Periodic Review Report

Tecumseh Phase III Business Park
Sites III-2, III-3 & III-4
NYSDEC Site Nos. C915199B-D
Lackawanna, New York

March 2018 0351-017-003

Prepared For:

Steel Sun 2 LLC

Prepared By:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

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PERIODIC REVIEW REPORT

TECUMSEH PHASE III BUSINESS PARK
SITES III-2, III-3 & III-4
(BCP SITE NOS. C915199B, C915199C & C915199D)

2303 HAMBURG TURNPIKE
LACKAWANNA, NEW YORK

March 2018 B0351-017-003

Prepared for:

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PERIODIC REVIEW REPORT

Sites III-2, III-3 & III-4: C915199B, C915199C & C915199D

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1.0 INTRODUCTION

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 Nos. C915199B, C915199C and C915199D, 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). Appendix A includes the Institutional and Engineering Control (IC/EC) Certification Forms completed based on the Site inspections performed February 23, 2018.

This PRR and associated certifications have been completed on behalf of the BCP Site owner, Tecumseh Redevelopment Inc. (Tecumseh), and lessee, Steel Sun 2 LLC, to document post-remedial activities covered by the Site Management Plan (Ref. 2) from the time of Certificate of Completion (COC) issuance in early January 2017 through early 2018. Specifically, the post-remedial period covered by this PRR is December 12, 2016 to January 12, 2018.

1.1 Site Background

In March 2007, Tecumseh entered into a Brownfield Cleanup Agreement (BCA) with NYSDEC to investigate and remediate an approximate 150-acre property located in Lackawanna, New York. The property, deemed the "Phase III Business Park," is located in the County of Erie, New York and encompasses tax parcel numbers 141.15-1-1 and 141.15-1-2, and a portion of tax parcel number 141.11-1-50 per Erie County Tax Map records. The Phase III Business Park 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 Phase III Business Park was originally deemed BCP Site No. C915199 and subsequently subdivided into smaller BCP sub-parcels to facilitate remediation and redevelopment. On August 20, 2012, the original BCA for Site No. C915199 was amended

to cover Site III-1, with separate BCAs issued and executed for the remaining nine BCP Site Nos. C915199B through C915199J (i.e., Sites III-2 through III-10).

Steel Sun 2 LLC intends to construct and operate a commercial-scale photovoltaic solar electricity generation system on Site III-2 (Site No. C915199B; ±10.24 acres), III-3 (Site No. C915199C; ±10.36 acres), and III-4 (Site No. C915199D; ±16.19 acres). The Sites were remediated to Track 4 restricted (commercial) use with site-specific soil cleanup objectives (SCOs) consistent with the approved Interim Remedial Measures (IRM) Work Plan (Ref. 3). The final remedial measures included placement of acceptable cover material in areas not otherwise covered by asphalt roadway, pavement, and building foundations.

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 2011 and 2012. In accordance with the May 2008 RI/AA Work Plan (Ref. 5), approximately 86 test pits were completed across the Phase III Business Park.

The RI identified several constituents of potential concern (COPCs) that were generally present across the Phase III Business Park, primarily in soils and, to a lesser extent, 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. 4) recommended remediation of "hotspot" slag/ fill (characterized by more pronounced levels of COPCs) and isolated groundwater/ saturated soil impacts (affecting only select sites in the Phase III Business Park), with cover placement 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 place other limitations on post-redevelopment activities. Site groundwater is not used at the Site and the Environmental Easement restricts its use for either potable or non-potable purposes without treatment.

1.2.2 Site III-2

During the RI, 10 test pits (identified as BP3-TP-67 through TP-70; BP3-TP-76 through TP-78; and BP3A-TP-1 through TP-3) were excavated and one monitoring well (MWS-35A) was installed on Site III-2.

The nature and extent of metals contamination at the Site was consistent with the former site use as a steel manufacturing facility. Soil/fill concentrations exceeded unrestricted and residential use SCOs. When compared to the commercial SCOs, arsenic, chromium, lead, manganese, and mercury were found to exceed. Seven semi-volatile organic compounds (SVOCs) (specifically PAHs) also exceeded commercial SCOs.

Groundwater sampling for SVOCs, volatile organic compounds (VOCs) and metals in January 2009 indicated that groundwater at the Site exceeded the NYSDEC Class GA Groundwater Quality Standards/Guidance Values (GWQS/GVs) for iron, phenol, and pH.

1.2.3 Site III-3

Two test pits (identified as BPA3-61 and BPA3-TP-62) were excavated on Site III-3 during the RI. The 0-2' interval within test pit BPA3-TP-62 was sampled per the RI Work Plan and found to contain concentrations of benzo(a)pyrene and arsenic slightly above the commercial SCOs. Sheen was observed on the water table in both test pits at approximately 7 feet below grade. In September 2011, test pit BPA3-TP-62 was excavated at the request of

NYSDEC because of the observed sheen; no field evidence of sheen or migration to Smokes Creek was found.

Historic disposal of asbestos containing material (ACM) has been documented in a portion of the Site. It is reputed that the ACM was disposed in a 15-foot wide by 16-foot deep ingot buggy tunnel under the slab of the soaking pit building; however, surface sampling and test pit excavations during the RI failed to show widespread disposal.

1.2.4 Site III-4

During the RI, 11 test pits (identified as BP3-TP-71, BP3-TP-74, BP3-TP-75, and BP3A-TP-4 through BP3A-TP-11) were excavated and two monitoring wells (identified as MWS-31A and MWS-34A) were installed on Site III-4. Five additional test pits were completed to further delineate impacts observed in test pit BP3A-TP-8.

The nature and extent of metals contamination at the Site were consistent with the former site use as a steel manufacturing facility. Soil/fill concentrations exceeded unrestricted and residential use SCOs. Arsenic and mercury were detected at concentrations above commercial SCOs. SVOCs exceeding commercial SCOs included benzo(a)pyrene in 3 of 6 samples and dibenz(a,h)anthracene in 1 of 6 samples.

Groundwater sampling for SVOCs, VOCs, and metals conducted in January 2010 indicated exceedances of GWQS/GVs for arsenic, chrysene, and pH in well MWS-31A and naphthalene and pH in well MWS-04.

1.2.5 IRM Activities

No IRMs were necessary on Sites III-2 and III-3. The remediation of Site III-4 included an IRM to expedite remedial activities and facilitate redevelopment. In July 2013, Tecumseh submitted to NYSDEC an IRM Work Plan for Phase III Business Park Sub-Parcels III-4, III-6 and III-10 (Ref. 6). In August 2013, Site III-4 was remediated in accordance with the approved IRM Work Plan. The remedial work performed on Site III-4 and documented in the Construction Completion Report (Ref. 7) and on Figure 3 included:

- Excavating approximately 139 cubic yards (CY) of arsenic-impacted slag/fill surrounding Hotspot C (i.e., former Slabbing Mill Return Water Trench) with off-

site disposal of 320.84 tons of material at the Chautauqua County Landfill (CCLF) in Ellery, NY.

- Excavating approximately 52 CY of arsenic-impacted slag/fill surrounding Hotspot E (i.e., test pit BP3A-TP-6) with off-site disposal of 215.67 tons of material at the CCLF in Ellery, NY.
- Collecting documentation samples from the floor and sidewalls of each hotspot excavation for comparison to the arsenic Site-Specific Action Level (SSAL) of 118 ppm. All detections for Hotspot C fell below the SSAL and no further excavation work was completed. For Hotspot E, the west and south sidewall sample results were above 118 ppm; therefore, additional material was removed. The re-sample results for these areas were below the arsenic SSAL of 118 ppm.
- Grading of the excavation sides was performed instead of importing backfill since Site redevelopment was pending and the excavations were shallow.

1.3 Compliance

At the time of the annual Site inspection (02/23/18), the Site was fully compliant with the NYSDEC-approved SMP (Ref 2).

1.4 Recommendations

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

2.0 SITE OVERVIEW

All remediated properties within the Phase III Business Park are subject to a comprehensive, site-wide SMP that 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. These appendices are prepared once a Phase III Business Park Site is remediated. Final remedial activities undertaken on Sites III-2, III-3 and III-4 are described below.

2.1 Final Remedial Measures

Benchmark Environmental Engineering & Science, PLLC in association with TurnKey Environmental Restoration, LLC (Benchmark-TurnKey) was retained by Steel Sun 2 LLC (and 1951 Hamburg Turnpike, LLC for Site III-4) to serve as the design-builder and Engineer of Record for the BCP activities with oversight provided by the NYSDEC. Benchmark-TurnKey performed the remedial work on a design-build basis with assistance from Zoladz Construction Company, Inc., the designated remedial subcontractor, in accordance with an NYSDEC-approved Remedial Action Work Plan (Ref. 8). Final remedial measures completed at Sites III-2, III-3 and III-4 included:

- Clearing, grubbing, and moderately re-grading to prepare the area for cover.
- Placing a demarcation layer beneath the cover system
- Constructing and maintaining a cover system to prevent human exposure to remaining contaminated soil/fill. As shown on Figure 4, the cover system consists of one foot of Beneficial Use Determination (BUD)-approved aggregate (NYSDEC BUD #555-9-15) as well as sand material from the Tonawanda Terminals Corporation Biotreatment Facility capable of supporting vegetation for areas not covered by asphalt roadways, existing building slabs, and existing active rail and stone bedding. On Site III-3, an additional foot of BUD-approved aggregate (2 feet total) was placed over the area of suspected buried ACM.

The remedial program was successful in achieving the remedial objectives for the Site. The Final Engineering Reports (FER) were approved in December 2016 (Refs. 9 and 10). NYSDEC issued COCs for Sites III-2, III-3 and III-4 in December 2016.

3.0 REMEDY PERFORMANCE

A post-remedial site inspection involving a walk-over of the Sites covered by this PRR was performed on February 23, 2018 to visually observe and document the use of the Site for commercial/industrial use, confirm absence of Site groundwater use, inspect the integrity of the cover system, and verify conformance with other requirements under the SMP. The Site inspection confirmed that the controls are in-place and functioning as intended in accordance with the SMP.

Appendix A includes the completed IC/EC Certification forms, and Appendix B includes photographs taken during the inspection.

4.0 SITE MANAGEMENT PLAN

A site-wide SMP was prepared for the Phase III Business Park in July 2015 and approved by NYSDEC. Parcel-specific SMP requirements for Sites III-2, III-3 and III-4 were added by addenda in October 2016 and are presented in SMP Appendices H-2, H-3 and H-4. Key components of the SMP are described below.

4.1 Institutional and Engineering Control (IC/EC) Plan

Since remaining contaminated soil/fill and groundwater exists beneath the Phase III Business Park, institutional and engineering controls are required to protect human health and the environment. The IC/EC Plan describes the procedures for the implementation and management of all IC/ECs 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 NYSDEC-approved SMP.
- The remedial party or site owner must complete and submit to the NYSDEC a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3.)
- There are no site-specific institutional control requirements except for the area of suspect buried ACM on Site III-3 where no enclosed structure or building that could provide temporary or permanent human occupancy is allowed.

4.1.2 Engineering Controls

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

- Cover System: The cover system, including building foundations, concrete sidewalks, concrete or asphalt driveways, parking areas, and landscaped vegetated areas, must be maintained in compliance with the SMP.
- Vapor Barrier (specific to Sites with buildings): A poly vapor barrier must be installed and remain in-place beneath building concrete floor slab.

At the time of the site inspection, the Sites covered by this PRR were fully compliant with all IC/EC requirements.

4.2 Excavation Work Plan

An Excavation Work Plan (EWP) was included in the approved SMP for the Phase III Business Park. The EWP provides guidelines for the management of soil/fill material during any future intrusive actives. 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.

For Sites III-2, III-3, and III-4, no intrusive activities requiring management of on-site soil or fill material; placement of backfill materials or disturbance of the cover system occurred during the monitoring period with the exception of a NYSDEC-approved minor cover system change to accommodate trucks transporting wind turbine parts to a temporary staging area elsewhere on Tecumseh-owned property. As shown on Figure 5, soil cover was replaced with a minimum 12-inch layer of approved aggregate over the demarcation layer to widen the access road in two locations.

4.3 Annual Inspection and Certification Program

The Annual Inspection and Certification Program outlines requirements for certifying and attesting that the IC/ECs 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 Sites III-2, III-3 and III-4 was conducted by Mr. Thomas Forbes, P.E. of Benchmark on February 23, 2018. Mr. Forbes is a licensed and registered NY State Professional Engineer and meets the requirements of a Qualified Environmental Professional (QEP) per 6NYCRR Part 375.12. At the time of the inspection, Sites III-2 and III-3 were vacant and a portion of Site III-4 was occupied by Benchmark-Turnkey as an equipment storage garage. No observable indication of intrusive activities was noted during the Site inspection.

Appendix A includes the completed Site Management PRR Notice – Institutional and Engineering Controls Certification Forms. Appendix B includes a PRR photo log.

4.4 Operation, Monitoring and Maintenance Plan

The remedy for Sites III-2, III-3 and III-4 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

Appendices H-2, H-3 and H-4 of the SMP require groundwater monitoring at wells MWS-04, MWS-31A, MWS-34A, and MWS-35A on an annual basis for a period of approximately two years, after which the need for continued monitoring or a revision to the monitoring program will be discussed with the NYSDEC. NYSDEC requested that monitoring well MW-12A be sampled to provide a background upgradient comparison.

Benchmark-TurnKey personnel performed the first annual groundwater monitoring event on November 29, 2017. Groundwater was analyzed for VOCs, SVOCs (base neutrals only), site-specific metals (i.e., arsenic, chromium, lead, and mercury), and field parameters (i.e., pH, temperature, specific conductance, turbidity, dissolved oxygen, and oxidation-reduction potential).

Appendix C includes the analytical data package and field data sheets. Table 1 summarizes the 2017 monitoring results, along with groundwater data collected during the RI, and provides a comparison to GWQS/GVs. The majority of the November 2017 results were reported as non-detect, and all detections were reported at concentrations well below GWQS/GVs with the exception of one sample result above the GWQS for benzene at MWS-04 (Site III-4). All groundwater results from upgradient well MW-12A were either non-detect or well below GWQS/GVs.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations are as follows:

- At the time of the Site inspection, Sites III-2, III-3, and III-4 were in compliance with the SMP.

The following modifications are recommended for the Site:

- No modifications are recommended at this time.

7.0 DECLARATION/LIMITATION

This PRR has been prepared for the exclusive use of Steel Sun 2 LLC. The contents of this PRR are limited to information available at the time of the Site inspection. The findings herein may be relied upon only at the discretion of Steel Sun 2 LLC. Use of or reliance upon this PRR or its findings by any other person or entity is prohibited without written permission of Benchmark Environmental Engineering & Science, PLLC.

