May 4, 2011

Mr. David Szymanski
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Riverbend Site (formerly Steelfields) (V00619-9)
Periodic Review Report (March 2, 2009 to April 1, 2011)

Dear Mr. Szymanski:

Please find attached one hard copy and one compact disc containing the Periodic Review Report (PRR) for the Riverbend Site. This report supplements our previous electronic submittal on May 2, 2011 and includes all supporting appendices as well as one hard copy of the PRR. The report has been prepared consistent with NYSDEC's DER-10 Technical Guidance (May 2010).

Please contact me if you have any questions regarding this submittal.

Sincerely,
TurnKey Environmental Restoration, LLC

Bryan C. Hann
Project Manager

File: 0171-006-500

Periodic Review Report

Riverbend Site (No. V00619)
Buffalo, New York

May 2011 0171-006-500

Prepared For:

Riverbend, LLC

Prepared By:

TurnKey Environmental Restoration, LLC

In Association With:

Benchmark Environmental Engineering & Science, PLLC

2558 Hamburg Turnpike, Suite 300, Buffalo, New York 14218 | phone: (716) 856-0635 | fax: (716) 856-0583

PERIODIC REVIEW REPORT
for the

STEELFIELDS (AKA RIVERBEND, LLC) SITE
(SITE NO. V00619)

BUFFALO, NEW YORK

April 2011 0171-006-500

Prepared for:

Riverbend, LLC

Prepared By:

TurnKey Environmental Restoration, LLC

In Association With:

Benchmark Environmental Engineering & Science, PLLC

Benchmark & TurnKey Companies
2558 Hamburg Turnpike, Suite 300
Buffalo, NY 14218
(716)856-0599

PERIODIC REVIEW REPORT
Steelfields (aka Riverbend, LLC) Site
Table of Contents

PERIODIC REVIEW REPORT
Steelfields (aka Riverbend, LLC) Site
Table of Contents

FIGURES

APPENDICIES

(provided electronically)

1.0 INTRODUCTION

TurnKey Environmental Restoration, LLC (TurnKey), in association with Benchmark Environmental Engineering and Science, PLLC (Benchmark) has prepared this Periodic Review Report (PRR), on behalf of Riverbend, LLC, to summarize the post-remedial status of New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program (VCP) Steelfields (aka Riverbend, LLC) Site No. V00619.

This PRR has been prepared in accordance with the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (May 2010) and the NYSDEC's Institutional and Engineering Controls Certification Forms have been prepared for each of the four designated areas (i.e., Area I, Area II, Area III, former August Feine) of the Site. This PRR and the associated inspections forms (see Appendix A) have been completed for the March 2, 2009 to April 1, 2011 reporting period.

1.1 Background

In October 2002, Steelfields Ltd. (Steelfields) purchased several vacant industrial properties in South Buffalo, New York (see Figures 1 and 2) out of bankruptcy from the LTV Steel Company and Hanna Furnace Corporation (a wholly owned subsidiary of the National Steel Corporation). At the same time, Steelfields entered into a Voluntary Cleanup Agreement (VCA) with the NYSDEC to remediate four parcels identified below, totaling approximately 218 acres. The parcels were divided based on the operational and ownership history of each:

- Area I – Former Republic (LTV) Steel Plant Parcel (± 90.6 acres);
- Area II – Former Donner-Hanna Coke Plant Parcel (± 53.0 acres);
- Area III - Former Republic (LTV) Steel Warehouse Parcel (± 43.2 acres); and
- Area IV – Former Donner-Hanna Coke Yard Parcel (± 31.1 acres)

In July 2003, a fifth parcel, the formerly owned and operated August Feine & Sons property (± 4.7 acres), was acquired by Steelfields and was also subject to the original VCA. All five parcels were remediated by Steelfields under the NYSDEC VCA, and remedial activities for the entire Site were completed in 2007. Subsequent to completion of the remediation of Area IV by Steelfields in 2006, this parcel was separated from the Site, sold to

Hydro-Air Components, Inc. (Hydro-Air), and entered into the Brownfield Cleanup Program (NYSDEC BCP Site No. C915204) by Hydro-Air. As such, this report does not address Area IV. Riverbend, LLC (Riverbend) acquired the remaining four parcels from Steelfields in May 2008.

2.0 SITE OVERVIEW

The Riverbend Site, comprised of four former heavy industrial properties identified as Areas I, II, and III and the former August Feine parcel, encompasses approximately 192 acres in the City of Buffalo, Erie County, New York. The Site is bordered by the Buffalo River and South Park Avenue to the north, Abby Street and residential neighborhoods to the east, Former Area IV (currently Hydro-Air Components) to the south, and a railroad corridor and rail yard to the west (contiguous parcels owned by South Buffalo Railroad Company, Norfolk Southern Corporation, Buffalo Southern Railroad, and CSX Corporation) (see Figure 2).

The environmental investigations revealed the presence of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs), and metals which required remediation. Remedial activities were completed across the Site from 2002 through 2006. Detailed description of the remedial efforts and construction documents are provided in the Department's approved Construction Closeout Report for Area I, including the Site Management Plan, prepared by TurnKey, dated April 2007; and the Final Engineering Report for Areas II and III, Former Donner-Hanna Coke Plant and Republic (LTV) Steel Properties, including Site Management Plan, prepared by Malcolm Pirnie, dated May 2008. A brief description of the remedial efforts described in those documents is presented below.

2.1 Area I - Former Republic (LTV) Steel Parcel

The former Republic Steel (LTV) Plant property encompasses two adjoining parcels (122.16-1-8.1 and 122.20-1-3.1) totaling approximately 90.6 acres. Area I is bordered by the Buffalo River and South Park Avenue to the north, Abby Street and residential neighborhoods to the east, Norfolk Southern property to the south, a railroad corridor and rail yard to the west. Remedial efforts conducted in Area I included:

- Remediation of petroleum/naphthalene/tar-impacted and metals impacted soil/fill
- Removal of former fuel oil and tar transfer pipelines, including disposal of residual product within the piping and impacted soil in the vicinity of the pipelines
- Removal of former underground storage tanks; and,
- Buffalo River bank stabilization

2.2 Area II – Former Donner-Hanna Coke Plant

The former Donner-Hanna Coke Plant property encompasses three adjoining parcels (122.20-1-21, 122.20-1-5.1, and 132.08-1-6) totaling approximately 53.0 acres. Area II, partially intersected by Baraga Street, is bordered by an adjacent earthen berm along Abby Street and residential neighborhoods to the east, Norfolk Southern property and the former August Feine parcel to the north, Area III to the south, and a railroad corridor and rail yard to the west. Remedial efforts conducted in Area II included:

- Construction of a 14-acre containment cell, slurry wall, low-permeability cover system and a Groundwater Collection and Conveyance System;
- Construction of a Groundwater Pre-treatment System (GWPTS); and,
- In-Situ "Hot Spot" remediation

2.3 Area III – Former Warehouse Parcel

The former Republic Steel Warehouse property encompasses two adjoining parcels (132.08-1-7 and 132.12-1-9.11) totaling approximately 43.2 acres. Area III is bordered by an adjacent earthen berm along Abby Street and residential neighborhoods to the east, Area II to the north, Former Area IV (currently Hydro-Air Components) to the south, and a railroad corridor and rail yard to the west. Remedial efforts conducted in Area III included:

- Blue-Stained soil/fill remediation;
- Lead-impacted soil remediation; and,
- Tar-impacted soil/fill remediation

2.4 Former August Feine Parcel

The former August Feine property encompasses one parcel (122.20-1-22) totaling approximately 4.7 acres. This property is surrounded by Area II on the west, south, and east and Norfolk Southern property to the north (Baraga Street dead ends at the entrance to this parcel).

A July 2006 site assessment of this parcel identified localized VOC (primarily benzene) and total metal (plus cyanide) impacts to subsurface soil/fill and shallow groundwater along the common boundary with Area II. Based on the proximity of these identified impacts to the Area II groundwater collection trench, the leachable impacts, if any,

are being captured and treated by the groundwater collection system, eliminating downgradient migration and potential environmental impact. As such, no additional remediation, beyond those already being implemented in accordance with the VCA for Area II was recommended. Any potential for subsurface soil/fill exposure during future development of the property (i.e., utility installation) will be addressed in accordance with the Soil/Fill Management Plan (see Section 3.3).

3.0 SITE MANAGEMENT PLAN

The Riverbend Site is managed by two separate Site Management Plans (SMPs). One SMP covers Area I (prepared by TurnKey-Benchmark in April 2007) and the second covers Areas II, III, and the former August Feine parcel (prepared by Malcolm Pirnie in May 2008). Both SMPs include Operation, Monitoring and Maintenance (OM&M) Plans, Long-Term Groundwater Monitoring (LTGWM) Plans, Soil/Fill Management Plans (SFMPs), and Environmental Easements (also identified as Covenant and Restrictions) for their respective parcels. A brief description of these SMP components is presented below.

3.1 Operation, Monitoring and Maintenance (OM&M) Plan

As a requirement of the OM&M plans, annual inspection of Areas I, II, III, and the former August Feine parcel are required. The NYSDEC PRR Institutional and Engineering Controls Certification Form will replace the previously utilized Environmental Inspection Forms for each Area. Details of the annual inspection and completion of the EC/IC forms is discussed in Sections 3.5 and 3.6 below.

3.1.1 Area I

The Area I SMP provides the details for Operation and Maintenance (O&M) related to the product recovery passive skimmer at monitoring well A1-MW-6. Specifically, the O&M Plan details the product recovery system inspection program, routine maintenance operations, and reporting requirements. Inspection logs for the reporting period are included in Appendix A.

3.1.2 Area II

The Area II SMP provides the O&M details related to the groundwater collection and conveyance system, including the soil flushing system; groundwater pre-treatment system (GWPTS) including the bag filters, carbon vessels, transfer pumps, separator tank, and general house-keeping; sewer discharge effluent monitoring; and low-permeability cover system (i.e. landfill post-closure monitoring and cover maintenance). Inspection reports for the reporting period are included in Appendix A. The Area II GWPTS quarterly progress reports submitted to the NYSDEC and the annual effluent monitoring reports submitted to

the Buffalo Sewer Authority (BSA) during the current reporting period are presented in Appendix B. Proposed modifications to the Area II SMP are discussed in Section 4.0.

It should be noted that storm water operations related to the Terminal Basin, as described in the SMP for Area II, were discontinued prior to this reporting period as part of the deactivation of that structure in December 2008. The BSA was notified in January 2009 of this deactivation and use of Buffalo Pollution Discharge Elimination System (BPDES) Discharge Permit No. 06-02-BU100 was no longer required. At that time, the BSA was also notified that the former August Feine building, located east of the Terminal Basin and north of the Area II Containment Cell, storm water discharge to the Terminal Basin would be discontinued and the building would be retrofitted with a sump-pump that would utilize the existing BSA storm sewer connection (formerly used by the Terminal Basin) at the intersection of Abby and Baraga Streets. In June 2009, the former August Feine building caught fire and emergency demolition followed. A concrete slab on grade foundation and a small brick walled shed is all that remains and storm water management of this area was subsequently discontinued (see Appendix C).

3.1.3 Area III

The Area IIII O&M plan provides the details related to the in-situ groundwater treatment with oxygen release compound (ORC) at eleven ORC in-situ treatment wells. Inspection logs for the reporting period are included in Appendix A and ORC monitoring results are included in the groundwater monitoring reports, discussed in Section 3.2 below. Proposed modifications to the Area III O&M Plan are discussed in Section 4.0.

3.1.4 Former August Feine Parcel

There are no O&M requirements for the former August Feine parcel.

3.2 Long-Term Groundwater Monitoring (LTGWM) Plan

As a requirement of the SMPs, long-term groundwater monitoring is being performed at the Site. A Long-Term Groundwater Monitoring (LTGWM) Work Plan was prepared by TurnKey in March 2000 (revised April 2007) for Area I. Similarly, LTGWM Work Plans were prepared by others in October 2007 for Areas II (revised April 2008) and

III. Currently, groundwater monitoring is performed on an annual basis and ORC monitoring is performed semi-annually. The activities performed during each groundwater monitoring event are performed in general accordance with the following documents:

- *Work Plan for Long-Term Groundwater Monitoring (LTGWM) of Area I* (revised September 2002);
- *Work Plan for LTGWM of Areas II and III* (October 2007) submitted as Attachment A4 of Appendix HH of the Final Engineering Report for Areas II and III (May 2008);
- May 5, 2008 Response to NYSDEC comment letter regarding Area III Site Management Plan (comment/responses 8, 9, and 10);
- May 5, 2008 Response to NYSDEC comment letter regarding Areas II and III Final Engineering Report (comment/responses 19 and 22); and
- *ORC Maintenance and Monitoring Manual* (March 2008) submitted as Attachment A5 of Appendix HH of the Final Engineering Report for Areas II and III (May 2008).

Since 2009 and with NYSDEC approval, LTGWM for Areas I, II, and III were modified into a combined monitoring and reporting event, identified as the Comprehensive Annual Groundwater Monitoring Report. Groundwater monitoring began in 2004 for Area I and in 2007 for Areas II and III. A total of 24 monitoring wells are monitored across the Site including 10 wells in Area I, 9 wells in Area II, and 5 wells in Area III. In addition to these monitoring wells, seven additional wells (1 in Area I and 5 in Area II) are monitored for water level only. Groundwater monitoring events conducted during the reporting period include the following:

- May 2009 – Comprehensive Annual Groundwater Monitoring Report and First Semi-Annual Area III ORC Monitoring Event
- November 2009 – Second Semi-Annual Area III ORC Monitoring Event
- May 2010 – Comprehensive Annual Groundwater Monitoring Report and First Semi-Annual Area III ORC Monitoring Event
- November 2010 – Second Semi-Annual Area III ORC Monitoring Event

Groundwater monitoring reports and Area III ORC monitoring network annual inspection forms are presented in Appendices D and E, respectively. Proposed modifications to the LTGWM Plans for Areas I, II, and III are discussed in Section 4.0.

3.3 Soil/Fill Management Plan

A Soil/Fill Management Plan (SFMP) was included in the approved-SMPs for each Area of the Site. The SFMP provides guidelines for the management of soil and fill material during any future intrusive activities.

No intrusive activities requiring management of on-Site soil or fill material; or the placment of backfill materials occurred during the monitoring period.

3.4 Engineering and Institutional Control Requirements and Compliance

As detailed in the SMPs, several engineering controls (ECs) and institutional controls (ICs) are to be maintained as a requirement of the VCA for the Site.

3.4.1 Engineering Controls

Three of the four Areas of the Riverbend Site are subject to several ECs as indicated below.

- Area I: maintain vegetative cover, perimeter fencing, soil/fill management, soil vapor intrusion (SVI) evaluation or installation of vapor mitigation system before build-out (effective 08/16/2007);

- Area II: maintain final cover system of containment cell, maintain vegetative cover outside containment cell area until build-out whereupon on foot of clean cover or alternative with a demarcation layer is required, O&M of GWPTS, O&M of containment cell, perimeter fencing, soil/fill management, SVI evaluation or installation of vapor mitigation system before build-out (effective 05/21/2008);

- Area III; maintain vegetative cover (limited area sampling required before build-out, failure to meet Site Specific Action Levels (SSALs) would require one foot of clean cover or alternative with a demarcation layer); O&M of passive groundwater treatment (e.g., ORC), perimeter fencing, soil/fill management, SVI evaluation or installation of vapor mitigation system before build-out (effective 05/21/2008); and

- Former August Feine parcel: none.

3.4.2 Institutional Controls

All four Riverbend parcels are subject to the following ICs:

- Groundwater-Use Restriction – the use of groundwater for potable and non-potable purposes is prohibited.
- Land-Use Restriction - the controlled property may be used for commercial and/or industrial use; and,
- Soil/Fill Management Plan

Additionally, Areas II and III are subject to compliance with the O&M Plans for their respective areas, as described in Section 3.1.

3.5 Site Inspection

Site inspections of Areas I, II, and III and the former August Feine parcel were conducted by TurnKey/Benchmark on April 12, 2011. A parcel by parcel description is provided in the following sections.

3.5.1 Area I

At the time of the inspection, Area I was vacant, and in compliance with the EC/ICs, with the minor exception of some areas of the perimeter fence needing routine repairs. Riverbend has made arrangements to have the fence repaired in 2011. Although Area I was observed to be vacant during the site inspection, this parcel was utilized for surface storage of wind turbine components during the reporting period. Also, during the winter of 2010/2011, Area I was utilized for emergency snow removal storage by the City of Buffalo near the entrance to South Park Avenue. Remnants of the snow piles were observed during the site inspection along with scattered debris. There was no damage to existing on-site monitoring wells/piezometers in Area I as a result of these piles.

The completed Institutional Control Certification form for Area I is provided in Appendix A. A photographic log is presented in Appendix C.

3.5.2 Area II

At the time of the inspection, Area II, including the GWTS and Containment Cell were in compliance with the EC/ICs, with the minor exception of some areas of the fence needing routine repairs. Riverbend has made arrangements to have the fence repaired in

2011. One monitoring well (i.e., A2-MW-14) was noted vandalized/damaged during the May 2010 LTGWM event. Replacement of this well is pending.

The completed Institutional Control Certification form for Area II is provided in Appendix A. A photographic log is presented in Appendix C.

3.5.3 Area III

At the time of the inspection, Area III was vacant and in compliance with the EC/ICs. The completed Institutional Control Certification form for Area III is provided in Appendix A. A photographic log is presented in Appendix C.

3.5.4 Former August Feine Parcel

At the time of the inspection, the former August Feine parcel was vacant. There are no EC/ICs associated with this parcel; therefore an Institutional Control Certification form was not completed. A photographic log is presented in Appendix C.

3.6 Abby & Baraga Streets Surface Drainage System Assessment

Although not a component of the Area II SMP and/or EC/ICs as well as occurring outside the current PRR reporting period, an explanation of the recent assessment and flushing activities of the Abby and Baraga Streets surface drainage system has been included in this PRR per a NYSDEC request. Any future assessments and/or flushing activities will also be presented in all annual PRRs going forward. A brief background and description of recent field activities is presented below.

3.6.1 Background

The surface drainage system at the Riverbend Site has three components, two Abby Street drains (Abby-West and Abby-East) and the Baraga Street drain lateral (Baraga lateral), as shown in Figure 3. The Abby-West drain (approximately 470 feet long) and the Baraga lateral (approximately 82 feet long) are both 6-inch perforated, corrugated collection pipes wrapped with filter fabric and backfilled with washed No. 2 stone. The Abby-West drain flows toward the south and the Baraga lateral to the east; both empty into the Baraga Street manhole at the intersection of Abby and Baraga Streets. The Abby-West drain has been in

place since 1998 and the Baraga lateral since 2000. In addition, the Abby-East drain, a 4-inch perforated, corrugated collection pipe backfilled with washed No. 2 stone, was installed from the O'Conner Street manhole approximately 182 feet north (see Figure 3). The Abby-East drain and two nearby drop inlets (north and south) empty into the O'Conner Street manhole. The Abby-East and Abby-West drains are not connected and operate independently of each other.

The surface drainage system was installed to mitigate breakout of calcium-rich surface water resulting from the underlying slag and lime materials in the vicinity of the berm along Abby Street. Since 1998, the drainage system has functioned as intended, but has required periodic maintenance and repair to remedy clogs due to calcium and sediment build-up and, most recently, damage from heavy snow removal equipment.

3.6.2 Drain System Assessment/Flushing

In March 2011 and in response to complaints received by the NSYDEC of ponding water along Abby Street, TurnKey personnel attempted to flush the Abby-East drain and discovered that it was damaged (approximately 30 feet north of the O'Conner Street manhole) and required repair. Subsequently, TurnKey personnel excavated and repaired approximately 25-feet of the Abby-East drain pipe in that area. Immediately following this repair, water was observed flowing into the O'Conner Street manhole and the drain function appeared to be restored.

In April 2011 and in response to additional complaints received by the NSYDEC of ponding water along Abby Street, TurnKey personnel, with support from a local sewer subcontractor, performed the surface drainage assessment and flushing of the entire Abby and Baraga Streets drainage system. The Abby-East drain was video inspected and found to be free of any obstructions or damage with an observed free-flow of water into of the O'Conner Street manhole; therefore, flushing of the Abby-East drain was not necessary. Although video inspection of the Abby-West and Baraga Street lateral drains was obscured by standing water, sediment, and calcium deposit build-up, each drain was successfully flushed with high-pressure water. Observations of water, sediment, and calcium deposits flowing freely through the Baraga Street manhole during and after flushing activities indicated that the drain system was returned to normal function. Annual assessments are planned.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations are as follows:

- At the time of the site inspection, the Site was in compliance with the Engineering and Institutional Controls (EC/ICs), including: groundwater monitoring, leachate collection and pump and treat system, containment cell, ORC monitoring, product removal monitoring, and operational maintenance, groundwater use restriction, land use restriction, O&M plan, and soil/fill management plan.

- Minor fence damage was noted in Areas I and II. The fence damages are currently being addressed, and fencing repairs are expected to be completed by September 1, 2011. The Department will be notified upon completion of the repairs.

- Based on the high probability for snow/ice cover remaining on-Site in April, it is recommended that the PRR reporting period and due date be changed from May 1st to June 1st. This later date would assure no hindrance at the site inspection due to snow or ice cover.

- Based upon an evaluation of operations and maintenance (O&M) procedures and analytical data from 2007 to the present, it is our intention to modify the O&M, monitoring, and reporting requirements for Areas I, II, and III at the Riverbend Site immediately upon your approval. Our April 25, 2011 modification request letter (see Appendix F) details our justifications for the proposed modifications which are briefly summarized below:

    - reduce the frequency of Area II groundwater pre-treatment system (GWPTS) on-site visits by utilizing off-site remote monitoring via the internet;

    - reduce the Area II O&M reporting frequency from quarterly (four times per year) to annually;

    - modify the groundwater parameter lists of Areas I, II, and III by eliminating those parameters no longer relevant to the assessment of Site groundwater quality; and

    - modify the current purging requirement from 10 well volumes (or 4 days, whichever occurs first) to low-flow sampling of the eleven oxygen release compound (ORC) wells in Area III.

5.0 DECLARATION/LIMITATION

TurnKey Environmental Restoration, LLC in association with Benchmark Environmental Engineering and Science, PLLC, personnel conducted the annual site inspections for Voluntary Cleanup Program Site No. V00619, located in Buffalo, New York, according to generally accepted practices. This report complied with the scope of work provided to Riverbend, LLC by TurnKey Environmental Restoration, LLC.

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

6.0 REFERENCES

1. *Site Management Plan for AREA I (former Republic (LTV) Steel Parcel), Steelfields Site, Buffalo, NY (NYSDEC Site # V00619-9),* dated April 2007, prepared by TurnKey Environmental Restoration, LLC and Benchmark Environmental Engineering and Science, PLLC.

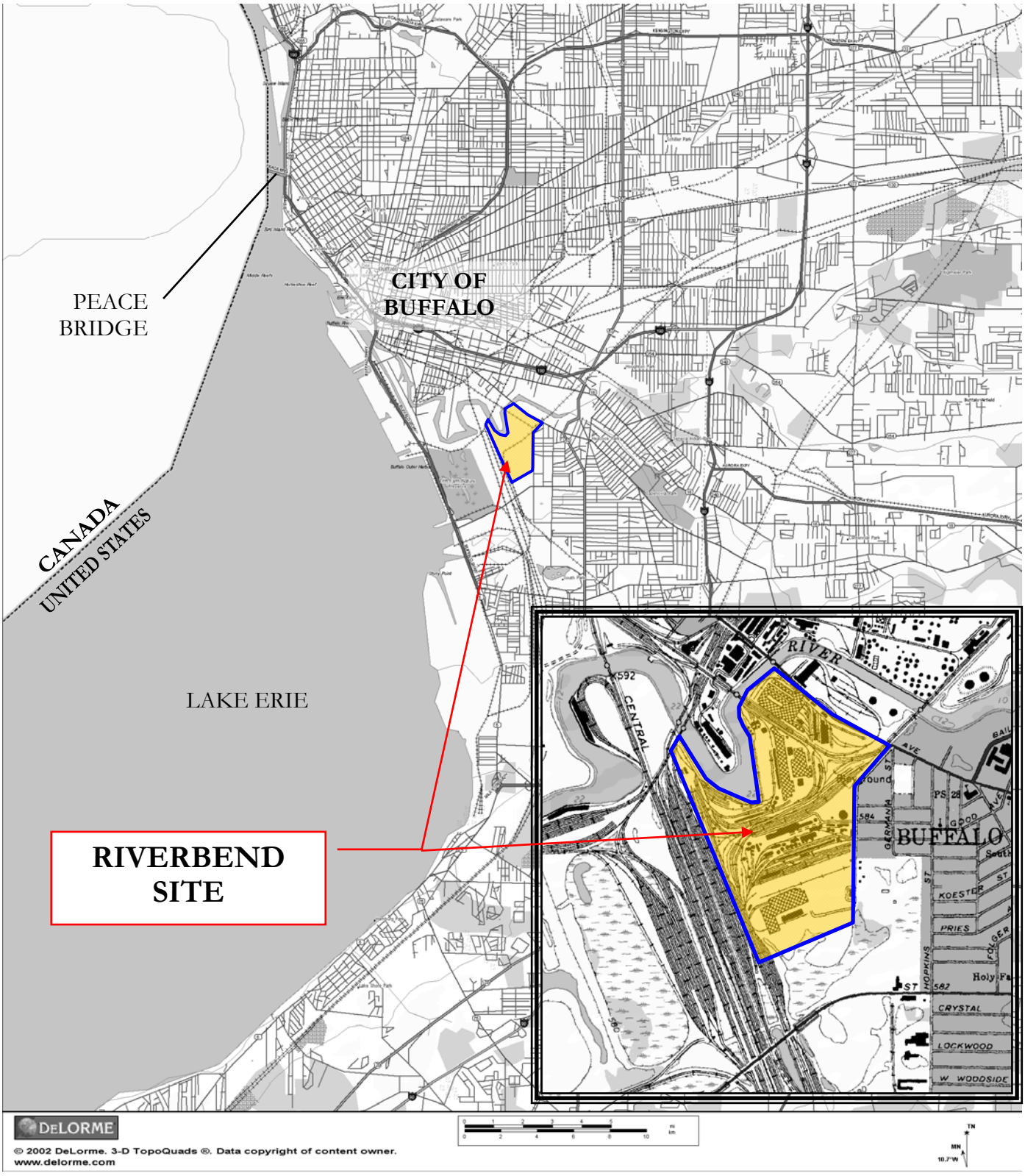
2. *Final Engineering Report for Areas II & III, Former Donner-Hanna Coke Plant and Republic (LTV) Steel Properties, Steelfields Site Buffalo, NY (NYSDEC Site #V00133-9), Appendices GG – Area II,* dated May 2008, prepared by Malcolm Pirnie.

3. *Final Engineering Report for Areas II & III, Former Donner-Hanna Coke Plant and Republic (LTV) Steel Properties, Steelfields Site Buffalo, NY (NYSDEC Site #V00133-9), Appendices HH – Area III,* dated May 2008, prepared by Malcolm Pirnie.

4. New York State Department of Environmental Conservation. *DER-10; Technical Guidance for Site Investigation and Remediation.* May 2010.

FIGURES

FIGURE 1



TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

PROJECT NO.: 0171-006-500

DATE: APRIL 2011

DRAFTED BY: BCH

SITE VICINITY AND LOCATION MAP

PERIODIC REVEIW REPORT

RIVERBEND SITE
BUFFALO, NEW YORK

PREPARED FOR
RIVERBEND, LLC

F:\CAD\Turnkey\Riverbend (Donnelly Dock#8&9)\PRR\Figure 2 - Site Plan (Apr8 2011).dwg

LEGEND:

- PROPERTY BOUNDARY OF AREAS I, II, & III
- APPROX. TAR & BLUE SOIL/FILL EXCAVATION LIMITS
- A1-MW-2 NETWORK MONITORING WELL
- A1-MW-7 NETWORK MONITORING WELL (WATER LEVEL ONLY)
- A1-MW-K2 NON-NETWORK MONITORING WELL
- A3-ORC-1 ORC SOCK WELL
- A3-SVE-2 SVE WELL
- A2-P-1 NON-NETWORK PIEZOMETER
- PS1 GROUNDWATER COLLECTION PUMP STATION
- SG-01 BUFFALO RIVER STAFF GAUGE LOCATION
- A4-MW-5R OFF-SITE MONITORING WELL
- SLURRY WALL
- GROUNDWATER COLLECTION TRENCH
- FORCEMAIN
- EXISTING 48" CONCRETE PIPE
- LIMITS OF CONTAINMENT CELL

BUFFALO RIVER

AREA I
(FORMERLY REPUBLIC STEEL PLANT PARCEL)
(± 90.6 ACRES)

AREA II
(FORMERLY DONNER-HANNA COKE PLANT PARCEL)
(± 53.0 ACRES)

AREA III
(FORMERLY REPUBLIC STEEL WAREHOUSE PARCEL)
(± 43.2 ACRES)

HYDRO-AIR
(FORMERLY DONNER-HANNA COKE YARD PARCEL)
(FORMERLY AREA IV)
(± 31.1 ACRES)

NORFOLK SOUTHERN PROPERTY
(± 24.9 ACRES)

FMR. AUGUST FEINE & SONS, CO.
(± 4.7 ACRES)

BERM AREA

GWPTS BUILDING

AREA II CONTAINMENT CELL

SLURRY WALL

FORCE-MAIN

GROUNDWATER COLLECTION TRENCH

TERMINAL BASIN

DETENTION POND

PLANT AREA
140,000 S.F.

FUTURE EXPANSION
100,000 S.F.

