health and the environment. Therefore, an Operation and Maintenance Plan is not required.

5.0 GROUNDWATER MONITORING

TurnKey Environmental Restoration collected groundwater samples from monitoring wells MWS-30A and MWS- 33A-on November 3, 2015 as part of a comprehensive groundwater monitoring event requested by the NYSDEC for all of the Tecumseh Business Parks. Laboratory results are included in Appendix C along the field data sheets. Table 1 summarizes the monitoring results from the November 2015 event, as well as groundwater data completed during the Phase III Business Park RI in January 2009.

As indicated on Table 1, no parameters were detected above NYSDEC Class “GA” Groundwater Quality Standards (GWQS) with the exception of a pH field measurements in monitoring well MWS-33A which were slightly lower than the GWQS of 6.5. The pH field measurement was 6.28 in January 2009, and 6.18 (initial)/6.44 (final) in November 2015.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations are as follows:

- At the time of the Site inspection, Site III- 1 was in compliance with the SMP.

7.0 DECLARATION/LIMITATION

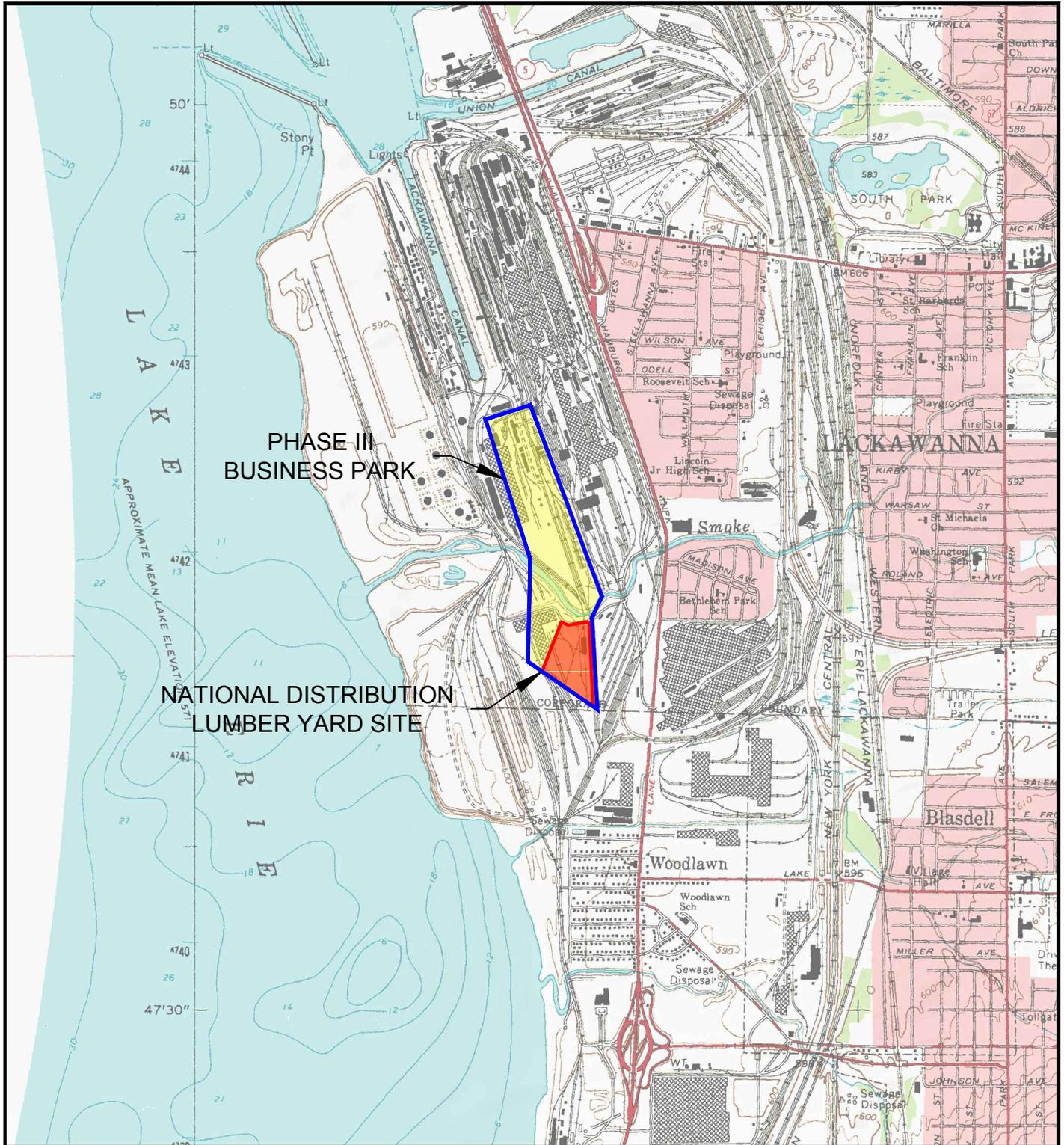
This report has been prepared for the exclusive use of Tecumseh Redevelopment Inc. The contents of this report are limited to information available at the time of the site inspection. The findings herein may be relied upon only at the discretion of Tecumseh Redevelopment Inc. Use of or reliance upon this report or its findings by any other person or entity is prohibited without written permission of TurnKey Environmental Restoration, LLC and Benchmark Environmental Engineering and Science, PLLC.

8.0 REFERENCES

1. 2013. New York State Department of Environmental Conservation. *DER-10/Technical Guidance for Site Investigation and Remediation*. May 3.
2. 2013. TurnKey Environmental Restoration, LLC. *Site Management Plan for Tecumseh Phase III Business Park – Appendix H-1 Site III-1*. Revised July 2015.
3. 2012. TurnKey Environmental Restoration, LLC. *Remedial Investigation/Alternatives Analysis Report for Phase III Business Park, Lackawanna, New York*. Revised July 2012.
4. 2011. TurnKey Environmental Restoration, LLC and Benchmark Environmental Engineering & Science, PLLC. *Interim Remedial Measures (IRM) Work Plan, Lumber Yard Relocation Phase III Business Park, Lackawanna, New York, BCP Site No. C915199*. August 2011.
5. 2014. TurnKey Environmental Restoration, LLC and Benchmark Environmental Engineering & Science, PLLC. *Final Engineering Report, Business Park Sub-parcel III-1, Lackawanna, New York, BCP Site C915199*. July 2014.