8.0 REFERENCES

1. New York State Department of Environmental Conservation. *DER-10/ Technical Guidance for Site Investigation and Remediation.* May 3, 2013.
2. TurnKey Environmental Restoration, LLC. *Site Management Plan for Tecumseh Phase III Business Park.* Revised July 2015.
3. TurnKey Environmental Restoration, LLC. *Interim Remedial Measures (IRM) Work Plan for Phase III Business Park, Lackawanna, New York.* July 2013.
4. TurnKey Environmental Restoration, LLC. *Remedial Investigation/Alternatives Analysis Report for Phase III Business Park, Lackawanna, New York.* Revised July 2012.
5. TurnKey Environmental Restoration, LLC. *Remedial Investigation/Alternatives Analysis Report (RI/AAR) Work Plan for Phase III Business Park Area, Lackawanna, New York.* May 2008.
6. TurnKey Environmental Restoration, LLC and Benchmark Environmental Engineering & Science, PLLC. *Interim Remedial Measures (IRM) Work Plan, Phase III Business Park, Sub-Parcels III-4, III-6 and III-10, Lackawanna, New York, BCP Site Nos. 915199D, C915199F, and C915199J.* July 2013.
7. TurnKey Environmental Restoration, LLC and Benchmark Environmental Engineering & Science, PLLC. *Construction Completion Report, Metal-Impacted Hotspots, Business Park Sub-parcels III-4, III-6 & III-10, Lackawanna, New York, BCP Sites C915199D, C915199F & C915199J.* January 2014.
8. Benchmark Environmental Engineering & Science, PLLC. *Remedial Action Work Plan, Steel Sun 2 Site, Lackawanna, New York, BCP Site Nos. C915199B, C915199C, C915199D, & C915199I.* August 2015.
9. Benchmark Environmental Engineering & Science, PLLC. *Final Engineering Report, Tecumseh Phase III Business Park Sites III-2 & III-3, NYSDEC Site Nos. C915199B/C915199C, Lackawanna, New York.* November 2016.
10. Benchmark Environmental Engineering & Science, PLLC. *Final Engineering Report, Tecumseh Phase III Business Park Site III-4, NYSDEC Site No. C915199D, Lackawanna, New York.* November 2016.

FIGURES

FIGURE 1

REGIONAL MAP

PERIODIC REVIEW REPORT

TECUMSEH PHASE III BUSINESS PARK
SITES III-2, III-3, & III-4
LACKAWANNA, NY

PREPARED FOR

STEEL SUN 2, LLC

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 HAMBURG TURNPIKE
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PROJECT NO.: 0351-017-003

DATE: JANUARY 2018

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F:\CAD\Benchmark\Steel Sun 2, LLC\2017 PRR\Figure 2; Vicinity Map.dwg, 1/11/2018 3:54:10 PM, DWG to PDF.pc3

LAKE ERIE

TOWN OF HAMBURG
CITY OF LACKAWANNA

ATP CONTAINMENT CELL
(SWMUs S-11/S-22)

SMOKES CREEK

BUSINESS PARK I I I

III-3
BCP SITE NO. C915199C
(± 10.36 ACRES)

III-4
BCP SITE NO. C915199D
(± 16.19 ACRES)

III-2
BCP SITE NO. C915199B
(± 10.24 ACRES)

III-6
BCP SITE NO. C915199F
(± 10.89 ACRES)

III-1
BCP SITE NO. C915199
(± 14.62 ACRES)

III-5
BCP SITE NO. C915199E
(± 11.69 ACRES)

WELDED TUBE USA
(BCP SITE NOs. C915199G & C915199H)
(± 45.15 AC)

STEEL SUN I
PHOTOVOLTAIC
SOLAR SYSTEM

COKE OVEN GAS LINE
CLEANED IN PLACE (135')

III-10
BCP SITE NO. C915199J
(± 17.24 ACRES)

III-9
BCP SITE NO. C915199I
(± 5.97 ACRES)

II-12
BCP SITE NO. C915198L
(± 12.02 ACRES)

II-10
BCP SITE NO. C915198J
(± 15.78 ACRES)

II-9
BCP SITE NO. C915198I
(± 1.98 ACRES)

II-5
BCP SITE NO. C915198E
(± 6.75 ACRES)

II-7
BCP SITE NO. C915198G
(± 12.23 ACRES)

II-11
BCP SITE NO. C915198K
(± 11.98 ACRES)

II-8
BCP SITE NO. C915198H
(± 11.41 ACRES)

II-6
BCP SITE NO. C915198F
(± 11.50 ACRES)

II-3
BCP SITE NO. C915198C
(± 23.40 ACRES)

II-1
(± 14.35 ACRES)

II-2
BCP SITE NO. C915198B
(± 9.43 ACRES)

SMOKES CREEK

BUSINESS PARK II

GREAT LAKES INDUSTRIAL
DEVELOPMENT, LLC
(FMR. HOT / COLD MILL)

CITY OF LACKAWANNA

SWMU 29

GATEWAY METROPORT SHIP CANAL

BUSINESS PARK IA

IA
BCP SITE NO. C915218
(± 33.31 ACRES)

GATEWAY TRADE
CENTER (G.T.C.)

I-10
BCP SITE NO. C915197J
(± 9.98 ACRES)

I-9
BCP SITE NO. C915197I
(± 10.03 ACRES)

I-11
BCP SITE NO. C915197K
(± 12.36 ACRES)

I-7
BCP SITE NO. C915197G
(± 10.03 ACRES)

I-8
BCP SITE NO. C915197H
(± 10.24 ACRES)

I-5
BCP SITE NO. C915197E
(± 10.05 ACRES)

I-3
BCP SITE NO. C915197C
(± 7.63 ACRES)

I-6
BCP SITE NO. C915197F
(± 10.02 ACRES)

I-1
BCP SITE NO. C915197A
(± 5.57 ACRES)

I-4
BCP SITE NO. C915197D
(± 10.37 ACRES)

I-2
BCP SITE NO. C915197B
(± 6.23 ACRES)

HAMBURG TURNPIKE

BUSINESS PARK I

N

700 0' 700 1,400

SCALE: 1 INCH = 700 FEET
SCALE IN FEET
(approximate)

DATE: JANUARY 2018
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VICINITY MAP

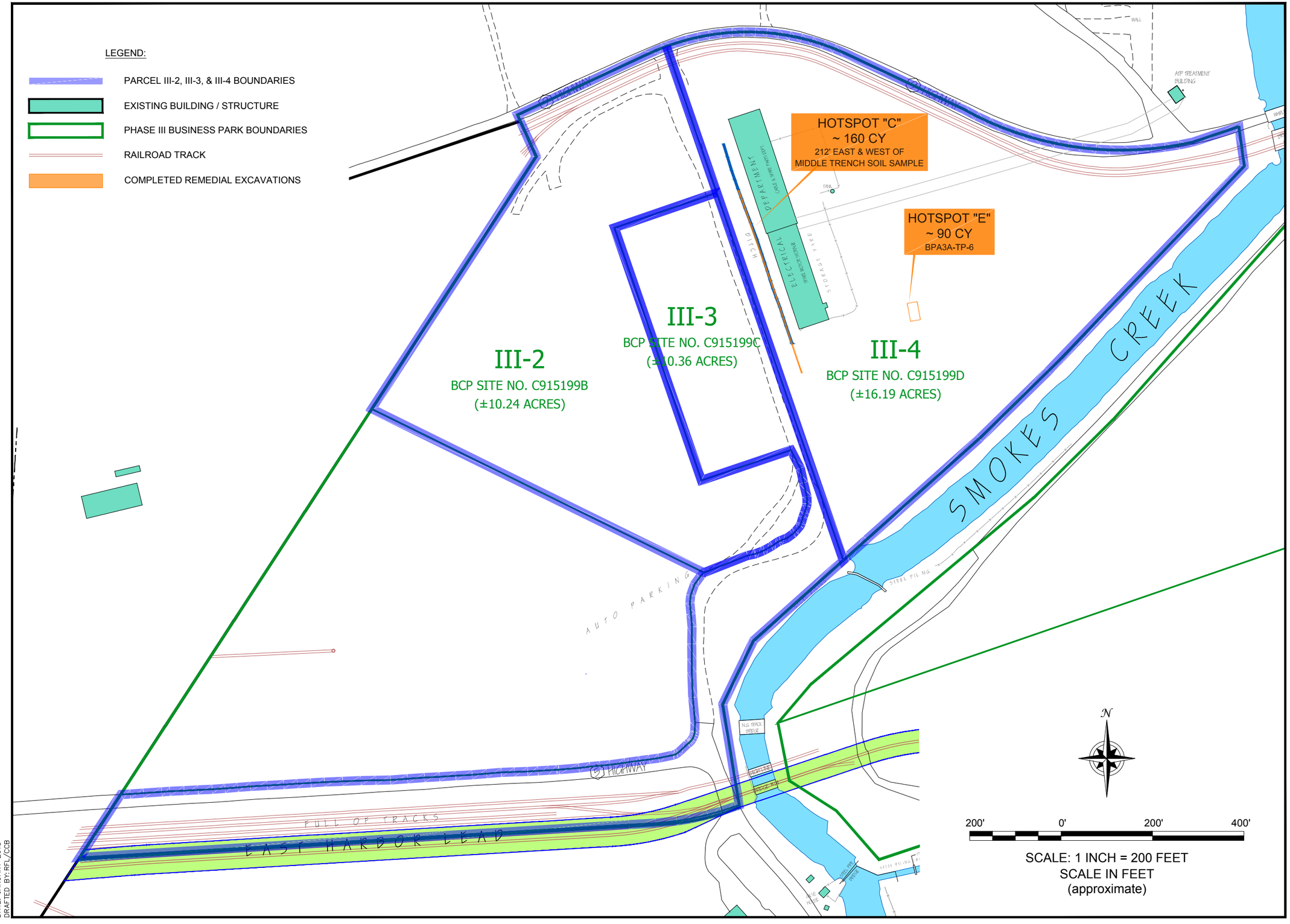
PERIODIC REVIEW REPORT
TECUMSEH PHASE III BUSINESS PARK
SITE III-2, III-3, & III-4
LACKAWANNA, NY
PREPARED FOR
STEEL SUN 2, LLC

FIGURE 2

F:\CAD\Benchmark Steel Sun 2, LLC\2017 PRR\Figure 3 III-2, III-3, & III-4 Remedial Actions.dwg, 1/11/2018 3:57:37 PM, DWG To PDF.pc3

LEGEND:

- PARCEL III-2, III-3, & III-4 BOUNDARIES
- EXISTING BUILDING / STRUCTURE
- PHASE III BUSINESS PARK BOUNDARIES
- RAILROAD TRACK
- COMPLETED REMEDIAL EXCAVATIONS



DATE: JANUARY 2018
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JOB NO.: 0351-017-003

REMEDIAL ACTIONS ON SITES III-2, III-3, & III-4

PERIODIC REVIEW REPORT

TECUMSEH PHASE III BUSINESS PARK
SITES III-2, III-3, & III-4
LACKAWANNA, NY

PREPARED FOR
STEEL SUN 2, LLC

FIGURE 3

F:\CAD\Benchmark\Steel Sun 2, LLC\2017 PRR\Figure 4, Site-Wide Cover System.dwg, 1/11/2018 3:59:47 PM, DWG To PDF.pc3

LEGEND:

- BUSINESS PARK BOUNDARY
- SITE III-2, III-3, & III-4 BOUNDARIES
- EXISTING BUILDING / STRUCTURE
- RAILROAD TRACK
- EXISTING ASPHALT PAVEMENT
- 1' BUD-APPROVED SLAG COVER OVER DEMARCATION LAYER
- 1' APPROVED SOIL COVER OVER DEMARCATION LAYER (SEEDED)
- SECURITY BERM AREA 1' APPROVED SOIL COVER OVER DEMARCATION LAYER (SEEDED)
- 2' BUD-APPROVED SLAG COVER OVER DEMARCATION LAYER

4 FOOT HIGH SECURITY BERM

KEY IN COVER AT PAVEMENT & RAILROAD TRACKS

SOIL & SLAG COVER KEYED-IN AT RAILROAD TRACKS

SITE III-4 "A" PARCEL C915199D (± 4.56 ACRES)

SITE III-4 "B" PARCEL C915199D (± 11.63 ACRES)

SITE III-3 "A" PARCEL C915199C (± 3.34 ACRES)

SITE III-2 C915199B (± 10.24 ACRES)

SITE III-3 "B" PARCEL C915199C (± 7.02 ACRES)

SMOKES CREEK

PLANNED STEEL SUN 2 DEVELOPMENT AREA

SLAG IN TRENCH (SEE DETAIL B)

SOIL & SLAG COVER KEYED-IN AT ROAD

TRENCH FILLED WITH SOIL FROM ON-SITE CUTS COVERED WITH 1' BUD-APPROVED 2" SLAG

BOAT ACCESS RAMP SEE DETAIL A

COVER KEYED-IN AT EDGE OF ROADWAY

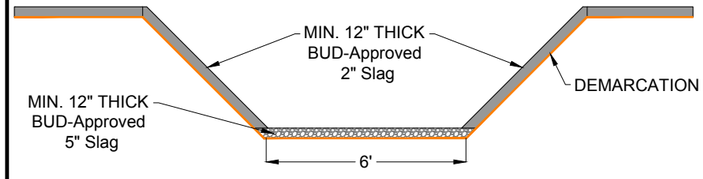
COVER KEYED-IN AT EDGE OF ROADWAY AND RAILROAD TRACKS

LAKEHOUSE ROAD

HIGHWAY

DETAIL A
10-12' DEEP CREEK ACCESS RAMP
NTS

DETAIL B
6' DEEP DITCH
NTS



N

200' 0' 200' 400'

SCALE: 1 INCH = 200 FEET
SCALE IN FEET
(approximate)

DATE: JANUARY 2018
DRAFTED BY: RFL/CCB

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0599

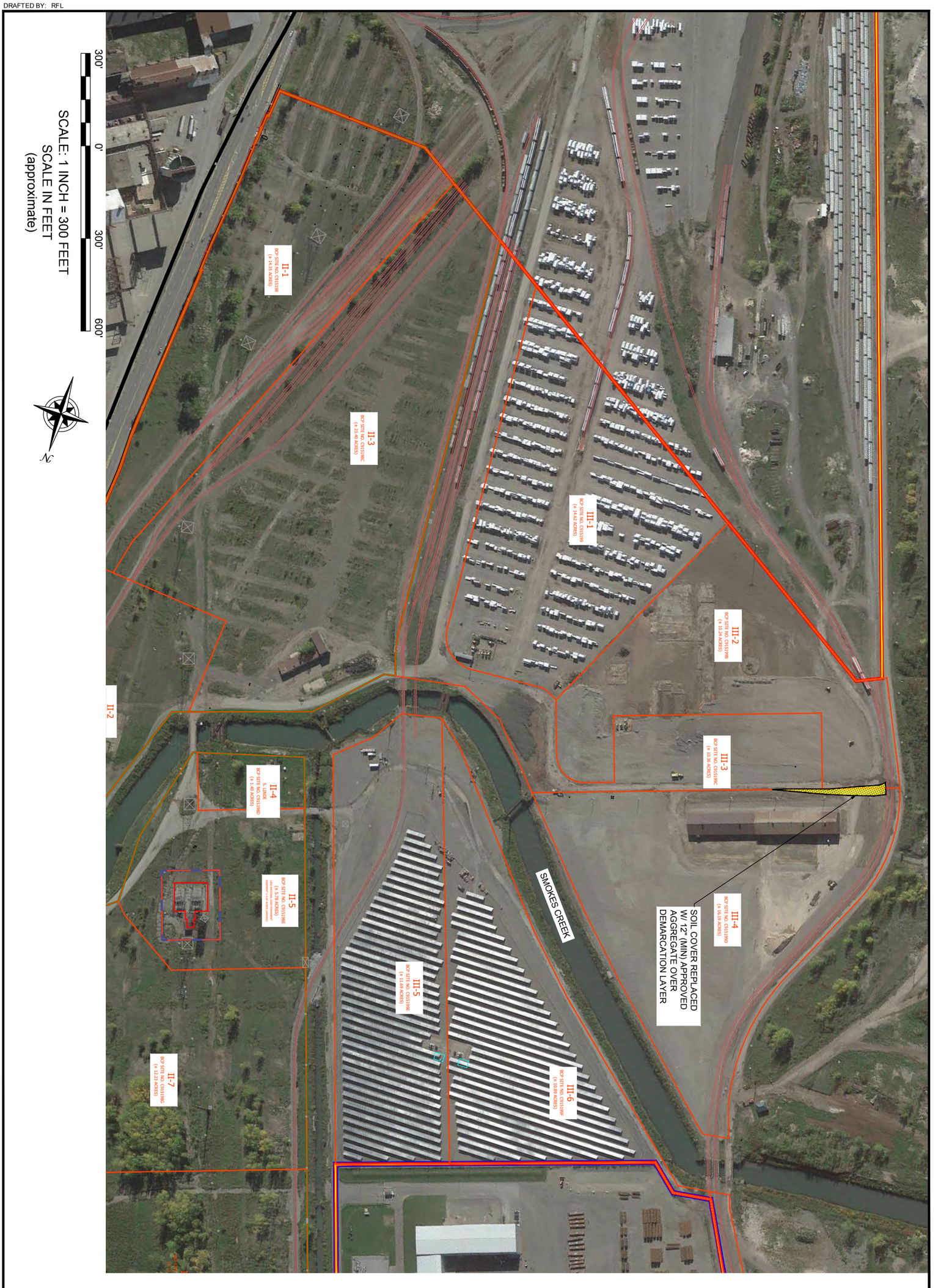
JOB NO.: 0351-017-003

SITE WIDE COVER SYSTEM

PERIODIC REVIEW REPORT
TECUMSEH PHASE III BUSINESS PARK
SITES III-2, III-3, & III-4
LACKAWANNA, NY
PREPARED FOR
STEEL SUN 2, LLC