40 SPACES

122 SPACES

40 SPACE EXPANSION

110 SPACES

20' WIDE ACCESS ROAD

FMR. HOOD INDUSTRIES

SOUTH BUFFALO & BUFFALO / PITTSBURGH RAILROAD

NORFOLK SOUTHERN RAILROAD

BUFFALO SOUTHERN RAILROAD

CSX RAILROAD

N

200' 0' 200' 400'

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

TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0171-006-500

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH
DATE: APRIL 2011
CHECKED BY:
APPROVED BY:

SITE PLAN

PERIODIC REVIEW REPORT
RIVERBEND SITE
BUFFALO, NEW YORK

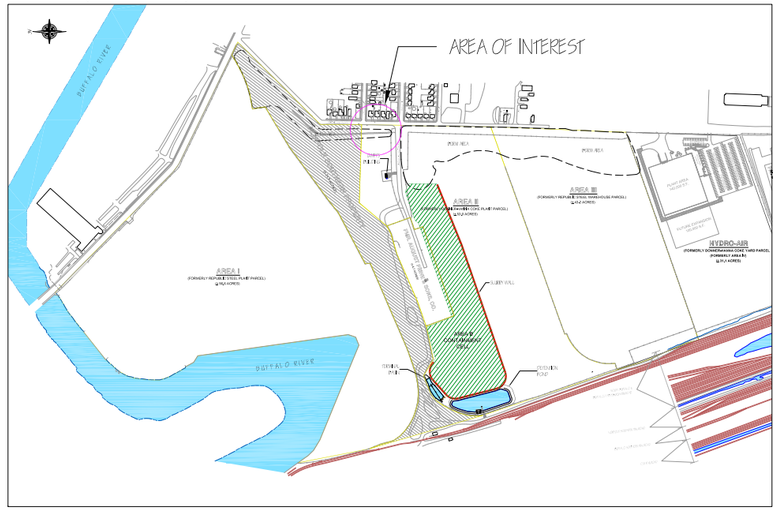
PREPARED FOR:
RIVERBEND, LLC

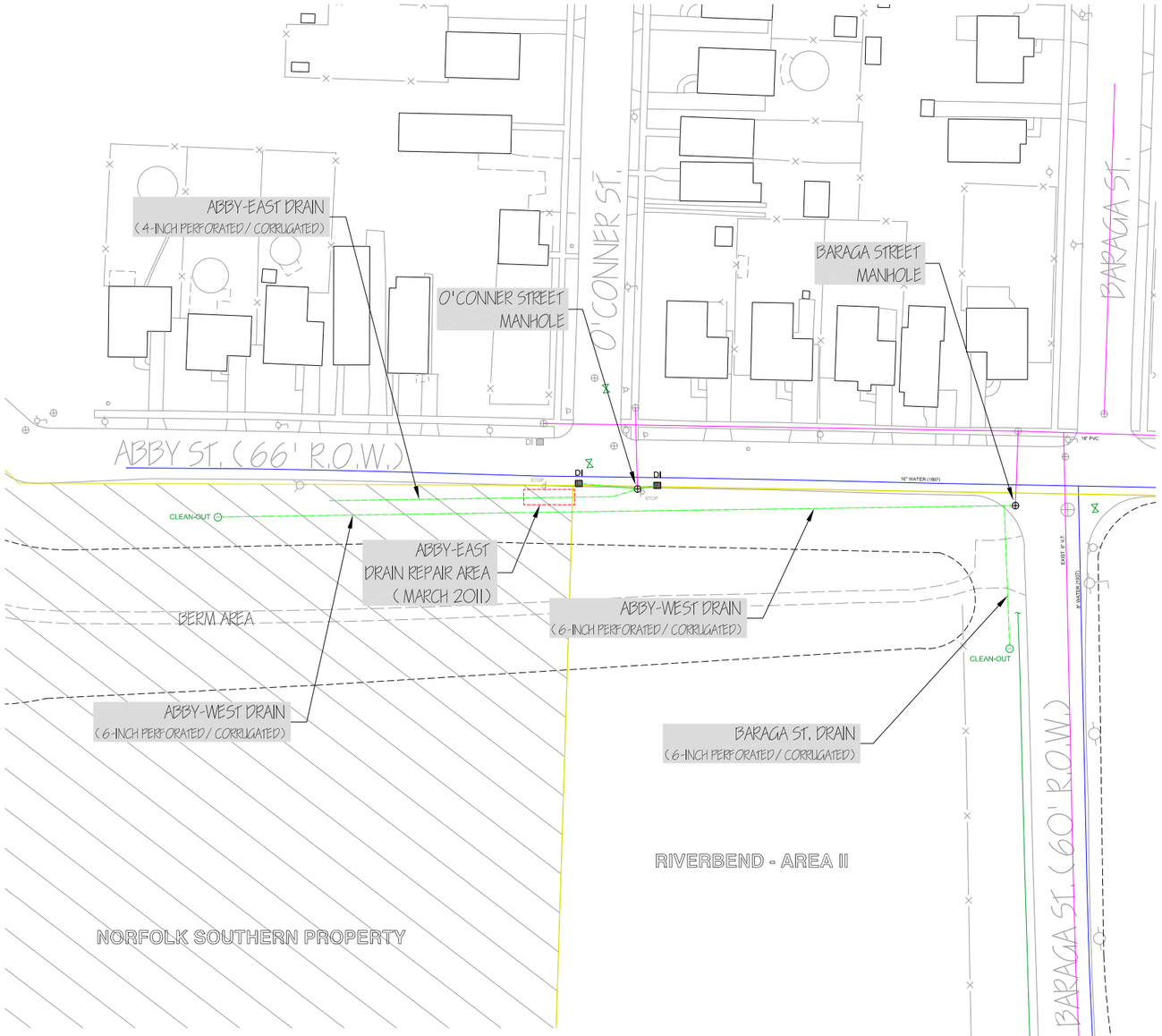
FIGURE 2

F:\CAD\TurnKey\Riverbend (formerly Steelfields)\PRR\Figure 3- Abby Street Drain Site Sketch.dwg

SITE PLAN:

SCALE (APPROX.): 1" = 1200'





LEGEND:

- PROPERTY BOUNDARY OF AREAS I, II, & III
- RAILROAD
- SLURRY WALL
- FORCEMAIN
- SANITARY SEWER LINES (APPROX.)
- WATER LINES (APPROX.)
- GAS LINES (APPROX.)
- MANHOLE
- DI DROP INLET
- A1-MW-2 MONITORING WELL

DATE: APRIL 2011
DRAFTED BY: BCH

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

TurnKey Environmental Restoration, LLC

JOB NO.: 0171-006-500

ABBEY STREET DRAIN SITE SKETCH

PERIODIC REVIEW REPORT

RIVERBEND SITE
BUFFALO, NEW YORK

PREPARED FOR
RIVERBEND, LLC

FIGURE 3

APPENDIX A

SITE INSPECTION FORMS

(PROVIDED ELECTRONICALLY)

AREA I

Enclosure 1
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. **V00619**

Site Name Steelfields (aka Riverbend, LLC)

Site Address: 304 Abby Street Zip Code: 14220
City/Town: Buffalo
County: Erie
Site Acreage: 182.0

Reporting Period: March 02, 2009 to April 01, 2011

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

Box 2

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

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM.

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

certification form.

AREA II

Enclosure 1
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. **V00619**

Site Name Steelfields (aka Riverbend, LLC)

Site Address: 304 Abby Street Zip Code: 14220
City/Town: Buffalo
County: Erie
Site Acreage: 182.0

Reporting Period: March 02, 2009 to April 01, 2011

	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.

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

certification form.

AREA III

Enclosure 1
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. **V00619**

Site Name Steelfields (aka Riverbend, LLC)

Site Address: 304 Abby Street Zip Code: 14220
City/Town: Buffalo
County: Erie
Site Acreage: 182.0

Reporting Period: March 02, 2009 to April 01, 2011

	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.

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

SITE NO. V00619 Box 3

Description of Institutional Controls

Parcel	Owner	Institutional Control
122.20-1-21	Buffalo Urban Development Corporation	Ground Water Use Restriction Landuse Restriction O&M Plan Soil Management Plan
122.20-1-3.1	Buffalo Urban Development Corporation	Ground Water Use Restriction Landuse Restriction Soil Management Plan
122.20-1-5.1	Buffalo Urban Development Corporation	Ground Water Use Restriction Landuse Restriction O&M Plan Soil Management Plan
132.08-1-6	Buffalo Urban Development Corporation	Ground Water Use Restriction Landuse Restriction O&M Plan Soil Management Plan
132.08-1-7	Buffalo Urban Development Corporation	Ground Water Use Restriction Landuse Restriction O&M Plan Soil Management Plan
122.16-1-8.1	Buffalo Urban Development Corporation	Ground Water Use Restriction Landuse Restriction Soil Management Plan
132.12-1-9.11	Buffalo Urban Development Corporation	Ground Water Use Restriction Landuse Restriction O&M Plan Soil Management Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
122.20-1-21	Cover System Fencing/Access Control Groundwater Containment Leachate Collection Pump & Treat
122.20-1-3.1	Cover System Fencing/Access Control Groundwater Containment Leachate Collection Pump & Treat
122.20-1-5.1	Cover System Fencing/Access Control Groundwater Containment Leachate Collection Pump & Treat
132.08-1-6	Cover System Fencing/Access Control

Parcel	Engineering Control
	Groundwater Containment
	Leachate Collection
	Pump & Treat
132.08-1-7	
	Cover System
	Fencing/Access Control
	Groundwater Containment
	Leachate Collection
	Pump & Treat
122.16-1-8.1	
	Cover System
	Fencing/Access Control
	Groundwater Containment
	Leachate Collection
	Pump & Treat
132.12-1-9.11	
	Cover System
	Fencing/Access Control
	Groundwater Containment
	Leachate Collection
	Pump & Treat

Control Description for Site No. V00619

Parcel: 122.16-1-8.1
Area I: Maintain vegetative cover, land use restriction, fencing, groundwater use prohibition, soil/fill management, SVI evaluation or installation of vapor mitigation system before buildout. (8/16/07)

Parcel: 122.20-1-21
Area II: Maintain vegetative cover until buildout whereupon one foot of clean cover or alternative with a demarcation layer is required, O&M of groundwater pre-treatment plant, O&M of containment cell, land use restriction, fencing, groundwater use prohibition, soil/fill management, SVI evaluation or installation of vapor mitigation system before buildout. (5/21/08)

Parcel: 122.20-1-3.1
Area I: Maintain vegetative cover, land use restriction, fencing, groundwater use prohibition, soil/fill management, SVI evaluation or installation of vapor mitigation system before buildout. (8/16/07)

Parcel: 122.20-1-5.1
Area II: Maintain vegetative cover until buildout whereupon one foot of clean cover or alternative with a demarcation layer is required, O&M of groundwater pre-treatment plant, O&M of containment cell, land use restriction, fencing, groundwater use prohibition, soil/fill management, SVI evaluation or installation of vapor mitigation system before buildout. (5/21/08)

Parcel: 132.08-1-6
Area II: maintain vegetative cover until buildout whereupon one foot of clean cover or alternative with a demarcation layer is required, O&M of groundwater pre-treatment plant, O&M of containment cell, land use restriction, fencing, groundwater use prohibition, soil/fill management, SVI evaluation or installation of vapor mitigation system before buildout. (5/21/08)

Parcel: 132.08-1-7
Area III: Maintain vegetative cover (limited area sampling required before buildout, failure to meet SSALs would require one foot of clean cover or alternative with a demarcation layer), O&M of passive groundwater treatment, land use restriction, fencing, groundwater use prohibition, soil/fill management, SVI evaluation or installation of vapor mitigation system before buildout. (5/21/08)

Parcel: 132.12-1-9.11
Area III: Maintain vegetative cover (limited area sampling required before buildout, failure to meet SSALs would require one foot of clean cover or alternative with a demarcation layer), O&M of passive groundwater treatment, land use restriction, fencing, groundwater use prohibition, soil/fill management, SVI evaluation or installation of vapor mitigation system before buildout. (5/21/08)

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.

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. V00619

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 2 and/or 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 Peter M. Cammarata (print name) at 143 Genesee St., Buffalo, NY 14203 (print business address)

am certifying as Owner (Owner or Remedial Party)

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

Peter M. Cammarata
Signature of Owner or Remedial Party Rendering Certification

4/25/11
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 Paul H. Werthman (print name) at 2558 Hamburg Turnpike, Ste 300 Buffalo NY 14218 (print business address)

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

STATE OF NEW YORK
PAUL H. WERTHMAN
LICENSED PROFESSIONAL ENGINEER
57626

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

Stamp (Required for PE)

5/2/11
Date

APPENDIX B

AREA II
GWPTS REPORTS

(PROVIDED ELECTRONICALLY)

APPENDIX B-1

GWPTS QUARTERLY PROGRESS REPORTS

PROGRESS REPORT NO. 3; PERIOD ENDING MARCH 31, 2009
PROGRESS REPORT NO. 4; PERIOD ENDING JULY 1, 2009
PROGRESS REPORT NO. 5; PERIOD ENDING SEPTEMBER 18, 2009
PROGRESS REPORT NO. 6; PERIOD ENDING DECEMBER 29, 2009

PROGRESS REPORT NO. 7; PERIOD ENDING MARCH 31, 2010
PROGRESS REPORT NO. 8; PERIOD ENDING JUNE 30, 2010
PROGRESS REPORT NO. 9; PERIOD ENDING SEPTEMBER 30, 2010
PROGRESS REPORT NO. 10; PERIOD ENDING DECEMBER 31, 2010

PROGRESS REPORT NO. 11; PERIOD ENDING MARCH 31, 2011

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 3
REPORTING PERIOD ENDING March 31, 2009

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress report covers 3 months of the operation and maintenance of the GWPTS from (1/1/09 through 3/31/09). Future progress reports will continue to be submitted quarterly.

1.0 Treatment Statistics

- Approximately 3,771,217 gallons of collected groundwater were treated over this period averaging 41902 gallons per day.
- System was operational for 94 % of the time.
- System was down for 6 % of the time.
- Reason for down time: regular maintenance.

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration head vessel back-washing : 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Drained the influent vessel, vacuumed the sediment out of the vessel and cleaned the vessel on February 16th, 2009
- Cleaned the flow meter and pumps on February 27th thru February 30th, 2009
- Annual inspection and certification completed in January 2009

3.0 Work Planned

- Carbon change-out scheduled for April 17, 2009
- Continued regular maintenance

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 3
REPORTING PERIOD ENDING March 31, 2009

4.0 Additional Notes/Issues

- Due to the maintenance listed above, the system was shut-down for maintenance from February 13th thru the 14th, 2009 and March 27th thru the 30th 2009.
- The entire GWPTS has been connected via the internet, and is thus remotely monitored "real-time" throughout the day from the Benchmark/TurnKey office. This allows a very dynamic and pro-active operation of the entire system.

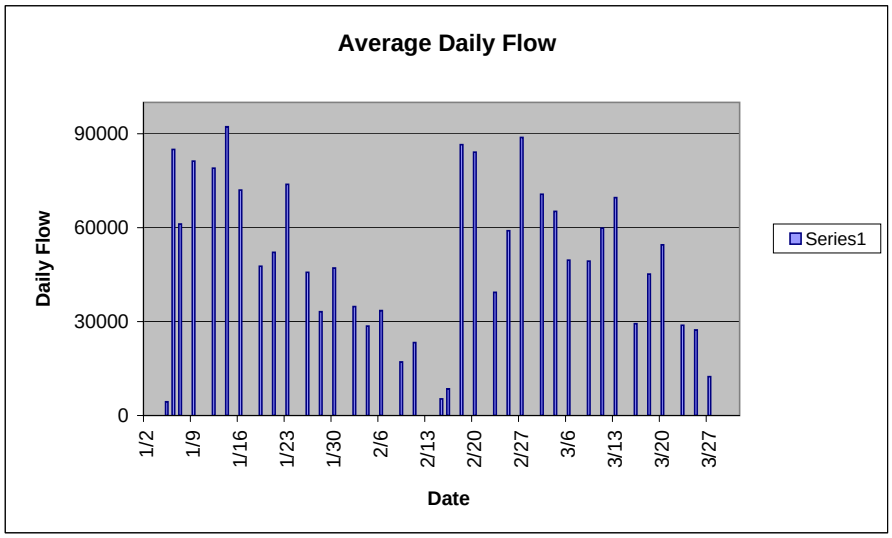
5.0 Attachments/Logs

- Bag Filter Change-out Log 12-19-08 through 4-14-09
- Carbon Filter Backwash Log 12-19-08 through 4-14-09
- Maintenance Log
- Graph of Daily Operation

ATTACHMENT 1

MONITORED FLOWS VS. TIME

Date	Total Flow	Daily Avg
12/31/2009	5817654	
1/2/2009	5832958	-42
1/5/2009	5846194	4412
1/6/2009	5931194	85000
1/7/2009	5992370	61176
1/9/2009	6154837	81234
1/12/2009	236934	78978
1/14/2009	421417	92242
1/16/2009	565372	71978
1/19/2009	708337	47655
1/21/2009	812531	52097
1/23/2009	960223	73846
1/26/2009	1097387	45721
1/28/2009	1163720	33167
1/30/2009	1257962	47121
2/2/2009	1362373	34804
2/4/2009	1419482	28555
2/6/2009	1486506	33512
2/9/2009	1537897	17130
2/11/2009	1584493	23298
2/15/2009	1605689	5299
2/16/2009	1614213	8524
2/18/2009	1787239	86513
2/20/2009	1955482	84122
2/23/2009	2073488	39335
2/25/2009	2191495	59004
2/27/2009	2369072	88789
3/2/2009	2581045	70658
3/4/2009	2711492	65224
3/6/2009	2810721	49615
3/9/2009	2958645	49308
3/11/2009	3078284	59820
3/13/2009	3217477	69597
3/16/2009	3305524	29349
3/18/2009	3395895	45186
3/20/2009	3504909	54507
3/23/2009	3591429	28840
3/25/2009	3646082	27327
3/27/2009	3670947	12433
3/30/2009	3670947	0
3/31/2009	3670968	21



System shut down on 2/13/09 and 2/14/09 for maintenance
System restarted on 2/15/09
System shut down on 3/27/09 thru 3/30/09 for maintenance
System restarted on 3/31/09

Total Flow 3771217 gallons

Flows for January	1358211	gallons/month	Flows for February	1006699	gallons/month	Flows For March	1089923	gallons/month
	45273.7	gallons/day		35953.536	gallons/day		35158.81	gallons/day
	31.44007	gallons/min		24.967733	gallons/min		24.41584	gallons/min

ATTACHMENT 2

MAINTENANCE LOGS

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Steelfields, Ltd.
Project No.: 0062-008-500
Client: Steelfields, Ltd.

Date	Time	Total Filtered (gal)	Pressure Reading		technician
			Prior to Change	After Change	
~~2/23/2004~~	~~9:48 AM~~	~41,316	~~9.5~~	~~0.5~~	~~wjm/rd~~
12/9/08	3:05 pm	5475045	29	23	PLW
12/24/08	12:00 pm	5627696	30	24	PWW
12/26/08	10:00am	5776065	27	23	PLW
12/29/08	5pm	5791055	NA	26	PLW
12/31/08	3pm	5819654	29	27	PLW
1/2/09	10am	5832958	NA	25	PLW
1/5/09	2pm	5846194	30	26	PLW
1/6/09	7am	5931941	X	25	PLW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Steelfields, Ltd.
Project No.: 0062-008-500
Client: Steelfields, Ltd.

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
~~Tank 2~~	~~3/2/2004~~	~~9:48 AM~~	~~???~~	~~18.5~~	~~10~~	~~wjm/dl~~
TANK 1	12/17/08	3:05pm	5045	3	14	FWW
TANK 1	12/24/08	12:00	5627696	4	14	PWW
TANK 1	12/26/08	10:00am	5761065	3	13	PWW
TANK 1	12/28/08	5pm	5792055	NA	13	PWW
TANK 1	12/31/08	3pm	5817654	7	12	PWW
TANK 1	1/2/09	10am	5837958	NA	14	PWW
TANK 1	1/5/09	2pm	5846194	6	14	PWW
TANK 1	1/6/09	7am	5931194	NA	16	PWW

Waste Water Treatment Plant - LTV Steel
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Drain Tar Separator
		tank 1	tank 2	tank 1	tank 2	tank 1	tank 2	date
12/11/08	5475045	X		X	X	X		
12/24/08	5627696	X		X	X	X		
12/24/08	5761065	X		X	X	X		
12/28/08	5792055	X		X	X	X		
12/31/08	5817654	X		X	X	X		
1/2/09	5832958	X		X	X	X		
1/5/09	5846194	X		X	X	X		
1/6/08	5931194	X		X	X	X	X	

Waste Water Treatment Plant - LTV Steel
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Drain Tar Separator
		tank 1	tank 2	tank 1	tank 2	tank 1	tank 2	date
1/7/09	5992370	X		X	X	X	X	
1/9/09	6154837	X		X	X	X		
1/12/09	00236934	X		X	X	X	X	
1/14/09	00421417	X		X	X	X	X	
1/16/09	00565372	X		X	X	X		
1/19/09	00708337	X		X	X	X		
1/21/09	00812531	X		X	X	X		
1/23/09	00960223	X		X	X	X		
1/26/09	01097387	X		X	X	X		
1/28/09	01163720	X		X	X	X		
1/30/09	01257962	X		X	X	X	X	
2/2/09	01362373	X		X	X	X		
2/4/09	01419482	X		X	X	X		

1/9/08 Reset to 0

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
1/7/09	5:00pm	5992370	28	23	PWW
1/9/09	8:30am	6154837	24	23	PWW
1/12/09	7:00am	00236934	28	23	PWW
1/14/09	4pm	00421417	25	23	PWW
1/16/09	7am	00565372	NA	23	PWW
1/19/09	4pm	00708337	28	25	PWW
1/21/09	8:30	00812531	26	22	PWW
1/23/09	4:15	00960223	26	23	PWW
1/26/09	5:30	01097387	28	22	PWW
1/28/09	7:30	01163720	NA	22	PWW
1/30/09	3:30	01257962	NA	22	PWW
2/2/09	4:30	01362373	NA	22	PWW
2/4/09	10:30	01419482	NA	22	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 1	1/7/09	5:00pm	5992370	18	12	PWW
TANK 1	1/9/09	8:30am	6154837	13	10	PWW
TANK 1	1/12/09	7:00am	00236934	13	12	PWW
TANK 1	1/14/09	4pm	00421417	12	14	PWW
TANK 1	1/16/09	7am	00565372	NA	14	PWW
TANK 1	1/19/09	4pm	00708337	8	18	PWW
TANK 1	1/21/09	8:30	00812531	14	12	PWW
TANK 1	1/23/09	4:30	00960223	14	12	PWW
TANK 1	1/26/09	5:30	01097387	8	12	PWW
TANK 1	1/28/09	7:30	01163720	NA	11	PWW
TANK 1	1/30/09	3:30	01257967	NA	11	PWW
TANK 1	2/2/09	4:30	01362373	NA	12	PWW
TANK 1	2/4/09	10:30	01419482	NA	12	PWW

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change	Back Flush	Decant Oil Seperator
~~2/4/09~~	~~0141942~~	Tank 1	Tank 2	Tank 1	Tank 2	date
2/4/09	01419482	X		X	X	—
2/6/09	01486506	X		X	X	
2/9/09	01537897	X		X X	X	removed 55 gal drum
2/11/09	01584493	X		X X	X	
2/13/09	System Shut Down					
2/14/09						
2/15/09	1605689	X	~~X~~	X X	X X	—
2/16/09	1614213	X		X X	X X	—
2/18/09	01787239	X		X X	X X	—
2/20/09	01955482	X		X X	X	—
2/23/09	02073488	X		X X		
2/23/09	2191495	X		X X	X	—
2/27/09	02369072	X		X X	X X	—
3/2/09	02581045	X		X X	X	—
	02711492	X		X X	X X	—

Fix sheet

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
2/6/09	4:30	01486506	NA	27	PWW
2/9/09	8:00	01537897	NA	23	PWW
2/11/09	5pm	01584493	NA	23	PWW
2/15/09	10am	01605689	NA	25	PWW
2/16/09	4pm	01614213	NA	23	PWW
2/18/09	3:15pm	01787239	26	22	PWW
2/20/09	9am	01955492	NA	23	PWW
2/23/09	8am		NA	23	PWW
2/25/09	8:30am	02191495	27	23	PWW
2/27/09	8:30	02369072	25	23	PWW
3/2/09	5pm	02581045	25	23	PWW
3/4/09	9:30	02711492	25	23	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 1	2/6/09	4:30	01486506	NA	12	PWW
TANK 1	2/9/09	8:00	01537897	NA	12	PWW
TANK 1	2/11/09	5:30	01584493	NA	12	PWW
TANK 1	2/15/09	10 am	01605689	NA	13	PWW
TANK 1	2/16/09	4pm	01614213	NA	12	PWW
TANK 1	2/18/09	3:15	01787239	12	12	PWW
TANK 1	2/20/09	9 am	01955481	NA	12	PWW
TANK 1	2/23/09	8 am	02073488	NA	12	PWW
TANK 1	2/25/09	8:30	02191495	12	10	PWW
TANK 1	2/27/09	8:30	02367072	10	10	PWW
TANK 1	3/2/09	5pm	02581045	12	10	PWW
TANK 1	3/4/09	9:30	02711492	10	12	PWW

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
3/2/09	02581045	X		X	X	X	X	X
3/4/09	02711472	X		X	X	X		X
3/6/09	02810721	X		X	X	X		X
3/9/09	02958645	X		X	X			X
3/11/09	03078284	X		X	X	X	X	X
3/13/09	03217477	X		X	X	X		X
3/16/09	03305524	X		X	X	X		X
3/18/09	03395895	X		X	X	X		X
3/20/09	03504909	X		X	X	X		X
3/23/09	03591429							
3/25/09	03660662	X		X	X	X		X
3/27/09	03670947	X		X	X	X		X
3/30/09	03670947	X		X	X	X		X
3/31/09	03670968	X		X	X	X		X
4/1/09	03742408		X	X	X		X	X
4/3/09	03800562		X	X	X		X	X
4/6/09	03991215		X	X	X		X	X
4/8/09	04140480		X	X	X		X	X
4/10/09	04287929		X	X	X		X	X
4/14/09	04486828		X	X	X		X	X

3/30/09 9:30 03670948 Effluent 100% Empty

3/31/09 - backwashed system, cleaned flow meter, running on tank 2
need to change carbon in tank 1.

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
3/2/09	5pm	02581045	12	10	PWW
3/4/09	9:30 AM	02711492	10	12	PWW
3/6/09	7:30 AM	02810721	12	12	PWW
3/9/09	7:00 AM	02958645	14	10	PWW
3/11/09	6:30 pm	03078284	12	12	PWW
3/13/09	3pm	03217417	12	10	PWW
3/16/09	5pm	03305524	13	12	PWW
3/18/09	7am	03395895	8	10	PWW
3/20/09	7am	03504909	~~8~~ 10	~~8~~ 8	PWW
3/23/09	7am	03591429	8	8	PWW
3/25/09	7am	03646082	8	8	PWW
3/27/09	5pm	03670947	10	8	PWW
3/30/09	8am	03670946	10	8	PWW
3/31/09	8am	03670968	10	27	PWW
4/1/09	12:00pm	03742108	18	10	PWW
4/3/09	9:00	03860562	6	10	PWW
4/6/09	6:30pm	03991512	8	10	PWW
4/8/09	5:30pm	04140480	8	10	PWW
4/10/09	9am	04287929	10	10	PWW
4/14/09	8am	04486828	8	1	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 1	3/2/09	5pm	02580645	25	23	PWW
TANK 1	3/4/09	9:30	02711492	25	23	PWW
TANK 1	3/6/09	7:30	02807721	27	23	PWW
TANK 1	3/9/09	700 AM	02958645	26	23	PWW
TANK 1	3/11/09	6:30 pm	03078284	26	22	PWW
TANK 1	3/13/09	3 p.m	03217417	25	23	PWW
TANK 1	3/16/09	5pm	03305524	26	23	PWW
TANK 1	3/18/09	7am	03395895	25	24	PWW
TANK 1	3/20/09	7am	03504909	25	24	PWW
TANK 1	3/23/09	7am	03591429	25	25	PWW
TANK 1	3/25/09	7am	03646082	27	25	PWW
TANK 1	3/27/09	5pm	03670947	26	25	PWW
TANK 1	3/30/09	8am	03670948	28	27	PWW
TANK 2	3/31/09	8am	03670968	28	25	PWW
TANK 2	4/1/09	12:00	03742108	26	18	PWW
TANK 2	4/3/09	9:00	03860562	26	17	PWW
TANK 2	4/6/09	6:30 pm	03991517	28	18	PWW
TANK 2	4/8/09	5:30 pm	04140480	27	19	PWW
TANK 2	4/10/09	9am	04287929	24	18	PWW
TANK 2	4/14/09	8am	04486828	25	18	PWW

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 4
REPORTING PERIOD ENDING July 1, 2009

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress report covers 3 months of the operation and maintenance of the GWPTS from (4/1/09 through 7/1/09).

1.0 Treatment Statistics

- Approximately 2,636,024 gallons of collected groundwater were treated over this period averaging 28967.3 gallons per day.
- System was operational for 95 % of the time.
- System was down for 5 % of the time.
- Reason for down time: Complications with adjacent property fire and demolition

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration head vessel back-washing : 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Cleaned the flow meter and pumps on July 1st, 2009
- Emptied Separator and drummed tar
- Additional effort for more frequent bag filter changing and backwashing

3.0 Work Planned

- Carbon change-out scheduled for September 21, 2009
- Continued regular maintenance

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 4
REPORTING PERIOD ENDING July 1, 2009

4.0 Additional Notes/Issues

- Adjacent fire and subsequent building demolition impacted the treatment building by adding large amounts of water during fire suppression efforts. This additional water will continue to gradually be treated by the system but has added the need for additional bag filter change outs, separator cleanings and other maintenance items.