FIGURES

FIGURE 1



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www.delorme.com



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

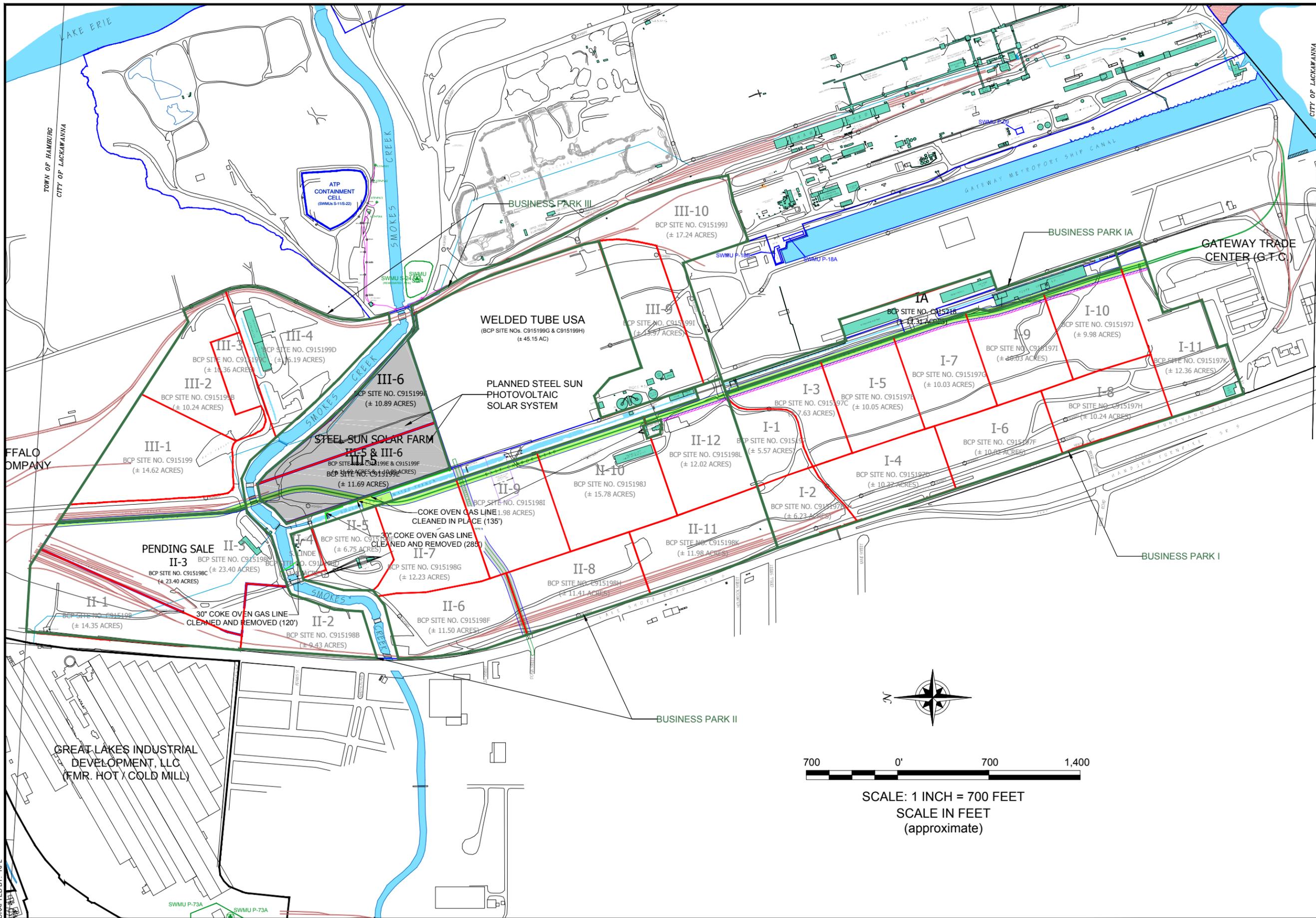
SITE LOCATION AND VICINITY MAP

FINAL ENGINEERING REPORT
SITE NO C915199

LACKAWANNA, NEW YORK
PREPARED FOR
TECUMSEH REDEVELOPMENT, INC.

PROJECT NO.: 0071-011-300
DATE: JUNE 2013
DRAFTED BY: JGT

DATE: JANUARY 2016
DRAFTED BY: RPL



BENCHMARK
 ENVIRONMENTAL
 ENGINEERING &
 SCIENCE, PLLC

2558 HAMBURG TURNPIKE
 SUITE 300
 BUFFALO, NY 14218
 (716) 856-0599

JOB NO.: B0302-016-001

VICINITY MAP

PERIODIC REVIEW REPORT
 STEEL SUN PHOTOVOLTAIC SOLAR SYSTEM
 TECUMSEH REDEVELOPMENT AREA
 LACKAWANNA, NY
 PREPARED FOR
 STEEL SUN, LLC

FIGURE 2

TABLE



TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Phase III-1 Business Park (Site No. C915199)
Lackawanna, New York

PARAMETER ¹	GWQS ²	MWS-30A (01/16/09)		MWS-30A (11/3/15)		MWS-33A (01/16/09)		MWS-33A (11/3/15)	
Field Measurements³:									
Sample No.	--	Initial	Final	Initial	Final	Initial	Final	Initial	Final
pH (units)	6.5 - 8.5	7.69	7.74	7.20	7.22	6.73	6.28	6.18	6.44
Temperature (°C)	NA	7.6	7.3	15.6	16.3	1.9	5.9	15.3	16.3
Sp. Conductance (uS)	NA	835	837	665	669	1031	948	849	913
Turbidity (NTU)	NA	13.00	6.84	8.20	4.11	43.20	38.20	13.70	11.70
DO (ppm)	NA	2.09	2.47	1.28	1.11	7.07	3.29	1.48	2.13
Eh (mV)	NA	-36	-61	63	53	-44	0	-4	-17
Total Inorganic Compounds (mg/L):									
Barium - Total	1	ND		0.043		ND		0.099	
Chromium - Total	0.05	ND		0.0027 J		ND		0.0021 J	
Manganese - Total	0.3	ND		0.13		ND		1.4	
Nickel - Total	0.1	ND		ND		ND		0.0089 J	
Zinc - Total	2*	ND		ND		ND		0.0092 J	
Cyanide- Total	0.2	ND		0.055		ND		0.0083 J	
Volatile Organic Compounds (ug/L):									
Total	--	ND		ND		ND		ND	
Semi-Volatile Organic Compounds (ug/L):									
Benzaldehyde	--	ND		0.54 J		ND		0.61 J	
Butyl benzyl phthalate	50*	ND		0.39 BJ		ND		ND	

Notes:

1. Only those compounds detected above the method detection limit at a minimum of one sample location are reported in this table.
2. NYSDEC Class "GA" Groundwater Quality Standards/Guidance Values (GWQS/GV) as per TOGS 1.1.1
3. Field measurements were collected immediately before and after groundwater sample collection.