FIGURE 4

DATE: MARCH 2018
DRAFTED BY: RFL



COVER SYSTEM MODIFICATIONS

PERIODIC REVIEW REPORT

TECUMSEH PHASE III BUSINESS PARK
SITES III-2, III-3, & III-4
LACKAWANNA, NY

PREPARED FOR

STEEL SUN 2, LLC

FIGURE 5

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218, (716) 856-0599

JOB NO.: 0351-017-003

TABLE

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

PERIODIC REVIEW REPORT

Tecumseh Phase III Business Park: Sites III-2, III-3 & III-4
Lackawanna, New York

Parameter [1]	Sample Location																								GWQS [3]
	MWS-04 1/21/2010		MWS-04 2/24/2016		MWS-04 11/29/2017		MWS-31A 1/21/2010		MWS-31A 2/25/2016		MWS-31A 11/29/2017		MWS-34A 1/16/2009		MWS-34A 2/25/2016		MWS-34A 11/29/2017		MWS-35A 1/16/2009		MWS-35A 2/25/2016		MWS-35A 11/29/2017		MW-12A 11/29/2017		
	BPA-III-4																		BPA-III-2						Upgradient		
Field Measurements [4]:																											
Sample No.	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	--
pH (units)	**9.57**	**9.90**	7.52	7.50	6.99	7.04	**9.37**	**9.41**	**10.26**	**10.23**	**10.24**	**10.24**	7.07	7.16	7.41	7.51	7.33	7.38	**11.30**	**11.19**	**8.56**	**8.71**	7.34	7.37	8.27	8.36	**6.5 - 8.5**
Temperature (°C)	10.5	10.1	8.9	9.0	12.7	12.9	8.7	9.0	8.5	8.4	12.3	12.5	7.9	8.9	8.3	7.9	13.0	11.8	8.2	7.7	9.0	8.3	12.9	12.9	12.3	11.5	**NA**
Sp. Conductance (mS)	506.5	537.5	877.5	874.4	1403	1382	539.2	547	445.8	444	492.8	496	933.6	902.4	897.1	883.2	1042	1038	544.6	482.4	506.5	509.5	616.9	592.7	457.7	466.8	**NA**
Turbidity (NTU)	33.50	25	14.9	8.11	4.06	3.28	>1000	361	18.9	11.2	15.5	7.7	25.8	19.5	4.12	4.53	8.44	7.58	37.5	22.7	7.27	7.09	49.4	48.8	9.9	46.8	**NA**
DO (ppm)	--	--	6.08	5.88	1.97	1.88	--	--	2.04	1.92	2.17	1.89	1.31	1.09	1.79	1.61	2.48	2.79	1.50	1.39	2.21	2.40	1.58	1.53	1.83	2.00	**NA**
Eh (mV)	-121	-149	12	15	118	110	-64	-63	27	22	-65	-68	-119	-118	-118	-117	-152	-149	-169	-161	-114	-87	-169	-172	-155	-158	**NA**
Metals (mg/L): [5]																											
Aluminum - Total	--		--		--		--		--		--		--		--		--		1.5		--		--		--		**--**
Arsenic - Total	0.0225		0.0065 J		ND		**0.0334**		0.016		0.022		0.0168		0.014 J		0.019		0.016		ND		ND		ND		**0.025**
Barium - Total	--		0.032		--		--		0.015		--		--		0.065		--		0.0534		0.14		--		--		**1**
Calcium - Total	--		--		--		--		--		--		--		--		--		83.5		--		--		--		**--**
Chromium - Total	ND		0.0052		ND		0.0147		ND		ND		--		--		ND		0.0102		ND		0.0082		ND		**0.05**
Iron - Total	--		--		--		--		--		--		--		--		--		**2.49**		--		--		--		**0.3**
Lead - Total	ND		ND		ND		0.0213		ND		ND		--		--		ND		0.0114		ND		0.013		0.015		**0.025**
Magnesium - Total	--		--		--		--		--		--		--		--		--		2.41		--		--		--		**35***
Manganese - Total	--		0.044		--		--		0.034		--		--		**0.39**		--		0.21		**0.51**		--		--		**0.3**
Nickel - Total	--		0.0066 J		--		--		--		--		--		--		--		--		--		--		--		**0.1**
Potassium - Total	--		--		--		--		--		--		--		--		--		15.8		--		--		--		**--**
Sodium - Total	--		--		--		--		--		--		--		--		--		10.6		--		--		--		**20**
Vanadium - Total	--		--		--		--		--		--		--		--		--		0.0079		--		--		--		**--**
Zinc - Total	--		0.024 J		--		--		ND		--		--		ND		--		0.017		ND		--		--		**2***
Cyanide - Total	--		0.1		--		--		0.092		--		--		0.07 JB		--		--		0.0056 J		--		--		**0.2**
Soluble Inorganic Compounds (mg/L) [6]:																											
Arsenic - Total	--		--		--		0.0208		--		--		--		--		--		--		--		--		--		**0.025**
Volatile Organic Compounds (ug/L):																											
Acetone	--		ND		ND		--		ND		ND		ND		ND		ND		ND		ND		7.8 J		ND		**50***
Benzene	ND UJ		0.93 J		**4.4**		ND		ND		ND		0.035 J		ND		ND		ND		ND		ND		ND		**1**
Carbon Disulfide	--		0.24 J		ND		--		ND		ND		ND		ND		ND		ND		ND		ND		ND		**--**
Toluene	1.1 D,J,NJ		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Xylenes, Total	1.2 D,J,NJ		ND		ND		ND		ND		ND		0.085 J		ND		ND		ND		ND		ND		ND		**15**

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

PERIODIC REVIEW REPORT

Tecumseh Phase III Business Park: Sites III-2, III-3 & III-4
Lackawanna, New York

Parameter [1]	Sample Location													GWQS [3]
	MWS-04 1/21/2010	MWS-04 2/24/2016	MWS-04 11/29/2017	MWS-31A 1/21/2010	MWS-31A 2/25/2016	MWS-31A 11/29/2017	MWS-34A 1/16/2009	MWS-34A 2/25/2016	MWS-34A 11/29/2017	MWS-35A 1/16/2009	MWS-35A 2/25/2016	MWS-35A 11/29/2017	MW-12A 11/29/2017	
	BPA-III-4									BPA-III-2			Upgradient	
Semi-Volatile Organic Compounds (ug/L):														
2-Methylnaphthalene	1.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
3-3'-Dichlorobenzidine	ND L4 UJ	ND	ND***	ND L4 UJ	ND	ND***	ND	ND	ND***	ND	ND	ND	ND	**5**
4-Nitroaniline	ND L4	ND	ND***	ND L4 UJ	ND	ND***	1.7 J	ND	ND***	ND	ND	ND	ND	--
Acenaphthene	0.58 J	ND	ND	ND	ND	ND	ND	0.6 J	ND	ND	ND	ND	ND	**20**
Acenaphthylene	2.3 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Acetophenone	ND	ND	ND	ND	ND	ND	0.96 J	ND	ND	ND	ND	ND	ND	--
Anthracene	ND	ND	ND	ND	ND	ND	ND	0.49 J	ND	ND	ND	ND	ND	**50**
Benzaldehyde	ND	0.67 JB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.22 J**	ND	ND	ND	**0.002***
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.032 J**	ND	ND	ND	**0.002***
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.32 J**	ND	ND	ND	**0.002***
Benzo(ghi)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.34 J	ND	ND	ND	--
Bis(2-ethylhexyl) phthalate	2.3 J	ND	ND	2.5 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5**
Carbazole	9.1	ND	0.56 J***	ND	ND	ND***	ND	ND	ND***	ND	ND	ND	ND	--
Chrysene	ND	ND	ND	**0.33 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.002**
Dibenzofuran	1.8 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
Diethyl phthalate	ND	ND	ND	ND	ND	ND	0.25 J	ND	ND	0.27 J	ND	ND	ND	**50***
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	0.53 J	ND	ND	0.29 J	ND	ND	ND	**50***
Fluoranthene	ND	ND	ND	ND	ND	ND	0.29 J	ND	ND	0.31 J	ND	ND	ND	**50***
Fluorene	2.6 J	ND	ND	ND	ND	ND	0.5 J	ND	ND	ND	ND	ND	ND	**50***
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.24 J**	ND	ND	ND	**0.002***
Naphthalene	**34**	ND	ND	ND	ND	ND	ND	ND	ND	0.22 J	ND	ND	ND	**10***
Phenanthrene	2.6 J	ND	ND	ND	ND	ND	0.47 J	ND	ND	0.33 J	ND	ND	ND	**50***
Phenol	--	--	--	--	--	--	--	;--	--	**21**	--	--	--	**1****
Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.34 J	ND	ND	ND	**50***

Notes:

1. Only those compounds detected above the method detection limit at a minimum of one sample location are reported in this table.
3. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) per 6NYCRR Part 703.
4. Field measurements were collected immediately before and after groundwater sample collection.
5. COPC metals include arsenic, barium, beryllium, cadmium, total chromium, hexavalent chromium, copper, lead, manganese, mercury, nickel, selenium, silver, and zinc.
6. Soluble metals sample was collected when turbidity was above 50 NTUs.

Acronyms:

J = Estimated Value
H = Sample was prepped or analyzed beyond specified holding time.
B = Analyte was present in the blank.
ND = Parameter was not detected above laboratory reporting limit and is reported herein as not detected (ND).
NA = Not applicable.
" * " = The Guidance Value was used where a Standard has not been established.
" ** " = The general standard of 1.0 ug/L for phenolic compounds was used.
" *** " = LCS or LCSD is outside acceptance limits.
ND = Qualifier from data validation.

BOLD = Result exceeds the GWQS/GV.

APPENDIX A

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORMS

APPENDIX A1

SITE III-2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

2/1/2018

Keith A. Nagel
General Manager
Tecumseh Redevelopment, Inc.
4020 Kinross Lakes Parkway
Richfield, OH 44286

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Site III-2 Tecumseh Phase III Business Park
Site No.: C915199B
Site Address: 2303 Hamburg Turnpike
Lackawanna, NY 14218

Dear Keith A. Nagel:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **April 14, 2018**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Qualified Environmental Professional (QEP). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Maurice Moore, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: maurice.moore@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

Lackawanna Solar Land LLC

ec: w/ enclosures
Maurice Moore, Project Manager
David Szymanski
Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7**):**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

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. C915199B

Site Name Site III-2 Tecumseh Phase III Business Park

Site Address: 2303 Hamburg Turnpike Zip Code: 14218
City/Town: Lackawanna
County: Erie
Site Acreage: 10.2

Reporting Period: December 12, 2016 to March 15, 2018

	YES	NO
1. Is the information above correct?	☑	☐
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?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
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?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

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?	☐	☑

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)	☑	☐

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. C915199B **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
141.11-1-50	Tecumseh Redevelopment Inc.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC 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

Parcel	Engineering Control
141.11-1-50	Cover System

Engineering Control Description:

Soil cover over 5 acres

Box 5

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 compete.

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. C915199B

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 Timothy M. Ryan (print name) at Steel Sun 2 LLC, 400 Market Industrial Park, Suite 32, Wappingers Falls NY 12590 (print business address),

am certifying as Remedial Party (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

March 12, 2018
Date

IC/EC CERTIFICATIONS

Box 7

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 Thomas H. Forbes, P.E. (print name) at Benchmark Environmental Engineering, 2558 Hamburg TurnPike, Buffalo, NY 14218 (print business address),

am certifying as a for the Remedial Party

(Owner or Remedial Party)

STATE OF NEW YORK
THOMAS H. FORBES
No. 70950-1
LICENSED PROFESSIONAL ENGINEER
Stamp (Required for PE)

Signature of , for the Owner or Remedial Party, Rendering Certification

3-12-13
Date

APPENDIX A2

SITE III-3

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

11/30/2017

Keith A. Nagel
General Manager
Tecumseh Redevelopment, Inc.
4020 Kinross Lakes Parkway
Richfield, OH 44286

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Site III-3 Tecumseh Phase III Business Park
Site No.: C915199C
Site Address: 2303 Hamburg Turnpike
Lackawanna, NY 14218

Dear Keith A. Nagel:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **February 11, 2018**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Maurice Moore, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: maurice.moore@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

Lackawanna Solar Land LLC

ec: w/ enclosures
Maurice Moore, Project Manager
Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7)**:**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

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. **C915199C**

Site Name Site III-3 Tecumseh Phase III Business Park

Site Address: 2303 Hamburg Turnpike Zip Code: 14218
City/Town: Lackawanna
County: Erie
Site Acreage: 10.4

Reporting Period: December 12, 2016 to January 12, 2018

	YES	NO
1. Is the information above correct?	☑	☐
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?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
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?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☑	☐
7. Are all ICs/ECs in place and functioning as designed?	☑	☐

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?	☐	☑

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

	YES	NO
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☑	☐

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. C915199C **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
141.11-1-50	Tecumseh Redevelopment Inc.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan Building Use Restriction

Institutional Control Description:

Adherence to Site Management Plan (SMP)
Restriction to commercial re-use
Prohibition of groundwater use
Building prohibition on specified portion of Controlled Property
Allowance for Departmental access
Requires a Periodic Review and Report

Box 4

Description of Engineering Controls

Parcel	Engineering Control
141.11-1-50	Cover System

Engineering Control Desription:

Soil cover over 5 acres

Box 5

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 compete.