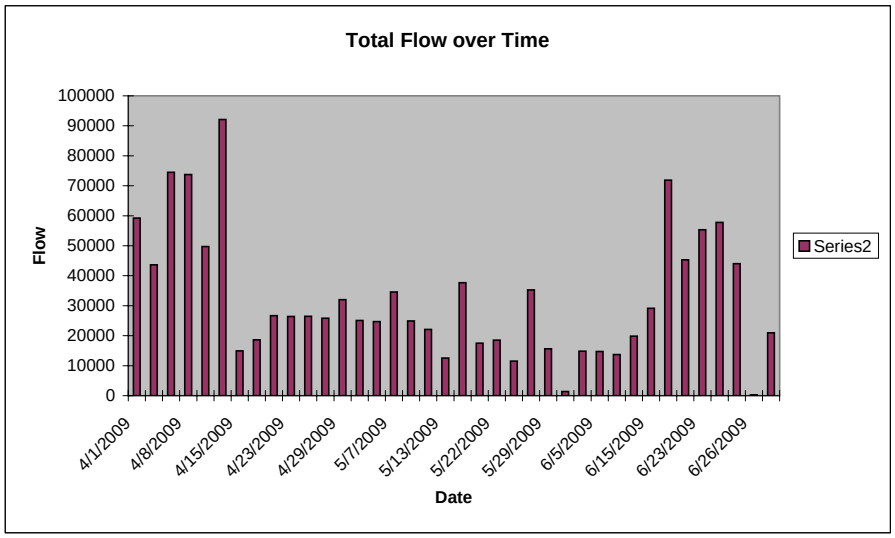
5.0 Attachments/Logs

- Bag Filter Change-out Log 3-2-09 through 7-21-09
- Carbon Filter Backwash Log 3-2-09 through 7-21-09
- Maintenance Log
- Graph of Daily Operation

ATTACHMENT 1

MONITORED FLOWS VS. TIME

Date	Total Flow	Daily Avg
4/1/2009	3742108	
4/3/2009	3860562	59227
4/6/2009	3991512	43650
4/8/2009	4140480	74484
4/10/2009	4287929	73725
4/14/2009	4486828	49725
4/15/2009	4578920	92092
4/17/2009	4608855	14968
4/20/2009	4664690	18612
4/23/2009	4744782	26697
4/24/2009	4771210	26428
4/27/2009	4850544	26445
4/29/2009	4902168	25812
5/1/2009	4966232	32032
5/5/2009	5066506	25069
5/7/2009	5115909	24702
5/8/2009	5150512	34603
5/11/2009	5225260	24916
5/13/2009	5269391	22066
5/17/2009	5319615	12556
5/20/2009	5432583	37656
5/22/2009	5467600	17509
5/26/2009	5541634	18509
5/28/2009	5564739	11553
5/29/2009	5600002	35263
6/1/2009	5646846	15615
6/3/2009	5649611	1383
6/5/2009	5679273	14831
6/8/2009	5723398	14708
6/12/2009	5778295	13724
6/15/2009	5837820	19842
6/18/2009	5925196	29125
6/19/2009	5997091	71895
6/23/2009	6178224	45283
6/24/2009	6233572	55348
6/25/2009	6291342	57770
6/26/2009	6335378	44036
6/29/2009	6336147	256
7/1/2009	6378132	20993



Total Flow 2636024 gallons

Flows for April	1160060	gallons/month	Flows for May	680614	gallons/month	Flows For June	731286.00	gallons/month
	38668.67	gallons/day		21955.29	gallons/day		24376.2	gallons/day
	26.85324	gallons/min		15.246729	gallons/min		16.927917	gallons/min

ATTACHMENT 2

MAINTENANCE LOGS

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
3/2/09	02581045	X		X	X	X	X	X
3/4/09	02711472	X		X	X	X		X
3/6/09	02810721	X		X	X	X		X
3/9/09	02958645	X		X	X			X
3/11/09	03078284	X		X	X	X	X	X
3/13/09	03217477	X		X	X	X		X
3/16/09	03305524	X		X	X	X		X
3/18/09	03395895	X		X	X	X		X
3/20/09	03504909	X		X	X	X		X
3/23/09	03591429							
3/25/09	03660662	X		X	X	X		X
3/27/09	03670947	X		X	X	X		X
3/30/09	03670947	X		X	X	X		X
3/31/09	03670968	X		X	X	X		X
4/1/09	03742408		X	X	X		X	X
4/3/09	03800562		X	X	X		X	X
4/6/09	03991215		X	X	X		X	X
4/8/09	04140480		X	X	X		X	X
4/10/09	04287929		X	X	X		X	X
4/14/09	04486828		X	X	X		X	X

3/30/09 9:30 03670948 Effluent 100% Empty

3/31/09 - backwashed system, cleaned flow meter, running on tank 2
need to change carbon in tank 1.

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
3/2/09	5pm	02581045	12	10	PWW
3/4/09	9:30 AM	02711492	10	12	PWW
3/6/09	7:30 AM	02810721	12	12	PWW
3/9/09	7:00 AM	02958645	14	10	PWW
3/11/09	6:30 pm	03078284	12	12	PWW
3/13/09	3pm	03217417	12	10	PWW
3/16/09	5pm	03305524	13	12	PWW
3/18/09	7am	03395895	8	10	PWW
3/20/09	7am	03504909	~~8~~ 10	~~8~~ 8	PWW
3/23/09	7am	03591429	8	8	PWW
3/25/09	7am	03646082	8	8	PWW
3/27/09	5pm	03670947	10	8	PWW
3/30/09	8am	03670946	10	8	PWW
3/31/09	8am	03670968	10	27	PWW
4/1/09	12:00pm	03742108	18	10	PWW
4/3/09	9:00	03860562	6	10	PWW
4/6/09	6:30pm	03991512	8	10	PWW
4/8/09	5:30pm	04140480	8	10	PWW
4/10/09	9am	04287929	10	10	PWW
4/14/09	8am	04486828	8	1	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 1	3/2/09	5pm	02580645	25	23	PWW
TANK 1	3/4/09	9:30	02711492	25	23	PWW
TANK 1	3/6/09	7:30	02807721	27	23	PWW
TANK 1	3/9/09	700 AM	02958645	26	23	PWW
TANK 1	3/11/09	6:30 pm	03078284	26	22	PWW
TANK 1	3/13/09	3 p.m	03217417	25	23	PWW
TANK 1	3/16/09	5pm	03305524	26	23	PWW
TANK 1	3/18/09	7am	03395895	25	24	PWW
TANK 1	3/20/09	7am	03504909	25	24	PWW
TANK 1	3/23/09	7am	03591429	25	25	PWW
TANK 1	3/25/09	7am	03646082	27	25	PWW
TANK 1	3/27/09	5pm	03670947	26	25	PWW
TANK 1	3/30/09	8am	03670948	28	27	PWW
TANK 2	3/31/09	8am	03670968	28	25	PWW
TANK 2	4/1/09	12:00	03742108	26	18	PWW
TANK 2	4/3/09	9:00	03860562	26	17	PWW
TANK 2	4/6/09	6:30 pm	03991517	28	18	PWW
TANK 2	4/8/09	5:30 pm	04140480	27	19	PWW
TANK 2	4/10/09	9am	04287929	24	18	PWW
TANK 2	4/14/09	8am	04486828	25	18	PWW

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
4/15/09	04578920		X	X	X		X	X
4/16/09	04608855		X	X	X		X	X
4/20/09	04664690		X	X	X	X	X	X
4/23/09	04744782		X	X	X		X	X
4/24/09	04771210		X	X	X	X	X	X
4/27/09	04850544		X	X	X		X	X
4/29/09	04902168		X	X	X	X	X	X
5/1/09	04966232		X	X	X		X	X
5/5/09	05066506		X	X	X		X	X
5/7/09	05115909		X	X	X		X	X
5/8/09	05150512		X	X	X	X	X	X
5/11/09	05225260		X	X	X		X	X
5/13/09	05269391		X	X	X		X	X
5/17/09	05319615		X	X	X	X	X	X
5/20/09	05432583		X	X	X		X	X
5/22/09	05467600		X	X	X	X	X	X
5/26/09	05541634		X	X	X		X	X
5/28/09	05564739		X	X	X	X	X	X
5/29/09	05600052		X	X	X		X	X
6/1/09	05646846		X	X	X	X	X	X
					X			

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 2	4/5/09	3:30pm	04578920	~~NA~~ 8	10	PWW
TANK 2	4/17/09	4:30	04608855	NA	10	PWW
TANK 2	4/20/09	7:30	04664690	NA	8	PWW
TANK 2	4/23/09	10:30	04744782	NA	6	PWW
TANK 2	4/24/09	8:30	04771210	NA	10	PWW
TANK 2	4/27/09	8:30	04850544	NA	8	PWW
TANK 2	4/29/09	7:00	04902168	NA	9	PWW
TANK 2	5/1/09	7:00	04966232	9	8	PWW
TANK 2	5/5/09	7:30	05066506	NA	12	PWW
TANK 2	5/7/09	7:30	05115909	10	8	PWW
TANK 2	5/8/09	5pm	05150512	NA	10	PWW
TANK 2	5/11/09	6pm	05225260	10	9	PWW
TANK 2	5/13/09	5pm	05269391	—	10	PWW
TANK 2	5/18/09	3pm	05319615	10	10	PWW
TANK 2	5/20/09	5pm	05432593	11	10	PWW
TANK 2	5/22/09	10am	05467600	NA	10	PWW
TANK 2	5/26/09	9am	05541634	12	12	PWW
"	5/28/09	5pm	05544739	NA	12	PWW
"	5/29/09	6:40	05600002	NA	R	PWW
"	6/1/09	4pm	05646846	NA	12	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Date	Time	Total Filtered (gal)	Pressure Reading		technician
			Prior to Change	After Change	
4/15/09	3:30	04578920	25	22	PWW
4/17/09	4:30	04608855	NA	21	PWW
4/21/09	7:30	04664690	NA	21	PWW
4/23/09	10:30	04744782	NA	23	PWW
4/24/09	8:30	04771210	NA	21	PWW
4/27/09	8:30	04850544	NA	21	PWW
4/29/09	7:00	04902168	NA	21	PWW
5/1/09	7:00	04966232	23	21	PWW
5/5/09	7:30	05066506	NA	21	PWW
5/7/09	7:30	05115909	23	22	PWW
5/8/09	5pm	05150512	NA	22	PWW
5/11/09	6pm	05225260	24	22	PWW
5/13/09	5pm	05269391	NA	22	PWW
5/15/09	3pm	05319615	24	23	PWW
5/20/09	5pm	05432585	26	23	PWW
5/22/09	10pm	05467600	NA	25	PWW
5/26/09	9am	05541634	25	24	PWW
5/28/09	5pm	05564737	NA	25	PWW
5/29/09	5pm	05600007	NA	25	PWW
6/1/09	4pm	05646846	NA	25	PWW

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
6/3/09	05649611		X	X	X		X	X
6/5/09	05679273		X	X	X	X	X	X
6/8/09	05723398		X	X	X		X	X
6/12/09	05778295		X	X	X	X	X	X
6/15/09	05837820		X	X	X		X	X
6/18/09	05925196		X	X	X		X	X
6/19/09	05997091		X	X	X		X	X
6/23/09	06178224		X	X	X	X	X	X
6/24/09	06233572		X	X	X		X	X
6/25/09	06291342		X	X	X		X	X
6/26/09	06355378		X	X	X	X	X	X
6/29/09	06336497		X	X	X		X	X
7/1/09	06378132		X	X	X	X	X	X
7/2/09	06380772		X	X	X	X	X	X
7/7/09	06382076		X	X	X	X	X	X
7/8/09	06414882		X	X	X		X	X
7/9/09	06491325		X	X	X		X	X
7/10/09	06504406		X	X	X	X	X	X
7/13/09	06546755		X	X	X		X	X
7/16/09	06571239		X	X	X		X	X
7/17/09	06571238		X	X	X	X	X	X
7/20/09	06585172		X	X	X		X	X
7/21/09	06570868							

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
6/3/09	7:30am	05649611	NA	24	PWW
6/5/09	12:30pm	05679273	NA	24	PWW
6/8/09	4pm	05723398	NA	24	PWW
6/12/09	7pm	05778295	25	24	PWW
6/15/09	4pm	05837820	NA	23	PWW
6/18/09	3pm	05925196	27	22	PWW
6/19/09	6:30pm	05991091	25	21	PWW
6/23/09	5pm	06178224	26	22	PWW
6/24/09	7:30am	06235572	24	22	PWW
6/25/09	3:30	06291342	24	22	PWW
6/26/09	7:30am	06335378	24	22	PWW
6/29/09	4:30	06336147	25	22	PWW
7/1/09	8am	06378132	30	25	PWW
7/2/09	6pm	06380772	30	25	PWW
7/7/09	4:30pm	06382076	30	25	PWW
7/8/09	7:00am	06414882	30	25	PWW
7/9/09	4:30	06491325	28	25	PWW
7/10/09	7am	06504406	29	26	PWW
7/13/09	5pm	06546755	30	26	PWW
7/16/09	6:30AM	06571238	30	28	PWW
7/17/09	11am	06571238	30	27	PWW
7/20/09	5pm	06585512	30	27	PWW
7/21/09	6AM	06590868	30	25	PWW

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 2	6/3/09	7:30 am	0564961	NA	12	PWW
TANK 2	6/5/09	12:30 pm	0567927 3	NA	12	PWW
TANK 2	6/8/09	4 pm	05723390	NA	12	PWW
TANK 2	6/12/09	7 pm	05778795	12	12	PWW
~~TANK 2~~	~~6/13/09~~ 6/15/09	4 pm	05837820	NA	10	PWW
TANK 2	6/18/09	3 pm	05925196	2	8	PWW
TANK 2	6/19/09	6:30 pm	05997091	8	8	PWW
TANK 2	6/23/09	5 pm	06178224	10	8	PWW
TANK 2	6/24/09	7:30 am	0623357 2	10	8	PWW
TANK 2	6/25/09	3:30	0629134 2	10	8	PWW
TANK 2	6/26/09	7:30 am	06335578	10	8	PWW
TANK 2	6/29/09	4:30	06336147	14	8	PWW
TANK 2	7/1/09	8 am	06378132	14	10	PWW
TANK 2	7/2/09	6 pm	06380772	4	6	PWW
TANK 2	7/7/09	4:30	06382076	6	6	PWW
TANK 2	7/8/09	7:00 am	06414882	4	8	PWW
TANK 2	7/9/09	4:30 pm	06491325	4	8	PWW
TANK 2	7/10/09	7 am	06504402	4	8	PWW
TANK 2	7/15/09	5 pm	~~06539446~~ 0654785	4	6	PWW
TANK 2	7/16/09	6:20 AM	0657238	4	4	PWW
TANK 2	7/17/09	11 AM	06571258	4	4	PWW
TANK 2	7/20/09	5 pm	0658592	0	4	PWW
TANK 2	7/21/09	6 AM	06590848	0	4	

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 5
REPORTING PERIOD ENDING September 18, 2009

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress report covers approximately 3 months of the operation and maintenance of the GWPTS from (7/1/09 through 9/18/09).

1.0 Treatment Statistics

- Approximately 226,730 gallons of collected groundwater were treated over this period averaging 2834.12* gallons per day. (see note 4.0 – 2)
- System was operational for approximately 90% of the time.
- System was down for 10 % of the time.
- Reason for down time: Regular maintenance and complications caused by adjacent property fire and demolition
- Flow meter was not operating properly and was serviced twice

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration head vessel back-washing : 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Cleaned the flow meter and pumps on September 21, 2009
- Steam washed both the influent and effluent tanks within the treatment building
- Changed out the carbon in both carbon vessels on September 21, 2009
- Additional effort for more frequent bag filter changing and backwashing

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 5
REPORTING PERIOD ENDING September 18, 2009

3.0 Work Planned

- Continued regular maintenance

4.0 Additional Notes/Issues

- Adjacent fire and subsequent building demolition impacted the treatment building by adding large amounts of water during fire suppression efforts. This additional water will continue to gradually be treated by the system but has added the need for additional bag filter change outs, separator cleanings and other maintenance items.
- Flow meter was not operating correctly, and thus tabulated results are incorrect. The system was still operating during this time, and is estimated to have processed 28,967.3 gallons as a daily average

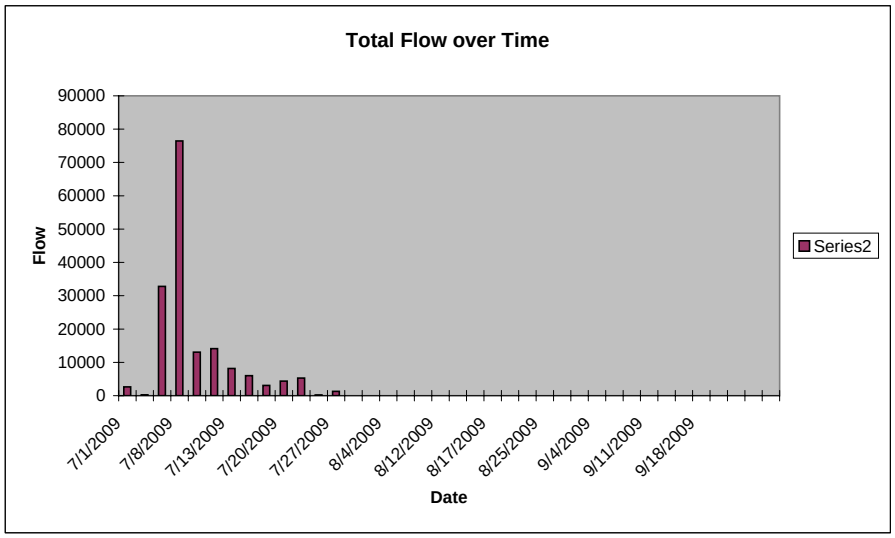
5.0 Attachments/Logs

- Bag Filter Change-out Log 6-3-09 through 9-18-09
- Carbon Filter Backwash Log 6-3-09 through 9-18-09
- Maintenance Log
- Graph of Daily Operation

ATTACHMENT 1

MONITORED FLOWS VS. TIME

Date	Total Flow	Daily Avg
7/1/2009	6378132	
7/2/2009	6380772	2640
7/7/2009	6382076	261
7/8/2009	6414882	32806
7/9/2009	6491325	76443
7/10/2009	6504406	13081
7/13/2009	6546755	14116
7/16/2009	6571238	8161
7/17/2009	6577238	6000
7/20/2009	6586512	3091
7/21/2009	6590868	4356
7/23/2009	6601477	5305
7/27/2009	6602257	195
7/29/2009	6604827	1285
7/31/2009	6604842	8
8/4/2009	6604851	2
8/7/2009	6604851	0
8/10/2009	6604851	0
8/12/2009	6604856	3
8/13/2009	6604856	0
8/14/2009	6604856	0
8/17/2009	6604860	1
8/19/2009	6604860	0
8/21/2009	6604862	1
8/25/2009	6604862	0
8/28/2009	6604862	0
9/2/2009	6604862	0
9/4/2009	6604862	0
9/7/2009	6604862	0
9/9/2009	6604862	0
9/11/2009	6604862	0
9/14/2009	6604862	0
9/16/2009	6604862	0
9/18/2009	6604862	0



Used last quarter to get an estimated flow because the flow meter was incorrect
Flow -= 28,967.3 g/day

Total Flow	-6378132	gallons						
Flows for July	226710	gallons/month	Flows for August	11	gallons/month	Flows For September	0.00	gallons/month
	7313.226	gallons/day		0.3548387	gallons/day		0	gallons/day
	5.078629	gallons/min		0.0002464	gallons/min		0	gallons/min

ATTACHMENT 2

MAINTENANCE LOGS

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
6/3/09	05649611		X	X	X		X	X
6/5/09	05679273		X	X	X	X	X	X
6/8/09	05723398		X	X	X		X	X
6/12/09	05778295		X	X	X	X	X	X
6/15/09	05837820		X	X	X		X	X
6/18/09	05925196		X	X	X		X	X
6/19/09	05997091		X	X	X		X	X
6/23/09	06178224		X	X	X	X	X	X
6/24/09	06233572		X	X	X		X	X
6/25/09	06291342		X	X	X		X	X
6/26/09	06355378		X	X	X	X	X	X
6/29/09	06336497		X	X	X		X	X
7/1/09	06378132		X	X	X	X	X	X
7/2/09	06380772		X	X	X	X	X	X
7/7/09	06382076		X	X	X	X	X	X
7/8/09	06414882		X	X	X		X	X
7/9/09	06491325		X	X	X		X	X
7/10/09	06504406		X	X	X	X	X	X
7/13/09	06546755		X	X	X		X	X
7/16/09	06571239		X	X	X		X	X
7/17/09	06571238		X	X	X	X	X	X
7/20/09	06585172		X	X	X		X	X
7/21/09	06570868							

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
6/3/09	7:30am	05649611	NA	24	PWW
6/5/09	12:30pm	05679273	NA	24	PWW
6/8/09	4pm	05723398	NA	24	PWW
6/12/09	7pm	05778295	25	24	PWW
6/15/09	4pm	05837820	NA	23	PWW
6/18/09	3pm	05925196	27	22	PWW
6/19/09	6:30pm	05991091	25	21	PWW
6/23/09	5pm	06178224	26	22	PWW
6/24/09	7:30am	06235572	24	22	PWW
6/25/09	3:30	06291342	24	22	PWW
6/26/09	7:30am	06335378	24	22	PWW
6/29/09	4:30	06336147	25	22	PWW
7/1/09	8am	06378132	30	25	PWW
7/2/09	6pm	06380772	30	25	PWW
7/7/09	4:30pm	06382076	30	25	PWW
7/8/09	7:00am	06414882	30	25	PWW
7/9/09	4:30	06491325	28	25	PWW
7/10/09	7am	06504406	29	26	PWW
7/13/09	5pm	06546755	30	26	PWW
7/16/09	6:30AM	06571238	30	28	PWW
7/17/09	11am	06571238	30	27	PWW
7/20/09	5pm	06585512	30	27	PWW
7/21/09	6AM	06590868	30	25	PWW

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 2	6/3/09	7:30 am	0564961	NA	12	PWW
TANK 2	6/5/09	12:30 pm	0567927 3	NA	12	PWW
TANK 2	6/8/09	4 pm	05723390	NA	12	PWW
TANK 2	6/12/09	7 pm	05778795	12	12	PWW
~~TANK 2~~	~~6/13/09~~ 6/15/09	4 pm	05837820	NA	10	PWW
TANK 2	6/18/09	3 pm	05925196	2	8	PWW
TANK 2	6/19/09	6:30 pm	05997091	8	8	PWW
TANK 2	6/23/09	5 pm	06178224	10	8	PWW
TANK 2	6/24/09	7:30 am	0623357 2	10	8	PWW
TANK 2	6/25/09	3:30	0629134 2	10	8	PWW
TANK 2	6/26/09	7:30 am	06335578	10	8	PWW
TANK 2	6/29/09	4:30	06336147	14	8	PWW
TANK 2	7/1/09	8 am	06378132	14	10	PWW
TANK 2	7/2/09	6 pm	06380772	4	6	PWW
TANK 2	7/7/09	4:30	06382076	6	6	PWW
TANK 2	7/8/09	7:00 am	06414882	4	8	PWW
TANK 2	7/9/09	4:30 pm	06491325	4	8	PWW
TANK 2	7/10/09	7 am	06504402	4	8	PWW
TANK 2	7/15/09	5 pm	~~06539446~~ 0654785	4	6	PWW
TANK 2	7/16/09	6:20 AM	0657238	4	4	PWW
TANK 2	7/17/09	11 AM	06571258	4	4	PWW
TANK 2	7/20/09	5 pm	0658592	0	4	PWW
TANK 2	7/21/09	6 AM	06590848	0	4	

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
7/23/09	6601477		X	X	X	Y	X	PWW
7/27/09	6602257		Y	X	X		X	PWW
7/29/09	6604827		Y	X	Y		X	PWW
8/3/09	6604842		X	X	Y	X	X	PWW
8/4/09	6604851		X	X	Y		X	PWW
8/7/09	6604851		Y	Y	X	Y	Y	PWW
8/10/09	6604851		X	Y	X		X	PWW
8/12/09	6604856		X	X	X	Y	X	PWW
8/13/09	6604856		X	X	Y		X	PWW
8/14/09	6604856		X	X	X		X	PWW
8/17/09	6604860		X	X	Y		X	PWW
8/19/09	6604860		X	X	X	X	X	PWW
8/21/09	6604862		X	X	X		X	PWW
8/25/09	6604862		X	X	X		X	PWW
8/28/09	6604862		X	X	X	X	X	PWW
9/2/09	6604862		X	X	X		X	PWW
9/4/09			X	X	X		X	PWW
9/7/09			X	X	X	Y	X	PWW
9/9/09			X	X	X		X	PWW
9/11/09			X	X	X	X	X	PWW
9/14/09			X	X	X		X	PWW
9/16/09			X	X	X	X	X	PWW
9/18/09			X	X	X			

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Reading		
	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
7/23/09	~~7/23/09~~	3:30	6601477	NA	27	PWW
	7/27/09	4:30	6602257	30	27	PWW
	7/29/09	4:30	6604827	30	27	PWW
	7/31/09	7:00am	6604842	30	26	PWW
	8/4/09	5:30	6604851	30	27	PWW
	8/7/09	3:30	6604851	30	27	PWW
	8/10/09	1:30	6604851	30	27	PWW
	8/12/09	4:30	6604856	30	27	PWW
	8/13/09	7:30	6604856	30	27	PWW
	8/14/09	7:30	6604856	30	27	PWW
	8/17/09	7:30	6604860	30	27	PWW
	8/19/09	7:30	6604860	30	27	PWW
	8/21/09	7:30	6604862	30	27	PWW
	8/25/09	7:30	6604862	30	27	PWW
	8/28/09	6am	6604862	30	27	PWW
	9/2/09	7:30	6604862	30	27	PWW
	9/4/09	7:30	6604862	30	27	PWW
	9/7/09	7:30	6604862	30	27	PWW
	9/9/09	7:30	6604862	30	26	PWW
	9/11/09	7:30	6604862	30	25	PWW
	9/14/09	7:30	6604862	30	27	PWW
	9/16/09	7:30	6604862	30	27	PWW
	9/18/09	7:30	6604862	30	27	PWW

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
				Prior to Change	After Change	
TANK 2	7/23/09	330	6601477	NA	2	PWW
TANK 2	7/27/09	5pm	6602257	6	2	PWW
TANK 2	7/29/09	430	6604827	2	2	PWW
TANK 2	7/31/09	7:00	6604842	0	4	PWW
TANK 2	8/4/09	530	6604851	0	2	PWW
TANK 2	8/7/09	3:00	6604851	0	2	PWW
TANK 2	8/10/09	1:30	6604851	0	2	PWW
TANK 2	8/12/09	4:00	6604856	0	3	PWW
TANK 2	8/13/09	7:30	6604856	0	2	PWW
TANK 2	8/14/09	7:30	6604856	0	2	PWW
TANK 2	8/17/09	7:30	6604860	0	2	PWW
TANK 2	8/19/09	7:30	6604860	0	2	PWW
TANK 2	8/21/09	7:30	6604862	0	3	PWW
TANK 2	8/25/09	7:30	6604862	0	2	PWW
TANK 2	8/28/09	6 am	6604867	0	2	PWW
TANK 2	9/2/09	7:30	6604867	0	2	PWW
TANK 2	9/4/09	7:30	6604867	0	2	PWW
TANK 2	9/7/09	7:30	6604867	0	2	PWW
TANK 2	9/9/09	7:30	6604867	0	2	PWW
TANK 2	9/11/09	7:30	6604867	0	2	PWW
TANK 2	9/14/09	7:30	6604862	0	2	PWW
TANK 2	9/16/09	7:30	6604862	0	2	PWW
TANK 2	9/18/09	7:30	6604862	0	2	PWW

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 6
REPORTING PERIOD ENDING December 29, 2009

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress report covers approximately 3 months of the operation and maintenance of the GWPTS from (9/18/09 through 12/29/09).

1.0 Treatment Statistics

- Approximately 4,563,970 gallons of collected groundwater were treated over this period averaging 45,639.7 gallons per day.
- System was operational for approximately 100% of the time.
- System was down for 0% of the time.