Definitions:

- J = Estimated Value; result is less than the sample quantitation limit but greater than zero.
- B = Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- NA = Not available
- ND = Indicates parameter was not detected above laboratory reporting limit.
- * = The Guidance Value was used where a Standard has not been established.

BOLD

= Result exceeds the GWQS/GV.

APPENDIX A

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORMS



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



	Site Details	Box 1	
Site No.	C915199		
Site Name Site III-1 Tecumseh Phase III Business Park			
Site Address: 2303 Hamburg Turnpike Zip Code: 14218			
City/Town: Lackawanna			
County: Erie			
Site Acreage: 14.6			
Reporting Period: December 15, 2015 to March 15, 2017			
		YES	NO
1.	Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.			
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.			
5.	Is the site currently undergoing development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Commercial and Industrial	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all ICs/ECs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.			
A Corrective Measures Work Plan must be submitted along with this form to address these issues.			
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date	

		Box 2A
	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.		
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.		

SITE NO. C915199	Box 3	
Description of Institutional Controls		
<u>Parcel</u> 141.11-1-50	<u>Owner</u> Tecumseh Redevelopment Inc.	<u>Institutional Control</u> Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan IC/EC Plan O&M Plan
Institutional Control Description:		
Adherence to Site Management Plan (SMP) Restriction to commercial re-use Prohibition of groundwater use Allowance for Departmental access Requires a Periodic Review and Report		

		Box 4
Description of Engineering Controls		
<u>Parcel</u> 141.11-1-50	<u>Engineering Control</u> Cover System	
Engineering Control Description:		
Beneficial Use Determination (Slag) cover over 5 acres		

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C915199

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Keith A Nagel at Tecumseh Redevelopment, Inc.
4020 Kinross Lakes Parkway, Richfield, OH 44286,
print name print business address

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.


Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

10/29/2017
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Richard L. Dubisz at TurnKey Environmental Restoration, LLC
2558 Hamburg TurnPike, Buffalo, NY 14218
print name print business address

am certifying as a Qualified Environmental Professional for the Owner
(Owner or Remedial Party)


Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification

Stamp
(Required for PE)

9-25-17
Date

APPENDIX B

PHOTO LOG



PHOTOGRAPHIC LOG

Client Name: Tecumseh Redevelopment Inc.		Site Location: Business Park III-1 Lackawanna, NY	Project No.:
Photo No. 1	Date 09/15/17		
Direction Photo Taken: North			
Description: Existing site conditions and cover system.			

Photo No. 2	Date 09/15/17		
Direction Photo Taken: North			
Description: Existing site conditions and cover system.			



PHOTOGRAPHIC LOG

Client Name: Tecumseh Redevelopment Inc.		Site Location: Business Park III-1 Lackawanna, NY	Project No.:
Photo No. 3	Date 09/15/17		
Direction Photo Taken: West			
Description: Existing site conditions and cover system.			

Photo No. 4	Date 09/15/17		
Direction Photo Taken: West			
Description: Existing site conditions and cover system.			



PHOTOGRAPHIC LOG

Client Name: Tecumseh Redevelopment Inc.		Site Location: Business Park III-1 Lackawanna, NY	Project No.:
Photo No. 5	Date 09/15/17		
Direction Photo Taken: Southwest			
Description: Existing site conditions and cover system.			

Photo No. 6	Date 09/15/17	
Direction Photo Taken: South		
Description: Existing site conditions and cover system.		



PHOTOGRAPHIC LOG

Client Name: Tecumseh Redevelopment Inc.		Site Location: Business Park III-1 Lackawanna, NY	Project No.:
Photo No. 7	Date 09/15/17		
Direction Photo Taken: Easy			
Description: Existing site conditions and cover system.			

Photo No. 8	Date 09/15/17	
Direction Photo Taken: East		
Description: Existing site conditions and cover system.		

APPENDIX C

GROUNDWATER MONITORING DATA NOVEMBER 2015

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-90387-1

Client Project/Site: Tecumseh Lackawanna, NY Groundwater
Pro

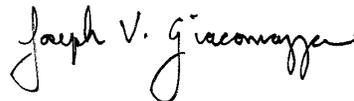
For:

ArcelorMittal USA Inc.

250 West US Highway 12

Burns Harbor, Indiana 46304

Attn: Accounts Payable



Authorized for release by:

11/10/2015 2:07:32 PM

Joe Giacomazza, Project Management Assistant II

joe.giacomazza@testamericainc.com

Designee for

Brian Fischer, Manager of Project Management

(716)504-9835

brian.fischer@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: ArcelorMittal USA Inc.
Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ArcelorMittal USA Inc.
Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Job ID: 480-90387-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-90387-1

Receipt

The samples were received on 11/3/2015 4:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The continuing calibration verification (CCV) analyzed in batch 480-273756 was outside the method criteria for the following analytes: Bis(2-chloroethoxy)methane, Isophorone and N-Nitrosodi-n-propylamine. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analytes are considered estimated.

Method(s) 8270D: The initial calibration curve analyzed in analytical batch 272186 was outside method criteria for the analytes Benzaldehyde, Isophorone, 4-Chloroaniline and 2,4-Dinitrophenol. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered an estimated concentration.