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. C915199C

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 Timothy M. Ryan (print name) at Steel Sun 2 LLC, 400 Market Industrial Park, Suite 32, Wappingers Falls NY 12590 (print business address),

am certifying as Remedial Party (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

March 12, 2018
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 Thomas H. Forbes, P.E. at Benchmark Environmental Engineering, 2558 Hamburg TurnPike, Buffalo NY 14218,

print name — print business address

am certifying as a Qualified Environmental Professional for the Remedial Party

(Owner or Remedial Party)

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

Stamp (Required for PE)

3-12-18

Date

APPENDIX A3

SITE III-4

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Environmental Remediation
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518)402-9543 | F: (518)402-9547
www.dec.ny.gov

2/1/2018

Keith A. Nagel
General Manager
Tecumseh Redevelopment, Inc.
4020 Kinross Lakes Parkway
Richfield, OH 44286

Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal
Site Name: Site III-4 Tecumseh Phase III Business Park
Site No.: C915199D
Site Address: 2303 Hamburg Turnpike
Lackawanna, NY 14218

Dear Keith A. Nagel:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **April 14, 2018**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:
http://www.dec.ny.gov/regulations/2586.html

The signed certification forms should be sent to Maurice Moore, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Ave
Buffalo, NY 14203-2915

Phone number: 716-851-7220. E-mail: maurice.moore@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

1951 Hamburg Turnpike, LLC
Lackawanna Solar Land LLC

ec: w/ enclosures
Maurice Moore, Project Manager
David Szymanski
Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9

Enclosure 1

Certification Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7)**:**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.

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. **C915199D**

Site Name Site III-4 Tecumseh Phase III Business Park

Site Address: 2303 Hamburg Turnpike Zip Code: 14218
City/Town: Lackawanna
County: Erie
Site Acreage: 16.2

Reporting Period: December 12, 2016 to March 15, 2018

	YES	NO
1. Is the information above correct?	✓	☐
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?	☐	✓
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	✓
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	✓
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?	☐	✓

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	✓	☐
7. Are all ICs/ECs in place and functioning as designed?	✓	☐

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?	☐	☑
9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☑	☐

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

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. C915199D **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
141.11-1-50	Tecumseh Redevelopment Inc.	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC 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

Parcel	Engineering Control
141.11-1-50	Cover System

Engineering Control Desription:

Soil cover over 5 acres

Box 5

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 compete.

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. C915199D

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 Timothy M. Ryan (print name) at Steel Sun 2 LLC, 400 Market Industrial Park, Suite 32, Wappingers Falls NY 12590 (print business address),

am certifying as Remedial Party (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

March 12, 2018
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer 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 Thomas H. Forbes, P.E. at Benchmark Environmental Engineering 2558 Hamburg TurnPike, Buffalo NY 14218,
print name print business address

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

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification (Required for PE)

3-12-18
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
   C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated

the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

APPENDIX B

SITE PHOTO LOG

SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: Site III-4 – looking southeast

Photo 2: Site III-4 – looking south

Photo 3: Site III-4 – looking northeast

Photo 4: Site III-4 – looking east

SITE PHOTOGRAPHS

Photo 5:

Photo 6:

Photo 7:

Photo 8:

Photo 5: Site III-2 – looking east

Photo 6: Sites III-2 & III-3 – looking south

Photo 7: Site III-4 – looking north

Photo 8: Site III-3 – looking east

SITE PHOTOGRAPHS

Photo 9:

Photo 10:

Photo 9: Site III-3 – looking south

Photo 10: Site III-3 – looking south

APPENDIX C

GROUNDWATER ANALYTICAL DATA

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: 1951 Hamburg Turnpike Date: 11-29-17

Location: Project No.: Field Team: CEH

Well No. MWS-04			Diameter (inches): 4			Sample Date / Time: 11-29-17 / 1015			
Product Depth (fbTOR):			Water Column (ft): 10.65			DTW when sampled: 10.25			
DTW (static) (fbTOR): 4.50			One Well Volume (gal): 6.95			Purpose: ☐ Development ☒ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 20.15			Total Volume Purged (gal):			Purge Method: Low Flow Sub Pump			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
0950	0 Initial	x2.20	6.75	12.1	1499	19.6	3.35	141	clear no odor
0955	1 10.25	1.00	6.87	12.6	1426	8.80	2.11	170	" " "
1000	2 10.26	3.00	6.94	12.7	1418	8.29	2.37	134	" " "
1005	3 10.11	4.00	6.95	13.0	1432	4.65	2.02	126	" " "
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1015	S1 10.25	5.00	6.99	12.7	1403	4.06	1.97	118	clear no odor
1025	S2 10.32	6.00	7.04	12.9	1382	3.28	1.88	110	" " "

Well No. MWS-31A			Diameter (inches): 2.00			Sample Date / Time: 11-29-17 / 1130			
Product Depth (fbTOR):			Water Column (ft): 3.82			DTW when sampled: 10.21			
DTW (static) (fbTOR): 10.18			One Well Volume (gal): 0.62			Purpose: ☐ Development ☒ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 14.00			Total Volume Purged (gal):			Purge Method: Low Flow Sub Pump			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1045	0 Initial	2.20	9.36	13.1	493.9	71000	0.56	-1	Turbid, no odor
1055	1 10.21	.50	10.14	13.4	489.3	89.3	1.84	-57	Slightly turbid, no odor
1105	2 10.20	1.00	10.18	13.1	492.9	35.2	1.62	-68	clear no odor
1115	3 10.21	1.80	10.23	12.8	493.2	15.5	1.87	-50	clear no odor
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1130	S1 10.21	3.00	10.24	12.3	492.8	15.5	2.17	-65	clear no odor
1130	S2 10.22	3.00	10.24	12.5	495.6	7.65	1.99	-68	clear no odor

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: 1951 Hamburg Turnpike | Date: 11-21-17

Location: | Project No.: | Field Team: CEH

Well No. MWS-34A			Diameter (inches): 2.00			Sample Date / Time: 11-29-17 / 1240			
Product Depth (fbTOR):			Water Column (ft): 9.58			DTW when sampled: 12.07			
DTW (static) (fbTOR): 11.41			One Well Volume (gal): 1.56			Purpose: ☐ Development ☒ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 20.99			Total Volume Purged (gal):			Purge Method: Low Flow Sub Pump			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1215	0 Initial	2.20	7.01	12.3	1009	220	3.04	-141	moderately Turbid, sour odor
1226	1 12.11	0.75	7.02	12.3	939.2	72.4	3.23	-121	Turbid, slightly sour odor
1230	2 12.09	1.50	7.23	12.9	992.2	87.7	2.89	-153	slightly Turbid, no odor
1235	3 12.07	2.50	7.30	12.6	1019	26.5	3.08	-151	clear, no odor
1239	4 12.07	3.25	7.32	13.1	1023	13.5	3.05	-153	clear, no odor
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1240	S1 12.07	4.00	7.33	13.0	1042	8.44	2.98	-152	clear, no odor
1250	S2 12.07	5.00	7.38	11.8	1038	7.58	2.79	-149	clear, no odor

Well No. MW-12A			Diameter (inches): 2.00			Sample Date / Time: 11-29-17 / 1440			
Product Depth (fbTOR):			Water Column (ft): 11.82			DTW when sampled: 6.82			
DTW (static) (fbTOR): 6.81			One Well Volume (gal): 1.926			Purpose: ☐ Development ☒ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 18.63			Total Volume Purged (gal):			Purge Method: Low Flow Submersible Pump			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1425	0 Initial	2.20	8.16	11.6	462.8	580	3.32	-149	turbid no odor
1429	1 6.82	0.50	8.16	12.1	450.0	81.0	3.41	-141	Slightly Turbid, no odor
1433	2 6.82	1.00	8.24	12.2	455.6	34.3	3.22	-151	clear, no odor
1437	3 6.82	1.75	8.27	12.4	451.7	16.5	2.19	-150	" " "
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1440	S1 6.82	2.25	8.27	12.3	457.7	9.94	1.83	-155	clear, no odor
1448	S2 6.82	3.00	8.36	11.5	466.8	46.8	2.00	-158	" " "

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Steel Sun | Date: 11-30-2017

Location: | Project No.: | Field Team: CEH

Well No. MW-57A			Diameter (inches): 2.00			Sample Date / Time: 11-30-2017			
Product Depth (fbTOR):			Water Column (ft): 12.60			DTW when sampled:			
DTW (static) (fbTOR): 8.43			One Well Volume (gal): 2.05			Purpose: ☐ Development ☒ Sample ☐ Purge & Sample			
Total Depth (fbTOR): 21.03			Total Volume Purged (gal):			Purge Method: Low Flow			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
1340	0 Initial	2.00	6.84	12.8	7165	40.60	1.56	-133	clear, no odor
1345	1 8.46	1.00	7.25	12.6	6856	35.4	1.37	-181	" " "
1350	2 8.55	2.00	7.40	13.0	6900	33.2	1.33	-187	" " "
1353	3 8.55	3.00	7.43	13.2	6879	4.5	1.31	-183	" " "
1356	4 8.55	4.00	7.46	12.8	6861	5.8	1.21	-181	" " "
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
1400	S1 8.55	4.75	7.48	12.8	6854	5.6	1.17	-183	clear no odor
1410	S2 8.55	5.25	7.50	12.3	6713	6.1	1.34	-182	

Well No.			Diameter (inches):			Sample Date / Time:			
Product Depth (fbTOR):			Water Column (ft):			DTW when sampled:			
DTW (static) (fbTOR):			One Well Volume (gal):			Purpose: ☐ Development ☐ Sample ☐ Purge & Sample			
Total Depth (fbTOR):			Total Volume Purged (gal):			Purge Method:			
Time	Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
	0 Initial								
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
Sample Information:									
	S1								
	S2								

REMARKS:

Note: All water level measurements are in feet, distance from top of riser.

Volume Calculation

Diam.	Vol. (g/ft)
1"	0.041
2"	0.163
4"	0.653
6"	1.469

Stabilization Criteria

Parameter	Criteria
pH	± 0.1 unit
SC	± 3%
Turbidity	± 10%
DO	± 0.3 mg/L
ORP	± 10 mV

PREPARED BY:

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: Steel Sun

Date: 11-29-17

Project No.:

Client:

Instrument Source: [X] BM [ ] Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
[X] pH meter	units	0935	Myron L Company Ultra Meter 6P	6213516 [X] 6243084 [ ] 6212375 [ ] 6223973 [ ]	CEH	4.00 7.00 10.01	4.04 7.03 10.01	
[X] Turbidity meter	NTU	0940	Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) [X] 13120C030432 (Q) [ ]	CEH	< 0.4 or 10 for 2100 Q 20 100 800	0.38 21.1 99.3 823	
[ ] Turbidity meter	NTU		LaMotte 2020	6523-1816 (La) [ ]		0.0 NTU 1.0 NTU 10.0 NTU		
[X] Sp. Cond. meter	uS mS	0945	Myron L Company Ultra Meter 6P	6213516 [ ] 6243084 [ ] 6212375 [ ] 6223973 [ ]	CEH	1413 mS @ 25 °C	1414	
[ ] PID	ppm		MinRAE 2000			open air zero ____ ppm Iso. Gas		MIBK response factor = 1.0
[X] Dissolved Oxygen	ppm	0950	HACH Model HQ30d	080700023281 [ ] 100500041867 [ ] 1402000100319 [X]	CEH	100% Satuartion	100%	
[ ] Particulate meter	mg/m^3					zero air		
[ ] Oxygen	%					open air		
[ ] Hydrogen sulfide	ppm					open air		
[ ] Carbon monoxide	ppm					open air		
[ ] LEL	%					open air		
[ ] Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: CEH **DATE:** 11-29-17

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: Steel Sun

Project No.:

Client:

Date: 11-30-2017

Instrument Source: [X] BM [ ] Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
[X] pH meter	units		Myron L Company Ultra Meter 6P	6213516 [ ] 6243084 [ ] 6212375 [ ] 6223973 [ ]	CEH	4.00 7.00 10.01	4.00 7.06 10.01	
[X] Turbidity meter	NTU		Hach 2100P or 2100Q Turbidimeter	06120C020523 (P) [X] 13120C030432 (Q) [ ]	CEH	< 0.4 or 10 for 2100 Q 20 100 800	0.38 21.3 103 791	
[ ] Turbidity meter	NTU		LaMotte 2020	6523-1816 (La) [ ]		0.0 NTU 1.0 NTU 10.0 NTU		
[X] Sp. Cond. meter	uS mS		Myron L Company Ultra Meter 6P	6213516 [ ] 6243084 [ ] 6212375 [ ] 6223973 [ ]	CEH	1413 mS @ 25 °C	144	
[ ] PID	ppm		MinRAE 2000			open air zero ____ ppm Iso. Gas		MIBK response factor = 1.0
[X] Dissolved Oxygen	ppm		HACH Model HQ30d	080700023281 [ ] 100500041867 [ ] 1402000100319 [X]	CEH	100% Satuartion	100 %	
[ ] Particulate meter	mg/m^3					zero air		
[ ] Oxygen	%					open air		
[ ] Hydrogen sulfide	ppm					open air		
[ ] Carbon monoxide	ppm					open air		
[ ] LEL	%					open air		
[ ] Radiation Meter	uR/H					background area		

ADDITIONAL REMARKS:

PREPARED BY: Chester Hochreiter **DATE:** 11-30-2017

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: 480-128207-1
Client Project/Site: Benchmark - 1951 Hamburg Turnpike

For:
Benchmark Env. Eng. & Science, PLLC
2558 Hamburg Turnpike
Suite 300
Lackawanna, New York 14218

Attn: Mr. Tom Forbes

Joseph V. Giacomazza

Authorized for release by:
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Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
brian.fischer@testamericainc.com

Table of Contents

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD 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.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD 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.
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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)

Job ID: 480-128207-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-128207-1

Comments
No additional comments.

Receipt
The samples were received on 11/30/2017 11:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0º C.

GC/MS VOA
Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-390614 recovered outside acceptance criteria, low biased, for 4-Methyl-2-pentanone (MIBK). A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: MWS-04 (480-128207-1), MWS-31A (480-128207-2) and MWS-12A (480-128207-4).

Method(s) 8260C: The laboratory control sample (LCS) for analytical batch 480-390614 recovered outside control limits for the following analyte: Methyl acetate. Methyl acetate has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified. The following samples are impacted: MWS-04 (480-128207-1), MWS-31A (480-128207-2) and MWS-12A (480-128207-4).

Method(s) 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MWS-34A (480-128207-3). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method(s) 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 480-390115 and analytical batch 480-390353 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine, 4-Nitroaniline and Carbazole. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270D: Due to an increase in the spiking concentration required for other analytes of interest, the following compounds have been elevated to a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) recovered within acceptable limits for these analytes and have been qualified with an "E" flag. (LCS 480-390115/2-A) and (LCSD 480-390115/3-A)

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: MWS-34A (480-128207-3). Elevated reporting limits (RLs) are provided.

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.