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration vessel back-washing : 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Additional effort for more frequent bag filter changing and backwashing

3.0 Work Planned

- Continued regular maintenance

4.0 Attachments/Logs

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

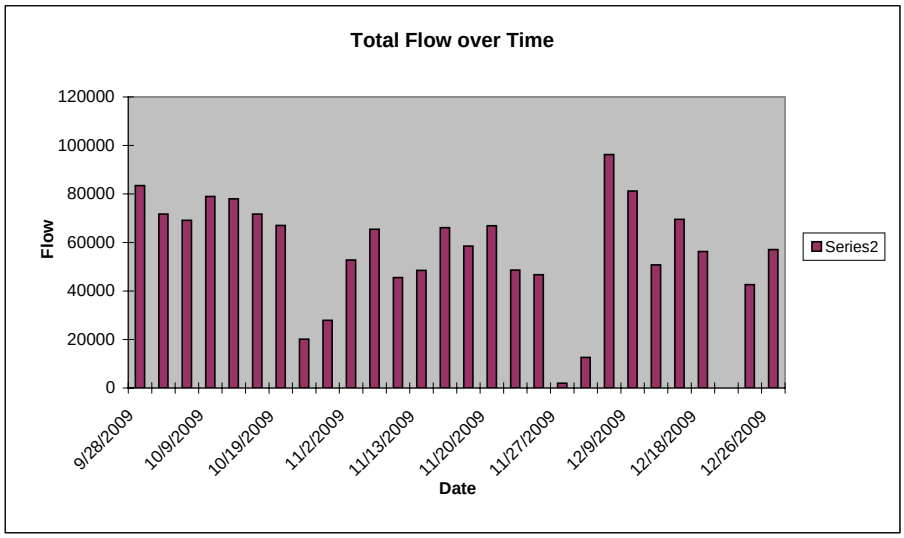
PROGRESS REPORT No. 6
REPORTING PERIOD ENDING December 29, 2009

- Bag Filter Change-out Log 9-19-09 thru 12-29-09
- Carbon Filter Backwash Log 9-19-09 thru 12-29-09
- Maintenance Log
- Graph of Daily Operation

ATTACHMENT 1

MONITORED FLOWS VS. TIME

Date	Total Flow	Daily Avg
9/28/2009	6612713	
10/2/2009	6946489	83444
10/7/2009	7305135	71729
10/9/2009	7443472	69169
10/13/2009	7759300	78957
10/15/2009	7915201	77951
10/19/2009	8201990	71697
10/21/2009	8336031	67021
10/27/2009	8456732	20117
11/2/2009	8624147	27903
11/6/2009	8835356	52802
11/9/2009	9031667	65437
11/13/2009	9213842	45544
11/16/2009	9359396	48518
11/18/2009	9491634	66119
11/20/2009	9608653	58510
11/23/2009	9809350	66899
11/25/2009	9906541	48596
11/27/2009	10000009	46734
11/30/2009	10005994	1995
12/8/2009	10106541	12568
12/9/2009	10202781	96240
12/11/2009	10365222	81221
12/16/2009	10618780	50712
12/18/2009	10757904	69562
12/21/2009	10926764	56287
12/23/2009	10926764	0
12/26/2009	11054653	42630
12/28/2009	11168832	57090



Total Flow	4556119	gallons

Flows for October	1510243	gallons/month	Flows for November	1381847	gallons/month	Flows For December	1062291.00	gallons/month
	48717.52	gallons/day		46061.567	gallons/day		35409.7	gallons/day
	33.83161	gallons/min		31.987199	gallons/min		24.5900694	gallons/min

ATTACHMENT 2

MAINTENANCE LOGS

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
9-28-09	6612713	X	X	X	X	X		X
10-2-09	6946489	X	X	X	X	X	X	X
10								
10-7	7305135	X		X	X	X		X
10-9	7443472	X		X	X	X	X	X
10-13	7759300	X		X	X	X		X
10-15	7915701	X		X	X	X	X	X
10-19	8201990	X		X	X	X		X
10-21	8336031	X		X	X	X		X
10-27	8756732	X		X	X	X	X	X
11-2	8624147	X		X	X	X		X
11-5	9053056	X		X	X	X	X	X
11-9	9053667	X		X	X	X		X
11-12	9213	X		X	X	X	X	X
[illegible]	[illegible]	X		X	X	X		X
11-18	9491634	X		X	X	X	X	X
11-20	9608653	X		X	X	X		X
11-23	9809350	X		X	X	X	X	X
11-25	9906541			X	X	X		X
11-27	10000009			X	X	X		X
11-30	10005994	X		X	X	X	X	X
12-8-09	10106541	X		X	X	X		X
12-9-09	10202781	X		X	X	X	X	X
12-11-09	10365222	X		X	X	X		X
12-16-09	10618780	X		X	X	X		X
12-18-09	10757904	X	X	X	X	X	X	X
12-21-09	10926762	X		X	X	X		X
12-23-09	10926764	X		X	X	X		X
12-26	11054653	X		X	X	X	X	X
12-28-09	11168832	X		X	X	X		X

7848366 = 89,066

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
9-28-09	3:00pm	6612713	27	24	PWW
9-29-09	330	6946489	26	23	PWW
10-7-09	5pm	7305135	26	23	PWW
10-9-09	10am	7443472	25	22	PWW
10-13-09	7am	7759300	26	22	PWW
10-15-09	8am	7915201	26	23	PWW
10-19-09	730	8201990	27	[illegible]	PWW
10-21-09	3pm	8336031	28	23	PWW
10-27-09	1pm	8456732	28	22	PWW
11-2-09	2pm	8624147	27	23	PWW
11-6-09	330pm	8835356	27	23	PWW
11-9-09	330	9031667	27	22	PWW
11-15-09	430	9213842	27	23	PWW
11-16-09	730am	9359396	28	24	PWW
11-18-09	7am	9491634	28	23	PWW
11-20-09	730	9608653	27	22	PWW
11-23-09	800am	9809350	28	22	PWW
11-25-09	9am	9906541	28	23	PWW
11-27-09	5pm	10000009	28	22	PWW
11-30-09	7am	10005994	28	23	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

A

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
12-8 ⇔ TANK 1	6 30 pm	10106541	8	12	PWW
12-9 ⇔ TANK 1	4 30 pm	10202781	8	11	PWW
12-11 ⇔ TANK 1	7:00 am	10365222	8	11	PWW
12-16-0	12-16-09	1550	10618780	8	14	BMG
TANK 1	12-18-09	1000	10757904	13	12	BMG
TANK 1	12-21-09	9 am	10926762	9	12	PWW
TANK 1	12-23-09	8:00 am	10926764	9	12	PWW
TANK 1	12-26-09	8 am	11054653	12	12	PWW
TANK 1	12-28-09	13:00	11168832	9	12	PWW

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 1	9-28-09	3:00	6612713	3	8	PWW
1	10-2-09	3:20	6946489	10	9	PWW
1						
1	10-7-09	5pm	7305135	10	10	PWW
1	10-9-09	6am	7443472	7	10	PWW
1	10-13-09	7am	7759300	8	10	PWW
TANK 1	10-15-09	8am	7915201	8	12	PWW
TANK 1	10-19-09	7:30	8201990	8	11	PWW
TANK 1	10-21-09	3pm	8336031	6	14/10	PWW
TANK 1	10-27-09	1pm	8456752	6	12	PWW
TANK 1	10-29-09	2pm	8624147	6	12	PWW
TANK 1	11-6-09	5:30pm	8835356	8	13	PWW
TANK 1	11-9-09	3:30pm	9031667	8	12	PWW
TANK 1	11-13-09	4:30pm	9143842	8	12	PWW
TANK 1	11-16-09	7:30 AM	9359396	8	12	PWW
TANK 1	11-18-09	7	9491634	8	12	PWW
TANK 1	11-20-09	7:30AM	9608653	8	12	PWW
TANK 1	11-23-09	8am	9809350	8	11	PWW
TANK 1	11-25-09	9am	9906541	8	12	PWW
TANK 1	11-27-09	5pm	10000009	8	11	PWW
TANK 1	11-30-09	9am	10005994	8	12	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG
PSI

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
12-8	6pm	10106541	28	22	PWW
12-9	4:30	10207781	28	22	PWW
12-11	7:00am	10365222	28	22	PWW
12-16-09	1550	10618780	28	22	BMG
12-18-09	1000	10757904	24	22	BMG
12-21-09	9:00am	10926762	27	22	PWW
12-23-09	8:00am	10926764	28	21	PWW
12-26-09	8am	11054653	28	22	PWW
12-28-09	1pm	11168832	29	22	PWW

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 7
REPORTING PERIOD ENDING March 31, 2010

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress report covers approximately 3 months of the operation and maintenance of the GWPTS from (1/1/10 through 3/31/10).

1.0 Treatment Statistics

- Approximately 4,288,125 gallons of collected groundwater were treated over this period averaging 47,645.8 gallons per day.
- System was operational for approximately 100% of the time.
- System was down for 0% of the time.

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration vessel back-washing : 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Additional effort for more frequent bag filter changing and backwashing

3.0 Work Planned

- Continued regular maintenance
- Carbon change out (projected June 2010)
- Oil/Water separator drain and clean out (projected June 2010)

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 7
REPORTING PERIOD ENDING March 31, 2010

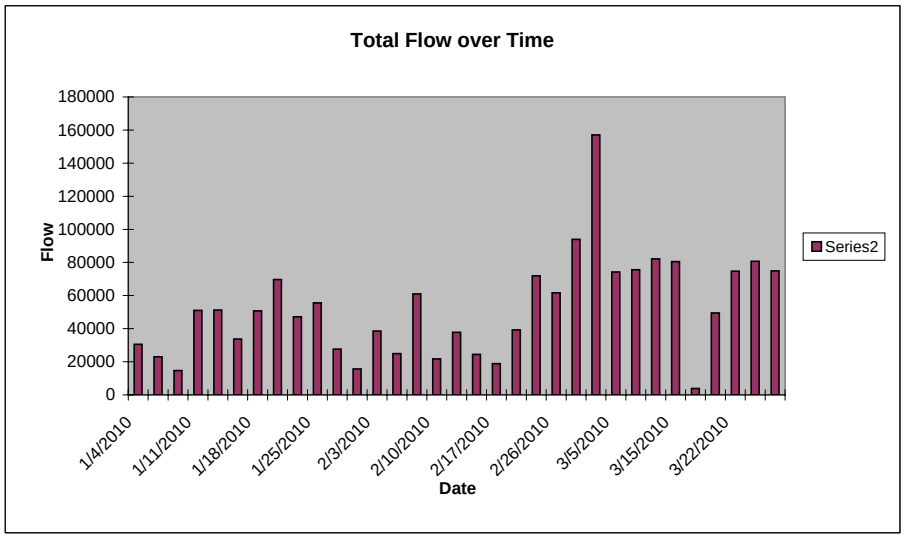
4.0 Attachments/Logs

- Bag Filter Change-out Log 1/4/10 thru 4/14/10
- Carbon Filter Backwash Log 1/4/10 thru 4/14/10
- Maintenance Log
- Graph of Daily Operation

ATTACHMENT 1

MONITORED FLOWS VS. TIME

Date	Total Flow	Daily Avg
1/4/2010	11418973	
1/5/2010	30591	30591
1/8/2010	99632	23014
1/11/2010	143665	14678
1/13/2010	245692	51014
1/15/2010	348213	51261
1/18/2010	449294	33694
1/20/2010	550766	50736
1/22/2010	690142	69688
1/25/2010	831800	47219
1/27/2010	942875	55538
2/1/2010	1081295	27684
2/3/2010	1112539	15622
2/5/2010	1189625	38543
2/8/2010	1264337	24904
2/10/2010	1386272	60968
2/12/2010	1429725	21727
2/15/2010	1543162	37812
2/17/2010	1592164	24501
2/19/2010	1629915	18876
2/24/2010	1825949	39207
2/26/2010	1969890	71971
3/1/2010	2154961	61690
3/3/2010	2342917	93978
3/5/2010	2657122	157103
3/8/2010	2879743	74207
3/11/2010	3106586	75614
3/15/2010	3435250	82166
3/17/2010	3596377	80564
3/19/2010	3604134	3879
3/22/2010	3752480	49449
3/24/2010	3901979	74750
3/26/2010	4063360	80691
3/29/2010	4288125	74922
4/1/2010	4490184	67353



Total Flow 4288125 gallons

Flows for January	1081295	gallons/month	Flows for February	888595	gallons/month	Flows For March	2520294.00	gallons/month
	34880.48	gallons/day		31735.536	gallons/day		81299.8065	gallons/day
	24.22256	gallons/min		22.038566	gallons/min		56.4581989	gallons/min

* = flow meter calibrated and reset to zero on 01/05/10

ATTACHMENT 2

MAINTENANCE LOGS

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
1/4/10	11418973	X		X	X	X	X	X
1-6-10	30591	X		X	X	X		X
1-8-10	99632	X		X	X	X		X
1-11-10	143665	X		X	X	X		X
1-13-10	245692	X		X	X	X	X	X
1-15-10	348213	X		X	X	X		X
1-18-10	449214	X		X	X	X		X
1-20-10	550766	X		X	X	X		X
1-22-10	690142	X		X	X	X	X	X
1-25-10	831800	X		X	X	X		X
1-27-10	942875	X		X	X	X		X
2-1-10	1081295	X		X	X	X	X	X
2-3-10	1112539	X		X	X	X		X
2-5-10	1189625	X		X	X	X		X
2-8-10	1264337	X		X	X	X		X
2-10-10	1386272	X		X	X	X		X
2-12-10	1429725	X		X	X	X		X
2-15-10	1543162	X		X	X	X	X	X
2-17-10	1592164	X		X	X	X		X
2-19-10	1629915	X		X	X	X	X	X

1-5 to 1 largest ton

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Date	Time	Total Filtered (gal)	Pressure Reading		technician
			Prior to Change	After Change	
1-4-10	6 am	1141897 3	27	21	PWW
1-5-10 counter reset to 0					
1-6-10	5pm	30591	28	21	PWW
1-8-10	3pm	99632	27	22	PWW
1-11-10	730am	143665	28	21	PWW
1-13-10	12pm	245692	28	22	PWW
1-15-10	7am	348213	28	22	PWW
1-18-10	5pm	449294	28	22	PWW
1-20-10	4pm	550766	28	21	PWW
1-22-10	7am	690142	25	21	PWW
1-25-10	4pm	831800	27	21	PWW
1-27-10	9130	942875	27	23	PWW
2-1-10	715	1081295	27	22	PWW
2-3-10	730	1112539	27	22	PWW
2-5-10	230	1189625	28	23	PWW
2-8-10	8:00	1264337	27	22	PWW
2-10-10	11:00	1386272	26	22	PWW
2-12-10	7a	1429725	28	23	PWW
2-15-10	7am	1513162	27	21	PWW
2-17-10	4pm	1592164	28	23	PWW
2-19-10	8am	1629915	28	22	PWW

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

	Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
					Prior to Change	After Change	
1-5-10 counter reset to 0	TANK 1	1-4-10	6am	11418973	10	13	PWW
	TANK 1	1-6-10	5pm	30591	10	13	PWW
	TANK 1	1-8-10	3pm	99632	10	13	PWW
	TANK 1	1-11-10	7:30	143665	10	13	PWW
	TANK 1	1-13-10	12pm	245692	12	12	PWW
	Tank 1	1-15-10	7am	348213	10	14	PWW
	TANK 1	1-18-10	5pm	449294	10	13	PWW
	TANK 1	1-20-10	4pm	550766	16	12	PWW
	TANK 1	1-22-10	7am	690147	11	10	PWW
	TANK 1	1-25-10	4PM	831800	11	10	PWW
	TANK 1	1-27-10	9:30am	942875	10	12	PWW
	TANK 1	2-1-10	7:15am	1081295	14	10	PWW
	TANK 1	2-3-10	7:30 am	1112539	12	12	PWW
	TANK 1	2-5-10	2:30 pm	1189625	10	10	PWW
	TANK 1	2-8-10	8:30am	1264337	10	12	PWW
	TANK 1	2-10-10	11:00am	1386272	16	12	PWW
	TANK 1	2-12-10	7am	1429725	10	14	PWW
	"	2-15-10	7am	1543162	14	10	PWW
	"	2-17-10	4pm	1572164	10	12	PWW
	"	2-19-10	8am	1621911	10	12	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Date	Time	Total Filtered (gal)	Pressure Reading		technician
			Prior to Change	After Change	
2-24-10	730	1825949	27	25	PWW
2-26-10	430	1969890	25	22	PWW
3-1-10	7am	2154961	26	22	PWW
3-3-10	4pm	2342917	24	23	PWW
3-5-10	12	2657122	23	22	PWW
3-8-10	7:45	2879743	26	22	BMG
3-11-10	720	3106586	25	21.5	BMG
3-15-10	430	3435250	26	23	PWW
3-17-10	4:10	3596377	28	25	PWW
3-19-10	730	3764134	28	21	PWW
3-22-10	4pm	3952480	27	23	PWW
3-24-10	4pm	4196979	28	24	PWW
3-26-10	215pm	4406360	26	22	PWW
3-29-10	5pm	4688125	28	23	PWW
4-1-10	1410	4901184	28	25	PWW
4-5-10	5pm	4744419	28	23	PWW
4-7-10	9am	4896488	25	23	PWW
4-9-10	545am	5040632	27	23	PWW
4-12-10	640pm	5231815	28	22	PWW
4-14-10	630	5390414	28	23	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
				Prior to Change	After Change	
TANK 1	2-24-10	730	182.5949	10	12	PWW
TANK 1	2-26-10	430	196890	10	11	PWW
TANK 1	3-1-10	7am	215496	10	12	PWW
TANK 1	3-3-10	4pm	2342917	11	11	PWW
TANK 1	3-5-10	12	2657122	10	12	PWW
TANK 1	3-8-10	745	2979743	8	11	BMG
TANK 1	3-11-10	720	3106586	12	11	BMG
TANK 1	3-15-10	430	3435250	11	11	PWW
TANK 1	3-17-10	4:10	3596377	11	6	PWW
11	3-19-10	730	3604134	10	11	PWW
11	3-22-10	4	3752480	12	8	PWW
11	3-24-10	4	3901979	10	11	PWW
11	3-26-10	5	4063360	14	10	PWW
TANK 1	3-29-10	5pm	4288125	13	8	PWW
TANK 1	4-1-10	4:10	4490184	13	10	PWW
TANK 1	4-5-10	5pm	4744419	14	9	PWW
TANK 1	4-7-10	9:00am	4896488	11	10	PWW
TANK 1	4-9-10	5:45am	5040632	13	11	PWW
TANK 1	4-12-10	6:30pm	5231815	14	16	PWW
TANK 1	4-14-10	6:30pm	5390414	13	10	PWW

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
2-24-10	1825949	X		X	X	X		X
2-26-10	1969890	X		X	X	X	X	X
3-1-10	2154961	X		X	X	X		X
3-3-10	2342917	X		X	X	X		X
3-5-10	2657127	X		X	X	X	X	X
3-8-10	2879743	X		X	X	X		X
3-10-10	3106586	X		X	X	X	X	X
3-15-10	3435250	X		X	X	X		X
3-17-10	3596377	X		X	X	X		X
3-19-10	3804134	X		X	X	X	X	X
3-22-10	3752480	X		X	X	X		X
3-24-10	3901979	X		X	X	X		X
3-26-10	4063360	X		X	X	X		X
3-29-10	4288125	X		X	X	X		X
4-1-10	4490184	X		X	X	X	X	X
4-5-10	4744419	X		X	X	X		X
4-7-10	4896488	X		X	X	X		X
4-9-10	5040632	X		X	X	X	X	X
4-11-10	5231815	X		X	X	X		X
4-14-10	5390414	X		X	X	X		X

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 8
REPORTING PERIOD ENDING June 30, 2010

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress report covers approximately 3 months of the operation and maintenance of the GWPTS from (3/31/10 through 6/30/10).

1.0 Treatment Statistics

- Approximately 4,405,843 gallons of collected groundwater were treated over this period averaging 48,415.9 gallons per day.
- System was operational for approximately 100% of the time.
- System was down for 0% of the time.

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration vessel back-washing : 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Additional effort for more frequent bag filter changing and backwashing
- Carbon change out 6/7/10
- On 6/21/10 thru 7/13/10 only one bag filter was operational due to a bag cage malfunction

3.0 Work Planned

- Continued regular maintenance

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 8
REPORTING PERIOD ENDING June 30, 2010

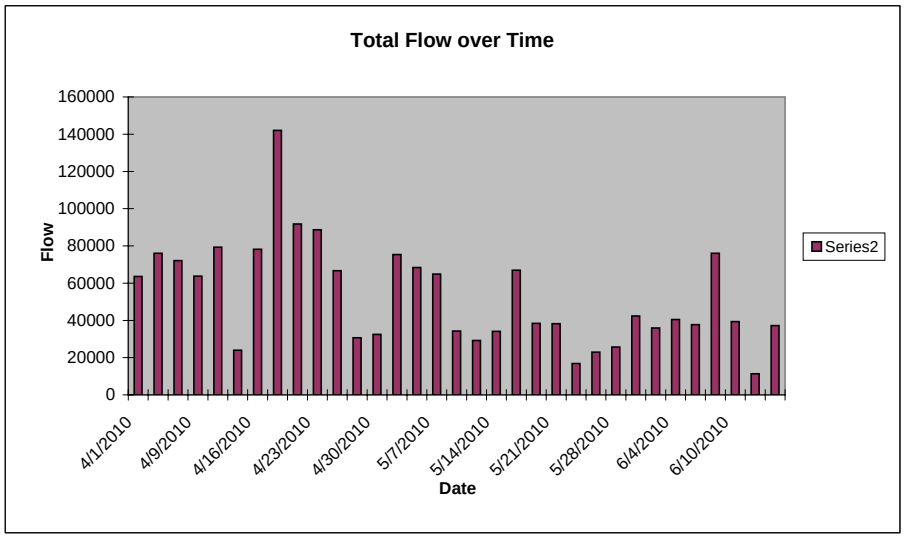
4.0 Attachments/Logs

- Bag Filter Change-out Log 1/4/10 thru 4/14/10, 4/16/10 thru 6/14/10 and 6/21/10 thru 7/11/10
- Carbon Filter Backwash Log 1/4/10 thru 4/14/10, 4/16/10 thru 6/14/10 and 6/21/10 thru 7/11/10
- Maintenance Log
- Graph of Daily Operation

ATTACHMENT 1

MONITORED FLOWS VS. TIME

Date	Total Flow	Daily Avg
4/1/2010	4490184	
4/5/2010	4744419	63559
4/7/2010	4896488	76035
4/9/2010	5040632	72072
4/12/2010	5231815	63728
4/14/2010	5390414	79300
4/16/2010	5438305	23946
4/19/2010	5672941	78212
4/21/2010	5956985	142022
4/23/2010	6140523	91769
4/26/2010	6406440	88639
4/28/2010	6539866	66713
4/30/2010	6601245	30690
5/3/2010	6698801	32519
5/5/2010	6849548	75374
5/7/2010	6986314	68383
5/10/2010	7181053	64913
5/12/2010	7249615	34281
5/14/2010	7308022	29204
5/17/2010	7410293	34090
5/19/2010	7544173	66940
5/21/2010	7621064	38446
5/24/2010	7735883	38273
5/26/2010	7769614	16866
5/28/2010	7815493	22940
6/1/2010	7918208	25679
6/3/2010	8003019	42406
6/4/2010	8038979	35960
6/7/2010	8160439	40487
6/9/2010	8235920	37741
6/10/2010	8311960	76040
6/14/2010	8469498	39385
6/21/2010	8549002	11358
6/23/2010	8623391	37195
6/25/2010	8674016	25313
6/28/2010	8803740	43241
7/1/2010	8896027	30762



Total Flow 4405843 gallons

Flows for April	2049682	gallons/month	Flows for May	1019819	gallons/month	Flows For June	977819.00	gallons/month
	66118.77	gallons/day		36422.107	gallons/day		32593.9667	gallons/day
	45.91582	gallons/min		25.29313	gallons/min		22.6346991	gallons/min

* = flow meter calibrated and reset to zero on 01/05/10

1.) 6/21/10 thru 7-13-10 operating on only one bag filter due to broken bag cage

ATTACHMENT 2

MAINTENANCE LOGS

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
1/4/10	11418973	X		X	X	X	X	X
1-6-10	30591	X		X	X	X		X
1-8-10	99632	X		X	X	X		X
1-11-10	143665	X		X	X	X		X
1-13-10	245692	X		X	X	X	X	X
1-15-10	348213	X		X	X	X		X
1-18-10	449214	X		X	X	X		X
1-20-10	550766	X		X	X	X		X
1-22-10	690142	X		X	X	X	X	X
1-25-10	831800	X		X	X	X		X
1-27-10	942875	X		X	X	X		X
2-1-10	1081295	X		X	X	X	X	X
2-3-10	1112539	X		X	X	X		X
2-5-10	1189625	X		X	X	X		X
2-8-10	1264337	X		X	X	X		X
2-10-10	1386272	X		X	X	X		X
2-12-10	1429725	X		X	X	X		X
2-15-10	1543162	X		X	X	X	X	X
2-17-10	1592164	X		X	X	X		X
2-19-10	1629915	X		X	X	X	X	X

1-5 to 1 largest ton

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Date	Time	Total Filtered (gal)	Pressure Reading		technician
			Prior to Change	After Change	
1-4-10	6 am	1141897 3	27	21	PWW
1-5-10 counter reset to 0					
1-6-10	5pm	30591	28	21	PWW
1-8-10	3pm	99632	27	22	PWW
1-11-10	730am	143665	28	21	PWW
1-13-10	12pm	245692	28	22	PWW
1-15-10	7am	348213	28	22	PWW
1-18-10	5pm	449294	28	22	PWW
1-20-10	4pm	550766	28	21	PWW
1-22-10	7am	690142	25	21	PWW
1-25-10	4pm	831800	27	21	PWW
1-27-10	9130	942875	27	23	PWW
2-1-10	715	1081295	27	22	PWW
2-3-10	730	1112539	27	22	PWW
2-5-10	230	1189625	28	23	PWW
2-8-10	8:00	1264337	27	22	PWW
2-10-10	11:00	1386272	26	22	PWW
2-12-10	7a	1429725	28	23	PWW
2-15-10	7am	1513162	27	21	PWW
2-17-10	4pm	1592164	28	23	PWW
2-19-10	8am	1629915	28	22	PWW

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

	Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
					Prior to Change	After Change	
1-5-10 counter reset to 0	TANK 1	1-4-10	6am	11418973	10	13	PWW
	TANK 1	1-6-10	5pm	30591	10	13	PWW
	TANK 1	1-8-10	3pm	99632	10	13	PWW
	TANK 1	1-11-10	7:30	143665	10	13	PWW
	TANK 1	1-13-10	12pm	245692	12	12	PWW
	Tank 1	1-15-10	7am	348213	10	14	PWW
	TANK 1	1-18-10	5pm	449294	10	13	PWW
	TANK 1	1-20-10	4pm	550766	16	12	PWW
	TANK 1	1-22-10	7am	690147	11	10	PWW
	TANK 1	1-25-10	4PM	831800	11	10	PWW
	TANK 1	1-27-10	9:30am	942875	10	12	PWW
	TANK 1	2-1-10	7:15am	1081295	14	10	PWW
	TANK 1	2-3-10	7:30 am	1112539	12	12	PWW
	TANK 1	2-5-10	2:30 pm	1189625	10	10	PWW
	TANK 1	2-8-10	8:30am	1264337	10	12	PWW
	TANK 1	2-10-10	11:00am	1386272	16	12	PWW
	TANK 1	2-12-10	7am	1429725	10	14	PWW
	"	2-15-10	7am	1543162	14	10	PWW
	"	2-17-10	4pm	1572164	10	12	PWW
	"	2-19-10	8am	1621911	10	12	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Date	Time	Total Filtered (gal)	Pressure Reading		technician
			Prior to Change	After Change	
2-24-10	730	1825949	27	25	PWW
2-26-10	430	1969890	25	22	PWW
3-1-10	7am	2154961	26	22	PWW
3-3-10	4pm	2342917	24	23	PWW
3-5-10	12	2657122	23	22	PWW
3-8-10	7:45	2879743	26	22	BMG
3-11-10	720	3106586	25	21.5	BMG
3-15-10	430	3435250	26	23	PWW
3-17-10	4:10	3596377	28	25	PWW
3-19-10	730	3764134	28	21	PWW
3-22-10	4pm	3952480	27	23	PWW
3-24-10	4pm	4196979	28	24	PWW
3-26-10	215pm	4406360	26	22	PWW
3-29-10	5pm	4688125	28	23	PWW
4-1-10	1410	4901184	28	25	PWW
4-5-10	5pm	4744419	28	23	PWW
4-7-10	9am	4896488	25	23	PWW
4-9-10	545am	5040632	27	23	PWW
4-12-10	640pm	5231815	28	22	PWW
4-14-10	630	5390414	28	23	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
				Prior to Change	After Change	
TANK 1	2-24-10	730	182.5949	10	12	PWW
TANK 1	2-26-10	430	196890	10	11	PWW
TANK 1	3-1-10	7am	215496	10	12	PWW
TANK 1	3-3-10	4pm	2342917	11	11	PWW
TANK 1	3-5-10	12	2657122	10	12	PWW
TANK 1	3-8-10	745	2979743	8	11	BMG
TANK 1	3-11-10	720	3106586	12	11	BMG
TANK 1	3-15-10	430	3435250	11	11	PWW
TANK 1	3-17-10	4:10	3596377	11	6	PWW
11	3-19-10	730	3604134	10	11	PWW
11	3-22-10	4	3752480	12	8	PWW
11	3-24-10	4	3901979	10	11	PWW
11	3-26-10	5	4063360	14	10	PWW
TANK 1	3-29-10	5pm	4288125	13	8	PWW
TANK 1	4-1-10	4:10	4490184	13	10	PWW
TANK 1	4-5-10	5pm	4744419	14	9	PWW
TANK 1	4-7-10	9:00am	4896488	11	10	PWW
TANK 1	4-9-10	5:45am	5040632	13	11	PWW
TANK 1	4-12-10	6:30pm	5231815	14	16	PWW
TANK 1	4-14-10	6:30pm	5390414	13	10	PWW

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
2-24-10	1825949	X		X	X	X		X
2-26-10	1969890	X		X	X	X	X	X
3-1-10	2154961	X		X	X	X		X
3-3-10	2342917	X		X	X	X		X
3-5-10	2657127	X		X	X	X	X	X
3-8-10	2879743	X		X	X	X		X
3-10-10	3106586	X		X	X	X	X	X
3-15-10	3435250	X		X	X	X		X
3-17-10	3596377	X		X	X	X		X
3-19-10	3804134	X		X	X	X	X	X
3-22-10	3752480	X		X	X	X		X
3-24-10	3901979	X		X	X	X		X
3-26-10	4063360	X		X	X	X		X
3-29-10	4288125	X		X	X	X		X
4-1-10	4490184	X		X	X	X	X	X
4-5-10	4744419	X		X	X	X		X
4-7-10	4896488	X		X	X	X		X
4-9-10	5040632	X		X	X	X	X	X
4-11-10	5231815	X		X	X	X		X
4-14-10	5390414	X		X	X	X		X

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
4-16-10	5438305	X		X	X	X		X
4-19-10	5672941	X		X	X	X		X
4-21-10	5956985	X		X	X	X		X
4-23-10	6140523	X		X	X	X	X	X
4-26-10	6406440	X		X	X	X		X
4-28-10	6539866	X		X	X	X		X
4-30-10	6601245	X		X	X	X		X
5-3-10	6698801	X		X	X	X	X	X
5-5-10	6849548	X		X	X	X		X
5-7-10	6986314	X		X	X	X	X	X
5-10-10	7181053	X		X	X	X		X
5-12-10	7249615	X		X	X	X		
5-14-10	7308022	X		X	X	X	X	X
5-17-10	7410293	X		X	X	X		X
5-19-10	7544173	X		X	X	X	X	X
5-21-10	7621064	X		X	X	X		X
5-24-10	7735883	X		X	X	X		X
5-26-10	7769614	X		X	X	X		X
5-28-10	7815493	X		X	X	X	X	X
6-1-10	7918208	X		X	X	X		X
6-3-10	8003019	X		X	X	X		X
6-4-10	8038979	X		X	X	X	X	X
6-7-10	8160439	X		X	X	X	X	X
6-9-10	8235920		X	X	X	X		X
6-10-10	8311960		X	X	X	X	X	X
6-14-10	8469478		X	X	X	X		X