Method(s) 8270D: The minimum response factor (RF) criteria for the initial calibration (ICAL) analyzed in analytical batch 272186 was outside criteria for the analytes N-Nitrosodi-n-propylamine and Bis(2-chloroethoxy)methane. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: ArcelorMittal USA Inc.
 Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: MWS-30A

Lab Sample ID: 480-90387-1

Date Collected: 11/03/15 10:49

Matrix: Water

Date Received: 11/03/15 16:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/06/15 16:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/06/15 16:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/06/15 16:54	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/06/15 16:54	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/06/15 16:54	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/06/15 16:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/06/15 16:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/06/15 16:54	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/06/15 16:54	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/06/15 16:54	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/06/15 16:54	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/06/15 16:54	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/06/15 16:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/06/15 16:54	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/06/15 16:54	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/06/15 16:54	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/06/15 16:54	1
2-Hexanone	ND		5.0	1.2	ug/L			11/06/15 16:54	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			11/06/15 16:54	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/06/15 16:54	1
Acetone	ND		10	3.0	ug/L			11/06/15 16:54	1
Benzene	ND		1.0	0.41	ug/L			11/06/15 16:54	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/06/15 16:54	1
Bromoform	ND		1.0	0.26	ug/L			11/06/15 16:54	1
Bromomethane	ND		1.0	0.69	ug/L			11/06/15 16:54	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/06/15 16:54	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/06/15 16:54	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/06/15 16:54	1
Chloroethane	ND		1.0	0.32	ug/L			11/06/15 16:54	1
Chloroform	ND		1.0	0.34	ug/L			11/06/15 16:54	1
Chloromethane	ND		1.0	0.35	ug/L			11/06/15 16:54	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/06/15 16:54	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/06/15 16:54	1
Cyclohexane	ND		1.0	0.18	ug/L			11/06/15 16:54	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/06/15 16:54	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/06/15 16:54	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/06/15 16:54	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/06/15 16:54	1
m,p-Xylene	ND		2.0	0.66	ug/L			11/06/15 16:54	1
Methyl acetate	ND		2.5	1.3	ug/L			11/06/15 16:54	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/06/15 16:54	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/06/15 16:54	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/06/15 16:54	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/06/15 16:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/06/15 16:54	1
o-Xylene	ND		1.0	0.76	ug/L			11/06/15 16:54	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/06/15 16:54	1
Styrene	ND		1.0	0.73	ug/L			11/06/15 16:54	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/06/15 16:54	1

TestAmerica Buffalo

Client Sample Results

Client: ArcelorMittal USA Inc.
 Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: MWS-30A

Lab Sample ID: 480-90387-1

Date Collected: 11/03/15 10:49

Matrix: Water

Date Received: 11/03/15 16:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.36	ug/L			11/06/15 16:54	1
Toluene	ND		1.0	0.51	ug/L			11/06/15 16:54	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/06/15 16:54	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/06/15 16:54	1
Trichloroethene	ND		1.0	0.46	ug/L			11/06/15 16:54	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/06/15 16:54	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/06/15 16:54	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/06/15 16:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		66 - 137		11/06/15 16:54	1
4-Bromofluorobenzene (Surr)	100		73 - 120		11/06/15 16:54	1
Toluene-d8 (Surr)	93		71 - 126		11/06/15 16:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		4.6	0.41	ug/L		11/04/15 14:50	11/07/15 18:20	1
2,6-Dinitrotoluene	ND		4.6	0.37	ug/L		11/04/15 14:50	11/07/15 18:20	1
2-Chloronaphthalene	ND		4.6	0.43	ug/L		11/04/15 14:50	11/07/15 18:20	1
2-Methylnaphthalene	ND		4.6	0.55	ug/L		11/04/15 14:50	11/07/15 18:20	1
2-Nitroaniline	ND		9.2	0.39	ug/L		11/04/15 14:50	11/07/15 18:20	1
3,3'-Dichlorobenzidine	ND		4.6	0.37	ug/L		11/04/15 14:50	11/07/15 18:20	1
3-Nitroaniline	ND		9.2	0.44	ug/L		11/04/15 14:50	11/07/15 18:20	1
4-Bromophenyl phenyl ether	ND		4.6	0.42	ug/L		11/04/15 14:50	11/07/15 18:20	1
4-Chloroaniline	ND		4.6	0.55	ug/L		11/04/15 14:50	11/07/15 18:20	1
4-Chlorophenyl phenyl ether	ND		4.6	0.32	ug/L		11/04/15 14:50	11/07/15 18:20	1
4-Nitroaniline	ND		9.2	0.23	ug/L		11/04/15 14:50	11/07/15 18:20	1
Acenaphthene	ND		4.6	0.38	ug/L		11/04/15 14:50	11/07/15 18:20	1
Acenaphthylene	ND		4.6	0.35	ug/L		11/04/15 14:50	11/07/15 18:20	1
Acetophenone	ND		4.6	0.50	ug/L		11/04/15 14:50	11/07/15 18:20	1
Anthracene	ND		4.6	0.26	ug/L		11/04/15 14:50	11/07/15 18:20	1
Atrazine	ND		4.6	0.43	ug/L		11/04/15 14:50	11/07/15 18:20	1
Benzaldehyde	0.54	J	4.6	0.25	ug/L		11/04/15 14:50	11/07/15 18:20	1
Benzo(a)anthracene	ND		4.6	0.33	ug/L		11/04/15 14:50	11/07/15 18:20	1
Benzo(a)pyrene	ND		4.6	0.43	ug/L		11/04/15 14:50	11/07/15 18:20	1
Benzo(b)fluoranthene	ND		4.6	0.31	ug/L		11/04/15 14:50	11/07/15 18:20	1
Benzo(g,h,i)perylene	ND		4.6	0.32	ug/L		11/04/15 14:50	11/07/15 18:20	1
Benzo(k)fluoranthene	ND		4.6	0.67	ug/L		11/04/15 14:50	11/07/15 18:20	1
Biphenyl	ND		4.6	0.60	ug/L		11/04/15 14:50	11/07/15 18:20	1
bis (2-chloroisopropyl) ether	ND		4.6	0.48	ug/L		11/04/15 14:50	11/07/15 18:20	1
Bis(2-chloroethoxy)methane	ND		4.6	0.32	ug/L		11/04/15 14:50	11/07/15 18:20	1
Bis(2-chloroethyl)ether	ND		4.6	0.37	ug/L		11/04/15 14:50	11/07/15 18:20	1
Bis(2-ethylhexyl) phthalate	ND		4.6	1.7	ug/L		11/04/15 14:50	11/07/15 18:20	1
Butyl benzyl phthalate	0.39	J B	4.6	0.39	ug/L		11/04/15 14:50	11/07/15 18:20	1
Caprolactam	ND		4.6	2.0	ug/L		11/04/15 14:50	11/07/15 18:20	1
Carbazole	ND		4.6	0.28	ug/L		11/04/15 14:50	11/07/15 18:20	1
Chrysene	ND		4.6	0.30	ug/L		11/04/15 14:50	11/07/15 18:20	1
Dibenz(a,h)anthracene	ND		4.6	0.39	ug/L		11/04/15 14:50	11/07/15 18:20	1
Dibenzofuran	ND		9.2	0.47	ug/L		11/04/15 14:50	11/07/15 18:20	1
Diethyl phthalate	ND		4.6	0.20	ug/L		11/04/15 14:50	11/07/15 18:20	1