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

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-04 — Lab Sample ID: 480-128207-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.4		1.0	0.41	ug/L	1		8260C	Total/NA
Carbazole	0.56	J *	5.0	0.30	ug/L	1		8270D	Total/NA

Client Sample ID: MWS-31A — Lab Sample ID: 480-128207-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.022		0.015		mg/L	1		6010C	Total/NA

Client Sample ID: MWS-34A — Lab Sample ID: 480-128207-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.019		0.015		mg/L	1		6010C	Total/NA

Client Sample ID: MWS-12A — Lab Sample ID: 480-128207-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.015		0.010		mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-04
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-1
Matrix: Water

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			12/06/17 02:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/06/17 02:44	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/06/17 02:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/06/17 02:44	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/06/17 02:44	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/06/17 02:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/06/17 02:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/06/17 02:44	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/06/17 02:44	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/06/17 02:44	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/06/17 02:44	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/06/17 02:44	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/06/17 02:44	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/06/17 02:44	1
2-Hexanone	ND		5.0	1.2	ug/L			12/06/17 02:44	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/06/17 02:44	1
Acetone	ND		10	3.0	ug/L			12/06/17 02:44	1
Benzene	**4.4**		1.0	0.41	ug/L			12/06/17 02:44	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/06/17 02:44	1
Bromoform	ND		1.0	0.26	ug/L			12/06/17 02:44	1
Bromomethane	ND		1.0	0.69	ug/L			12/06/17 02:44	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/06/17 02:44	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/06/17 02:44	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/06/17 02:44	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/06/17 02:44	1
Chloroethane	ND		1.0	0.32	ug/L			12/06/17 02:44	1
Chloroform	ND		1.0	0.34	ug/L			12/06/17 02:44	1
Chloromethane	ND		1.0	0.35	ug/L			12/06/17 02:44	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/06/17 02:44	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/06/17 02:44	1
Cyclohexane	ND		1.0	0.18	ug/L			12/06/17 02:44	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/06/17 02:44	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/06/17 02:44	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/06/17 02:44	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/06/17 02:44	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/06/17 02:44	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/06/17 02:44	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/06/17 02:44	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/06/17 02:44	1
Styrene	ND		1.0	0.73	ug/L			12/06/17 02:44	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/06/17 02:44	1
Toluene	ND		1.0	0.51	ug/L			12/06/17 02:44	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/06/17 02:44	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/06/17 02:44	1
Trichloroethene	ND		1.0	0.46	ug/L			12/06/17 02:44	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/06/17 02:44	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/06/17 02:44	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/06/17 02:44	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-04
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/06/17 02:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*12/06/17 02:44*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/06/17 02:44*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*12/06/17 02:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/01/17 14:16	12/04/17 20:57	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 20:57	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/01/17 14:16	12/04/17 20:57	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/01/17 14:16	12/04/17 20:57	1
2-Nitroaniline	ND		10	0.42	ug/L		12/01/17 14:16	12/04/17 20:57	1
3,3'-Dichlorobenzidine	ND	*	5.0	0.40	ug/L		12/01/17 14:16	12/04/17 20:57	1
3-Nitroaniline	ND		10	0.48	ug/L		12/01/17 14:16	12/04/17 20:57	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/01/17 14:16	12/04/17 20:57	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 20:57	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 20:57	1
4-Nitroaniline	ND	*	10	0.25	ug/L		12/01/17 14:16	12/04/17 20:57	1
Acenaphthene	ND		5.0	0.41	ug/L		12/01/17 14:16	12/04/17 20:57	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/01/17 14:16	12/04/17 20:57	1
Acetophenone	ND		5.0	0.54	ug/L		12/01/17 14:16	12/04/17 20:57	1
Anthracene	ND		5.0	0.28	ug/L		12/01/17 14:16	12/04/17 20:57	1
Atrazine	ND		5.0	0.46	ug/L		12/01/17 14:16	12/04/17 20:57	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/01/17 14:16	12/04/17 20:57	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 20:57	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 20:57	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		12/01/17 14:16	12/04/17 20:57	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 20:57	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		12/01/17 14:16	12/04/17 20:57	1
Biphenyl	ND		5.0	0.65	ug/L		12/01/17 14:16	12/04/17 20:57	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/01/17 14:16	12/04/17 20:57	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 20:57	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 20:57	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/01/17 14:16	12/04/17 20:57	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/01/17 14:16	12/04/17 20:57	1
Caprolactam	ND		5.0	2.2	ug/L		12/01/17 14:16	12/04/17 20:57	1
Carbazole	**0.56**	**J ***	5.0	0.30	ug/L		12/01/17 14:16	12/04/17 20:57	1
Chrysene	ND		5.0	0.33	ug/L		12/01/17 14:16	12/04/17 20:57	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/01/17 14:16	12/04/17 20:57	1
Dibenzofuran	ND		10	0.51	ug/L		12/01/17 14:16	12/04/17 20:57	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/01/17 14:16	12/04/17 20:57	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 20:57	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/01/17 14:16	12/04/17 20:57	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 20:57	1
Fluoranthene	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 20:57	1
Fluorene	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 20:57	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/01/17 14:16	12/04/17 20:57	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/01/17 14:16	12/04/17 20:57	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 20:57	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 20:57	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-04
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 20:57	1
Isophorone	ND		5.0	0.43	ug/L		12/01/17 14:16	12/04/17 20:57	1
Naphthalene	ND		5.0	0.76	ug/L		12/01/17 14:16	12/04/17 20:57	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/01/17 14:16	12/04/17 20:57	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/01/17 14:16	12/04/17 20:57	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/01/17 14:16	12/04/17 20:57	1
Phenanthrene	ND		5.0	0.44	ug/L		12/01/17 14:16	12/04/17 20:57	1
Pyrene	ND		5.0	0.34	ug/L		12/01/17 14:16	12/04/17 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*108*		*41 - 120*	*12/01/17 14:16*	*12/04/17 20:57*	*1*
2-Fluorobiphenyl	*102*		*48 - 120*	*12/01/17 14:16*	*12/04/17 20:57*	*1*
2-Fluorophenol	*80*		*35 - 120*	*12/01/17 14:16*	*12/04/17 20:57*	*1*
Nitrobenzene-d5	*105*		*46 - 120*	*12/01/17 14:16*	*12/04/17 20:57*	*1*
Phenol-d5	*60*		*22 - 120*	*12/01/17 14:16*	*12/04/17 20:57*	*1*
p-Terphenyl-d14	*89*		*59 - 136*	*12/01/17 14:16*	*12/04/17 20:57*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		12/01/17 10:22	12/06/17 15:55	1
Chromium	ND		0.0040		mg/L		12/01/17 10:22	12/05/17 21:59	1
Lead	ND		0.010		mg/L		12/01/17 10:22	12/05/17 21:59	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/04/17 12:15	12/04/17 15:39	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-31A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-2
Matrix: Water

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			12/06/17 03:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/06/17 03:07	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/06/17 03:07	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/06/17 03:07	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/06/17 03:07	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/06/17 03:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/06/17 03:07	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/06/17 03:07	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/06/17 03:07	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/06/17 03:07	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/06/17 03:07	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/06/17 03:07	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/06/17 03:07	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/06/17 03:07	1
2-Hexanone	ND		5.0	1.2	ug/L			12/06/17 03:07	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/06/17 03:07	1
Acetone	ND		10	3.0	ug/L			12/06/17 03:07	1
Benzene	ND		1.0	0.41	ug/L			12/06/17 03:07	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/06/17 03:07	1
Bromoform	ND		1.0	0.26	ug/L			12/06/17 03:07	1
Bromomethane	ND		1.0	0.69	ug/L			12/06/17 03:07	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/06/17 03:07	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/06/17 03:07	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/06/17 03:07	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/06/17 03:07	1
Chloroethane	ND		1.0	0.32	ug/L			12/06/17 03:07	1
Chloroform	ND		1.0	0.34	ug/L			12/06/17 03:07	1
Chloromethane	ND		1.0	0.35	ug/L			12/06/17 03:07	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/06/17 03:07	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/06/17 03:07	1
Cyclohexane	ND		1.0	0.18	ug/L			12/06/17 03:07	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/06/17 03:07	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/06/17 03:07	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/06/17 03:07	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/06/17 03:07	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/06/17 03:07	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/06/17 03:07	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/06/17 03:07	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/06/17 03:07	1
Styrene	ND		1.0	0.73	ug/L			12/06/17 03:07	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/06/17 03:07	1
Toluene	ND		1.0	0.51	ug/L			12/06/17 03:07	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/06/17 03:07	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/06/17 03:07	1
Trichloroethene	ND		1.0	0.46	ug/L			12/06/17 03:07	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/06/17 03:07	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/06/17 03:07	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/06/17 03:07	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-31A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*103*		*80 - 120*		*12/06/17 03:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*12/06/17 03:07*	*1*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*12/06/17 03:07*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*12/06/17 03:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/01/17 14:16	12/04/17 21:25	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 21:25	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/01/17 14:16	12/04/17 21:25	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/01/17 14:16	12/04/17 21:25	1
2-Nitroaniline	ND		10	0.42	ug/L		12/01/17 14:16	12/04/17 21:25	1
3,3'-Dichlorobenzidine	ND	*	5.0	0.40	ug/L		12/01/17 14:16	12/04/17 21:25	1
3-Nitroaniline	ND		10	0.48	ug/L		12/01/17 14:16	12/04/17 21:25	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/01/17 14:16	12/04/17 21:25	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 21:25	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 21:25	1
4-Nitroaniline	ND	*	10	0.25	ug/L		12/01/17 14:16	12/04/17 21:25	1
Acenaphthene	ND		5.0	0.41	ug/L		12/01/17 14:16	12/04/17 21:25	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/01/17 14:16	12/04/17 21:25	1
Acetophenone	ND		5.0	0.54	ug/L		12/01/17 14:16	12/04/17 21:25	1
Anthracene	ND		5.0	0.28	ug/L		12/01/17 14:16	12/04/17 21:25	1
Atrazine	ND		5.0	0.46	ug/L		12/01/17 14:16	12/04/17 21:25	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/01/17 14:16	12/04/17 21:25	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 21:25	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 21:25	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		12/01/17 14:16	12/04/17 21:25	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 21:25	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		12/01/17 14:16	12/04/17 21:25	1
Biphenyl	ND		5.0	0.65	ug/L		12/01/17 14:16	12/04/17 21:25	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/01/17 14:16	12/04/17 21:25	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 21:25	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 21:25	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/01/17 14:16	12/04/17 21:25	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/01/17 14:16	12/04/17 21:25	1
Caprolactam	ND		5.0	2.2	ug/L		12/01/17 14:16	12/04/17 21:25	1
Carbazole	ND	*	5.0	0.30	ug/L		12/01/17 14:16	12/04/17 21:25	1
Chrysene	ND		5.0	0.33	ug/L		12/01/17 14:16	12/04/17 21:25	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/01/17 14:16	12/04/17 21:25	1
Dibenzofuran	ND		10	0.51	ug/L		12/01/17 14:16	12/04/17 21:25	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/01/17 14:16	12/04/17 21:25	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 21:25	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/01/17 14:16	12/04/17 21:25	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 21:25	1
Fluoranthene	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 21:25	1
Fluorene	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 21:25	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/01/17 14:16	12/04/17 21:25	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/01/17 14:16	12/04/17 21:25	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 21:25	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 21:25	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-31A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 21:25	1
Isophorone	ND		5.0	0.43	ug/L		12/01/17 14:16	12/04/17 21:25	1
Naphthalene	ND		5.0	0.76	ug/L		12/01/17 14:16	12/04/17 21:25	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/01/17 14:16	12/04/17 21:25	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/01/17 14:16	12/04/17 21:25	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/01/17 14:16	12/04/17 21:25	1
Phenanthrene	ND		5.0	0.44	ug/L		12/01/17 14:16	12/04/17 21:25	1
Pyrene	ND		5.0	0.34	ug/L		12/01/17 14:16	12/04/17 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*116*		*41 - 120*	*12/01/17 14:16*	*12/04/17 21:25*	*1*
2-Fluorobiphenyl	*103*		*48 - 120*	*12/01/17 14:16*	*12/04/17 21:25*	*1*
2-Fluorophenol	*83*		*35 - 120*	*12/01/17 14:16*	*12/04/17 21:25*	*1*
Nitrobenzene-d5	*106*		*46 - 120*	*12/01/17 14:16*	*12/04/17 21:25*	*1*
Phenol-d5	*62*		*22 - 120*	*12/01/17 14:16*	*12/04/17 21:25*	*1*
p-Terphenyl-d14	*107*		*59 - 136*	*12/01/17 14:16*	*12/04/17 21:25*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.022**		0.015		mg/L		12/01/17 10:22	12/06/17 15:59	1
Chromium	ND		0.0040		mg/L		12/01/17 10:22	12/05/17 22:03	1
Lead	ND		0.010		mg/L		12/01/17 10:22	12/05/17 22:03	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/04/17 12:15	12/04/17 15:42	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-34A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			12/06/17 03:30	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			12/06/17 03:30	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			12/06/17 03:30	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			12/06/17 03:30	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			12/06/17 03:30	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			12/06/17 03:30	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			12/06/17 03:30	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			12/06/17 03:30	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			12/06/17 03:30	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			12/06/17 03:30	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			12/06/17 03:30	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			12/06/17 03:30	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			12/06/17 03:30	2
2-Butanone (MEK)	ND		20	2.6	ug/L			12/06/17 03:30	2
2-Hexanone	ND		10	2.5	ug/L			12/06/17 03:30	2
4-Methyl-2-pentanone (MIBK)	ND	*	10	4.2	ug/L			12/06/17 03:30	2
Acetone	ND		20	6.0	ug/L			12/06/17 03:30	2
Benzene	ND		2.0	0.82	ug/L			12/06/17 03:30	2
Bromodichloromethane	ND		2.0	0.78	ug/L			12/06/17 03:30	2
Bromoform	ND		2.0	0.52	ug/L			12/06/17 03:30	2
Bromomethane	ND		2.0	1.4	ug/L			12/06/17 03:30	2
Carbon disulfide	ND		2.0	0.38	ug/L			12/06/17 03:30	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			12/06/17 03:30	2
Chlorobenzene	ND		2.0	1.5	ug/L			12/06/17 03:30	2
Dibromochloromethane	ND		2.0	0.64	ug/L			12/06/17 03:30	2
Chloroethane	ND		2.0	0.64	ug/L			12/06/17 03:30	2
Chloroform	ND		2.0	0.68	ug/L			12/06/17 03:30	2
Chloromethane	ND		2.0	0.70	ug/L			12/06/17 03:30	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			12/06/17 03:30	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			12/06/17 03:30	2
Cyclohexane	ND		2.0	0.36	ug/L			12/06/17 03:30	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			12/06/17 03:30	2
Ethylbenzene	ND		2.0	1.5	ug/L			12/06/17 03:30	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			12/06/17 03:30	2
Isopropylbenzene	ND		2.0	1.6	ug/L			12/06/17 03:30	2
Methyl acetate	ND	*	5.0	2.6	ug/L			12/06/17 03:30	2
Methyl tert-butyl ether	ND		2.0	0.32	ug/L			12/06/17 03:30	2
Methylcyclohexane	ND		2.0	0.32	ug/L			12/06/17 03:30	2
Methylene Chloride	ND		2.0	0.88	ug/L			12/06/17 03:30	2
Styrene	ND		2.0	1.5	ug/L			12/06/17 03:30	2
Tetrachloroethene	ND		2.0	0.72	ug/L			12/06/17 03:30	2
Toluene	ND		2.0	1.0	ug/L			12/06/17 03:30	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			12/06/17 03:30	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			12/06/17 03:30	2
Trichloroethene	ND		2.0	0.92	ug/L			12/06/17 03:30	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			12/06/17 03:30	2
Vinyl chloride	ND		2.0	1.8	ug/L			12/06/17 03:30	2
Xylenes, Total	ND		4.0	1.3	ug/L			12/06/17 03:30	2