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
4-16-10	6:30	5438305	27	23	PWW
4-19-10	6:30	5672941	28	23	PWW
4-21-10	8:00	5956985	27	23	PWW
4-23-10	8:00	6141523	28	22	PWW
4-26-10	5pm	6406440	28	21	PWW
4-28-10	8	6539866	28	22	PWW
4-30-10	7	6601245	28	23	PWW
5-3-10	8	6791880	29	21	PWW
5-5-10	8am	6849548	25	21	PWW
5-7-10	9am	6986314	25	21	PWW
5-10-10	8am	7181053	25	22	PWW
5-12-10	7am	7249615	28	21	PWW
5-14-10	8am	7308022	25	22	PWW
5-17-10	7am	7410793	27	21	PWW
5-19-10	7am	7547175	27	22	PWW
5-21-10	3pm	7621064	27	22	PWW
5-24-10	4pm	7735883	27	22	PWW
5-26-10	7am	7769614	27	21	PWW
5-28-10	8am	7818173	27	22	PWW
6-1-10	3:30pm	7918208	27		PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
6-3-10	6905	8003019	24	21.5	BMF
6-4-10	800	8038979	27	21	PWW
6-7-10	800	8160439	27	20	PWW
6-9-10	800	8235920	26	21	PWW
6-10-10	800	8311960	24	20	PWW
6-14-10	700	8469498	28		PWW

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
				Prior to Change	After Change	
TANK 1	4-16-10	6:30	5438305	13	10	PWW
TANK 1	4-19-10	6:30	5672941	12	10	PWW
TANK 1	4-21-10	8	5956985	13	10	PWW
TANK 1	4-23-10	8:00	6140523	11	11	PWW
TANK 1	4-26-10	5pm	6401440	14	10	PWW
TANK 1	4-28-10	8	6539866	14	11	PWW
TANK 1	4-30-10	7	6601245	15	12	PWW
TANK 1	5-3-10	8	6698801	14	10	PWW
TANK 1	5-5-10	8am	6849548	12	10	PWW
TANK 1	5-7-10	9am	6986314	16	10	PWW
TANK 1	5-10-10	8am	7181053	16	10	PWW
TANK 1	5-12-10	7am	7249615	16	11	PWW
TANK 1	5-14-10	8am	7308022	16	10	PWW
TANK 1	5-17-10	7am	7410293	16	10	PWW
TANK 1	5-19-10	7am	7544173	16	10	PWW
TANK 1	5-21-10	3pm	7621064	16	10	PWW
TANK 1	5-24-10	4pm	7735883	16	10	PWW
TANK 1	5-26-10	7am	7769614	16	10	PWW
TANK 1	5-28-10	8am	7815493	16	10	PWW
TANK 1	6-1-10	3pm	7918208	16		PWW

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
				Prior to Change	After Change	
~~6-3-10 TANK 1~~	6-3-10	0905	8003019	~~12~~ 12	11	BMG
TANK 1	6-4-10	800	8038979	14 14	11	PWW
TANK 1	6-7-10	800	8160439	12	6 8	PWW
TANK 2	6-9-10	800	8235920	12		PWW
TANK 2	6-10-10	800	8311410	14		
TANK 2	6-14-10	700	8469498			

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
6/21/10	8549002		X	X	V	X	X	X
6/23/10	8623391		X	X	X		X	X
6/25/10	8674016		X	X	X		X	X
6/28/10	8803740		X	X	X		X	X
7-1-10	8896027		X	X			X	X
7-2-10	8955945		X	X	X	X	X	X
7-5-10	8976524		X	X	X		X	X
7-7-10	9019821		X	X	X		X	X
7-11-10	9212948		X	X	X		X	X

6-21-10 4,11 7-13-10 operating on one bag filter because the charge on 2nd bag filter split

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
				Prior to Change	After Change	
TANK 2	6/21/10	14:15	8549002	14	8	PWW
TANK 2	6/23/10	5pm	8623371	16	11	PWW
TANK 2	6/25/16	8:00	8674016	15	11	PWW
TANK 2	6/28/10	7:00 am	8803740	14	8	PWW
TANK 2	7-1-10	1100	8896027	0	7	BMG
TANK 2	7-2-10	1200	8955945	0	8	PWW
TANK 2	7-5-10	930 am	8976524	0	7	PWW
TANK 2	7-7-10	330 PM	9019821	0	8	PWW
TANK 2	7-11-10	7am	9212946	0	6	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

Date	Time	Total Filtered (gal)	Pressure Reading		technician
			Prior to Change	After Change	
6/21/10	14:15	8549002	28	22	PWW
6/23/10	5 pm	8623391	28	23	PWW
6/25/10	8	8674016	26	22	PWW
6/28/10	7 00 am	8803740	29	26	PWW
7-1-10	1100	8896027	26.5	20	BMC
7-2-10	12	8955945	26	20	PWW
7-5-10	930 am	8976524	28	20	PWW
7-7-10	330 pm	9019821	28	21	PWW
7-11-10	7 am	9112948	26	21	PWW

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 9
REPORTING PERIOD ENDING September 30, 2010

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress report covers approximately 3 months of the operation and maintenance of the GWPTS from (07/01/10 through 9/30/10).

1.0 Treatment Statistics

- Approximately 1,637,303 gallons of collected groundwater were treated over this period averaging 17,796.77 gallons per day.
- System was operational for approximately 100% of the time.
- System was down for 0% of the time
- Approximately 2.5 drums of tar was recovered from the oil/water separator

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration vessel back-washing : 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Additional effort for more frequent bag filter changing and backwashing
- On 6/21/10 thru 7/13/10 only one bag filter was operational due to a bag cage malfunction
- September 30, 2010 the oil/water separator was drained and cleaned

3.0 Work Planned

- Continued regular maintenance
- Carbon change out (projected December 2010)
- Annual certification/inspection (November/December 2010)

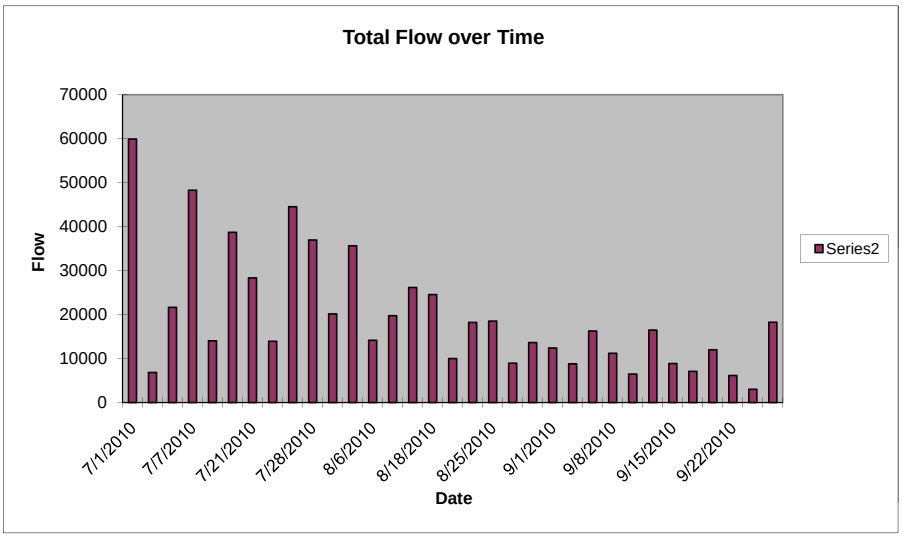
4.0 Attachments/Logs

- Bag Filter Change-out Log 6/21/10 thru 7/11/10, 7/19/10 thru 9/29/10
- Carbon Filter Backwash Log 6/21/10 thru 7/11/10, 7/19/10 thru 9/29/10
- Maintenance Log
- Graph of Daily Operation

ATTACHMENT 1

MONITORED FLOWS VS. TIME

Date	Total Flow	Daily Avg
7/1/2010	8896027	
7/2/2010	8955945	59918
7/5/2010	8976524	6860
7/7/2010	9019821	21649
7/11/2010	9212948	48282
7/19/2010	9325315	14046
7/21/2010	9402699	38692
7/23/2010	9459391	28346
7/26/2010	9501246	13952
7/28/2010	9590306	44530
7/30/2010	9664217	36956
8/4/2010	9764931	20143
8/6/2010	9836252	35661
8/13/2010	9935339	14155
8/16/2010	9994562	19741
8/18/2010	10046859	26149
8/20/2010	10095963	24552
8/23/2010	10126042	10026
8/25/2010	10162531	18245
8/27/2010	10199542	18506
8/30/2010	10226394	8951
9/1/2010	10253664	13635
9/3/2010	10278502	12419
9/6/2010	10304924	8807
9/8/2010	10337449	16263
9/10/2010	10359878	11215
9/13/2010	10379291	6471
9/15/2010	10412241	16475
9/17/2010	10429996	8878
9/20/2010	10451293	7099
9/22/2010	10475306	12007
9/24/2010	10487652	6173
9/27/2010	10496783	3044
9/29/2010	10533330	18274



Total Flow 1637303 gallons

Flows for July	768190	gallons/month	Flows for August	562177	gallons/month	Flows For September	306936.00	gallons/month
	24780.32	gallons/day		18134.742	gallons/day		10231.2	gallons/day
	17.20856	gallons/min		12.593571	gallons/min		7.105	gallons/min

* = flow meter calibrated and reset to zero on 01/05/10

1.) 6/21/10 thru 7-13-10 operating on only one bag filter due to broken bag cage

ATTACHMENT 2

MAINTENANCE LOGS

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
6/21/10	8549002		X	X	V	X	X	X
6/23/10	8623391		X	X	X		X	X
6/25/10	8674016		X	X	X		X	X
6/28/10	8803740		X	X	X		X	X
7-1-10	8896027		X	X			X	X
7-2-10	8955945		X	X	X	X	X	X
7-5-10	8976524		X	X	X		X	X
7-7-10	9019821		X	X	X		X	X
7-11-10	9212948		X	X	X		X	X

6-21-10 4,11 7-13-10 operating on one bag filter because the charge on 2nd bag filter split

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

Lead Tank	Date	Time	Total Filtered (gal)	Pressure Differentail Reading on Lead Tank		technician
				Prior to Change	After Change	
TANK 2	6/21/10	14:15	8549002	14	8	PWW
TANK 2	6/23/10	5pm	8623371	16	11	PWW
TANK 2	6/25/16	8:00	8674016	15	11	PWW
TANK 2	6/28/10	7:00 am	8803740	14	8	PWW
TANK 2	7-1-10	1100	8896027	0	7	BMG
TANK 2	7-2-10	1200	8955945	0	8	PWW
TANK 2	7-5-10	930 am	8976524	0	7	PWW
TANK 2	7-7-10	330 PM	9019821	0	8	PWW
TANK 2	7-11-10	7am	9212946	0	6	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

Date	Time	Total Filtered (gal)	Pressure Reading		technician
			Prior to Change	After Change	
6/21/10	14:15	8549002	28	22	PWW
6/23/10	5 pm	8623391	28	23	PWW
6/25/10	8	8674016	26	22	PWW
6/28/10	7 00 am	8803740	29	26	PWW
7-1-10	1100	8896027	26.5	20	BMC
7-2-10	12	8955945	26	20	PWW
7-5-10	930 am	8976524	28	20	PWW
7-7-10	330 pm	9019821	28	21	PWW
7-11-10	7 am	9112948	26	21	PWW

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
7-19-10	9325315		X	X	X		X	X
7-21-10	9402699		X	X	X	X	X	X
7-23-10	9459391		X	X	X		X	X
7-26-10	9501246		X	X	X	X	X	X
7-28-10	9590306		X	X	X		X	X
7-30-10	9664217		X	X	X	X	X	X
8-4-10	9764931		X	X	X	M	X	X
8-6-10	9836252		X	X	X	X	X	X
8-13-10	9935339		X	X	X		X	X
8-16-10	9994562		X	X	X		X	X
8-18-10	10046859		X	X	X	X	X	X
8-20-10	10095963		X	X	X		X	X
8-23-10	10126042		X	X	X		X	X
8-25-10	10162531		X	X	X		X	X
8-27-10	10199542		X	X	X	X	X	X
8-30-10	10226394		X	X	X		X	X
9-1-10	10253664		X	X	X		X	X
9-3-10	10278502		X	X	X	X	X	X
9-6-10	10304924		X	X	X		X	X
9-8-10	10337449		X	X	X		X	X
9-10-10	10359878		X	X	X		X	X
9-13-10	10379291		X	X	X	X	X	X
9-15-10	10412241		X	X	X		X	X
9-17-10	10429996		X	X	X	X	X	X
9-20-10	10451293		X	X	X		X	X
9-22-10	10475306		X	X	X		X	X
			/	/	/	/	/	/
			/	/	/		/	/
			/	/	/		/	/

10535530

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
7-19-10	4pm	9325315	30	21	PWW
7-21-10	4pm	9402699	26	20	PWW
7-23-10	4pm	9479391	25	20	PWW
7-26-10	4pm	9501246	26	21	PWW
7-28-10	7am	9590306	26	20	PWW
7-30-10	8am	9664217	27	22	PWW
8-4-10	7:30pm	9764931	28	22	PWW
8-6-10	4:30pm	9836252	28	21	PWW
8-13-10	1235	9935339	27	20	BMC
8-16-10	8:00	9994562	27	21	PWW
8-18-10	8:00	10046859	28	20	PWW
8-20-10	8:00	10095963	28	21	PWW
8-23-10	8:00	10126042	27	21	PWW
8-25-10	5pm	10162531	26	20	PWW
8-27-10	5pm	10199542	26	21	PWW
8-30-10	7am	10226394	27	22	PWW
9-1-10	6:30am	10253664	26	20	PWW
9-3-10	7am	10278502	25	21	PWW
9-6-10	4pm	10304924	26	21	PWW
9-8-10	3pm	10337449	24	21	PWW
9-10-10	3pm	10359878	26	21	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
9-13-10	5pm	10379291	0	0	PWW
9-15-10	6pm	10412241	0	0	PWW
9-17-10	3:30pm	10429996	0	0	PWW
9-20-10	5pm	10451293	0	0	PWW
9-22-10	4pm	10475506	0	0	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
TANK 2	7-19-10	4 pm	9325315	12	6	PWW
TANK 2	7-21-10	4 pm	9402699	0	0	PWW
TANK 2	7-23-10	4 pm	9459391	0	0	PWW
TANK 2	7-26-10	4 pm	9501246	0	0	PWW
TANK 2	7-28-10	7 am	9590306	0	0	PWW
TANK 2	7-30-10	8 am	9664217	0	0	PWW
TANK 2	8-4-10	7:30 pm	9764931	0	0	PWW
TANK 2	8-6-10	4:30 pm	9836252	0	0	PWW
Tank 2	8-13-10	1235	9935339	0	0	BWG
Tank 2	8-16-10	8:00	9994562	0	0	PWW
TANK 2	8-18-10	8:00	10046859	0	0	PWW
TANK 2	8-20-10	8:00	10075963	0	0	PWW
TANK 2	8-23-10	8:00	10126042	0	0	PWW
TANK 2	8-25-10	5 pm	10162531	0	0	PWW
TANK 2	8-27-10	5 pm	10199542	0	0	PWW
TANK 2	8-30-10	7 am	10226394	0	0	PWW
TANK 2	9-1-10	6:30 am	10253664	0	0	PWW
TANK 2	9-3-10	7 am	10278502	0	0	PWW
TANK 2	9-6-10	4 pm	10304924	0	0	PWW
TANK 2	9-8-10	3 pm	10337449	0	0	PWW
TANK 2	9-10-10	3 pm	10359878	0	0	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
~~4-13~~ TANK2	9-13-10	5pm	10379291	26	21	PWW
TANK2	9-15-10	6pm	10412241	26	20	PWW
TANK2	9-17-10	3:30pm	10429996	25	20	PWW
TANK2	9-20-10	5pm	10451293	26	21	PWW
TANK2	9-22-10	4pm	10475306	25	20	PWW

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 10
REPORTING PERIOD ENDING December 31, 2010

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress Report covers approximately 3 months of the operation and maintenance of the GWPTS from (10/01/10 through 12/31/10).

1.0 Treatment Statistics

- Approximately 709,965 gallons of collected groundwater were treated over this period averaging 7,977 gallons per day.
- System was operational for approximately 100% of the time.
- System was down for 0% of the time
- Approximately 1 drum of tar was generated from the oil/water separator

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration vessel back-washing : 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Additional effort for more frequent bag filter changing and backwashing
- December 21, 2010 the oil/water separator was drained and cleaned
- Carbon change out (Tank 2) on 12/23/10

3.0 Work Planned

- Continued regular maintenance
- Annual certification/inspection postponed until spring due to snow cover

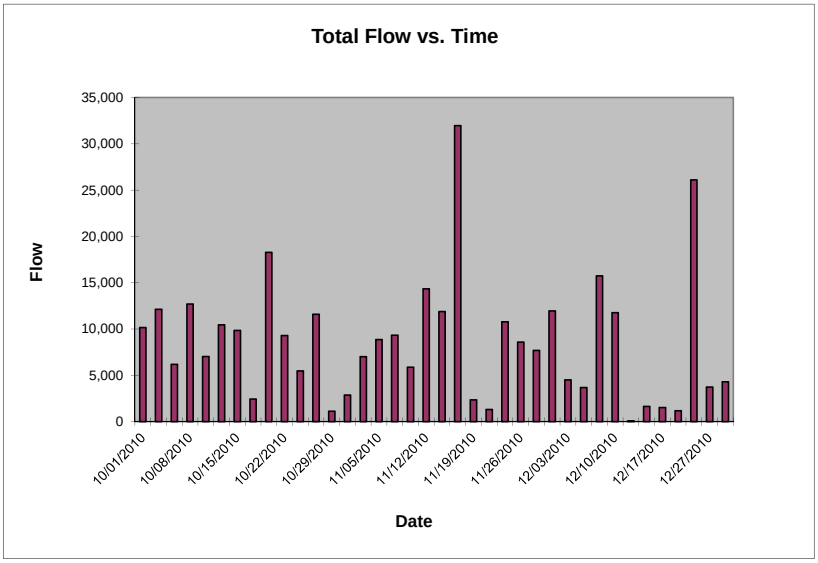
4.0 Attachments/Logs

- Graph of monitored flows through treatment system
- Maintenance Log 9/30/10 thru 1/3/11
- Bag Filter Change-out Log 9/30/10 thru 1/3/11
- Carbon Filter Backwash Log 9/30/10 thru 1/3/11

ATTACHMENT 1

MONITORED FLOWS VS. TIME

Date	Total Flow	Daily Avg
10/01/2010	10,551,278	10,161
10/04/2010	10,587,654	12,125
10/06/2010	10,600,029	6,188
10/08/2010	10,625,434	12,703
10/11/2010	10,646,528	7,031
10/13/2010	10,667,432	10,452
10/15/2010	10,687,108	9,838
10/18/2010	10,694,394	2,429
10/20/2010	10,730,948	18,277
10/22/2010	10,749,516	9,284
10/25/2010	10,765,923	5,469
10/27/2010	10,789,098	11,588
10/29/2010	10,791,325	1,114
11/01/2010	10,799,934	2,870
11/03/2010	10,813,941	7,004
11/05/2010	10,831,652	8,856
11/08/2010	10,859,632	9,327
11/10/2010	10,871,361	5,865
11/12/2010	10,900,021	14,330
11/15/2010	10,935,695	11,891
11/17/2010	10,999,612	31,959
11/19/2010	11,004,308	2,348
11/22/2010	11,008,210	1,301
11/24/2010	11,029,772	10,781
11/26/2010	11,046,943	8,586
11/29/2010	11,070,001	7,686
12/01/2010	11,093,921	11,960
12/03/2010	11,102,938	4,509
12/06/2010	11,113,946	3,669
12/08/2010	11,145,432	15,743
12/10/2010	11,168,951	11,760
12/13/2010	11,169,121	57
12/15/2010	11,172,398	1,639
12/17/2010	11,175,439	1,521
12/20/2010	11,178,947	1,169
12/22/2010	11,231,164	26,109
12/27/2010	11,249,811	3,729
12/29/2010	11,261,243	4,297
01/03/2011	11,532,778	40,424



Total Quarterly Flow:	709,965	gallons
Ave. Quarterly Flow:	7,977	gallons

OCTOBER	
248,656	gallons/month
31	days
8,021	gallons/day
6	gallons/min

NOVEMBER	
293,987	gallons/month
30	days
9,800	gallons/day
7	gallons/min

DECEMBER	
438,857	gallons/month
31	days
14,157	gallons/day
10	gallons/min

Notes:
* = flow meter calibrated and reset to zero on 01/05/10

ATTACHMENT 2

MAINTENANCE LOGS

Waste Water Treatment Plant - Riverbend
Maintenance Log

Date	Flow Meter Reading	Lead Tank		Bag Filter Change		Back Flush		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Tank 1	Tank 2	
9-30-10	10541117		X	X	X	X	X	X
10-1-10	10551278		X	X	X		X	X
10-4-10	10587654		X	X	X	X	X	X
10-6-10	10600029		X	X	X		X	X
10-8-10	10625434		X	X	X		X	X
10-11-10	10646528		X	X	X	X	X	X
10-13-10	10667432		X	X	X		X	X
10-15-10	10687108		X	X	X		X	X
10-18-10	10694394		X	X	X	X	X	X
10-20-10	10730948		X	X	X		X	X
10-22-10	10749516		X	X	X		X	X
10-25-10	10765923		X	X	X	X	X	X
10-27-10	10789098		X	X	X		X	X
10-29-10	10791325		X	X	X		X	X
11-1-10	10799934		X	X	X	X	X	X
11-3-10	10813941		X	X	X		X	X
11-5-10	10831652		X	X	X		X	X
11-8-10	10859632		X	X	X	X	X	X
11-10-10	10871361		X	X	X		X	X
11-12-10	10900021		X	X	X	X	X	X
11-15-10	10935695		X	X	X		X	X
11-17-10	10999612		X	X	X		X	X
11-19-10	11654308		X	X	X	X	X	X
11-22-10	11008210		X	X	X		X	X
11-24-10	11029772		X	X	X		X	X
11-26-10	11046943		X	X	X	X	X	X
11-29-10	11070001		X	X	X		X	X
12-1-10	11093921		X	X	X		X	X
12-3-10	11102938		X	X	X	X	X	X
12-6-10	11113946		X	X	X		X	X
12-8-10	11145432		X	X	X	X	X	X
12-10-10	11168951		X	X	X		X	X
12-13-10	11191211		X	X	X	X	X	X
12-15-10	11172398		X	X	X		X	X
12-17-10	11175439		X	X	X	X	X	X
12-20-10	11178947		X	X	X		X	X
12-22-10	11231164		X	X	X	X	X	X
12-27-10	11249811	X	X	X	X	X	X	X
12-29-10	11261243	X		X	X	X		X
1-3-11	11532778	X		X	X	X	X	X

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
9-30-2010	08:30AM	10541117	26	21	JDP
10-1-10	6:00 pm	10551278	26	21	PWW
10-4-10	8 pm	10587654	27	21	PWW
10-6-10	7 pm	10600029	26	22	PWW
10-8-10	6 pm	10625434	27	22	PWW
10-11-10	7 am	10646528	26	21	PWW
10-13-10	7 pm	10667432	27	20	PWW
10-15-10	1406	10689108	27	20	JDP
10-18-10	1730	10694394	26	20	PWW
10-20-10	1700	10730948	27	21	PWW
10-22-10	1700	10749516	26	20	PWW
10-25-10	1600	10765923	27	21	PWW
10-27-10	600	10789098	26	20	PWW
10-29-10	7 am	10791325	27	21	PWW
11-1-10	7 am	10799934	28	21	PWW
11-3-10	4 pm	10813941	26	20	PWW
11-5-10	5 pm	10831652	27	21	PWW
11-8-10	6 pm	10859632	27	21	PWW
11-10-10	8 am	10871361	26	20	PWW
11-12-10	7 am	10900021	25	20	PWW
11-15-10	5pm	10935695	28	20	

BENCHMARK
ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

OPERATION AND MAINTANANCE
BAG FILTER CHANGE-OUT LOG

PROJECT INFORMATION:

Project Name: Riverbend
Project No.: 0171-001-500
Client: Riverbend

			Pressure Reading		
Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
11-17-10	700	10999612	28	20	PWW
11-19-10	1800	11654308	27	20	PWW
11-22-10	1800	11008210	29	20	PWW
11-24-10	700	11029772	28	21	PWW
11-26-10	8pm	11046943	28	22	PWW
11-29-10	7pm	11070001	27	21	PWW
12-1-10	6pm	11093921	26	20	PWW
12-3-10	5pm	1110 2938	26	21	PWW
12-6-10	7pm	11113946	27	20	PWW
12-8-10	6pm	11145432	27	21	PWW
12-10-10	5pm	11168951	28	22	PWW
12-13-10	4pm	11209121	28	22	PWW
12-15-10	6pm	11177398	28	21	PWW
12-17-10	5pm	11195439	27	21	PWW
12-20-10	12pm	11218947	26	20	PWW
12-22-10	5pm	11231164	26	20	PWW
12-27-10	6pm	11249811	30	22	PWW
12-29-10	1pm	11261243	30	21	PWW
1-3-11	11	11552778	28	21	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
2	9-30-2010	0830 AM	10541117	0	0	MP
2	10-1-10	600 PM	10551278	0	0	PWW
2	10-4-10	8 PM	10587654	6	0	PWW
2	10-6-10	7 PM	10600029	0	0	PWW
2	10-8-10	6 PM	10625434	0	0	PWW
2	10-11-10	7 PM	10646528	0	0	PWW
2	10-13-10	7 PM	10667432	0	0	PWW
2	10-15-10	1406	10684108	0	0	MP
2	10-18-10	1730	10694394	0	0	PWW
2	10-20-10	1700	10730948	0	0	PWW
2	10-22-10	1700	10749516	0	0	PWW
2	10-25-10	1600	10765923	0	0	PWW
2	10-27-10	600	10789098	0	0	PWW
2	10-29-10	700	10791375	0	0	PWW
2	11-1-10	700	10799934	0	0	PWW
2	11-3-10	1600	10813941	0	0	PWW
2	11-5-10	1700	10831652	0	0	PWW
2	11-8-10	1600	10857632	0	0	PWW
2	11-10-10	800	10871361	0	0	PWW
2	11-12-10	700	10900021	0	0	PWW
2	11-15-10	1700	10935695	0	0	PWW

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

OPERATION AND MAINTANANCE
CARBON FILTER BACKWASH LOG

PROJECT INFORMATION:

Project Name: Riverbend

Project No.: 0171-001-500

Client: Riverbend

				Pressure Differentail Reading on Lead Tank		
Lead Tank	Date	Time	Total Filtered (gal)	Prior to Change	After Change	technician
2	11-17-10	700	10999612	0	0	PWW
2	11-19-10	1800	11654308	0	0	PWW
2	11-22-10	1800	11008210	0	0	PWW
2	11-24-10	700	11029772	0	0	PWW
2	11-26-10	8pm	11646943	0	0	PWW
2	11-29-10	7pm	11070001	6	0	PWW
2	12-1-10	6pm	11093921	0	0	PWW
2	12-3-10	5pm	11102938	0	0	PWW
2	12-6-10	7pm	11113946	0	0	PWW
2	12-8-10	6pm	11145432	0	0	PWW
2	12-10-10	5pm	11168951	0	0	PWW
2	12-13-10	4pm	11169121	0	0	PWW
2	12-15-10	6pm	11172398	0	0	PWW
2	12-17-10	5pm	11175439	0	0	PWW
2	12-20-10	12pm	11178947	0	0	PWW
2	12-22-10	3pm	11231164	0	0	PWW
TANK 1	12-27-10	6pm	11249811	12	8	PWW
TANK 1	12-29-10	1pm	11261243	12	8	PWW
TANK 1	1-3-11	11pm	11532778	11	8	PWW

500

Waste Water Treatment Plant - Riverbend
Maintenance Log

Flow Before/after

Date/Time	Flow Meter Reading	Lead Tank		Back Flush		Pressure Differential (PSI)		Bag Filter Change		Bag Pressure (PSI)		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Before	After	Tank 1	Tank 2	Before	After	
1-6-11 09:00	11693520	X		X	X	12	10	X	X	28	21	X
1-7-11 10:00	21753	X		X		11	8	X	X	28	21	X
1-11-11 14:00	169,298	X		X		12	8	X	X	24	20	X
1-13-11 16:00	284,533	X		X		10	8	X	X	24	21	X
1-14-11 17:00	330,387	X		X	X	4	2	X	X	24	20	X
1-17-11 16:00	421,961	X		X		4	2	X	X	24	20	X
1-19-11 16:00	512,006	X		X		6	3	X	X	26	20	X
1-21-11 17:00	632,083	X		X	X	4	2	X	X	25	20	X
1-25-11 11:00	792,947	X		X		4	2	X	X	23	20	X
1-31-11 8:00	1047798	X		X		5	5	X	X	22	20	X
2-2-11 15:00	1'145'471	X		X	X	4	2	X	X	—	19	X
2-7-11 17:00	1354657	X		X		-	2	X	X	—	19.5	X
2-9-11 16:30	1446630	X		X		-	2	X	X	—	20	X
2-11-11 11:00	1521410	X		X	X	-	2	X	X	—	20	X
2-14-11 10:30	1677379	X		X		-	2	X	X	—	21	X
2-16-11 16:00	1740356	X		X		3.5	2	X	X	22	20	X
2-18-11 11:00	1815544	X		X	X	—	2	X	X	22	20	X
2-21-11 11:00	1947931	X		X		-	2	X	X	—	20	X
2-23- 14:00	2031787	X		X		3.5	2	X	X	22	19	X
2-25-11 09:45	2118471	X		X	X	-	2	X	X	—	20	X
2-28-11 18:00	2251377	X		X		3	2	X	X	23	20	X
3-2-11 11:30	2338545	X		X		3.5	2	X	X	22	20	X
3-4-11 8:00	2477904	X		X	X	-	10	X	X	—	20	X

60 GPM / 76 GPM
75
61 GPM / 73 SCF
74

80.62
-180.49
72.03 / 80.60
73.26 / 83.05
- 78.73
66.51 / 81.90
-180.66
68.11 / 79.49
68.04 / 81:00
-179.44

1-6-11 @ 10:00 flow meter was calibrated and reset to 0

FILTRATION UNLIMITED

PE 700 EX PC

9, 4" Product

Waste Water Treatment Plant - Riverbend

Maintenance Log

Date	Flow Meter Reading	Lead Tank		Back Flush		Pressure Differential (PSI)		Bag Filter Change		Bag Pressure (PSI)		Decant Oil Seperator	Instantaneous Flow	
		Tank 1	Tank 2	Tank 1	Tank 2	Before	After	Tank 1	Tank 2	Before	After		Before	After
5-9-11 800	26327933	X		X		11	8	X	X	23	20	X	65.66	80.25
5-11-11 800	27274318	X		X	X	–	10	X	X	–	20	X (2)	–	81.50
5-14-11 800	28577130	X		X		11	9	X	X	22	20	X	64.38	80.53
5-16-11 820	29501901	X		X		9.5	10	X	X	21	20	X	65.31	80.24
5-18-11 1200	30485335	X		X	X	9	10	X	X	22	20	X	67.76	83.25
5-21-11 950	31802994	X		X		–	10	X	X	–	20	X	–	81.56
5-23-11 0730	33157588	X		X		–	10	X	X	–	20	X	–	81.26
5-26-11 1900	34739416	X		X	X	12	10	X	X	24	20	X	48.05	78.29
5-28-11 0830	35721889	X		X		–	10	X	X	–	20	X	62.61	80.47
5-30-11 0830	35888691	X		X		12	11	X	X	24	21	X	51.96	77.85

PROGRESS REPORT FOR THE
OPERATION, MAINTENANCE, AND MONITORING SERVICES
Riverbend, LLC
197 Baraga St,
Buffalo NY, 14210

PROGRESS REPORT No. 11
REPORTING PERIOD ENDING March 31, 2011

Project Description

This Quarterly Progress Report has been prepared for the Riverbend, LLC Groundwater Pre-Treatment System (GWPTS) located at 197 Baraga Street, Buffalo, NY. This Report has been prepared in accordance with the requirements of the Site Management Plan and at the request of the NYSDEC. This Progress Report covers 3 months of the operation and maintenance of the GWPTS from January 1 through March 31, 2011.