TestAmerica Buffalo

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: MWS-30A

Lab Sample ID: 480-90387-1

Date Collected: 11/03/15 10:49

Matrix: Water

Date Received: 11/03/15 16:20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		4.6	0.33	ug/L		11/04/15 14:50	11/07/15 18:20	1
Di-n-butyl phthalate	ND		4.6	0.29	ug/L		11/04/15 14:50	11/07/15 18:20	1
Di-n-octyl phthalate	ND		4.6	0.43	ug/L		11/04/15 14:50	11/07/15 18:20	1
Fluoranthene	ND		4.6	0.37	ug/L		11/04/15 14:50	11/07/15 18:20	1
Fluorene	ND		4.6	0.33	ug/L		11/04/15 14:50	11/07/15 18:20	1
Hexachlorobenzene	ND		4.6	0.47	ug/L		11/04/15 14:50	11/07/15 18:20	1
Hexachlorobutadiene	ND		4.6	0.63	ug/L		11/04/15 14:50	11/07/15 18:20	1
Hexachlorocyclopentadiene	ND		4.6	0.55	ug/L		11/04/15 14:50	11/07/15 18:20	1
Hexachloroethane	ND		4.6	0.55	ug/L		11/04/15 14:50	11/07/15 18:20	1
Indeno(1,2,3-cd)pyrene	ND		4.6	0.43	ug/L		11/04/15 14:50	11/07/15 18:20	1
Isophorone	ND		4.6	0.40	ug/L		11/04/15 14:50	11/07/15 18:20	1
Naphthalene	ND		4.6	0.70	ug/L		11/04/15 14:50	11/07/15 18:20	1
Nitrobenzene	ND		4.6	0.27	ug/L		11/04/15 14:50	11/07/15 18:20	1
N-Nitrosodi-n-propylamine	ND		4.6	0.50	ug/L		11/04/15 14:50	11/07/15 18:20	1
N-Nitrosodiphenylamine	ND		4.6	0.47	ug/L		11/04/15 14:50	11/07/15 18:20	1
Phenanthrene	ND		4.6	0.41	ug/L		11/04/15 14:50	11/07/15 18:20	1
Pyrene	ND		4.6	0.31	ug/L		11/04/15 14:50	11/07/15 18:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		52 - 132	11/04/15 14:50	11/07/15 18:20	1
2-Fluorobiphenyl	103		48 - 120	11/04/15 14:50	11/07/15 18:20	1
2-Fluorophenol	63		20 - 120	11/04/15 14:50	11/07/15 18:20	1
Nitrobenzene-d5	84		46 - 120	11/04/15 14:50	11/07/15 18:20	1
Phenol-d5	48		16 - 120	11/04/15 14:50	11/07/15 18:20	1
p-Terphenyl-d14	101		67 - 150	11/04/15 14:50	11/07/15 18:20	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		11/04/15 10:02	11/05/15 12:39	1
Barium	0.043		0.0020	0.00070	mg/L		11/04/15 10:02	11/05/15 12:39	1
Beryllium	ND		0.0020	0.00030	mg/L		11/04/15 10:02	11/05/15 12:39	1
Cadmium	ND		0.0020	0.00050	mg/L		11/04/15 10:02	11/05/15 12:39	1
Chromium	0.0027	J	0.0040	0.0010	mg/L		11/04/15 10:02	11/05/15 12:39	1
Copper	ND		0.010	0.0016	mg/L		11/04/15 10:02	11/05/15 12:39	1
Lead	ND		0.010	0.0030	mg/L		11/04/15 10:02	11/05/15 12:39	1
Manganese	0.13		0.0030	0.00040	mg/L		11/04/15 10:02	11/05/15 12:39	1
Nickel	ND		0.010	0.0013	mg/L		11/04/15 10:02	11/05/15 12:39	1
Selenium	ND		0.025	0.0087	mg/L		11/04/15 10:02	11/05/15 12:39	1
Silver	ND		0.0060	0.0017	mg/L		11/04/15 10:02	11/05/15 12:39	1
Zinc	ND		0.010	0.0015	mg/L		11/04/15 10:02	11/05/15 12:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/04/15 10:35	11/04/15 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND	F1	0.010	0.0050	mg/L			11/04/15 10:15	1
Cyanide, Total	0.055		0.010	0.0050	mg/L		11/06/15 21:30	11/09/15 13:36	1

TestAmerica Buffalo

Client Sample Results

Client: ArcelorMittal USA Inc.
 Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: MWS-33A

Lab Sample ID: 480-90387-2

Date Collected: 11/03/15 11:52

Matrix: Water

Date Received: 11/03/15 16:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/06/15 17:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/06/15 17:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/06/15 17:18	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/06/15 17:18	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/06/15 17:18	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/06/15 17:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/06/15 17:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/06/15 17:18	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/06/15 17:18	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/06/15 17:18	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/06/15 17:18	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/06/15 17:18	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/06/15 17:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/06/15 17:18	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/06/15 17:18	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/06/15 17:18	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/06/15 17:18	1
2-Hexanone	ND		5.0	1.2	ug/L			11/06/15 17:18	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			11/06/15 17:18	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/06/15 17:18	1
Acetone	ND		10	3.0	ug/L			11/06/15 17:18	1
Benzene	ND		1.0	0.41	ug/L			11/06/15 17:18	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/06/15 17:18	1
Bromoform	ND		1.0	0.26	ug/L			11/06/15 17:18	1
Bromomethane	ND		1.0	0.69	ug/L			11/06/15 17:18	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/06/15 17:18	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/06/15 17:18	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/06/15 17:18	1
Chloroethane	ND		1.0	0.32	ug/L			11/06/15 17:18	1
Chloroform	ND		1.0	0.34	ug/L			11/06/15 17:18	1
Chloromethane	ND		1.0	0.35	ug/L			11/06/15 17:18	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/06/15 17:18	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/06/15 17:18	1
Cyclohexane	ND		1.0	0.18	ug/L			11/06/15 17:18	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/06/15 17:18	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/06/15 17:18	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/06/15 17:18	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/06/15 17:18	1
m,p-Xylene	ND		2.0	0.66	ug/L			11/06/15 17:18	1
Methyl acetate	ND		2.5	1.3	ug/L			11/06/15 17:18	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/06/15 17:18	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/06/15 17:18	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/06/15 17:18	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/06/15 17:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/06/15 17:18	1
o-Xylene	ND		1.0	0.76	ug/L			11/06/15 17:18	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/06/15 17:18	1
Styrene	ND		1.0	0.73	ug/L			11/06/15 17:18	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/06/15 17:18	1