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-34A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*102*		*80 - 120*		*12/06/17 03:30*	*2*
1,2-Dichloroethane-d4 (Surr)	*89*		*77 - 120*		*12/06/17 03:30*	*2*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*12/06/17 03:30*	*2*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*12/06/17 03:30*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		25	2.2	ug/L		12/01/17 14:16	12/04/17 21:53	5
2,6-Dinitrotoluene	ND		25	2.0	ug/L		12/01/17 14:16	12/04/17 21:53	5
2-Chloronaphthalene	ND		25	2.3	ug/L		12/01/17 14:16	12/04/17 21:53	5
2-Methylnaphthalene	ND		25	3.0	ug/L		12/01/17 14:16	12/04/17 21:53	5
2-Nitroaniline	ND		50	2.1	ug/L		12/01/17 14:16	12/04/17 21:53	5
3,3'-Dichlorobenzidine	ND	*	25	2.0	ug/L		12/01/17 14:16	12/04/17 21:53	5
3-Nitroaniline	ND		50	2.4	ug/L		12/01/17 14:16	12/04/17 21:53	5
4-Bromophenyl phenyl ether	ND		25	2.3	ug/L		12/01/17 14:16	12/04/17 21:53	5
4-Chloroaniline	ND		25	3.0	ug/L		12/01/17 14:16	12/04/17 21:53	5
4-Chlorophenyl phenyl ether	ND		25	1.8	ug/L		12/01/17 14:16	12/04/17 21:53	5
4-Nitroaniline	ND	*	50	1.3	ug/L		12/01/17 14:16	12/04/17 21:53	5
Acenaphthene	ND		25	2.1	ug/L		12/01/17 14:16	12/04/17 21:53	5
Acenaphthylene	ND		25	1.9	ug/L		12/01/17 14:16	12/04/17 21:53	5
Acetophenone	ND		25	2.7	ug/L		12/01/17 14:16	12/04/17 21:53	5
Anthracene	ND		25	1.4	ug/L		12/01/17 14:16	12/04/17 21:53	5
Atrazine	ND		25	2.3	ug/L		12/01/17 14:16	12/04/17 21:53	5
Benzaldehyde	ND		25	1.3	ug/L		12/01/17 14:16	12/04/17 21:53	5
Benzo(a)anthracene	ND		25	1.8	ug/L		12/01/17 14:16	12/04/17 21:53	5
Benzo(a)pyrene	ND		25	2.4	ug/L		12/01/17 14:16	12/04/17 21:53	5
Benzo(b)fluoranthene	ND		25	1.7	ug/L		12/01/17 14:16	12/04/17 21:53	5
Benzo(g,h,i)perylene	ND		25	1.8	ug/L		12/01/17 14:16	12/04/17 21:53	5
Benzo(k)fluoranthene	ND		25	3.7	ug/L		12/01/17 14:16	12/04/17 21:53	5
Biphenyl	ND		25	3.3	ug/L		12/01/17 14:16	12/04/17 21:53	5
bis (2-chloroisopropyl) ether	ND		25	2.6	ug/L		12/01/17 14:16	12/04/17 21:53	5
Bis(2-chloroethoxy)methane	ND		25	1.8	ug/L		12/01/17 14:16	12/04/17 21:53	5
Bis(2-chloroethyl)ether	ND		25	2.0	ug/L		12/01/17 14:16	12/04/17 21:53	5
Bis(2-ethylhexyl) phthalate	ND		25	11	ug/L		12/01/17 14:16	12/04/17 21:53	5
Butyl benzyl phthalate	ND		25	5.0	ug/L		12/01/17 14:16	12/04/17 21:53	5
Caprolactam	ND		25	11	ug/L		12/01/17 14:16	12/04/17 21:53	5
Carbazole	ND	*	25	1.5	ug/L		12/01/17 14:16	12/04/17 21:53	5
Chrysene	ND		25	1.7	ug/L		12/01/17 14:16	12/04/17 21:53	5
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		12/01/17 14:16	12/04/17 21:53	5
Dibenzofuran	ND		50	2.6	ug/L		12/01/17 14:16	12/04/17 21:53	5
Diethyl phthalate	ND		25	1.1	ug/L		12/01/17 14:16	12/04/17 21:53	5
Dimethyl phthalate	ND		25	1.8	ug/L		12/01/17 14:16	12/04/17 21:53	5
Di-n-butyl phthalate	ND		25	1.6	ug/L		12/01/17 14:16	12/04/17 21:53	5
Di-n-octyl phthalate	ND		25	2.4	ug/L		12/01/17 14:16	12/04/17 21:53	5
Fluoranthene	ND		25	2.0	ug/L		12/01/17 14:16	12/04/17 21:53	5
Fluorene	ND		25	1.8	ug/L		12/01/17 14:16	12/04/17 21:53	5
Hexachlorobenzene	ND		25	2.6	ug/L		12/01/17 14:16	12/04/17 21:53	5
Hexachlorobutadiene	ND		25	3.4	ug/L		12/01/17 14:16	12/04/17 21:53	5
Hexachlorocyclopentadiene	ND		25	3.0	ug/L		12/01/17 14:16	12/04/17 21:53	5
Hexachloroethane	ND		25	3.0	ug/L		12/01/17 14:16	12/04/17 21:53	5

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-34A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno(1,2,3-cd)pyrene	ND		25	2.4	ug/L		12/01/17 14:16	12/04/17 21:53	5
Isophorone	ND		25	2.2	ug/L		12/01/17 14:16	12/04/17 21:53	5
Naphthalene	ND		25	3.8	ug/L		12/01/17 14:16	12/04/17 21:53	5
Nitrobenzene	ND		25	1.5	ug/L		12/01/17 14:16	12/04/17 21:53	5
N-Nitrosodi-n-propylamine	ND		25	2.7	ug/L		12/01/17 14:16	12/04/17 21:53	5
N-Nitrosodiphenylamine	ND		25	2.6	ug/L		12/01/17 14:16	12/04/17 21:53	5
Phenanthrene	ND		25	2.2	ug/L		12/01/17 14:16	12/04/17 21:53	5
Pyrene	ND		25	1.7	ug/L		12/01/17 14:16	12/04/17 21:53	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*88*		*41 - 120*	*12/01/17 14:16*	*12/04/17 21:53*	*5*
2-Fluorobiphenyl	*101*		*48 - 120*	*12/01/17 14:16*	*12/04/17 21:53*	*5*
2-Fluorophenol	*73*		*35 - 120*	*12/01/17 14:16*	*12/04/17 21:53*	*5*
Nitrobenzene-d5	*103*		*46 - 120*	*12/01/17 14:16*	*12/04/17 21:53*	*5*
Phenol-d5	*57*		*22 - 120*	*12/01/17 14:16*	*12/04/17 21:53*	*5*
p-Terphenyl-d14	*74*		*59 - 136*	*12/01/17 14:16*	*12/04/17 21:53*	*5*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.019**		0.015		mg/L		12/01/17 10:22	12/06/17 16:03	1
Chromium	ND		0.0040		mg/L		12/01/17 10:22	12/05/17 22:06	1
Lead	ND		0.010		mg/L		12/01/17 10:22	12/05/17 22:06	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/04/17 12:15	12/04/17 15:44	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-12A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-4
Matrix: Water

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			12/06/17 03:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/06/17 03:53	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/06/17 03:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/06/17 03:53	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/06/17 03:53	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/06/17 03:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/06/17 03:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/06/17 03:53	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/06/17 03:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/06/17 03:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/06/17 03:53	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/06/17 03:53	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/06/17 03:53	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/06/17 03:53	1
2-Hexanone	ND		5.0	1.2	ug/L			12/06/17 03:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/06/17 03:53	1
Acetone	ND		10	3.0	ug/L			12/06/17 03:53	1
Benzene	ND		1.0	0.41	ug/L			12/06/17 03:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/06/17 03:53	1
Bromoform	ND		1.0	0.26	ug/L			12/06/17 03:53	1
Bromomethane	ND		1.0	0.69	ug/L			12/06/17 03:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/06/17 03:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/06/17 03:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/06/17 03:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/06/17 03:53	1
Chloroethane	ND		1.0	0.32	ug/L			12/06/17 03:53	1
Chloroform	ND		1.0	0.34	ug/L			12/06/17 03:53	1
Chloromethane	ND		1.0	0.35	ug/L			12/06/17 03:53	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/06/17 03:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/06/17 03:53	1
Cyclohexane	ND		1.0	0.18	ug/L			12/06/17 03:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/06/17 03:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/06/17 03:53	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/06/17 03:53	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/06/17 03:53	1
Methyl acetate	ND	*	2.5	1.3	ug/L			12/06/17 03:53	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/06/17 03:53	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/06/17 03:53	1
Methylene Chloride	ND		1.0	0.44	ug/L			12/06/17 03:53	1
Styrene	ND		1.0	0.73	ug/L			12/06/17 03:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/06/17 03:53	1
Toluene	ND		1.0	0.51	ug/L			12/06/17 03:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/06/17 03:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/06/17 03:53	1
Trichloroethene	ND		1.0	0.46	ug/L			12/06/17 03:53	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/06/17 03:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/06/17 03:53	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/06/17 03:53	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-12A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-4
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*102*		*80 - 120*		*12/06/17 03:53*	*1*
1,2-Dichloroethane-d4 (Surr)	*92*		*77 - 120*		*12/06/17 03:53*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/06/17 03:53*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*12/06/17 03:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/01/17 14:16	12/04/17 22:22	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 22:22	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/01/17 14:16	12/04/17 22:22	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/01/17 14:16	12/04/17 22:22	1
2-Nitroaniline	ND		10	0.42	ug/L		12/01/17 14:16	12/04/17 22:22	1
3,3'-Dichlorobenzidine	ND	*	5.0	0.40	ug/L		12/01/17 14:16	12/04/17 22:22	1
3-Nitroaniline	ND		10	0.48	ug/L		12/01/17 14:16	12/04/17 22:22	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/01/17 14:16	12/04/17 22:22	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 22:22	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 22:22	1
4-Nitroaniline	ND	*	10	0.25	ug/L		12/01/17 14:16	12/04/17 22:22	1
Acenaphthene	ND		5.0	0.41	ug/L		12/01/17 14:16	12/04/17 22:22	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/01/17 14:16	12/04/17 22:22	1
Acetophenone	ND		5.0	0.54	ug/L		12/01/17 14:16	12/04/17 22:22	1
Anthracene	ND		5.0	0.28	ug/L		12/01/17 14:16	12/04/17 22:22	1
Atrazine	ND		5.0	0.46	ug/L		12/01/17 14:16	12/04/17 22:22	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/01/17 14:16	12/04/17 22:22	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 22:22	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 22:22	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		12/01/17 14:16	12/04/17 22:22	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 22:22	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		12/01/17 14:16	12/04/17 22:22	1
Biphenyl	ND		5.0	0.65	ug/L		12/01/17 14:16	12/04/17 22:22	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/01/17 14:16	12/04/17 22:22	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 22:22	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 22:22	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/01/17 14:16	12/04/17 22:22	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/01/17 14:16	12/04/17 22:22	1
Caprolactam	ND		5.0	2.2	ug/L		12/01/17 14:16	12/04/17 22:22	1
Carbazole	ND	*	5.0	0.30	ug/L		12/01/17 14:16	12/04/17 22:22	1
Chrysene	ND		5.0	0.33	ug/L		12/01/17 14:16	12/04/17 22:22	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/01/17 14:16	12/04/17 22:22	1
Dibenzofuran	ND		10	0.51	ug/L		12/01/17 14:16	12/04/17 22:22	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/01/17 14:16	12/04/17 22:22	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 22:22	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/01/17 14:16	12/04/17 22:22	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 22:22	1
Fluoranthene	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 22:22	1
Fluorene	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 22:22	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/01/17 14:16	12/04/17 22:22	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/01/17 14:16	12/04/17 22:22	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 22:22	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 22:22	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-12A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 22:22	1
Isophorone	ND		5.0	0.43	ug/L		12/01/17 14:16	12/04/17 22:22	1
Naphthalene	ND		5.0	0.76	ug/L		12/01/17 14:16	12/04/17 22:22	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/01/17 14:16	12/04/17 22:22	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/01/17 14:16	12/04/17 22:22	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/01/17 14:16	12/04/17 22:22	1
Phenanthrene	ND		5.0	0.44	ug/L		12/01/17 14:16	12/04/17 22:22	1
Pyrene	ND		5.0	0.34	ug/L		12/01/17 14:16	12/04/17 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*104*		*41 - 120*	*12/01/17 14:16*	*12/04/17 22:22*	*1*
2-Fluorobiphenyl	*94*		*48 - 120*	*12/01/17 14:16*	*12/04/17 22:22*	*1*
2-Fluorophenol	*70*		*35 - 120*	*12/01/17 14:16*	*12/04/17 22:22*	*1*
Nitrobenzene-d5	*95*		*46 - 120*	*12/01/17 14:16*	*12/04/17 22:22*	*1*
Phenol-d5	*51*		*22 - 120*	*12/01/17 14:16*	*12/04/17 22:22*	*1*
p-Terphenyl-d14	*81*		*59 - 136*	*12/01/17 14:16*	*12/04/17 22:22*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		12/01/17 10:22	12/06/17 16:06	1
Chromium	ND		0.0040		mg/L		12/01/17 10:22	12/05/17 22:10	1
Lead	**0.015**		0.010		mg/L		12/01/17 10:22	12/05/17 22:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/04/17 12:15	12/04/17 15:46	1

Surrogate Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	12DCE	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-128207-1	MWS-04	101	97	99	105
480-128207-2	MWS-31A	103	97	101	102
480-128207-3	MWS-34A	102	89	98	103
480-128207-4	MWS-12A	102	92	100	102
LCS 480-390614/3	Lab Control Sample	101	94	99	101
MB 480-390614/6	Method Blank	104	96	99	99

Surrogate Legend

TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(41-120)	(48-120)	(35-120)	(46-120)	(22-120)	(59-136)
480-128207-1	MWS-04	108	102	80	105	60	89
480-128207-2	MWS-31A	116	103	83	106	62	107
480-128207-3	MWS-34A	88	101	73	103	57	74
480-128207-4	MWS-12A	104	94	70	95	51	81
LCS 480-390115/2-A	Lab Control Sample	111	92	80	96	66	116
LCSD 480-390115/3-A	Lab Control Sample Dup	107	87	73	90	61	112
MB 480-390115/1-A	Method Blank	80	80	66	85	51	108