1.0 Treatment Statistics

- Approximately 3,749,433 gallons of collected groundwater were treated over this period averaging 41,703 gallons per day.
- System was operational for approximately 100% of the time.
- System was down for 0% of the time
- Approximately 130 pounds of tar was generated from the oil/water separator; approximately 58 pounds in January, 36 pounds in February, and 36 pounds in March. These volumes are consistent with a Conditionally Exempt Small Quantity generator (≤ 220 pounds/month). This generator status according to the USEPA has an on-site accumulation quantity limit of 2,200 pounds and no accumulation time limit.

2.0 General Schedule of Maintenance Undergone

- Regular Maintenance Items
  - 3 bag filter changes/week or as necessary
  - Carbon filtration vessel back-washing: 3 times per week or as necessary
  - Decant tar from separator : 3 times per week or as necessary
- Additional effort for more frequent bag filter changing and backwashing
- Pulled all three pumps from the pump stations; cleaned, changed oil; and replaced the chains on each pulley system. All three pumps are functioning as intended.
- Performed an electrical assessment on all 3 pump stations, which required some reprogramming of the Sensaphone SCADA 3000 AutoDialer

3.0 Work Planned

- Continue regular maintenance
- Annual certification/inspection associated with the Periodic Review Report (PRR) in accordance with DER-10 is being performed in April

4.0 Attachments/Logs

- Attachment 1: Graph of monitored flows through treatment system for current quarter
- Attachment 2: Maintenance Log for current quarter (01/06/11 thru 3/30/11)
- Attachment 3: Generated Volume of Tar Material Log (01/01/11 thru 03/30/11)

ATTACHMENT 1

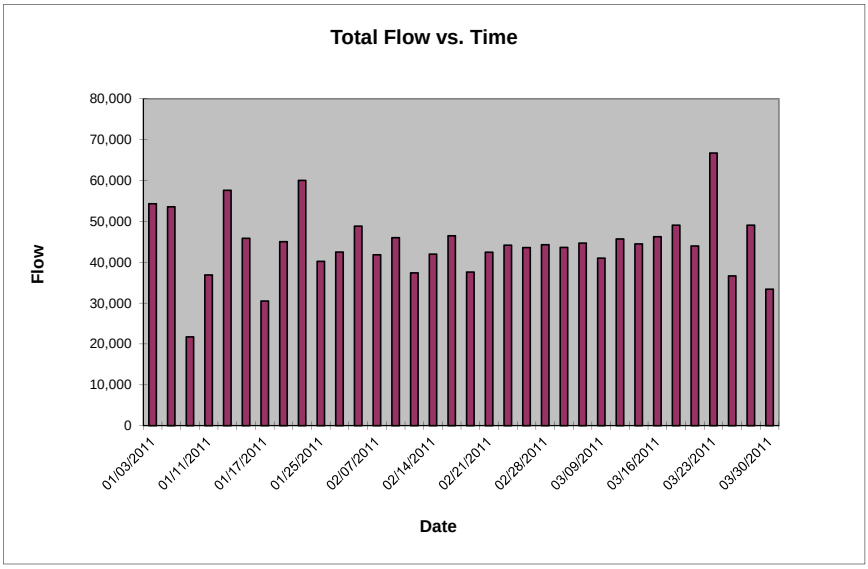
MONITORED FLOWS VS. TIME

ATTACHMENT 1

MONITORED FLOWS v. TIME
FIRST QUARTER 2011

Groundwater Pre-Treatment System (GWPTS)
Riverbend, LLC
Buffalo, New York

Date	Total Flow	Daily Avg
01/03/2011	11,532,778	54,307
01/06/2011	11,693,520	53,581
01/07/2011	21,753	21,753
01/11/2011	169,298	36,886
01/13/2011	284,533	57,618
01/14/2011	330,387	45,854
01/17/2011	421,961	30,525
01/19/2011	512,006	45,023
01/21/2011	632,083	60,039
01/25/2011	792,947	40,216
01/31/2011	1,047,798	42,475
02/02/2011	1,145,471	48,837
02/07/2011	1,354,632	41,832
02/09/2011	1,446,630	45,999
02/11/2011	1,521,410	37,390
02/14/2011	1,647,379	41,990
02/16/2011	1,740,356	46,489
02/18/2011	1,815,544	37,594
02/21/2011	1,942,931	42,462
02/23/2011	2,031,287	44,178
02/25/2011	2,118,471	43,592
02/28/2011	2,251,327	44,285
03/02/2011	2,338,545	43,609
03/04/2011	2,427,904	44,680
03/09/2011	2,632,933	41,006
03/11/2011	2,724,318	45,693
03/14/2011	2,857,730	44,471
03/16/2011	2,950,190	46,230
03/18/2011	3,048,333	49,072
03/21/2011	3,180,299	43,989
03/23/2011	3,313,758	66,730
03/26/2011	3,423,746	36,663
03/28/2011	3,521,889	49,072
03/30/2011	3,588,691	33,401



Total Quarterly Flow: 3,749,433 gallons
Ave. Quarterly Flow: 41,703 gallons/day

JANUARY	
1,208,540	gallons/month
31	days
38,985	gallons/day
27	gallons/min

FEBRUARY	
1,203,529	gallons/month
28	days
42,983	gallons/day
30	gallons/min

MARCH	
1,337,364	gallons/month
31	days
43,141	gallons/day
30	gallons/min

Notes:
* = flow meter calibrated and reset to zero on 01/06/11

ATTACHMENT 2

MAINTENANCE LOGS

500

Waste Water Treatment Plant - Riverbend
Maintenance Log

Flow Before/after

Date/Time	Flow Meter Reading	Lead Tank		Back Flush		Pressure Differential (PSI)		Bag Filter Change		Bag Pressure (PSI)		Decant Oil Seperator
		Tank 1	Tank 2	Tank 1	Tank 2	Before	After	Tank 1	Tank 2	Before	After	
1-6-11 09:00	11693520	X		X	X	12	10	X	X	28	21	X
1-7-11 10:00	21753	X		X		11	8	X	X	28	21	X
1-11-11 14:00	169,298	X		X		12	8	X	X	24	20	X
1-13-11 16:00	284,533	X		X		10	8	X	X	24	21	X
1-14-11 17:00	330,387	X		X	X	4	2	X	X	24	20	X
1-17-11 16:00	421,961	X		X		4	2	X	X	24	20	X
1-19-11 16:00	512,006	X		X		6	3	X	X	26	20	X
1-21-11 17:00	632,083	X		X	X	4	2	X	X	25	20	X
1-25-11 11:00	792,947	X		X		4	2	X	X	23	20	X
1-31-11 8:00	1047798	X		X		5	5	X	X	22	20	X
2-2-11 15:00	1'145'471	X		X	X	4	2	X	X	—	19	X
2-7-11 17:00	1354657	X		X		-	2	X	X	—	19.5	X
2-9-11 16:30	1446630	X		X		-	2	X	X	—	20	X
2-11-11 11:00	1521410	X		X	X	-	2	X	X	—	20	X
2-14-11 10:30	1677379	X		X		-	2	X	X	—	21	X
2-16-11 16:00	1740356	X		X		3.5	2	X	X	22	20	X
2-18-11 11:00	1815544	X		X	X	—	2	X	X	22	20	X
2-21-11 11:00	1947931	X		X		-	2	X	X	—	20	X
2-23- 14:00	2031787	X		X		3.5	2	X	X	22	19	X
2-25-11 09:45	2118471	X		X	X	-	2	X	X	—	20	X
2-28-11 18:00	2251377	X		X		3	2	X	X	23	20	X
3-2-11 11:30	2338545	X		X		3.5	2	X	X	22	20	X
3-4-11 8:00	2477904	X		X	X	-	10	X	X	—	20	X

60 GPM / 76 GPM
75
61 GPM / 73 SCF
74

80.62
-180.49
72.03 / 80.60
73.26 / 83.05
- 78.73
66.51 / 81.90
-180.66
68.11 / 79.49
68.04 / 81:00
-179.44

1-6-11 @ 10:00 flow meter was calibrated and reset to 0

FILTRATION UNLIMITED

PE 700 EX PC

9, 4" Product

Waste Water Treatment Plant - Riverbend

Maintenance Log

Date	Flow Meter Reading	Lead Tank		Back Flush		Pressure Differential (PSI)		Bag Filter Change		Bag Pressure (PSI)		Decant Oil Seperator	Instantaneous Flow	
		Tank 1	Tank 2	Tank 1	Tank 2	Before	After	Tank 1	Tank 2	Before	After		Before	After
5-9-11 800	26327933	X		X		11	8	X	X	23	20	X	65.66	80.25
5-11-11 800	27274318	X		X	X	–	10	X	X	–	20	X (2)	–	81.50
5-14-11 800	28577130	X		X		11	9	X	X	22	20	X	64.38	80.53
5-16-11 820	29501901	X		X		9.5	10	X	X	21	20	X	65.31	80.24
5-18-11 1200	30485335	X		X	X	9	10	X	X	22	20	X	67.76	83.25
5-21-11 950	31802994	X		X		–	10	X	X	–	20	X	–	81.56
5-23-11 0730	33157588	X		X		–	10	X	X	–	20	X	–	81.26
5-26-11 1900	34739416	X		X	X	12	10	X	X	24	20	X	48.05	78.29
5-28-11 0830	35721889	X		X		–	10	X	X	–	20	X	62.61	80.47
5-30-11 0830	35888691	X		X		12	11	X	X	24	21	X	51.96	77.85

ATTACHMENT 3

GENERATED VOLUME OF TAR MATERIAL

ATTACHMENT 3

GENERATED VOLUME OF TAR MATERIAL
FIRST QUARTER 2011

Groundwater Pre-Treatment System (GWPTS)
Riverbend, LLC
Buffalo, New York

Date	Decant	Clean Seperator	Tar Level in Drum (inches)	Accumulated Tar Since Last Check (inches)	Volume of Tar (gallons)	Volume of Tar (pounds)
01/01/11 thru 02/10/11	X	X	3.5	3.5	6.02	57.9
02/11/11	X	X	3.5	0	0	0.0
02/14/11	X	X	3.8	0.3	0.516	5.0
02/16/11	X	X	4.1	0.3	0.516	5.0
02/18/11	X	X	4.6	0.5	0.86	8.3
02/21/11	X	X	4.9	0.3	0.516	5.0
02/23/11	X	X	5.2	0.3	0.516	5.0
02/25/11	X	X	5.4	0.2	0.344	3.3
02/28/11	X	X	5.7	0.3	0.516	5.0
03/02/11	X	X	6	0.3	0.516	5.0
03/04/11	X	X	6.3	0.3	0.516	5.0
03/07/11	X	X	6.5	0.2	0.344	3.3
03/09/11	X	X	6.7	0.2	0.344	3.3
03/11/11	X	X	6.8	0.1	0.172	1.7
03/14/11	X	X	6.9	0.1	0.172	1.7
03/16/11	X	X	7	0.1	0.172	1.7
03/18/11	X	X	7.1	0.1	0.172	1.7
03/21/11	X	X	7.2	0.1	0.172	1.7
03/23/11	X	X	7.3	0.1	0.172	1.7
03/26/11	X	X	7.6	0.3	0.516	5.0
03/28/11	X	X	7.7	0.1	0.172	1.7
03/30/11	X	X	7.9	0.2	0.344	3.3
Total Tar:						**130.7**

Density of Tar (published value) (lbs/gallon): **9.62**
Gallons of Tar per inch: **1.72**
Pounds of Tar per inch: **16.53**

APPENDIX B-2

GWPTS EFFLUENT MONITORING REPORTS (BSA CORRESPONDENCE)

2009 ANNUAL COMPLIANCE REPORT
2010 ANNUAL COMPLIANCE REPORT

January 7, 2010

Mr. James Overholt
Buffalo Sewer Authority
Industrial Waste Section
90 West Ferry Street
Buffalo, NY 14213-1799

Re: Riverbend, LLC
Ground Water Pre-Treatment Discharge Monitoring Results
Compliance Monitoring Report – December 2009
BPDES Permit No. 06 -03- BU101

Dear Mr. Overholt:

On behalf of our client, Riverbend, LLC, TurnKey Environmental Restoration has prepared this correspondence to present semi-annual discharge monitoring results for the groundwater pre-treatment system at the above-referenced facility. Discharge monitoring was performed during the period of November 16-17, 2009.

SAMPLE COLLECTION

Samples were collected from the pretreated process effluent (Outfall 001) in general accordance with permit No. 06-03-BU101 in laboratory-provided, precleaned, and pre-preserved sample bottles. Four grab samples for volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis were containerized in individual sample bottles for laboratory composite preparation during sample extraction and USEPA Method 624 and Method 625 analysis, respectively. Composite samples were also collected for laboratory pH and total cyanide analysis. Per the Buffalo Sewer Authority's (BSA's) verbal approval, composite samples were prepared for all required parameters by combining grab samples collected at four equally spaced intervals over the 24-hour monitoring period.

ANALYTICAL RESULTS

Analytical results are presented as Attachment 1. Data are summarized in Table 1 with permitted discharge limits. As indicated, all parameters are well within allowable limits.

FLOW MONITORING

Flow measurement data is presented in Table 1. Quarterly flow monitoring was based on the total flow recorded during the monitoring period divided by the number of days in the monitoring period. A copy of the flow meter calibration data is presented in Attachment 2.

Please contact us if you have any questions.

Sincerely,

TurnKey Environmental Restoration, LLC

Walter J. Meisner

Walter J. Meisner, P.E.
Project Manager

Cc: Peter Cammarata (BUDC) – ecopy
David Stebbins (BUDC) – ecopy
Paul Werthman (TurnKey) – ecopy
Walt Meisner (TurnKey) – ecopy

File: 0171-001-500

TABLES

TABLE 1

GROUNDWATER PRETREATMENT SYSTEM 2009 DATA SUMMARY

BPDES Permit #06-03-BU101
Riverbend, LLC
Baraga Street, Buffalo, NY

Parameter (Units)	Concentration [1]	*Mass [3] (pounds)*	Daily Discharge Limits [2]
Laboratory pH (S.U.)	7.63	na	5.0 - 12.0
Field pH (S.U.)	7.18	na	5.0 - 12.0
Volatile Organic Compounds - Method 624 (mg/L)			
Benzene	0.016	na	Monitor
Semi-Volatile Organic Compounds - Method 625 (mg/L)			
2,4-Dimethylphenol	0.00078 J	na	Monitor
Inorganics (mg/L)			
Total Cyanide	0.46 D	0.175	2.882 lbs
Average Daily Flow (gallons) [4]	45,640		*Note 5*

Notes:

1. Samples were collected from 11/16/09 to 11/17/09.
2. Mass limits are based on flow of 45,639.7 gpd; limits may be adjusted based on actual discharge.
3. The monitoring result is calculated based on the concentration of detected parameters and the average daily flow rate identified herein.
4. Average daily flow based on net flow recorded between September 18, 2009 through December 29, 2009.
5. Permitted maximum allowable daily flow is 110,000 gpd. An action level of 57,600 gpd is identified in the Permit. The BSA is to be notified if flow consistently exceeds this action level so that the permit can be modifed.
6. " D " = dilution required due to high concentration of target analyte.

ATTACHMENT 1

ANALYTICAL DATA

Analytical Report

Work Order: RSK0855

Project Description

River Bend - Effluent

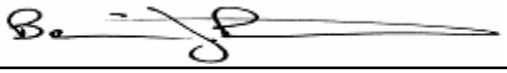
For:

Bryan Hann

Turnkey Environmental Restoration, LLC

2558 Hamburg Turnpike

Lackawanna, NY 14218



Brian Fischer

Project Manager

Brian.Fischer@testamericainc.com

Thursday, December 3, 2009

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

TestAmerica Buffalo
Current Certifications

As of 1/27/2009

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
Oklahoma	CWA, RCRA	9421
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
USDOE	Department of Energy	DOECAP-STB
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accre ditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

DATA QUALIFIERS AND DEFINITIONS

D08	Dilution required due to high concentration of target analyte(s)
HFT	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
P17	Lab to composite samples by date/time/flow.
SL	Volatile sample was composited in the laboratory prior to analysis.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSK0855-01 (process effluent - Water)						**Sampled: 11/16/09 10:00**		**Recvd: 11/18/09 10:40**		
Volatile Organic Compounds										
Benzene	**16**	SL	5.0	0.60	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Acid and Base/Neutral Extractables by EPA Method 625										
2,4-Dimethylphenol	**0.78**	J	5.0	0.13	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
General Chemistry Parameters										
Cyanide	**0.460**	D08	0.0200	0.0100	mg/L	2.00	11/23/09 11:25	LRM	9K21016	335.4
pH	**7.63**	HFT	NR	0.00	SU	1.00	11/18/09 21:41	JFR	9K18115	4500-H+ B

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
process effluent	RSK0855-01	Water	11/16/09 10:00	11/18/09 10:40	P17

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSK0855-01 (process effluent - Water)						**Sampled: 11/16/09 10:00**		**Recvd: 11/18/09 10:40**		
Volatile Organic Compounds										
1,1,1-Trichloroethane	ND	SL	5.0	0.73	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,1,2,2-Tetrachloroethane	ND	SL	5.0	1.2	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,1,2-Trichloroethane	ND	SL	5.0	0.48	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,1-Dichloroethane	ND	SL	5.0	0.59	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,1-Dichloroethene	ND	SL	5.0	0.85	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,2-Dichlorobenzene	ND	SL	5.0	0.44	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,2-Dichloroethane	ND	SL	5.0	0.60	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,2-Dichloropropane	ND	SL	5.0	0.61	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,3-Dichlorobenzene	ND	SL	5.0	0.54	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,4-Dichlorobenzene	ND	SL	5.0	0.51	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
2-Chloroethyl vinyl ether	ND	SL	25	3.7	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Acrolein	ND	SL	100	17	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Acrylonitrile	ND	SL	100	4.0	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Benzene	**16**	SL	5.0	0.60	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Bromodichloromethane	ND	SL	5.0	0.54	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Bromoform	ND	SL	5.0	0.47	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Bromomethane	ND	SL	5.0	1.2	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Carbon Tetrachloride	ND	SL	5.0	0.51	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Chlorobenzene	ND	SL	5.0	0.48	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Chlorodibromomethane	ND	SL	5.0	0.41	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Chloroethane	ND	SL	5.0	0.87	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Chloroform	ND	SL	5.0	0.54	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Chloromethane	ND	SL	5.0	0.64	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
cis-1,3-Dichloropropene	ND	SL	5.0	0.57	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Ethylbenzene	ND	SL	5.0	0.46	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Methylene Chloride	ND	SL	5.0	0.81	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Tetrachloroethene	ND	SL	5.0	0.34	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Toluene	ND	SL	5.0	0.45	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
trans-1,2-Dichloroethene	ND	SL	5.0	0.59	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
trans-1,3-Dichloropropene	ND	SL	5.0	0.44	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Trichloroethene	ND	SL	5.0	0.60	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Trichlorofluoromethane	ND	SL	5.0	0.45	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
Vinyl chloride	ND	SL	5.0	0.75	ug/L	1.00	11/20/09 22:09	TRB	9K20016	624
1,2-Dichloroethane-d4	*110 %*	*SL*	*Surr Limits: (88-132%)*				*11/20/09 22:09*	*TRB*	*9K20016*	*624*
4-Bromofluorobenzene	*96 %*	*SL*	*Surr Limits: (78-122%)*				*11/20/09 22:09*	*TRB*	*9K20016*	*624*
Toluene-d8	*98 %*	*SL*	*Surr Limits: (87-110%)*				*11/20/09 22:09*	*TRB*	*9K20016*	*624*
Acid and Base/Neutral Extractables by EPA Method 625										
1,2,4-Trichlorobenzene	ND		10	0.49	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
1,2-Dichlorobenzene	ND		10	0.14	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
1,2-Diphenylhydrazine	ND		10	0.063	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
1,3-Dichlorobenzene	ND		10	0.069	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
1,4-Dichlorobenzene	ND		10	0.090	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2,4-Dichlorophenol	ND		5.0	0.30	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2,4-Dimethylphenol	**0.78**	J	5.0	0.13	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2,4-Dinitrophenol	ND		10	0.84	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2,6-Dinitrotoluene	ND		5.0	0.72	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2-Chloronaphthalene	ND		5.0	0.068	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

Analytical Report

Sample ID: RSK0855-01 (process effluent - Water) - cont. **Sampled: 11/16/09 10:00** **Recvd: 11/18/09 10:40**

Acid and Base/Neutral Extractables by EPA Method 625 - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
2-Chlorophenol	ND		5.0	0.16	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2-Nitrophenol	ND		5.0	0.14	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
4,6-Dinitro-2-methylphenol	ND		10	0.76	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
4-Chloro-3-methylphenol	ND		5.0	0.56	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
4-Nitrophenol	ND		10	1.3	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Acenaphthene	ND		5.0	0.060	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Acenaphthylene	ND		5.0	0.034	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Anthracene	ND		5.0	0.052	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Benzidine	ND		80	2.5	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Benzo[a]anthracene	ND		5.0	0.043	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Benzo[a]pyrene	ND		5.0	0.058	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Bis(2-chloroisopropyl) ether	ND		5.0	0.086	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Bis(2-ethylhexyl) phthalate	ND		10	0.86	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Butyl benzyl phthalate	ND		5.0	1.3	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Chrysene	ND		5.0	0.036	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Dibenz[a,h]anthracene	ND		5.0	0.055	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Diethyl phthalate	ND		5.0	0.17	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Dimethyl phthalate	ND		5.0	0.17	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Di-n-butyl phthalate	ND		5.0	0.94	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Di-n-octyl phthalate	ND		5.0	4.5	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Fluoranthene	ND		5.0	0.11	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Fluorene	ND		5.0	0.043	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Hexachlorobenzene	ND		5.0	0.28	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Hexachlorobutadiene	ND		5.0	0.62	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Hexachloroethane	ND		5.0	0.48	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Indeno[1,2,3-cd]pyrene	ND		5.0	0.19	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Isophorone	ND		5.0	0.16	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Naphthalene	ND		5.0	0.080	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Nitrobenzene	ND		5.0	0.11	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
N-Nitrosodimethylamine	ND		10	0.96	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Pentachlorophenol	ND		10	0.41	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Phenanthrene	ND		5.0	0.071	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
Phenol	ND		5.0	0.12	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RSK0855-01 (process effluent - Water) - cont.						**Sampled: 11/16/09 10:00**		**Recvd: 11/18/09 10:40**		
Acid and Base/Neutral Extractables by EPA Method 625 - cont.										
Pyrene	ND		5.0	0.041	ug/L	1.00	11/21/09 09:21	MAF	9K19053	625
2-Fluorophenol	*46 %*		*Surr Limits: (17-120%)*				*11/21/09 09:21*	*MAF*	*9K19053*	*625*
Phenol-d5	*34 %*		*Surr Limits: (10-120%)*				*11/21/09 09:21*	*MAF*	*9K19053*	*625*
Nitrobenzene-d5	*89 %*		*Surr Limits: (42-120%)*				*11/21/09 09:21*	*MAF*	*9K19053*	*625*
2-Fluorobiphenyl	*92 %*		*Surr Limits: (44-120%)*				*11/21/09 09:21*	*MAF*	*9K19053*	*625*
2,4,6-Tribromophenol	*115 %*		*Surr Limits: (49-122%)*				*11/21/09 09:21*	*MAF*	*9K19053*	*625*
p-Terphenyl-d14	*76 %*		*Surr Limits: (22-125%)*				*11/21/09 09:21*	*MAF*	*9K19053*	*625*
General Chemistry Parameters										
Cyanide	**0.460**	D08	0.0200	0.0100	mg/L	2.00	11/23/09 11:25	LRM	9K21016	335.4
pH	**7.63**	HFT	NA	0.00	SU	1.00	11/18/09 21:41	JFR	9K18115	4500-H+ B

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Acid and Base/Neutral Extractables by EPA Method 625									
625	9K19053	RSK0855-01	1,000.00	mL	1.00	mL	11/19/09 16:00	LTT	3510C MB
General Chemistry Parameters									
335.4	9K21016	RSK0855-01	50.00	mL	50.00	mL	11/21/09 12:10	JMM	Cn Digestion
4500-H+ B	9K18115	RSK0855-01	1.00	mL	1.00	mL	11/18/09 21:41	JFR	pH
Volatile Organic Compounds									
624	9K20016	RSK0855-01	5.00	mL	5.00	mL	11/20/09 09:05	TRB	5030B MS

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
Blank Analyzed: 11/20/09 (Lab Number:9K20016-BLK1, Batch: 9K20016)											
1,1,1-Trichloroethane			5.0	0.73	ug/L	ND					
1,1,2,2-Tetrachloroethane			5.0	1.2	ug/L	ND					
1,1,2-Trichloroethane			5.0	0.48	ug/L	ND					
1,1-Dichloroethane			5.0	0.59	ug/L	ND					
1,1-Dichloroethene			5.0	0.85	ug/L	ND					
1,2-Dichlorobenzene			5.0	0.44	ug/L	ND					
1,2-Dichloroethane			5.0	0.60	ug/L	ND					
1,2-Dichloropropane			5.0	0.61	ug/L	ND					
1,3-Dichlorobenzene			5.0	0.54	ug/L	ND					
1,4-Dichlorobenzene			5.0	0.51	ug/L	ND					
2-Chloroethyl vinyl ether			25	3.7	ug/L	ND					
Benzene			5.0	0.60	ug/L	ND					
Bromodichloromethane			5.0	0.54	ug/L	ND					
Bromoform			5.0	0.47	ug/L	ND					
Bromomethane			5.0	1.2	ug/L	ND					
Carbon Tetrachloride			5.0	0.51	ug/L	ND					
Chlorobenzene			5.0	0.48	ug/L	ND					
Chlorodibromomethane			5.0	0.41	ug/L	ND					
Chloroethane			5.0	0.87	ug/L	ND					
Chloroform			5.0	0.54	ug/L	ND					
Chloromethane			5.0	0.64	ug/L	ND					
cis-1,3-Dichloropropene			5.0	0.57	ug/L	ND					
Ethylbenzene			5.0	0.46	ug/L	ND					
Methylene Chloride			5.0	0.81	ug/L	ND					
Tetrachloroethene			5.0	0.34	ug/L	ND					
Toluene			5.0	0.45	ug/L	ND					
trans-1,2-Dichloroethene			5.0	0.59	ug/L	ND					
trans-1,3-Dichloropropene			5.0	0.44	ug/L	ND					
Trichloroethene			5.0	0.60	ug/L	ND					
Trichlorofluoromethane			5.0	0.45	ug/L	ND					
Vinyl chloride			5.0	0.75	ug/L	ND					
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*110*	*88-132*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*96*	*78-122*			
Surrogate: Toluene-d8					*ug/L*		*100*	*87-110*			
LCS Analyzed: 11/20/09 (Lab Number:9K20016-BS1, Batch: 9K20016)											