TestAmerica Buffalo

Client Sample Results

Client: ArcelorMittal USA Inc.
 Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: MWS-33A

Lab Sample ID: 480-90387-2

Date Collected: 11/03/15 11:52

Matrix: Water

Date Received: 11/03/15 16:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.36	ug/L			11/06/15 17:18	1
Toluene	ND		1.0	0.51	ug/L			11/06/15 17:18	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/06/15 17:18	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/06/15 17:18	1
Trichloroethene	ND		1.0	0.46	ug/L			11/06/15 17:18	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/06/15 17:18	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/06/15 17:18	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/06/15 17:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		66 - 137		11/06/15 17:18	1
4-Bromofluorobenzene (Surr)	98		73 - 120		11/06/15 17:18	1
Toluene-d8 (Surr)	91		71 - 126		11/06/15 17:18	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		4.7	0.42	ug/L		11/04/15 14:50	11/07/15 18:49	1
2,6-Dinitrotoluene	ND		4.7	0.37	ug/L		11/04/15 14:50	11/07/15 18:49	1
2-Chloronaphthalene	ND		4.7	0.43	ug/L		11/04/15 14:50	11/07/15 18:49	1
2-Methylnaphthalene	ND		4.7	0.56	ug/L		11/04/15 14:50	11/07/15 18:49	1
2-Nitroaniline	ND		9.4	0.39	ug/L		11/04/15 14:50	11/07/15 18:49	1
3,3'-Dichlorobenzidine	ND		4.7	0.37	ug/L		11/04/15 14:50	11/07/15 18:49	1
3-Nitroaniline	ND		9.4	0.45	ug/L		11/04/15 14:50	11/07/15 18:49	1
4-Bromophenyl phenyl ether	ND		4.7	0.42	ug/L		11/04/15 14:50	11/07/15 18:49	1
4-Chloroaniline	ND		4.7	0.55	ug/L		11/04/15 14:50	11/07/15 18:49	1
4-Chlorophenyl phenyl ether	ND		4.7	0.33	ug/L		11/04/15 14:50	11/07/15 18:49	1
4-Nitroaniline	ND		9.4	0.23	ug/L		11/04/15 14:50	11/07/15 18:49	1
Acenaphthene	ND		4.7	0.38	ug/L		11/04/15 14:50	11/07/15 18:49	1
Acenaphthylene	ND		4.7	0.36	ug/L		11/04/15 14:50	11/07/15 18:49	1
Acetophenone	ND		4.7	0.51	ug/L		11/04/15 14:50	11/07/15 18:49	1
Anthracene	ND		4.7	0.26	ug/L		11/04/15 14:50	11/07/15 18:49	1
Atrazine	ND		4.7	0.43	ug/L		11/04/15 14:50	11/07/15 18:49	1
Benzaldehyde	0.61	J	4.7	0.25	ug/L		11/04/15 14:50	11/07/15 18:49	1
Benzo(a)anthracene	ND		4.7	0.34	ug/L		11/04/15 14:50	11/07/15 18:49	1
Benzo(a)pyrene	ND		4.7	0.44	ug/L		11/04/15 14:50	11/07/15 18:49	1
Benzo(b)fluoranthene	ND		4.7	0.32	ug/L		11/04/15 14:50	11/07/15 18:49	1
Benzo(g,h,i)perylene	ND		4.7	0.33	ug/L		11/04/15 14:50	11/07/15 18:49	1
Benzo(k)fluoranthene	ND		4.7	0.68	ug/L		11/04/15 14:50	11/07/15 18:49	1
Biphenyl	ND		4.7	0.61	ug/L		11/04/15 14:50	11/07/15 18:49	1
bis (2-chloroisopropyl) ether	ND		4.7	0.49	ug/L		11/04/15 14:50	11/07/15 18:49	1
Bis(2-chloroethoxy)methane	ND		4.7	0.33	ug/L		11/04/15 14:50	11/07/15 18:49	1
Bis(2-chloroethyl)ether	ND		4.7	0.37	ug/L		11/04/15 14:50	11/07/15 18:49	1
Bis(2-ethylhexyl) phthalate	ND		4.7	1.7	ug/L		11/04/15 14:50	11/07/15 18:49	1
Butyl benzyl phthalate	ND		4.7	0.39	ug/L		11/04/15 14:50	11/07/15 18:49	1
Caprolactam	ND		4.7	2.1	ug/L		11/04/15 14:50	11/07/15 18:49	1
Carbazole	ND		4.7	0.28	ug/L		11/04/15 14:50	11/07/15 18:49	1
Chrysene	ND		4.7	0.31	ug/L		11/04/15 14:50	11/07/15 18:49	1
Dibenz(a,h)anthracene	ND		4.7	0.39	ug/L		11/04/15 14:50	11/07/15 18:49	1
Dibenzofuran	ND		9.4	0.48	ug/L		11/04/15 14:50	11/07/15 18:49	1
Diethyl phthalate	ND		4.7	0.21	ug/L		11/04/15 14:50	11/07/15 18:49	1

TestAmerica Buffalo

Client Sample Results

Client: ArcelorMittal USA Inc.
Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: MWS-33A