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

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

Lab Sample ID: MB 480-390614/6
Matrix: Water
Analysis Batch: 390614

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			12/05/17 21:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			12/05/17 21:53	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			12/05/17 21:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			12/05/17 21:53	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			12/05/17 21:53	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			12/05/17 21:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			12/05/17 21:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			12/05/17 21:53	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			12/05/17 21:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			12/05/17 21:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			12/05/17 21:53	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			12/05/17 21:53	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			12/05/17 21:53	1
2-Butanone (MEK)	ND		10	1.3	ug/L			12/05/17 21:53	1
2-Hexanone	ND		5.0	1.2	ug/L			12/05/17 21:53	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			12/05/17 21:53	1
Acetone	ND		10	3.0	ug/L			12/05/17 21:53	1
Benzene	ND		1.0	0.41	ug/L			12/05/17 21:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			12/05/17 21:53	1
Bromoform	ND		1.0	0.26	ug/L			12/05/17 21:53	1
Bromomethane	ND		1.0	0.69	ug/L			12/05/17 21:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			12/05/17 21:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			12/05/17 21:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			12/05/17 21:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			12/05/17 21:53	1
Chloroethane	ND		1.0	0.32	ug/L			12/05/17 21:53	1
Chloroform	ND		1.0	0.34	ug/L			12/05/17 21:53	1
Chloromethane	ND		1.0	0.35	ug/L			12/05/17 21:53	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			12/05/17 21:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			12/05/17 21:53	1
Cyclohexane	ND		1.0	0.18	ug/L			12/05/17 21:53	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			12/05/17 21:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/05/17 21:53	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			12/05/17 21:53	1
Isopropylbenzene	ND		1.0	0.79	ug/L			12/05/17 21:53	1
Methyl acetate	ND		2.5	1.3	ug/L			12/05/17 21:53	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			12/05/17 21:53	1
Methylcyclohexane	ND		1.0	0.16	ug/L			12/05/17 21:53	1
Methylene Chloride	0.447	J	1.0	0.44	ug/L			12/05/17 21:53	1
Styrene	ND		1.0	0.73	ug/L			12/05/17 21:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			12/05/17 21:53	1
Toluene	ND		1.0	0.51	ug/L			12/05/17 21:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			12/05/17 21:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			12/05/17 21:53	1
Trichloroethene	ND		1.0	0.46	ug/L			12/05/17 21:53	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			12/05/17 21:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			12/05/17 21:53	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/05/17 21:53	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120		12/05/17 21:53	1
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		12/05/17 21:53	1
4-Bromofluorobenzene (Surr)	99		73 - 120		12/05/17 21:53	1
Dibromofluoromethane (Surr)	99		75 - 123		12/05/17 21:53	1

Lab Sample ID: LCS 480-390614/3
Matrix: Water
Analysis Batch: 390614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	21.8		ug/L		87	73 - 126
1,1,2,2-Tetrachloroethane	25.0	20.4		ug/L		82	76 - 120
1,1,2-Trichloroethane	25.0	24.4		ug/L		98	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	18.7		ug/L		75	61 - 148
1,1-Dichloroethane	25.0	23.4		ug/L		94	77 - 120
1,1-Dichloroethene	25.0	17.6		ug/L		70	66 - 127
1,2,4-Trichlorobenzene	25.0	28.2		ug/L		113	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	16.1		ug/L		64	56 - 134
1,2-Dichlorobenzene	25.0	26.4		ug/L		105	80 - 124
1,2-Dichloroethane	25.0	23.6		ug/L		94	75 - 120
1,2-Dichloropropane	25.0	23.3		ug/L		93	76 - 120
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	77 - 120
1,4-Dichlorobenzene	25.0	26.2		ug/L		105	80 - 120
2-Butanone (MEK)	125	93.9		ug/L		75	57 - 140
2-Hexanone	125	94.8		ug/L		76	65 - 127
4-Methyl-2-pentanone (MIBK)	125	91.1		ug/L		73	71 - 125
Acetone	125	115		ug/L		92	56 - 142
Benzene	25.0	23.7		ug/L		95	71 - 124
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122
Bromoform	25.0	21.5		ug/L		86	61 - 132
Bromomethane	25.0	23.2		ug/L		93	55 - 144
Carbon disulfide	25.0	18.7		ug/L		75	59 - 134
Carbon tetrachloride	25.0	19.4		ug/L		78	72 - 134
Chlorobenzene	25.0	25.3		ug/L		101	80 - 120
Dibromochloromethane	25.0	23.4		ug/L		93	75 - 125
Chloroethane	25.0	21.7		ug/L		87	69 - 136
Chloroform	25.0	24.8		ug/L		99	73 - 127
Chloromethane	25.0	20.1		ug/L		81	68 - 124
cis-1,2-Dichloroethene	25.0	25.9		ug/L		103	74 - 124
cis-1,3-Dichloropropene	25.0	23.4		ug/L		93	74 - 124
Cyclohexane	25.0	18.1		ug/L		72	59 - 135
Dichlorodifluoromethane	25.0	18.9		ug/L		76	59 - 135
Ethylbenzene	25.0	22.8		ug/L		91	77 - 123
1,2-Dibromoethane	25.0	23.8		ug/L		95	77 - 120
Isopropylbenzene	25.0	22.5		ug/L		90	77 - 122
Methyl acetate	50.0	34.7	*	ug/L		69	74 - 133
Methyl tert-butyl ether	25.0	23.8		ug/L		95	77 - 120
Methylcyclohexane	25.0	21.1		ug/L		84	68 - 134
Methylene Chloride	25.0	24.8		ug/L		99	75 - 124
Styrene	25.0	25.6		ug/L		102	80 - 120
Tetrachloroethene	25.0	23.1		ug/L		93	74 - 122
Toluene	25.0	24.3		ug/L		97	80 - 122
trans-1,2-Dichloroethene	25.0	23.1		ug/L		93	73 - 127

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

Lab Sample ID: LCS 480-390614/3
Matrix: Water
Analysis Batch: 390614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	25.0	23.1		ug/L		92	80 - 120
Trichloroethene	25.0	23.8		ug/L		95	74 - 123
Trichlorofluoromethane	25.0	18.9		ug/L		76	62 - 150
Vinyl chloride	25.0	18.6		ug/L		74	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*101*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

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

Lab Sample ID: MB 480-390115/1-A
Matrix: Water
Analysis Batch: 390353

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390115

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		12/01/17 14:16	12/04/17 15:12	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 15:12	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		12/01/17 14:16	12/04/17 15:12	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		12/01/17 14:16	12/04/17 15:12	1
2-Nitroaniline	ND		10	0.42	ug/L		12/01/17 14:16	12/04/17 15:12	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 15:12	1
3-Nitroaniline	ND		10	0.48	ug/L		12/01/17 14:16	12/04/17 15:12	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		12/01/17 14:16	12/04/17 15:12	1
4-Chloroaniline	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 15:12	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 15:12	1
4-Nitroaniline	ND		10	0.25	ug/L		12/01/17 14:16	12/04/17 15:12	1
Acenaphthene	ND		5.0	0.41	ug/L		12/01/17 14:16	12/04/17 15:12	1
Acenaphthylene	ND		5.0	0.38	ug/L		12/01/17 14:16	12/04/17 15:12	1
Acetophenone	ND		5.0	0.54	ug/L		12/01/17 14:16	12/04/17 15:12	1
Anthracene	ND		5.0	0.28	ug/L		12/01/17 14:16	12/04/17 15:12	1
Atrazine	ND		5.0	0.46	ug/L		12/01/17 14:16	12/04/17 15:12	1
Benzaldehyde	ND		5.0	0.27	ug/L		12/01/17 14:16	12/04/17 15:12	1
Benzo(a)anthracene	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 15:12	1
Benzo(a)pyrene	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 15:12	1
Benzo(b)fluoranthene	ND		5.0	0.34	ug/L		12/01/17 14:16	12/04/17 15:12	1
Benzo(g,h,i)perylene	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 15:12	1
Benzo(k)fluoranthene	ND		5.0	0.73	ug/L		12/01/17 14:16	12/04/17 15:12	1
Biphenyl	ND		5.0	0.65	ug/L		12/01/17 14:16	12/04/17 15:12	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		12/01/17 14:16	12/04/17 15:12	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		12/01/17 14:16	12/04/17 15:12	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 15:12	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		12/01/17 14:16	12/04/17 15:12	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		12/01/17 14:16	12/04/17 15:12	1
Caprolactam	ND		5.0	2.2	ug/L		12/01/17 14:16	12/04/17 15:12	1
Carbazole	ND		5.0	0.30	ug/L		12/01/17 14:16	12/04/17 15:12	1

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

Lab Sample ID: MB 480-390115/1-A
Matrix: Water
Analysis Batch: 390353

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390115

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		5.0	0.33	ug/L		12/01/17 14:16	12/04/17 15:12	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		12/01/17 14:16	12/04/17 15:12	1
Dibenzofuran	ND		10	0.51	ug/L		12/01/17 14:16	12/04/17 15:12	1
Diethyl phthalate	ND		5.0	0.22	ug/L		12/01/17 14:16	12/04/17 15:12	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 15:12	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		12/01/17 14:16	12/04/17 15:12	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 15:12	1
Fluoranthene	ND		5.0	0.40	ug/L		12/01/17 14:16	12/04/17 15:12	1
Fluorene	ND		5.0	0.36	ug/L		12/01/17 14:16	12/04/17 15:12	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		12/01/17 14:16	12/04/17 15:12	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		12/01/17 14:16	12/04/17 15:12	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 15:12	1
Hexachloroethane	ND		5.0	0.59	ug/L		12/01/17 14:16	12/04/17 15:12	1
Indeno(1,2,3-cd)pyrene	ND		5.0	0.47	ug/L		12/01/17 14:16	12/04/17 15:12	1
Isophorone	ND		5.0	0.43	ug/L		12/01/17 14:16	12/04/17 15:12	1
Naphthalene	ND		5.0	0.76	ug/L		12/01/17 14:16	12/04/17 15:12	1
Nitrobenzene	ND		5.0	0.29	ug/L		12/01/17 14:16	12/04/17 15:12	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		12/01/17 14:16	12/04/17 15:12	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		12/01/17 14:16	12/04/17 15:12	1
Phenanthrene	ND		5.0	0.44	ug/L		12/01/17 14:16	12/04/17 15:12	1
Pyrene	ND		5.0	0.34	ug/L		12/01/17 14:16	12/04/17 15:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*80*		*41 - 120*	*12/01/17 14:16*	*12/04/17 15:12*	*1*
2-Fluorobiphenyl	*80*		*48 - 120*	*12/01/17 14:16*	*12/04/17 15:12*	*1*
2-Fluorophenol	*66*		*35 - 120*	*12/01/17 14:16*	*12/04/17 15:12*	*1*
Nitrobenzene-d5	*85*		*46 - 120*	*12/01/17 14:16*	*12/04/17 15:12*	*1*
Phenol-d5	*51*		*22 - 120*	*12/01/17 14:16*	*12/04/17 15:12*	*1*
p-Terphenyl-d14	*108*		*59 - 136*	*12/01/17 14:16*	*12/04/17 15:12*	*1*

Lab Sample ID: LCS 480-390115/2-A
Matrix: Water
Analysis Batch: 390353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390115

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	32.0	34.9		ug/L		109	69 - 120
2,6-Dinitrotoluene	32.0	33.5		ug/L		105	68 - 120
2-Chloronaphthalene	32.0	30.3		ug/L		95	58 - 120
2-Methylnaphthalene	32.0	29.2		ug/L		91	59 - 120
2-Nitroaniline	32.0	32.0		ug/L		100	54 - 127
3,3'-Dichlorobenzidine	64.0	90.6	E *	ug/L		142	49 - 135
3-Nitroaniline	32.0	30.8		ug/L		96	51 - 120
4-Bromophenyl phenyl ether	32.0	33.7		ug/L		105	65 - 120
4-Chloroaniline	32.0	25.7		ug/L		80	30 - 120
4-Chlorophenyl phenyl ether	32.0	31.2		ug/L		98	62 - 120
4-Nitroaniline	32.0	40.3	*	ug/L		126	65 - 120
Acenaphthene	32.0	30.7		ug/L		96	60 - 120
Acenaphthylene	32.0	32.0		ug/L		100	63 - 120

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

Lab Sample ID: LCS 480-390115/2-A
Matrix: Water
Analysis Batch: 390353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390115

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetophenone	32.0	31.7		ug/L		99	45 - 120
Anthracene	32.0	35.3		ug/L		110	67 - 120
Atrazine	64.0	75.5		ug/L		118	71 - 130
Benzaldehyde	64.0	47.7		ug/L		74	10 - 140
Benzo(a)anthracene	32.0	36.2		ug/L		113	70 - 121
Benzo(a)pyrene	32.0	33.9		ug/L		106	60 - 123
Benzo(b)fluoranthene	32.0	36.8		ug/L		115	66 - 126
Benzo(g,h,i)perylene	32.0	36.5		ug/L		114	66 - 150
Benzo(k)fluoranthene	32.0	34.9		ug/L		109	65 - 124
Biphenyl	32.0	30.7		ug/L		96	59 - 120
bis (2-chloroisopropyl) ether	32.0	30.2		ug/L		94	21 - 136
Bis(2-chloroethoxy)methane	32.0	31.7		ug/L		99	50 - 128
Bis(2-chloroethyl)ether	32.0	29.7		ug/L		93	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	36.0		ug/L		112	63 - 139
Butyl benzyl phthalate	32.0	36.1		ug/L		113	70 - 129
Caprolactam	64.0	29.1		ug/L		45	22 - 120
Carbazole	32.0	39.4		ug/L		123	66 - 123
Chrysene	32.0	36.4		ug/L		114	69 - 120
Dibenz(a,h)anthracene	32.0	36.0		ug/L		112	65 - 135
Dibenzofuran	32.0	31.8		ug/L		99	66 - 120
Diethyl phthalate	32.0	34.6		ug/L		108	59 - 127
Dimethyl phthalate	32.0	34.4		ug/L		107	68 - 120
Di-n-butyl phthalate	32.0	36.2		ug/L		113	69 - 131
Di-n-octyl phthalate	32.0	35.5		ug/L		111	63 - 140
Fluoranthene	32.0	35.3		ug/L		110	69 - 126
Fluorene	32.0	33.0		ug/L		103	66 - 120
Hexachlorobenzene	32.0	32.4		ug/L		101	61 - 120
Hexachlorobutadiene	32.0	19.9		ug/L		62	35 - 120
Hexachlorocyclopentadiene	32.0	12.7		ug/L		40	31 - 120
Hexachloroethane	32.0	20.2		ug/L		63	43 - 120
Indeno(1,2,3-cd)pyrene	32.0	35.5		ug/L		111	69 - 146
Isophorone	32.0	32.7		ug/L		102	55 - 120
Naphthalene	32.0	28.6		ug/L		89	57 - 120
Nitrobenzene	32.0	30.1		ug/L		94	53 - 123
N-Nitrosodi-n-propylamine	32.0	33.5		ug/L		105	32 - 140
N-Nitrosodiphenylamine	32.0	35.4		ug/L		111	61 - 120
Phenanthrene	32.0	35.2		ug/L		110	68 - 120
Pyrene	32.0	37.3		ug/L		117	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*111*		*41 - 120*
2-Fluorobiphenyl	*92*		*48 - 120*
2-Fluorophenol	*80*		*35 - 120*
Nitrobenzene-d5	*96*		*46 - 120*
Phenol-d5	*66*		*22 - 120*
p-Terphenyl-d14	*116*		*59 - 136*