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
LCS Analyzed: 11/20/09 (Lab Number:9K20016-BS1, Batch: 9K20016)											
1,1,1-Trichloroethane		20.0	5.0	0.73	ug/L	17.9	90	75-125			
1,1,2,2-Tetrachloroethane		20.0	5.0	1.2	ug/L	19.3	97	61-140			
1,1,2-Trichloroethane		20.0	5.0	0.48	ug/L	19.0	95	71-129			
1,1-Dichloroethane		20.0	5.0	0.59	ug/L	18.9	94	73-128			
1,1-Dichloroethene		20.0	5.0	0.85	ug/L	12.7	64	51-150			
1,2-Dichlorobenzene		20.0	5.0	0.44	ug/L	18.5	93	63-137			
1,2-Dichloroethane		20.0	5.0	0.60	ug/L	19.1	95	68-132			
1,2-Dichloropropane		20.0	5.0	0.61	ug/L	18.7	93	34-166			
1,3-Dichlorobenzene		20.0	5.0	0.54	ug/L	19.1	95	73-127			
1,4-Dichlorobenzene		20.0	5.0	0.51	ug/L	18.6	93	63-137			
2-Chloroethyl vinyl ether		100	25	3.7	ug/L	107	107	1-224			
Benzene		20.0	5.0	0.60	ug/L	19.2	96	64-136			
Bromodichloromethane		20.0	5.0	0.54	ug/L	18.0	90	66-135			
Bromoform		20.0	5.0	0.47	ug/L	16.2	81	73-129			
Bromomethane		20.0	5.0	1.2	ug/L	24.6	123	14-186			
Carbon Tetrachloride		20.0	5.0	0.51	ug/L	18.1	90	73-127			
Chlorobenzene		20.0	5.0	0.48	ug/L	18.5	92	66-134			
Chlorodibromomethane		20.0	5.0	0.41	ug/L	17.4	87	68-133			
Chloroethane		20.0	5.0	0.87	ug/L	19.7	98	38-162			
Chloroform		20.0	5.0	0.54	ug/L	19.2	96	68-133			
Chloromethane		20.0	5.0	0.64	ug/L	21.2	106	1-204			
cis-1,3-Dichloropropene		20.0	5.0	0.57	ug/L	18.7	93	24-176			
Ethylbenzene		20.0	5.0	0.46	ug/L	19.4	97	59-141			
Methylene Chloride		20.0	5.0	0.81	ug/L	18.7	94	61-140			
Tetrachloroethene		20.0	5.0	0.34	ug/L	18.5	93	74-127			
Toluene		20.0	5.0	0.45	ug/L	18.8	94	75-126			
trans-1,2-Dichloroethene		20.0	5.0	0.59	ug/L	18.2	91	70-131			
trans-1,3-Dichloropropene		20.0	5.0	0.44	ug/L	17.9	90	50-150			
Trichloroethene		20.0	5.0	0.60	ug/L	18.4	92	67-134			
Trichlorofluoromethane		20.0	5.0	0.45	ug/L	19.6	98	48-152			
Vinyl chloride		20.0	5.0	0.75	ug/L	21.2	106	4-196			
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*105*	*88-132*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*98*	*78-122*			
Surrogate: Toluene-d8					*ug/L*		*101*	*87-110*			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 11/21/09 (Lab Number:9K19053-BLK1, Batch: 9K19053)											
1,2,4-Trichlorobenzene			10	0.49	ug/L	ND					
1,2-Dichlorobenzene			10	0.14	ug/L	ND					
1,2-Diphenylhydrazine			10	0.063	ug/L	ND					
1,3-Dichlorobenzene			10	0.069	ug/L	ND					
1,4-Dichlorobenzene			10	0.090	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.23	ug/L	ND					
2,4-Dichlorophenol			5.0	0.30	ug/L	ND					
2,4-Dimethylphenol			5.0	0.13	ug/L	ND					
2,4-Dinitrophenol			10	0.84	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.26	ug/L	ND					
2,6-Dinitrotoluene			5.0	0.72	ug/L	ND					
2-Chloronaphthalene			5.0	0.068	ug/L	ND					
2-Chlorophenol			5.0	0.16	ug/L	ND					
2-Nitrophenol			5.0	0.14	ug/L	ND					
3,3'-Dichlorobenzidine			5.0	0.82	ug/L	ND					
4,6-Dinitro-2-methylphenol			10	0.76	ug/L	ND					
4-Bromophenyl phenyl ether			5.0	0.11	ug/L	ND					
4-Chloro-3-methylphenol			5.0	0.56	ug/L	ND					
4-Chlorophenyl phenyl ether			5.0	0.21	ug/L	ND					
4-Nitrophenol			10	1.3	ug/L	ND					
Acenaphthene			5.0	0.060	ug/L	ND					
Acenaphthylene			5.0	0.034	ug/L	ND					
Anthracene			5.0	0.052	ug/L	ND					
Benzidine			80	2.5	ug/L	ND					
Benzo[a]anthracene			5.0	0.043	ug/L	ND					
Benzo[a]pyrene			5.0	0.058	ug/L	ND					
Benzo[b]fluoranthene			5.0	0.062	ug/L	ND					
Benzo[g,h,i]perylene			5.0	0.10	ug/L	ND					
Benzo[k]fluoranthene			5.0	0.042	ug/L	ND					
Bis(2-chloroethoxy)methane			5.0	0.085	ug/L	ND					
Bis(2-chloroethyl)ether			5.0	1.1	ug/L	ND					
Bis(2-chloroisopropyl) ether			5.0	0.086	ug/L	ND					
Bis(2-ethylhexyl) phthalate			10	0.86	ug/L	ND					
Butyl benzyl phthalate			5.0	1.3	ug/L	ND					

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 11/21/09 (Lab Number:9K19053-BLK1, Batch: 9K19053)											
Chrysene			5.0	0.036	ug/L	ND					
Dibenz[a,h]anthracene			5.0	0.055	ug/L	ND					
Diethyl phthalate			5.0	0.17	ug/L	ND					
Dimethyl phthalate			5.0	0.17	ug/L	ND					
Di-n-butyl phthalate			5.0	0.94	ug/L	ND					
Di-n-octyl phthalate			5.0	4.5	ug/L	ND					
Fluoranthene			5.0	0.11	ug/L	ND					
Fluorene			5.0	0.043	ug/L	ND					
Hexachlorobenzene			5.0	0.28	ug/L	ND					
Hexachlorobutadiene			5.0	0.62	ug/L	ND					
Hexachlorocyclopentadiene			5.0	0.45	ug/L	ND					
Hexachloroethane			5.0	0.48	ug/L	ND					
Indeno[1,2,3-cd]pyrene			5.0	0.19	ug/L	ND					
Isophorone			5.0	0.16	ug/L	ND					
Naphthalene			5.0	0.080	ug/L	ND					
Nitrobenzene			5.0	0.11	ug/L	ND					
N-Nitrosodimethylamine			10	0.96	ug/L	ND					
N-Nitrosodi-n-propylamine			5.0	0.23	ug/L	ND					
N-Nitrosodiphenylamine			5.0	0.40	ug/L	ND					
Pentachlorophenol			10	0.41	ug/L	ND					
Phenanthrene			5.0	0.071	ug/L	ND					
Phenol			5.0	0.12	ug/L	ND					
Pyrene			5.0	0.041	ug/L	ND					
Surrogate: 2-Fluorophenol					*ug/L*		*36*	*17-120*			
Surrogate: Phenol-d5					*ug/L*		*28*	*10-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*65*	*42-120*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*68*	*44-120*			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*88*	*49-122*			
Surrogate: p-Terphenyl-d14					*ug/L*		*82*	*22-125*			
LCS Analyzed: 11/21/09 (Lab Number:9K19053-BS1, Batch: 9K19053)											
1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	29.6	59	44-120			
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	27.7	55	32-120			
1,2-Diphenylhydrazine		50.0	10	0.063	ug/L	49.0	98	47-146			
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	27.4	55	14-120			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Analyzed: 11/21/09 (Lab Number:9K19053-BS1, Batch: 9K19053)											
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	27.2	54	20-120			
2,4,6-Trichlorophenol		50.0	10	0.23	ug/L	48.2	96	48-136			
2,4-Dichlorophenol		50.0	10	0.30	ug/L	42.3	85	43-123			
2,4-Dimethylphenol		50.0	10	0.13	ug/L	39.3	79	42-120			
2,4-Dinitrophenol		50.0	50	0.84	ug/L	32.0	64	20-125			J
2,4-Dinitrotoluene		50.0	10	0.26	ug/L	54.9	110	51-139			
2,6-Dinitrotoluene		50.0	10	0.72	ug/L	54.8	110	55-144			
2-Chloronaphthalene		50.0	10	0.068	ug/L	39.6	79	30-120			
2-Chlorophenol		50.0	10	0.16	ug/L	33.1	66	31-120			
2-Nitrophenol		50.0	10	0.14	ug/L	38.6	77	34-123			
3,3'-Dichlorobenzidine		50.0	20	0.82	ug/L	60.5	121	35-143			
4,6-Dinitro-2-methylphenol		50.0	50	0.76	ug/L	72.0	144	32-156			
4-Bromophenyl phenyl ether		50.0	10	0.11	ug/L	46.8	94	53-127			
4-Chloro-3-methylphenol		50.0	10	0.56	ug/L	49.0	98	45-138			
4-Chlorophenyl phenyl ether		50.0	10	0.21	ug/L	41.3	83	43-126			
4-Nitrophenol		50.0	50	1.3	ug/L	21.9	44	22-120			J
Acenaphthene		50.0	10	0.060	ug/L	43.3	87	47-120			
Acenaphthylene		50.0	10	0.034	ug/L	42.6	85	35-129			
Anthracene		50.0	10	0.052	ug/L	49.0	98	49-133			
Benzidine		50.0	80	2.5	ug/L	13.1	26	1-120			J
Benzo[a]anthracene		50.0	10	0.043	ug/L	49.6	99	50-143			
Benzo[a]pyrene		50.0	10	0.058	ug/L	49.0	98	57-140			
Benzo[b]fluoranthene		50.0	10	0.062	ug/L	45.1	90	59-138			
Benzo[g,h,i]perylene		50.0	10	0.10	ug/L	52.9	106	44-153			
Benzo[k]fluoranthene		50.0	10	0.042	ug/L	43.6	87	50-143			
Bis(2-chloroethoxy)methane		50.0	10	0.085	ug/L	30.0	60	40-120			
Bis(2-chloroethyl)ether		50.0	10	1.1	ug/L	32.0	64	35-120			
Bis(2-chloroisopropyl) ether		50.0	10	0.086	ug/L	32.6	65	33-120			
Bis(2-ethylhexyl) phthalate		50.0	50	0.86	ug/L	47.5	95	49-158			J
Butyl benzyl phthalate		50.0	10	1.3	ug/L	54.0	108	47-147			
Chrysene		50.0	10	0.036	ug/L	51.2	102	55-146			
Dibenz[a,h]anthracene		50.0	10	0.055	ug/L	48.5	97	45-153			
Diethyl phthalate		50.0	10	0.17	ug/L	50.3	101	45-135			
Dimethyl phthalate		50.0	10	0.17	ug/L	48.9	98	54-120			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Analyzed: 11/21/09 (Lab Number:9K19053-BS1, Batch: 9K19053)											
Di-n-butyl phthalate		50.0	10	0.94	ug/L	50.6	101	53-120			
Di-n-octyl phthalate		50.0	10	4.5	ug/L	43.7	87	56-146			
Fluoranthene		50.0	10	0.11	ug/L	50.6	101	46-137			
Fluorene		50.0	10	0.043	ug/L	46.6	93	59-121			
Hexachlorobenzene		50.0	10	0.28	ug/L	46.1	92	54-133			
Hexachlorobutadiene		50.0	10	0.62	ug/L	28.4	57	24-120			
Hexachlorocyclopentadiene		50.0	50	0.45	ug/L	21.9	44	5-120			J
Hexachloroethane		50.0	10	0.48	ug/L	26.4	53	40-113			
Indeno[1,2,3-cd]pyrene		50.0	10	0.19	ug/L	50.4	101	50-147			
Isophorone		50.0	10	0.16	ug/L	36.4	73	34-120			
Naphthalene		50.0	10	0.080	ug/L	36.2	72	33-120			
Nitrobenzene		50.0	10	0.11	ug/L	36.2	72	35-120			
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	22.7	45	19-120			
N-Nitrosodi-n-propylamine		50.0	10	0.23	ug/L	37.6	75	40-120			
N-Nitrosodiphenylamine		50.0	10	0.40	ug/L	58.0	116	54-125			
Pentachlorophenol		50.0	50	0.41	ug/L	29.2	58	37-147			J
Phenanthrene		50.0	10	0.071	ug/L	49.1	98	56-120			
Phenol		50.0	10	0.12	ug/L	16.5	33	12-120			
Pyrene		50.0	10	0.041	ug/L	50.7	101	52-120			
Surrogate: 2-Fluorophenol					*ug/L*		*39*	*17-120*			
Surrogate: Phenol-d5					*ug/L*		*29*	*10-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*71*	*42-120*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*76*	*44-120*			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*100*	*49-122*			
Surrogate: p-Terphenyl-d14					*ug/L*		*84*	*22-125*			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RSK0855

Project: River Bend - Effluent
Project Number: [none]

Received: 11/18/09
Reported: 12/03/09 15:56

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
LCS Analyzed: 11/18/09 (Lab Number:9K18115-BS1, Batch: 9K18115)											
pH		7.00	NA	0.00	SU	7.01	100	99.3-100.8			
General Chemistry Parameters											
Blank Analyzed: 11/23/09 (Lab Number:9K21016-BLK1, Batch: 9K21016)											
Cyanide			0.0100	0.0050	mg/L	ND					
LCS Analyzed: 11/23/09 (Lab Number:9K21016-BS1, Batch: 9K21016)											
Cyanide		0.400	0.0100	0.0050	mg/L	0.437	109	90-110			

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Turnkey	Project Manager: Walt Meisner	Date: 11-17-09	Chain of Custody Number: 122132
Address: 2558 Hamburg Turnpike	Telephone Number (Area Code)/Fax Number: (716) 856-0599 / (716) 856-0583	Lab Number:	Page 1 of 1
City: Buffalo / State: NY / Zip Code: 14218	Site Contact: Paul W Werthman	Lab Contact: B Fischer	
Project Name and Location (State): Riverbend GWTS	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 0171-009-500			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis: PP VOC 624	2 amber comp 1-625	Tot CN	pH	Special Instructions/ Conditions of Receipt
Process Effluent	11-16-09	1000		X			X			X	X		8	4	1	1	624 + 625 Analysis to be Composited by Lab

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

1. Relinquished By: Paul W Werthman	Date: 11-18-09	Time: 10:40	1. Received By:	Date: 11/18/09	Time: 1640
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

4.2° C

DISTRIBUTION: WHITE - Returned to Client with Report, CANARY - Stays with the Sample; PINK - Field Copy

ATTACHMENT 2

FLOW METER CALIBRATION DATA

Northeast Metrology Corp.
2601 Genesee Street
Buffalo, NY 14225
716-827-3770 ISO/IEC 17025:2005 Accredited
www.vantek-nem.com www.nemcal.com

Calibration Certificate

Company:	STEELFIELDS RIVERBEND	**Certificate #:**	1092225
Address:	197 BARAGA STREET BUFFALO, NY 14210	**Calibration Date:**	1/9/2009
		PO/Acct:	
Contact:	PAUL W. WERTHMAN	**Page:**	1
Department:			
Gage Desc:	Flow transmitter/sensor	**Control #:**	SFRB#80210142061
Manufacturer:	Georg Fischer Signet	**Model:**	8550 / 515
Location:		**Serial #:**	80210142061

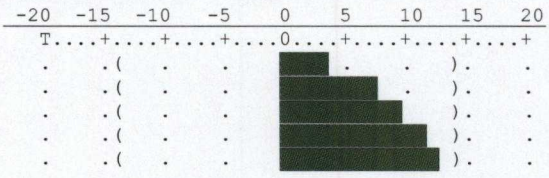
Repairs:

CLEANED.

+ / - Tolerances: 2.000% / 2.000%
Graph Scale: +0.100000

GPM

Nominal	Actual	Deviation	
+71.000000	+71.277500	+0.277500	3" PVC
+71.000000	+71.747500	+0.747500	2.900" ID
+71.000000	+71.902500	+0.902500	Schedule 80
+71.000000	+72.065000	+1.065000	
+71.000000	+72.227500	+1.227500	



Comments:

PRECISION INSTRUMENT IS IN CONFORMANCE.
TEMPERATURE @ 52.2 F & 36% R.H.
15.567 mA LOOP OUTPUT
RESET TOTAL GALLONS

Procedure:

110476:Flowme01.gdf (Manual 1000)

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:
NEM-6006 Flowmeter (Master)
821/261191-99, 821/264157-00, 821/256463-99, 821/263668-00 Cal Date / Due Date: 4/26/2006 -- 4/27/2011

Gage Status: PASS **Due Date: 1/10/2010**

Dimensional calibration performed in NEM laboratory @ 68°F (±2.0°F) : (20°C (±1°C)) relative humidity less than 45%. Electronic & Mechanical calibration performed at ambient temperature.
ALL PERTINENT DATA & READINGS ARE AS FOUND OR AS CALIBRATED UNLESS OTHERWISE DENOTED IN COMMENTS.
Calibration performed in accordance with one or more of the following specifications: ISO/IEC 17025:2005, ANSI/NCSL Z540-1-1994, Former MIL-STD 45662A, ISO 9001:2000, ISO 10012-1:1992(E).
Gage Blocks meet or exceed Federal Specifications for the grade and accuracy applicable to these items in accordance with Federal Specification GGG-G-15C.
Calibration meets or exceeds 4 : 1 ratio, with the exception of gage blocks stated above.
Note the recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal statutes.
This certificate shall not be reproduced except in full, with the written approval of the originating metrology laboratory.

Certified By: Garrick Shick Signature: _____

This certificate is not valid unless all 1 page(s) are present.

Northeast Metrology Corp.
2601 Genesee Street
Buffalo, NY 14225
716-827-3770 ISO/IEC 17025:2005 Accredited
www.vantek-nem.com www.nemcal.com

Calibration Certificate

Company:	STEELFIELDS RIVERBEND	**Certificate #:**	1104484
Address:	197 BARAGA STREET BUFFALO, NY 14210	**Calibration Date:**	1/5/2010
		PO/Acct:	0171-003-500
Contact:	PAUL W. WERTHMAN	**Page:**	1
Department:			

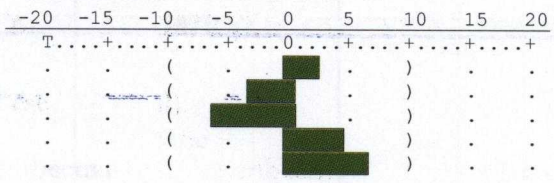
Gage Desc:	Flow Transmitter / Sensor	**Control #:**	SFRB#80210142061
Manufacturer:	Georg Fischer Signet	**Model:**	8550 / 515
Location:		**Serial #:**	80210142061

Repairs:

+ / - Tolerances: 2.000% / 2.000%
Graph Scale: +0.100000

GPM

Nominal	Actual	Deviation
+53.050000	+53.290000	+0.240000
+53.050000	+52.790000	-0.260000
+53.050000	+52.490000	-0.560000
+53.310000	+53.730000	+0.420000
+52.540000	+53.100000	+0.560000



Comments:

CALIBRATION PERFORMED AT AMBIENT CONDITIONS: 55.4°F & 53.0% R.H.
RESET TOTAL GALLONS @ 11,517,800 (YEAR)
PERM GALLONS: 64,306,778 (LIFE)
mA LOOP OUTPUT: 12.38 - 12.78

Procedure:

110476:Flowme01.gdf (Manual 1000)

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:
NEM-6006: Flowmeter (Master)
821/261191-99, 821/264157-00, 821/256463-99, 821/263668-00 Cal Date / Due Date: 4/26/2006 -- 4/27/2011
NEM-9217: Thermohygrometer
Doc210426-A Cal Date / Due Date: 1/2/2008 -- 1/3/2010

Gage Status: PASS **Due Date: 1/6/2011**

Dimensional calibration performed in NEM laboratory @ 68°F (±2.0°F) : (20°C (±1°C)) relative humidity less than 45%. Electronic & Mechanical calibration performed at ambient temperature.
ALL PERTINENT DATA AND READINGS CALIBRATED ARE AS FOUND OR AS LEFT UNLESS OTHERWISE DENOTED IN COMMENTS.
Calibration performed in accordance with one or more of the following specifications: ISO/IEC 17025:2005, ANSI/NCSL Z540-1-1994, Former MIL-STD 45662A, ISO 9001:2000, ISO 10012-1:1992(E).
Gage Blocks meet or exceed Federal Specifications for the grade and accuracy applicable to these items in accordance with Federal Specification GGG-G-15C.
Calibration meets or exceeds 4 : 1 ratio, with the exception of gage blocks stated above.
Calibration is performed on premesis at Northeast Metrology Corp. unless otherwise denoted in Comments.
Note the recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal statutes.

Certified By: Garrick Shick Signature: Garrick Shick

This certificate is not valid unless all 1 page(s) are present.

February 8, 2011

Mr. James Overholt
Buffalo Sewer Authority
Industrial Waste Section
90 West Ferry Street
Buffalo, NY 14213-1799

Re: Riverbend, LLC
Ground Water Pre-Treatment Discharge Monitoring Results
2010 Annual Compliance Monitoring Report
BPDES Permit No. 06 -03- BU101

Dear Mr. Overholt:

On behalf of our client, Riverbend, LLC, TurnKey Environmental Restoration, LLC has prepared this correspondence to present the 2010 discharge monitoring results for the groundwater pre-treatment system at the above-referenced facility. Discharge monitoring was performed during the periods of June 24-25 and November 23-24, 2010.

SAMPLE COLLECTION

Samples were collected from the pretreated process effluent (Outfall 001) in general accordance with permit No. 06-03-BU101 in laboratory-provided, precleaned, and pre-preserved sample bottles. Four grab samples for volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis were containerized in individual sample bottles for laboratory composite preparation during sample extraction and USEPA Method 624 and Method 625 analysis, respectively. Composite samples were also collected for laboratory pH and total cyanide analysis. Per the Buffalo Sewer Authority's (BSA's) verbal approval, composite samples were prepared for all required parameters by combining grab samples collected at four equally spaced intervals over the 24-hour monitoring period.

ANALYTICAL RESULTS

Analytical results are presented as Attachment 1. Data are summarized in Table 1 with permitted discharge limits. As indicated, all parameters are well within allowable limits.

FLOW MONITORING

Flow measurement data is presented in Table 1. Quarterly flow monitoring was based on the total flow recorded during the monitoring period divided by the number of days in the monitoring period. A copy of the flow meter calibration data is presented in Attachment 2.

Please contact us if you have any questions.

Sincerely,
TurnKey Environmental Restoration, LLC

Bryan C. Hann.
Project Manager

ec: Peter Cammarata (BUDC)
David Stebbins (BUDC)
Paul Werthman (TurnKey)

File: 0171-003-500

TABLES

TABLE 1

GROUNDWATER PRETREATMENT SYSTEM 2010 DATA SUMMARY

BPDES Permit #06-03-BU101
Riverbend, LLC
Baraga Street, Buffalo, NY

Parameter	June 24-25, 2010		November 23-24, 2010		Daily Discharge Limits [2]
	Concentration (units as indicated)	*Mass [1] (pounds)*	Concentration (units as indicated)	*Mass [1] (pounds)*	
Laboratory pH (S.U.)	7.63	na	7.36	na	5.0 - 12.0
Field pH (S.U.)	6.72	na	6.92	na	5.0 - 12.0
Volatile Organic Compounds - Method 624 (mg/L)					
Benzene	ND	na	0.0024	na	Monitor
Semi-Volatile Organic Compounds - Method 625 (mg/L)					
Total SVOCs	ND	na	ND	na	Monitor
Inorganics (mg/L)					
Total Cyanide	0.429	0.181	0.461	0.057	2.882 lbs
Average Daily Flow (gallons) [3,4]	50,546		14,940		*see Note 5*

Notes:

1. The monitoring result is calculated based on the concentration of detected parameters and the average daily flow rate identified herein.
2. Mass limits are based on flow of 50,546 gpd for the June event and 14,940 gpd for the November event; limits may be adjusted based on actual discharge.
3. Average daily flow based on net flow recorded between January 5, 2010 through June 25, 2010 for the June event.
4. Average daily flow based on net flow recorded between June 28, 2010 through November 24, 2010 for the November event.
5. Permitted maximum allowable daily flow is 110,000 gpd. An action level of 57,600 gpd is identified in the Permit. The BSA is to be notified if flow consistently exceeds this action level so that the permit can be modifed.
6. " ND " = Indicates compound was analyzed for, but not detectewd at or above the reporting limit.

Flow Calculations:

Event	Date	Flow Measurement (gallons)	Average Daily Flow (gallons)
June 2010	1/5/2010	30,591	50,546
	6/25/2010	8,674,016	
November 2010	6/28/2010	8,803,740	14,940
	11/24/2010	11,029,772	

ATTACHMENT 1

ANALYTICAL DATA

Analytical Report

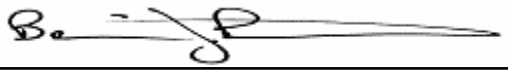
Work Order: RTF1402

Project Description
River Bend - Effluent

For:

Bryan Hann

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218



Brian Fischer

Project Manager
Brian.Fischer@testamericainc.com

Friday, July 2, 2010

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

TestAmerica Buffalo
Current Certifications

As of 06/17/2010

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA,CLP	10026
North Dakota	CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Oregon*	CWA,RCRA	NY200003
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

DATA QUALIFIERS AND DEFINITIONS

HFT	The holding time for this test is immediate. It was analyzed in the laboratory as soon as possible after receipt.
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
P16	Lab to composite volatile samples by date/time/flow.
P17	Lab to composite samples by date/time/flow.
SL	Volatile sample was composited in the laboratory prior to analysis.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTF1402-01 (Process effluent - Water)						**Sampled: 06/25/10 08:00**		**Recvd: 06/25/10 15:40**		
General Chemistry Parameters										
Cyanide	**0.429**		0.0100	0.0050	mg/L	1.00	07/01/10 13:01	jmm	10F2518	335.4
pH	**7.63**	HFT	NR	0.00	SU	1.00	06/25/10 23:36	KLD	10F2294	4500-H+ B

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
Process effluent	RTF1402-01	Water	06/25/10 08:00	06/25/10 15:40	P16, P17

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTF1402-01 (Process effluent - Water)						**Sampled: 06/25/10 08:00**		**Recvd: 06/25/10 15:40**		
Volatile Organic Compounds										
1,1,1-Trichloroethane	ND	SL	5.0	0.38	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,1,2,2-Tetrachloroethane	ND	SL	5.0	0.26	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,1,2-Trichloroethane	ND	SL	5.0	0.48	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,1-Dichloroethane	ND	SL	5.0	0.59	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,1-Dichloroethene	ND	SL	5.0	0.85	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,2-Dichlorobenzene	ND	SL	5.0	0.44	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,2-Dichloroethane	ND	SL	5.0	0.60	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,2-Dichloropropane	ND	SL	5.0	0.61	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,3-Dichlorobenzene	ND	SL	5.0	0.54	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,4-Dichlorobenzene	ND	SL	5.0	0.51	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
2-Chloroethyl vinyl ether	ND	SL	25	1.8	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Benzene	ND	SL	5.0	0.60	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Bromodichloromethane	ND	SL	5.0	0.54	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Bromoform	ND	SL	5.0	0.47	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Bromomethane	ND	SL	5.0	1.2	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Carbon Tetrachloride	ND	SL	5.0	0.51	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Chlorobenzene	ND	SL	5.0	0.48	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Chlorodibromomethane	ND	SL	5.0	0.41	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Chloroethane	ND	SL	5.0	0.87	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Chloroform	ND	SL	5.0	0.54	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Chloromethane	ND	SL	5.0	0.64	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
cis-1,3-Dichloropropene	ND	SL	5.0	0.33	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Ethylbenzene	ND	SL	5.0	0.46	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Methylene Chloride	ND	SL	5.0	0.81	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Tetrachloroethene	ND	SL	5.0	0.34	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Toluene	ND	SL	5.0	0.45	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
trans-1,2-Dichloroethene	ND	SL	5.0	0.59	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
trans-1,3-Dichloropropene	ND	SL	5.0	0.44	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Trichloroethene	ND	SL	5.0	0.60	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Trichlorofluoromethane	ND	SL	5.0	0.45	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
Vinyl chloride	ND	SL	5.0	0.75	ug/L	1.00	06/29/10 21:22	TRB	10F2443	624
1,2-Dichloroethane-d4	*116 %*	*SL*	*Surr Limits: (88-132%)*				*06/29/10 21:22*	*TRB*	*10F2443*	*624*
4-Bromofluorobenzene	*110 %*	*SL*	*Surr Limits: (78-122%)*				*06/29/10 21:22*	*TRB*	*10F2443*	*624*
Toluene-d8	*90 %*	*SL*	*Surr Limits: (87-110%)*				*06/29/10 21:22*	*TRB*	*10F2443*	*624*
Acid and Base/Neutral Extractables by EPA Method 625										
1,2,4-Trichlorobenzene	ND		10	0.49	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
1,2-Dichlorobenzene	ND		10	0.14	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
1,2-Diphenylhydrazine	ND		10	0.063	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
1,3-Dichlorobenzene	ND		10	0.069	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
1,4-Dichlorobenzene	ND		10	0.090	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2,4,6-Trichlorophenol	ND		5.0	0.23	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2,4-Dichlorophenol	ND		5.0	0.30	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2,4-Dimethylphenol	ND		5.0	0.13	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2,4-Dinitrophenol	ND		10	0.84	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2,4-Dinitrotoluene	ND		5.0	0.26	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2,6-Dinitrotoluene	ND		5.0	0.72	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2-Chloronaphthalene	ND		5.0	0.068	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2-Chlorophenol	ND		5.0	0.16	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
2-Nitrophenol	ND		5.0	0.14	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

Analytical Report

Sample ID: RTF1402-01 (Process effluent - Water) - cont. **Sampled: 06/25/10 08:00** **Recvd: 06/25/10 15:40**