Lab Sample ID: 480-90387-2

Date Collected: 11/03/15 11:52

Matrix: Water

Date Received: 11/03/15 16:20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		4.7	0.34	ug/L		11/04/15 14:50	11/07/15 18:49	1
Di-n-butyl phthalate	ND		4.7	0.29	ug/L		11/04/15 14:50	11/07/15 18:49	1
Di-n-octyl phthalate	ND		4.7	0.44	ug/L		11/04/15 14:50	11/07/15 18:49	1
Fluoranthene	ND		4.7	0.37	ug/L		11/04/15 14:50	11/07/15 18:49	1
Fluorene	ND		4.7	0.34	ug/L		11/04/15 14:50	11/07/15 18:49	1
Hexachlorobenzene	ND		4.7	0.48	ug/L		11/04/15 14:50	11/07/15 18:49	1
Hexachlorobutadiene	ND		4.7	0.64	ug/L		11/04/15 14:50	11/07/15 18:49	1
Hexachlorocyclopentadiene	ND		4.7	0.55	ug/L		11/04/15 14:50	11/07/15 18:49	1
Hexachloroethane	ND		4.7	0.55	ug/L		11/04/15 14:50	11/07/15 18:49	1
Indeno(1,2,3-cd)pyrene	ND		4.7	0.44	ug/L		11/04/15 14:50	11/07/15 18:49	1
Isophorone	ND		4.7	0.40	ug/L		11/04/15 14:50	11/07/15 18:49	1
Naphthalene	ND		4.7	0.71	ug/L		11/04/15 14:50	11/07/15 18:49	1
Nitrobenzene	ND		4.7	0.27	ug/L		11/04/15 14:50	11/07/15 18:49	1
N-Nitrosodi-n-propylamine	ND		4.7	0.51	ug/L		11/04/15 14:50	11/07/15 18:49	1
N-Nitrosodiphenylamine	ND		4.7	0.48	ug/L		11/04/15 14:50	11/07/15 18:49	1
Phenanthrene	ND		4.7	0.41	ug/L		11/04/15 14:50	11/07/15 18:49	1
Pyrene	ND		4.7	0.32	ug/L		11/04/15 14:50	11/07/15 18:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	104		52 - 132	11/04/15 14:50	11/07/15 18:49	1
2-Fluorobiphenyl	96		48 - 120	11/04/15 14:50	11/07/15 18:49	1
2-Fluorophenol	60		20 - 120	11/04/15 14:50	11/07/15 18:49	1
Nitrobenzene-d5	83		46 - 120	11/04/15 14:50	11/07/15 18:49	1
Phenol-d5	46		16 - 120	11/04/15 14:50	11/07/15 18:49	1
p-Terphenyl-d14	86		67 - 150	11/04/15 14:50	11/07/15 18:49	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		11/04/15 10:02	11/05/15 12:51	1
Barium	0.099		0.0020	0.00070	mg/L		11/04/15 10:02	11/05/15 12:51	1
Beryllium	ND		0.0020	0.00030	mg/L		11/04/15 10:02	11/05/15 12:51	1
Cadmium	ND		0.0020	0.00050	mg/L		11/04/15 10:02	11/05/15 12:51	1
Chromium	0.0021	J	0.0040	0.0010	mg/L		11/04/15 10:02	11/05/15 12:51	1
Copper	ND		0.010	0.0016	mg/L		11/04/15 10:02	11/05/15 12:51	1
Lead	ND		0.010	0.0030	mg/L		11/04/15 10:02	11/05/15 12:51	1
Manganese	1.4		0.0030	0.00040	mg/L		11/04/15 10:02	11/05/15 12:51	1
Nickel	0.0089	J	0.010	0.0013	mg/L		11/04/15 10:02	11/05/15 12:51	1
Selenium	ND		0.025	0.0087	mg/L		11/04/15 10:02	11/05/15 12:51	1
Silver	ND		0.0060	0.0017	mg/L		11/04/15 10:02	11/05/15 12:51	1
Zinc	0.0092	J	0.010	0.0015	mg/L		11/04/15 10:02	11/05/15 12:51	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/04/15 10:35	11/04/15 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			11/04/15 10:15	1
Cyanide, Total	0.0083	J	0.010	0.0050	mg/L		11/06/15 21:30	11/09/15 13:39	1

TestAmerica Buffalo

Client Sample Results

Client: ArcelorMittal USA Inc.
 Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-90387-3

Date Collected: 11/03/15 00:00

Matrix: Water

Date Received: 11/03/15 16:20

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			11/06/15 11:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.21	ug/L			11/06/15 11:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			11/06/15 11:00	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			11/06/15 11:00	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			11/06/15 11:00	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			11/06/15 11:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			11/06/15 11:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.75	ug/L			11/06/15 11:00	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			11/06/15 11:00	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			11/06/15 11:00	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			11/06/15 11:00	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			11/06/15 11:00	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			11/06/15 11:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.77	ug/L			11/06/15 11:00	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			11/06/15 11:00	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			11/06/15 11:00	1
2-Butanone (MEK)	ND		10	1.3	ug/L			11/06/15 11:00	1
2-Hexanone	ND		5.0	1.2	ug/L			11/06/15 11:00	1
4-Isopropyltoluene	ND		1.0	0.31	ug/L			11/06/15 11:00	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			11/06/15 11:00	1
Acetone	ND		10	3.0	ug/L			11/06/15 11:00	1
Benzene	ND		1.0	0.41	ug/L			11/06/15 11:00	1
Bromodichloromethane	ND		1.0	0.39	ug/L			11/06/15 11:00	1
Bromoform	ND		1.0	0.26	ug/L			11/06/15 11:00	1
Bromomethane	ND		1.0	0.69	ug/L			11/06/15 11:00	1
Carbon disulfide	ND		1.0	0.19	ug/L			11/06/15 11:00	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			11/06/15 11:00	1
Chlorobenzene	ND		1.0	0.75	ug/L			11/06/15 11:00	1
Chloroethane	ND		1.0	0.32	ug/L			11/06/15 11:00	1
Chloroform	ND		1.0	0.34	ug/L			11/06/15 11:00	1
Chloromethane	ND		1.0	0.35	ug/L			11/06/15 11:00	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			11/06/15 11:00	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			11/06/15 11:00	1
Cyclohexane	ND		1.0	0.18	ug/L			11/06/15 11:00	1
Dibromochloromethane	ND		1.0	0.32	ug/L			11/06/15 11:00	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			11/06/15 11:00	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/06/15 11:00	1
Isopropylbenzene	ND		1.0	0.79	ug/L			11/06/15 11:00	1
m,p-Xylene	ND		2.0	0.66	ug/L			11/06/15 11:00	1
Methyl acetate	ND		2.5	1.3	ug/L			11/06/15 11:00	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			11/06/15 11:00	1
Methylcyclohexane	ND		1.0	0.16	ug/L			11/06/15 11:00	1
Methylene Chloride	ND		1.0	0.44	ug/L			11/06/15 11:00	1
n-Butylbenzene	ND		1.0	0.64	ug/L			11/06/15 11:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/06/15 11:00	1
o-Xylene	ND		1.0	0.76	ug/L			11/06/15 11:00	1
sec-Butylbenzene	ND		1.0	0.75	ug/L			11/06/15 11:00	1
Styrene	ND		1.0	0.73	ug/L			11/06/15 11:00	1
tert-Butylbenzene	ND		1.0	0.81	ug/L			11/06/15 11:00	1