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

Lab Sample ID: LCSD 480-390115/3-A
Matrix: Water
Analysis Batch: 390353

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390115

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	32.0	34.5		ug/L		108	69 - 120	1	20
2,6-Dinitrotoluene	32.0	33.0		ug/L		103	68 - 120	1	15
2-Chloronaphthalene	32.0	29.4		ug/L		92	58 - 120	3	21
2-Methylnaphthalene	32.0	27.6		ug/L		86	59 - 120	6	21
2-Nitroaniline	32.0	32.9		ug/L		103	54 - 127	3	15
3,3'-Dichlorobenzidine	64.0	87.0	E *	ug/L		136	49 - 135	4	25
3-Nitroaniline	32.0	30.2		ug/L		94	51 - 120	2	19
4-Bromophenyl phenyl ether	32.0	32.8		ug/L		103	65 - 120	3	15
4-Chloroaniline	32.0	24.0		ug/L		75	30 - 120	7	22
4-Chlorophenyl phenyl ether	32.0	31.8		ug/L		100	62 - 120	2	16
4-Nitroaniline	32.0	34.3		ug/L		107	65 - 120	16	24
Acenaphthene	32.0	30.9		ug/L		96	60 - 120	0	24
Acenaphthylene	32.0	31.3		ug/L		98	63 - 120	2	18
Acetophenone	32.0	29.7		ug/L		93	45 - 120	7	20
Anthracene	32.0	33.5		ug/L		105	67 - 120	5	15
Atrazine	64.0	76.5		ug/L		120	71 - 130	1	20
Benzaldehyde	64.0	45.1		ug/L		70	10 - 140	6	20
Benzo(a)anthracene	32.0	35.6		ug/L		111	70 - 121	2	15
Benzo(a)pyrene	32.0	33.0		ug/L		103	60 - 123	3	15
Benzo(b)fluoranthene	32.0	36.9		ug/L		115	66 - 126	0	15
Benzo(g,h,i)perylene	32.0	36.0		ug/L		112	66 - 150	2	15
Benzo(k)fluoranthene	32.0	35.4		ug/L		111	65 - 124	1	22
Biphenyl	32.0	30.0		ug/L		94	59 - 120	2	20
bis (2-chloroisopropyl) ether	32.0	28.3		ug/L		89	21 - 136	6	24
Bis(2-chloroethoxy)methane	32.0	30.3		ug/L		95	50 - 128	5	17
Bis(2-chloroethyl)ether	32.0	28.2		ug/L		88	44 - 120	5	21
Bis(2-ethylhexyl) phthalate	32.0	34.5		ug/L		108	63 - 139	4	15
Butyl benzyl phthalate	32.0	35.6		ug/L		111	70 - 129	1	16
Caprolactam	64.0	27.7		ug/L		43	22 - 120	5	20
Carbazole	32.0	40.1	*	ug/L		125	66 - 123	2	20
Chrysene	32.0	35.4		ug/L		111	69 - 120	3	15
Dibenz(a,h)anthracene	32.0	35.2		ug/L		110	65 - 135	2	15
Dibenzofuran	32.0	31.3		ug/L		98	66 - 120	2	15
Diethyl phthalate	32.0	34.8		ug/L		109	59 - 127	1	15
Dimethyl phthalate	32.0	33.9		ug/L		106	68 - 120	1	15
Di-n-butyl phthalate	32.0	36.4		ug/L		114	69 - 131	1	15
Di-n-octyl phthalate	32.0	34.1		ug/L		106	63 - 140	4	16
Fluoranthene	32.0	35.0		ug/L		109	69 - 126	1	15
Fluorene	32.0	32.9		ug/L		103	66 - 120	0	15
Hexachlorobenzene	32.0	32.1		ug/L		100	61 - 120	1	15
Hexachlorobutadiene	32.0	20.6		ug/L		64	35 - 120	3	44
Hexachlorocyclopentadiene	32.0	10.8		ug/L		34	31 - 120	17	49
Hexachloroethane	32.0	20.7		ug/L		65	43 - 120	2	46
Indeno(1,2,3-cd)pyrene	32.0	35.0		ug/L		110	69 - 146	1	15
Isophorone	32.0	31.3		ug/L		98	55 - 120	4	17
Naphthalene	32.0	26.9		ug/L		84	57 - 120	6	29
Nitrobenzene	32.0	29.3		ug/L		91	53 - 123	3	24
N-Nitrosodi-n-propylamine	32.0	30.9		ug/L		96	32 - 140	8	31

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

Lab Sample ID: LCSD 480-390115/3-A
Matrix: Water
Analysis Batch: 390353

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390115

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodiphenylamine			32.0	34.2		ug/L		107	61 - 120	3	15
Phenanthrene			32.0	34.7		ug/L		108	68 - 120	1	15
Pyrene			32.0	36.4		ug/L		114	70 - 125	3	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*107*		*41 - 120*
2-Fluorobiphenyl	*87*		*48 - 120*
2-Fluorophenol	*73*		*35 - 120*
Nitrobenzene-d5	*90*		*46 - 120*
Phenol-d5	*61*		*22 - 120*
p-Terphenyl-d14	*112*		*59 - 136*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-390024/1-A
Matrix: Water
Analysis Batch: 390710

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390024

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		0.0040		mg/L		12/01/17 10:22	12/05/17 21:35	1
Lead	ND		0.010		mg/L		12/01/17 10:22	12/05/17 21:35	1

Lab Sample ID: MB 480-390024/1-A
Matrix: Water
Analysis Batch: 390903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390024

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015		mg/L		12/01/17 10:22	12/06/17 15:41	1

Lab Sample ID: LCS 480-390024/2-A
Matrix: Water
Analysis Batch: 390710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390024

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium			0.200	0.194		mg/L		97	80 - 120
Lead			0.200	0.194		mg/L		97	80 - 120

Lab Sample ID: LCS 480-390024/2-A
Matrix: Water
Analysis Batch: 390903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390024

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic			0.200	0.205		mg/L		102	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSD 480-390024/25-A
Matrix: Water
Analysis Batch: 390710

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390024

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			0.200	0.196		mg/L		98	80 - 120	3	20
Chromium			0.200	0.200		mg/L		100	80 - 120	3	20
Lead			0.200	0.200		mg/L		100	80 - 120	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-390308/1-A
Matrix: Water
Analysis Batch: 390379

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 390308

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/04/17 12:15	12/04/17 15:14	1

Lab Sample ID: LCS 480-390308/2-A
Matrix: Water
Analysis Batch: 390379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 390308

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury			0.00667	0.00742		mg/L		111	80 - 120

Lab Sample ID: LCSD 480-390308/22-A
Matrix: Water
Analysis Batch: 390379

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 390308

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.00667	0.00767		mg/L		115	80 - 120	3	20

GC/MS VOA

Analysis Batch: 390614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128207-1	MWS-04	Total/NA	Water	8260C	
480-128207-2	MWS-31A	Total/NA	Water	8260C	
480-128207-3	MWS-34A	Total/NA	Water	8260C	
480-128207-4	MWS-12A	Total/NA	Water	8260C	
MB 480-390614/6	Method Blank	Total/NA	Water	8260C	
LCS 480-390614/3	Lab Control Sample	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 390115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128207-1	MWS-04	Total/NA	Water	3510C	
480-128207-2	MWS-31A	Total/NA	Water	3510C	
480-128207-3	MWS-34A	Total/NA	Water	3510C	
480-128207-4	MWS-12A	Total/NA	Water	3510C	
MB 480-390115/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-390115/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-390115/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 390353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128207-1	MWS-04	Total/NA	Water	8270D	390115
480-128207-2	MWS-31A	Total/NA	Water	8270D	390115
480-128207-3	MWS-34A	Total/NA	Water	8270D	390115
480-128207-4	MWS-12A	Total/NA	Water	8270D	390115
MB 480-390115/1-A	Method Blank	Total/NA	Water	8270D	390115
LCS 480-390115/2-A	Lab Control Sample	Total/NA	Water	8270D	390115
LCSD 480-390115/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	390115

Metals

Prep Batch: 390024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128207-1	MWS-04	Total/NA	Water	3005A	
480-128207-2	MWS-31A	Total/NA	Water	3005A	
480-128207-3	MWS-34A	Total/NA	Water	3005A	
480-128207-4	MWS-12A	Total/NA	Water	3005A	
MB 480-390024/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-390024/2-A	Lab Control Sample	Total/NA	Water	3005A	
LCSD 480-390024/25-A	Lab Control Sample Dup	Total/NA	Water	3005A	

Prep Batch: 390308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128207-1	MWS-04	Total/NA	Water	7470A	
480-128207-2	MWS-31A	Total/NA	Water	7470A	
480-128207-3	MWS-34A	Total/NA	Water	7470A	
480-128207-4	MWS-12A	Total/NA	Water	7470A	
MB 480-390308/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-390308/2-A	Lab Control Sample	Total/NA	Water	7470A	
LCSD 480-390308/22-A	Lab Control Sample Dup	Total/NA	Water	7470A	

Metals (Continued)

Analysis Batch: 390379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128207-1	MWS-04	Total/NA	Water	7470A	390308
480-128207-2	MWS-31A	Total/NA	Water	7470A	390308
480-128207-3	MWS-34A	Total/NA	Water	7470A	390308
480-128207-4	MWS-12A	Total/NA	Water	7470A	390308
MB 480-390308/1-A	Method Blank	Total/NA	Water	7470A	390308
LCS 480-390308/2-A	Lab Control Sample	Total/NA	Water	7470A	390308
LCSD 480-390308/22-A	Lab Control Sample Dup	Total/NA	Water	7470A	390308

Analysis Batch: 390710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128207-1	MWS-04	Total/NA	Water	6010C	390024
480-128207-2	MWS-31A	Total/NA	Water	6010C	390024
480-128207-3	MWS-34A	Total/NA	Water	6010C	390024
480-128207-4	MWS-12A	Total/NA	Water	6010C	390024
MB 480-390024/1-A	Method Blank	Total/NA	Water	6010C	390024
LCS 480-390024/2-A	Lab Control Sample	Total/NA	Water	6010C	390024
LCSD 480-390024/25-A	Lab Control Sample Dup	Total/NA	Water	6010C	390024

Analysis Batch: 390903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-128207-1	MWS-04	Total/NA	Water	6010C	390024
480-128207-2	MWS-31A	Total/NA	Water	6010C	390024
480-128207-3	MWS-34A	Total/NA	Water	6010C	390024
480-128207-4	MWS-12A	Total/NA	Water	6010C	390024
MB 480-390024/1-A	Method Blank	Total/NA	Water	6010C	390024
LCS 480-390024/2-A	Lab Control Sample	Total/NA	Water	6010C	390024

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-04

Lab Sample ID: 480-128207-1

Date Collected: 11/29/17 00:00

Matrix: Water

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	390614	12/06/17 02:44	MXS	TAL BUF
Total/NA	Prep	3510C			390115	12/01/17 14:16	ATG	TAL BUF
Total/NA	Analysis	8270D		1	390353	12/04/17 20:57	PJQ	TAL BUF
Total/NA	Prep	3005A			390024	12/01/17 10:22	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390710	12/05/17 21:59	LMH	TAL BUF
Total/NA	Prep	3005A			390024	12/01/17 10:22	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390903	12/06/17 15:55	LMH	TAL BUF
Total/NA	Prep	7470A			390308	12/04/17 12:15	EMB	TAL BUF
Total/NA	Analysis	7470A		1	390379	12/04/17 15:39	BMB	TAL BUF

Client Sample ID: MWS-31A

Lab Sample ID: 480-128207-2

Date Collected: 11/29/17 00:00

Matrix: Water

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	390614	12/06/17 03:07	MXS	TAL BUF
Total/NA	Prep	3510C			390115	12/01/17 14:16	ATG	TAL BUF
Total/NA	Analysis	8270D		1	390353	12/04/17 21:25	PJQ	TAL BUF
Total/NA	Prep	3005A			390024	12/01/17 10:22	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390710	12/05/17 22:03	LMH	TAL BUF
Total/NA	Prep	3005A			390024	12/01/17 10:22	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390903	12/06/17 15:59	LMH	TAL BUF
Total/NA	Prep	7470A			390308	12/04/17 12:15	EMB	TAL BUF
Total/NA	Analysis	7470A		1	390379	12/04/17 15:42	BMB	TAL BUF

Client Sample ID: MWS-34A

Lab Sample ID: 480-128207-3

Date Collected: 11/29/17 00:00

Matrix: Water

Date Received: 11/30/17 11:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	390614	12/06/17 03:30	MXS	TAL BUF
Total/NA	Prep	3510C			390115	12/01/17 14:16	ATG	TAL BUF
Total/NA	Analysis	8270D		5	390353	12/04/17 21:53	PJQ	TAL BUF
Total/NA	Prep	3005A			390024	12/01/17 10:22	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390710	12/05/17 22:06	LMH	TAL BUF
Total/NA	Prep	3005A			390024	12/01/17 10:22	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390903	12/06/17 16:03	LMH	TAL BUF
Total/NA	Prep	7470A			390308	12/04/17 12:15	EMB	TAL BUF
Total/NA	Analysis	7470A		1	390379	12/04/17 15:44	BMB	TAL BUF

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Client Sample ID: MWS-12A
Date Collected: 11/29/17 00:00
Date Received: 11/30/17 11:05

Lab Sample ID: 480-128207-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	390614	12/06/17 03:53	MXS	TAL BUF
Total/NA	Prep	3510C			390115	12/01/17 14:16	ATG	TAL BUF
Total/NA	Analysis	8270D		1	390353	12/04/17 22:22	PJQ	TAL BUF
Total/NA	Prep	3005A			390024	12/01/17 10:22	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390710	12/05/17 22:10	LMH	TAL BUF
Total/NA	Prep	3005A			390024	12/01/17 10:22	EMB	TAL BUF
Total/NA	Analysis	6010C		1	390903	12/06/17 16:06	LMH	TAL BUF
Total/NA	Prep	7470A			390308	12/04/17 12:15	EMB	TAL BUF
Total/NA	Analysis	7470A		1	390379	12/04/17 15:46	BMB	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
TestAmerica Job ID: 480-128207-1
Project/Site: Benchmark - 1951 Hamburg Turnpike

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-18

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

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

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: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - 1951 Hamburg Turnpike

TestAmerica Job ID: 480-128207-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-128207-1	MWS-04	Water	11/29/17 00:00	11/30/17 11:05
480-128207-2	MWS-31A	Water	11/29/17 00:00	11/30/17 11:05
480-128207-3	MWS-34A	Water	11/29/17 00:00	11/30/17 11:05
480-128207-4	MWS-12A	Water	11/29/17 00:00	11/30/17 11:05

TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Chester Hochsreiter	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-104293-24685.1
Client Contact: Mr. Tom Forbes	Phone: 716-219-8214	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Benchmark Env. Eng. & Science, PLLC				Job #:
Address: 2558 Hamburg Turnpike Suite 300	Due Date Requested:			
City: Lackawanna	TAT Requested (days): standard			
State, Zip: NY, 14218				
Phone: (716) 856-0599	PO #: Purchase Order not required			
Email: tforbes@benchmarkturnkey.com	WO #:			
Project Name: Benchmark - 1951 Hamburg Turnpike	Project #: 48017020			
Site:	SSOW#:			

Standard QC
Standard TAT

Analysis Requested

Preservati
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - ice
J - DI Water
K - EDTA
L - EDA
... - ISP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

480-128207 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D - (MOD) TCL SVOA - BN only	6010C, 7470A, Arsenic, Chrom, Lead, Hg	8260C - TCL list OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A		
MWS-04	11-29-17		G	Water			X	X	X		
MWS-31A	11-29-17		G	Water			X	X	X		
MWS-34A	11-29-17		G	Water			X	X	X		
MW-12A	11-29-17		G	water			X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Chester Hochsreiter	Date/Time: 11-29-17 / 1800	Company: Butle	Received by:	Date/Time: 11-30-17/0950	Company: TAL
Relinquished by:	Date/Time: 11-30-17/ 1105	Company: TAL	Received by:	Date/Time: 11/30/17 1105	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.0 th		

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-128207-1

Login Number: 128207

List Source: TestAmerica Buffalo

List Number: 1

Creator: Janish, Carl M

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.	False	
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 (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	False	
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	
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	