TestAmerica Buffalo

Client Sample Results

Client: ArcelorMittal USA Inc.
 Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-90387-3

Date Collected: 11/03/15 00:00

Matrix: Water

Date Received: 11/03/15 16:20

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.36	ug/L			11/06/15 11:00	1
Toluene	ND		1.0	0.51	ug/L			11/06/15 11:00	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			11/06/15 11:00	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			11/06/15 11:00	1
Trichloroethene	ND		1.0	0.46	ug/L			11/06/15 11:00	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			11/06/15 11:00	1
Vinyl chloride	ND		1.0	0.90	ug/L			11/06/15 11:00	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/06/15 11:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		66 - 137					11/06/15 11:00	1
4-Bromofluorobenzene (Surr)	99		73 - 120					11/06/15 11:00	1
Toluene-d8 (Surr)	92		71 - 126					11/06/15 11:00	1

Lab Chronicle

Client: ArcelorMittal USA Inc.
 Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Client Sample ID: MWS-30A

Date Collected: 11/03/15 10:49

Date Received: 11/03/15 16:20

Lab Sample ID: 480-90387-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	273469	11/06/15 16:54	GTG	TAL BUF
Total/NA	Prep	3510C			273098	11/04/15 14:50	AVW	TAL BUF
Total/NA	Analysis	8270D		1	273756	11/07/15 18:20	PJQ	TAL BUF
Total/NA	Prep	3005A			273032	11/04/15 10:02	CNS	TAL BUF
Total/NA	Analysis	6010C		1	273463	11/05/15 12:39	JRK	TAL BUF
Total/NA	Prep	7470A			272997	11/04/15 10:35	TAS	TAL BUF
Total/NA	Analysis	7470A		1	273200	11/04/15 16:40	TAS	TAL BUF
Total/NA	Analysis	7196A		1	273141	11/04/15 10:15	DCB	TAL BUF
Total/NA	Prep	9012B			273693	11/06/15 21:30	CLT	TAL BUF
Total/NA	Analysis	9012B		1	273996	11/09/15 13:36	JJK	TAL BUF

Client Sample ID: MWS-33A

Date Collected: 11/03/15 11:52

Date Received: 11/03/15 16:20

Lab Sample ID: 480-90387-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	273469	11/06/15 17:18	GTG	TAL BUF
Total/NA	Prep	3510C			273098	11/04/15 14:50	AVW	TAL BUF
Total/NA	Analysis	8270D		1	273756	11/07/15 18:49	PJQ	TAL BUF
Total/NA	Prep	3005A			273032	11/04/15 10:02	CNS	TAL BUF
Total/NA	Analysis	6010C		1	273463	11/05/15 12:51	JRK	TAL BUF
Total/NA	Prep	7470A			272997	11/04/15 10:35	TAS	TAL BUF
Total/NA	Analysis	7470A		1	273200	11/04/15 16:42	TAS	TAL BUF
Total/NA	Analysis	7196A		1	273141	11/04/15 10:15	DCB	TAL BUF
Total/NA	Prep	9012B			273693	11/06/15 21:30	CLT	TAL BUF
Total/NA	Analysis	9012B		1	273996	11/09/15 13:39	JJK	TAL BUF

Client Sample ID: TRIP BLANK

Date Collected: 11/03/15 00:00

Date Received: 11/03/15 16:20

Lab Sample ID: 480-90387-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	273469	11/06/15 11:00	GTG	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: ArcelorMittal USA Inc.
Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-16

1

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Method Summary

Client: ArcelorMittal USA Inc.
Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
7196A	Chromium, Hexavalent	SW846	TAL BUF
9012B	Cyanide, Total andor Amenable	SW846	TAL BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600



Sample Summary

Client: ArcelorMittal USA Inc.
Project/Site: Tecumseh Lackawanna, NY Groundwater Pro

TestAmerica Job ID: 480-90387-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-90387-1	MWS-30A	Water	11/03/15 10:49	11/03/15 16:20
480-90387-2	MWS-33A	Water	11/03/15 11:52	11/03/15 16:20
480-90387-3	TRIP BLANK	Water	11/03/15 00:00	11/03/15 16:20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

Login Sample Receipt Checklist

Client: ArcelorMittal USA Inc.

Job Number: 480-90387-1

Login Number: 90387
List Number: 1
Creator: Janish, Carl M

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	BMTK
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes No

Chain of Custody Record

TAL-4124 (1007)

Client: Lawless Environmental Chain of Custody Number: 292054
 Address: 255 S Hamburg Turnpike Lab Number: 11/3/15
 City: Lackawanna NY State: NY Zip Code: 14218 Page: 1 of 1
 Project Name and Location (State): 0071-015-324
 Contract/Purchase Order/Quote No. _____

Project Manager: Tom Forbes Date: 11/3/15
 Telephone Number (Area Code)/Fax Number: (716) 818-8358
 Site Contact: B. Fischer Lab Contact: T. Behrendt
 Carrier/Maybill Number: _____

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives				Special Instructions/ Conditions of Receipt	
			Air	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH		ZnAc/NaOH
MWS-30A	11/3/15	1649	X			X	X	X	X			
MWS-33A	11/3/15	1152	X			X	X	X	X			
Two Blank	11/15											



Possible Hazard Identification:
 Non-Hazard Flammable Skin Irritant Poison B Unknown Return To Client Disposal By Lab Archive For _____ Months Disposal By Lab Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

QC Requirements (Specify): CAF B

1. Relinquished By: [Signature] Date: 11/3/15 Time: 1620
 2. Relinquished By: _____ Date: _____ Time: _____
 3. Relinquished By: _____ Date: _____ Time: _____

Comments: 3.0 *1