Acid and Base/Neutral Extractables by EPA Method 625 - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
4,6-Dinitro-2-methylphenol	ND		10	0.76	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
4-Bromophenyl phenyl ether	ND		5.0	0.11	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
4-Chloro-3-methylphenol	ND		5.0	0.56	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
4-Chlorophenyl phenyl ether	ND		5.0	0.21	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
4-Nitrophenol	ND		10	1.3	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Acenaphthene	ND		5.0	0.060	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Acenaphthylene	ND		5.0	0.034	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Anthracene	ND		5.0	0.052	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Benzidine	ND		80	2.5	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Benzo[a]anthracene	ND		5.0	0.043	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Benzo[a]pyrene	ND		5.0	0.058	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Benzo[b]fluoranthene	ND		5.0	0.062	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Benzo[g,h,i]perylene	ND		5.0	0.10	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Benzo[k]fluoranthene	ND		5.0	0.042	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Bis(2-chloroethoxy)methane	ND		5.0	0.085	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Bis(2-chloroethyl)ether	ND		5.0	1.1	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Bis(2-chloroisopropyl) ether	ND		5.0	0.086	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Bis(2-ethylhexyl) phthalate	ND		10	0.86	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Butyl benzyl phthalate	ND		5.0	1.3	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Chrysene	ND		5.0	0.036	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Dibenz[a,h]anthracene	ND		5.0	0.055	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Diethyl phthalate	ND		5.0	0.17	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Dimethyl phthalate	ND		5.0	0.17	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Di-n-butyl phthalate	ND		5.0	0.94	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Di-n-octyl phthalate	ND		5.0	4.5	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Fluoranthene	ND		5.0	0.11	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Fluorene	ND		5.0	0.043	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Hexachlorobenzene	ND		5.0	0.28	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Hexachlorobutadiene	ND		5.0	0.62	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Hexachlorocyclopentadiene	ND		5.0	0.45	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Hexachloroethane	ND		5.0	0.48	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Indeno[1,2,3-cd]pyrene	ND		5.0	0.19	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Isophorone	ND		5.0	0.16	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Naphthalene	ND		5.0	0.080	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Nitrobenzene	ND		5.0	0.11	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
N-Nitrosodimethylamine	ND		10	0.96	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
N-Nitrosodi-n-propylamine	ND		5.0	0.23	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Pentachlorophenol	ND		10	0.41	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Phenanthrene	ND		5.0	0.071	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Phenol	ND		5.0	0.12	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625
Pyrene	ND		5.0	0.041	ug/L	1.00	06/29/10 17:43	MAF	10F2283	625

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTF1402-01 (Process effluent - Water) - cont.							**Sampled: 06/25/10 08:00**		**Recvd: 06/25/10 15:40**	
Acid and Base/Neutral Extractables by EPA Method 625 - cont.										
2-Fluorophenol	*26 %*		*Surr Limits: (17-120%)*				*06/29/10 17:43*	*MAF*	*10F2283*	*625*
Phenol-d5	*22 %*		*Surr Limits: (10-120%)*				*06/29/10 17:43*	*MAF*	*10F2283*	*625*
Nitrobenzene-d5	*56 %*		*Surr Limits: (42-120%)*				*06/29/10 17:43*	*MAF*	*10F2283*	*625*
2-Fluorobiphenyl	*63 %*		*Surr Limits: (44-120%)*				*06/29/10 17:43*	*MAF*	*10F2283*	*625*
2,4,6-Tribromophenol	*71 %*		*Surr Limits: (52-151%)*				*06/29/10 17:43*	*MAF*	*10F2283*	*625*
p-Terphenyl-d14	*67 %*		*Surr Limits: (22-125%)*				*06/29/10 17:43*	*MAF*	*10F2283*	*625*
General Chemistry Parameters										
Cyanide	**0.429**		0.0100	0.0050	mg/L	1.00	07/01/10 13:01	jmm	10F2518	335.4
pH	**7.63**	HFT	NA	0.00	SU	1.00	06/25/10 23:36	KLD	10F2294	4500-H+ B

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Acid and Base/Neutral Extractables by EPA Method 625									
625	10F2283	RTF1402-01	1,000.00	mL	1.00	mL	06/27/10 09:00	BML	3510C MB
General Chemistry Parameters									
335.4	10F2518	RTF1402-01	50.00	mL	50.00	mL	06/29/10 17:54	RMB	Cn Digestion
4500-H+ B	10F2294	RTF1402-01	50.00	mL	50.00	mL	06/25/10 23:36	MDM	No prep pH
Volatile Organic Compounds									
624	10F2443	RTF1402-01	5.00	mL	5.00	mL	06/29/10 09:18	TRB	5030B MS

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
Blank Analyzed: 06/29/10 (Lab Number:10F2443-BLK1, Batch: 10F2443)											
1,1,1,2-Tetrachloroethane			5.0	0.50	ug/L	ND					
1,1,1-Trichloroethane			5.0	0.38	ug/L	ND					
1,1,2,2-Tetrachloroethane			5.0	0.26	ug/L	ND					
1,1,2-Trichloroethane			5.0	0.48	ug/L	ND					
1,1-Dichloroethane			5.0	0.59	ug/L	ND					
1,1-Dichloroethene			5.0	0.85	ug/L	ND					
1,2,3-Trichloropropane			5.0	0.21	ug/L	ND					
1,2,4-Trimethylbenzene			5.0	0.52	ug/L	ND					
1,2-Dibromo-3-chloropropane			5.0	0.62	ug/L	ND					
1,2-Dibromoethane (EDB)			5.0	0.50	ug/L	ND					
1,2-Dichlorobenzene			5.0	0.44	ug/L	ND					
1,2-Dichloroethane			5.0	0.60	ug/L	ND					
1,2-Dichloropropane			5.0	0.61	ug/L	ND					
1,3-Dichlorobenzene			5.0	0.54	ug/L	ND					
1,4-Dichlorobenzene			5.0	0.51	ug/L	ND					
2-Butanone (MEK)			25	1.8	ug/L	ND					
2-Chloroethyl vinyl ether			25	1.8	ug/L	ND					
2-Chlorotoluene			5.0	0.33	ug/L	ND					
2-Hexanone			25	2.0	ug/L	ND					
3-Chlorotoluene			5.0	0.31	ug/L	ND					
4-Chlorotoluene			5.0	0.27	ug/L	ND					
4-Isopropyltoluene			5.0	0.54	ug/L	ND					
4-Methyl-2-pentanone (MIBK)			25	1.3	ug/L	ND					
Acetone			25	2.0	ug/L	ND					
Acrolein			100	17	ug/L	ND					
Acrylonitrile			100	1.9	ug/L	ND					
Allyl chloride			5.0	0.56	ug/L	ND					
Benzene			5.0	0.60	ug/L	ND					
Bromochloromethane			5.0	0.71	ug/L	ND					
Bromodichloromethane			5.0	0.54	ug/L	ND					
Bromoform			5.0	0.47	ug/L	ND					
Bromomethane			5.0	1.2	ug/L	ND					
Carbon disulfide			5.0	0.29	ug/L	ND					
Carbon Tetrachloride			5.0	0.51	ug/L	ND					
Chlorobenzene			5.0	0.48	ug/L	ND					
Chlorodibromomethane			5.0	0.41	ug/L	ND					

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
Blank Analyzed: 06/29/10 (Lab Number:10F2443-BLK1, Batch: 10F2443)											
Chloroethane			5.0	0.87	ug/L	ND					
Chloroform			5.0	0.54	ug/L	ND					
Chloromethane			5.0	0.64	ug/L	ND					
cis-1,2-Dichloroethene			5.0	0.57	ug/L	ND					
cis-1,3-Dichloropropene			5.0	0.33	ug/L	ND					
Dibromomethane			5.0	0.53	ug/L	ND					
Dichlorodifluoromethane			5.0	0.28	ug/L	ND					
Ethyl Acetate			5.0	0.32	ug/L	ND					
Ethylbenzene			5.0	0.46	ug/L	ND					
Iodomethane			5.0	0.29	ug/L	ND					
Isopropyl Acetate			5.0	0.56	ug/L	ND					
Methyl tert-Butyl Ether			5.0	0.35	ug/L	ND					
Methylene Chloride			5.0	0.81	ug/L	ND					
n-Amyl Acetate			5.0	0.36	ug/L	ND					
n-Butyl Acetate			5.0	0.49	ug/L	ND					
n-Butylbenzene			10	0.32	ug/L	ND					
Styrene			5.0	0.38	ug/L	ND					
t-Butanol			100	12	ug/L	ND					
Tetrachloroethene			5.0	0.34	ug/L	ND					
Toluene			5.0	0.45	ug/L	ND					
trans-1,2-Dichloroethene			5.0	0.59	ug/L	ND					
trans-1,3-Dichloropropene			5.0	0.44	ug/L	ND					
trans-1,4-Dichloro-2-butene			25	1.3	ug/L	ND					
Trichloroethene			5.0	0.60	ug/L	ND					
Trichlorofluoromethane			5.0	0.45	ug/L	ND					
Vinyl acetate			25	1.5	ug/L	ND					
Vinyl chloride			5.0	0.75	ug/L	ND					
Xylenes, total			10	1.1	ug/L	ND					
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*103*	*88-132*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*105*	*78-122*			
Surrogate: Toluene-d8					*ug/L*		*93*	*87-110*			
LCS Analyzed: 06/29/10 (Lab Number:10F2443-BS1, Batch: 10F2443)											
1,1,1-Trichloroethane		20.0	5.0	0.38	ug/L	20.5	102	75-125			
1,1,2,2-Tetrachloroethane		20.0	5.0	0.26	ug/L	14.3	71	61-140			
1,1,2-Trichloroethane		20.0	5.0	0.48	ug/L	16.8	84	71-129			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
LCS Analyzed: 06/29/10 (Lab Number:10F2443-BS1, Batch: 10F2443)											
1,1-Dichloroethane		20.0	5.0	0.59	ug/L	19.5	98	73-128			
1,1-Dichloroethene		20.0	5.0	0.85	ug/L	17.8	89	51-150			
1,2-Dichlorobenzene		20.0	10	0.44	ug/L	17.3	86	63-137			
1,2-Dichloroethane		20.0	5.0	0.60	ug/L	20.7	103	68-132			
1,2-Dichloropropane		20.0	5.0	0.61	ug/L	18.6	93	34-166			
1,3-Dichlorobenzene		20.0	10	0.54	ug/L	17.8	89	73-127			
1,4-Dichlorobenzene		20.0	10	0.51	ug/L	17.4	87	63-137			
2-Chloroethyl vinyl ether		100	25	1.8	ug/L	82.7	83	1-224			
Benzene		20.0	5.0	0.60	ug/L	19.2	96	64-136			
Bromodichloromethane		20.0	5.0	0.54	ug/L	20.2	101	66-135			
Bromoform		20.0	5.0	0.47	ug/L	15.9	80	71-129			
Bromomethane		20.0	10	1.2	ug/L	23.0	115	14-186			
Carbon Tetrachloride		20.0	5.0	0.51	ug/L	19.8	99	73-127			
Chlorobenzene		20.0	5.0	0.48	ug/L	17.9	90	66-134			
Chlorodibromomethane		20.0	5.0	0.41	ug/L	18.0	90	68-133			
Chloroethane		20.0	10	0.87	ug/L	23.0	115	38-162			
Chloroform		20.0	5.0	0.54	ug/L	20.8	104	68-133			
Chloromethane		20.0	10	0.64	ug/L	18.4	92	1-204			
cis-1,3-Dichloropropene		20.0	5.0	0.33	ug/L	18.8	94	24-176			
Ethylbenzene		20.0	5.0	0.46	ug/L	18.2	91	59-141			
Methylene Chloride		20.0	5.0	0.81	ug/L	17.4	87	61-140			
Tetrachloroethene		20.0	5.0	0.34	ug/L	17.5	87	74-127			
Toluene		20.0	5.0	0.45	ug/L	16.9	85	75-126			
trans-1,2-Dichloroethene		20.0	10	0.59	ug/L	19.3	97	70-131			
trans-1,3-Dichloropropene		20.0	5.0	0.44	ug/L	17.5	87	50-150			
Trichloroethene		20.0	5.0	0.60	ug/L	19.1	95	67-134			
Trichlorofluoromethane		20.0	10	0.45	ug/L	23.9	119	48-152			
Vinyl chloride		20.0	10	0.75	ug/L	19.1	96	4-196			
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*102*				
Surrogate: 4-Bromofluorobenzene					*ug/L*		*108*				
Surrogate: Toluene-d8					*ug/L*		*95*				

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 06/29/10 (Lab Number:10F2283-BLK1, Batch: 10F2283)											
1,2,4-Trichlorobenzene			10	0.49	ug/L	ND					
1,2-Dichlorobenzene			10	0.14	ug/L	ND					
1,2-Diphenylhydrazine			10	0.063	ug/L	ND					
1,3-Dichlorobenzene			10	0.069	ug/L	ND					
1,4-Dichlorobenzene			10	0.090	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.23	ug/L	ND					
2,4-Dichlorophenol			5.0	0.30	ug/L	ND					
2,4-Dimethylphenol			5.0	0.13	ug/L	ND					
2,4-Dinitrophenol			10	0.84	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.26	ug/L	ND					
2,6-Dinitrotoluene			5.0	0.72	ug/L	ND					
2-Chloronaphthalene			5.0	0.068	ug/L	ND					
2-Chlorophenol			5.0	0.16	ug/L	ND					
2-Nitrophenol			5.0	0.14	ug/L	ND					
3,3'-Dichlorobenzidine			5.0	0.82	ug/L	ND					
4,6-Dinitro-2-methylphenol			10	0.76	ug/L	ND					
4-Bromophenyl phenyl ether			5.0	0.11	ug/L	ND					
4-Chloro-3-methylphenol			5.0	0.56	ug/L	ND					
4-Chlorophenyl phenyl ether			5.0	0.21	ug/L	ND					
4-Nitrophenol			10	1.3	ug/L	ND					
Acenaphthene			5.0	0.060	ug/L	ND					
Acenaphthylene			5.0	0.034	ug/L	ND					
Anthracene			5.0	0.052	ug/L	ND					
Benzidine			80	2.5	ug/L	ND					
Benzo[a]anthracene			5.0	0.043	ug/L	ND					
Benzo[a]pyrene			5.0	0.058	ug/L	ND					
Benzo[b]fluoranthene			5.0	0.062	ug/L	ND					
Benzo[g,h,i]perylene			5.0	0.10	ug/L	ND					
Benzo[k]fluoranthene			5.0	0.042	ug/L	ND					
Bis(2-chloroethoxy)methane			5.0	0.085	ug/L	ND					
Bis(2-chloroethyl)ether			5.0	1.1	ug/L	ND					
Bis(2-chloroisopropyl) ether			5.0	0.086	ug/L	ND					
Bis(2-ethylhexyl) phthalate			10	0.86	ug/L	ND					
Butyl benzyl phthalate			5.0	1.3	ug/L	ND					

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 06/29/10 (Lab Number:10F2283-BLK1, Batch: 10F2283)											
Chrysene			5.0	0.036	ug/L	ND					
Dibenz[a,h]anthracene			5.0	0.055	ug/L	ND					
Diethyl phthalate			5.0	0.17	ug/L	ND					
Dimethyl phthalate			5.0	0.17	ug/L	ND					
Di-n-butyl phthalate			5.0	0.94	ug/L	ND					
Di-n-octyl phthalate			5.0	4.5	ug/L	ND					
Fluoranthene			5.0	0.11	ug/L	ND					
Fluorene			5.0	0.043	ug/L	ND					
Hexachlorobenzene			5.0	0.28	ug/L	ND					
Hexachlorobutadiene			5.0	0.62	ug/L	ND					
Hexachlorocyclopentadiene			5.0	0.45	ug/L	ND					
Hexachloroethane			5.0	0.48	ug/L	ND					
Indeno[1,2,3-cd]pyrene			5.0	0.19	ug/L	ND					
Isophorone			5.0	0.16	ug/L	ND					
Naphthalene			5.0	0.080	ug/L	ND					
Nitrobenzene			5.0	0.11	ug/L	ND					
N-Nitrosodimethylamine			10	0.96	ug/L	ND					
N-Nitrosodi-n-propylamine			5.0	0.23	ug/L	ND					
N-Nitrosodiphenylamine			5.0	0.40	ug/L	ND					
Pentachlorophenol			10	0.41	ug/L	ND					
Phenanthrene			5.0	0.071	ug/L	ND					
Phenol			5.0	0.12	ug/L	ND					
Pyrene			5.0	0.041	ug/L	ND					
Surrogate: 2-Fluorophenol					*ug/L*		*29*	*17-120*			
Surrogate: Phenol-d5					*ug/L*		*23*	*10-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*60*	*42-120*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*66*	*44-120*			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*84*	*52-151*			
Surrogate: p-Terphenyl-d14					*ug/L*		*94*	*22-125*			
LCS Analyzed: 06/29/10 (Lab Number:10F2283-BS1, Batch: 10F2283)											
1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	26.5	53	44-142			
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	23.5	47	32-129			
1,2-Diphenylhydrazine		50.0	10	0.063	ug/L	44.8	90	47-146			
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	22.9	46	1-172			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Analyzed: 06/29/10 (Lab Number:10F2283-BS1, Batch: 10F2283)											
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	23.6	47	20-124			
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	36.9	74	37-144			
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	34.0	68	39-135			
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	30.9	62	32-119			
2,4-Dinitrophenol		50.0	10	0.84	ug/L	42.9	86	1-191			
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	46.6	93	39-139			
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	44.9	90	50-158			
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	32.7	65	60-118			
2-Chlorophenol		50.0	5.0	0.16	ug/L	26.0	52	23-134			
2-Nitrophenol		50.0	5.0	0.14	ug/L	32.1	64	29-182			
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	70.7	141	1-262			
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	51.6	103	1-181			
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	42.9	86	53-127			
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	39.8	80	22-147			
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	41.3	83	25-158			
4-Nitrophenol		50.0	10	1.3	ug/L	18.9	38	1-132			
Acenaphthene		50.0	5.0	0.060	ug/L	38.1	76	47-145			
Acenaphthylene		50.0	5.0	0.034	ug/L	38.9	78	33-145			
Anthracene		50.0	5.0	0.052	ug/L	44.3	89	27-133			
Benzidine		50.0	80	2.5	ug/L	49.5	99	1-120			J
Benzo[a]anthracene		50.0	5.0	0.043	ug/L	46.6	93	33-143			
Benzo[a]pyrene		50.0	5.0	0.058	ug/L	43.4	87	17-163			
Benzo[b]fluoranthene		50.0	5.0	0.062	ug/L	35.7	71	24-159			
Benzo[g,h,i]perylene		50.0	5.0	0.10	ug/L	38.0	76	1-219			
Benzo[k]fluoranthene		50.0	5.0	0.042	ug/L	37.5	75	11-162			
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	30.1	60	33-184			
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	26.5	53	12-158			
Bis(2-chloroisopropyl) ether		50.0	5.0	0.086	ug/L	28.5	57	36-166			
Bis(2-ethylhexyl) phthalate		50.0	10	0.86	ug/L	47.9	96	8-158			
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	47.4	95	1-152			
Chrysene		50.0	5.0	0.036	ug/L	48.0	96	17-168			
Dibenz[a,h]anthracene		50.0	5.0	0.055	ug/L	39.0	78	1-227			
Diethyl phthalate		50.0	5.0	0.17	ug/L	46.0	92	1-114			
Dimethyl phthalate		50.0	5.0	0.17	ug/L	42.4	85	1-112			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Analyzed: 06/29/10 (Lab Number:10F2283-BS1, Batch: 10F2283)											
Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	45.2	90	1-118			
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	40.0	80	4-146			
Fluoranthene		50.0	5.0	0.11	ug/L	41.6	83	26-137			
Fluorene		50.0	5.0	0.043	ug/L	43.6	87	59-121			
Hexachlorobenzene		50.0	5.0	0.28	ug/L	42.4	85	1-152			
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	26.2	52	24-116			
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	24.9	50	5-120			
Hexachloroethane		50.0	5.0	0.48	ug/L	22.6	45	40-113			
Indeno[1,2,3-cd]pyrene		50.0	5.0	0.19	ug/L	38.8	78	1-171			
Isophorone		50.0	5.0	0.16	ug/L	32.6	65	21-196			
Naphthalene		50.0	5.0	0.080	ug/L	30.8	62	21-133			
Nitrobenzene		50.0	5.0	0.11	ug/L	31.9	64	35-180			
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	17.5	35	19-120			
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	31.6	63	1-230			
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	49.4	99	54-125			
Pentachlorophenol		50.0	10	0.41	ug/L	43.1	86	14-176			
Phenanthrene		50.0	5.0	0.071	ug/L	45.8	92	54-120			
Phenol		50.0	5.0	0.12	ug/L	12.4	25	5-112			
Pyrene		50.0	5.0	0.041	ug/L	48.1	96	52-115			
Surrogate: 2-Fluorophenol					*ug/L*		*27*	*17-120*			
Surrogate: Phenol-d5					*ug/L*		*22*	*10-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*63*	*42-120*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*69*	*44-120*			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*87*	*52-151*			
Surrogate: p-Terphenyl-d14					*ug/L*		*90*	*22-125*			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTF1402

Project: River Bend - Effluent
Project Number: [none]

Received: 06/25/10
Reported: 07/02/10 14:07

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
LCS Analyzed: 06/25/10 (Lab Number:10F2294-BS1, Batch: 10F2294)											
pH		7.00	NA	0.00	SU	7.00	100	99.3-100.8			
General Chemistry Parameters											
Blank Analyzed: 07/01/10 (Lab Number:10F2518-BLK1, Batch: 10F2518)											
Cyanide			0.0100	0.0050	mg/L	ND					
LCS Analyzed: 07/01/10 (Lab Number:10F2518-BS1, Batch: 10F2518)											
Cyanide		0.250	0.0100	0.0050	mg/L	0.233	93	90-110			

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Turnkey	Project Manager: Bryan Hann	Date: 6-18-10	Chain of Custody Number: 167637
Address: 2558 Hamburg Turnpike Suite 300	Telephone Number (Area Code)/Fax Number: (716) 856-0599 / (716) 856 0583	Lab Number	Page _____ of _____
City: Buffalo	State: NY	Zip Code: 14218	Site Contact	Lab Contact
Project Name and Location (State): Riverbend GWTS	Carrier/Waybill Number	
Contract/Purchase Order/Quote No.: 0171-009-500		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP VOC 624	SVOC 625	Tot CN	pH	Special Instructions/ Conditions of Receipt
Process Effluent	~~6/24/10~~ 6/25/10	8:00		X			X			X	X		8	4	1	1	624 + 625 Analysis to be composited by Lab

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time
1. Relinquished By: Paul W Leithner	6/18/10	830
2. Relinquished By:	06-25-10	15:46
3. Relinquished By:		
1. Received By:	06-25-10	14:20
2. Received By:	6.25.10	1540
3. Received By:		

Comments

4.8°C

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Analytical Report

Work Order: RTK1664

Project Description

River Bend - Effluent

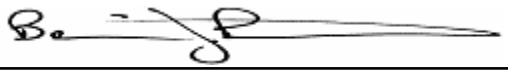
For:

Bryan Hann

Turnkey Environmental Restoration, LLC

2558 Hamburg Turnpike

Lackawanna, NY 14218



Brian Fischer

Project Manager

Brian.Fischer@testamericainc.com

Friday, December 3, 2010

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

TestAmerica Buffalo
Current Certifications

As of 08/16/2010

STATE	Program	Cert # / Lab ID
Arkansas	CWA, RCRA, SOIL	88-0686
California*	NELAP CWA, RCRA	01169CA
Connecticut	SDWA, CWA, RCRA, SOIL	PH-0568
Florida*	NELAP CWA, RCRA	E87672
Georgia*	SDWA,NELAP CWA, RCRA	956
Illinois*	NELAP SDWA, CWA, RCRA	200003
Iowa	SW/CS	374
Kansas*	NELAP SDWA, CWA, RCRA	E-10187
Kentucky	SDWA	90029
Kentucky UST	UST	30
Louisiana*	NELAP CWA, RCRA	2031
Maine	SDWA, CWA	NY0044
Maryland	SDWA	294
Massachusetts	SDWA, CWA	M-NY044
Michigan	SDWA	9937
Minnesota	SDWA,CWA, RCRA	036-999-337
New Hampshire*	NELAP SDWA, CWA	233701
New Jersey*	NELAP,SDWA, CWA, RCRA,	NY455
New York*	NELAP, AIR, SDWA, CWA, RCRA	10026
North Dakota	CWA, RCRA	R-176
Oklahoma	CWA, RCRA	9421
Oregon*	CWA,RCRA	NY200003
Pennsylvania*	NELAP CWA,RCRA	68-00281
Tennessee	SDWA	02970
Texas*	NELAP CWA, RCRA	T104704412-08-TX
USDA	FOREIGN SOIL PERMIT	S-41579
Virginia	SDWA	278
Washington*	NELAP CWA,RCRA	C1677
Wisconsin	CWA, RCRA	998310390
West Virginia	CWA,RCRA	252

*As required under the indicated accreditation, the test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

CASE NARRATIVE

According to 40CFR Part 136.3, pH, Chlorine Residual, Dissolved Oxygen, Sulfite, and Temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. field-pH), they were not analyzed immediately, but as soon as possible after laboratory receipt.

A pertinent document is appended to this report, 1 page, is included and is an integral part of this report.

TestAmerica Laboratories, Inc. certifies that the analytical results contained herein apply only to the samples tested as received by our Laboratory.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

DATA QUALIFIERS AND DEFINITIONS

J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
M15	The Matrix Spike Duplicate exhibited results outside of the quality control limits. However, the Matrix Spike and Blank Spike (LCS) were acceptable.
P16	Lab to composite volatile samples by date/time/flow.
P17	Lab to composite samples by date/time/flow.
SL	Volatile sample was composited in the laboratory prior to analysis.
NR	Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTK1664-01 (Process effluent - Water)						**Sampled: 11/24/10**			**Recvd: 11/24/10 16:15**	
Volatile Organic Compounds										
Benzene	**2.4**	SL,J	5.0	0.60	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
General Chemistry Parameters										
Cyanide	**0.461**		0.0100	0.0050	mg/L	1.00	12/02/10 12:36	JME	10K2728	335.4
pH	**7.36**		NR	0.00	SU	1.00	11/24/10 22:30	JLN	10K2440	4500-H+ B

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
Process effluent	RTK1664-01	Water	11/24/10	11/24/10 16:15	P16, P17

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTK1664-01 (Process effluent - Water)						**Sampled: 11/24/10**			**Recvd: 11/24/10 16:15**	
Volatile Organic Compounds										
1,1,1-Trichloroethane	ND	SL	5.0	0.38	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,1,2,2-Tetrachloroethane	ND	SL	5.0	0.26	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,1,2-Trichloroethane	ND	SL	5.0	0.48	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,1-Dichloroethane	ND	SL	5.0	0.59	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,1-Dichloroethene	ND	SL	5.0	0.85	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,2-Dichlorobenzene	ND	SL	5.0	0.44	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,2-Dichloroethane	ND	SL	5.0	0.60	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,2-Dichloropropane	ND	SL	5.0	0.61	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,3-Dichlorobenzene	ND	SL	5.0	0.54	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,4-Dichlorobenzene	ND	SL	5.0	0.51	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
2-Chloroethyl vinyl ether	ND	SL	25	1.8	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Benzene	**2.4**	SL,J	5.0	0.60	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Bromodichloromethane	ND	SL	5.0	0.54	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Bromoform	ND	SL	5.0	0.47	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Bromomethane	ND	SL	5.0	1.2	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Carbon Tetrachloride	ND	SL	5.0	0.51	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Chlorobenzene	ND	SL	5.0	0.48	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Chlorodibromomethane	ND	SL	5.0	0.41	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Chloroethane	ND	SL	5.0	0.87	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Chloroform	ND	SL	5.0	0.54	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Chloromethane	ND	SL	5.0	0.64	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
cis-1,3-Dichloropropene	ND	SL	5.0	0.33	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Ethylbenzene	ND	SL	5.0	0.46	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Methylene Chloride	ND	SL	5.0	0.81	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Tetrachloroethene	ND	SL	5.0	0.34	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Toluene	ND	SL	5.0	0.45	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
trans-1,2-Dichloroethene	ND	SL	5.0	0.59	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
trans-1,3-Dichloropropene	ND	SL	5.0	0.44	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Trichloroethene	ND	SL	5.0	0.60	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Trichlorofluoromethane	ND	SL	5.0	0.45	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
Vinyl chloride	ND	SL	5.0	0.75	ug/L	1.00	11/30/10 14:56	TRB	10K2697	624
1,2-Dichloroethane-d4	*93 %*	*SL*	*Surr Limits: (72-130%)*				*11/30/10 14:56*	*TRB*	*10K2697*	*624*
4-Bromofluorobenzene	*94 %*	*SL*	*Surr Limits: (69-121%)*				*11/30/10 14:56*	*TRB*	*10K2697*	*624*
Toluene-d8	*92 %*	*SL*	*Surr Limits: (70-123%)*				*11/30/10 14:56*	*TRB*	*10K2697*	*624*
Acid and Base/Neutral Extractables by EPA Method 625										
1,2,4-Trichlorobenzene	ND		11	0.55	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
1,2-Dichlorobenzene	ND		11	0.16	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
1,2-Diphenylhydrazine	ND		11	0.071	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
1,3-Dichlorobenzene	ND		11	0.077	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
1,4-Dichlorobenzene	ND		11	0.10	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2,4,6-Trichlorophenol	ND		5.6	0.26	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2,4-Dichlorophenol	ND		5.6	0.34	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2,4-Dimethylphenol	ND		5.6	0.15	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2,4-Dinitrophenol	ND		11	0.94	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2,4-Dinitrotoluene	ND		5.6	0.30	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2,6-Dinitrotoluene	ND		5.6	0.81	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2-Chloronaphthalene	ND		5.6	0.076	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2-Chlorophenol	ND		5.6	0.18	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
2-Nitrophenol	ND		5.6	0.16	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

Analytical Report

Sample ID: RTK1664-01 (Process effluent - Water) - cont. **Sampled: 11/24/10** **Recvd: 11/24/10 16:15**

Acid and Base/Neutral Extractables by EPA Method 625 - cont.

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
3,3'-Dichlorobenzidine	ND		5.6	0.92	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
4,6-Dinitro-2-methylphenol	ND		11	0.86	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
4-Bromophenyl phenyl ether	ND		5.6	0.13	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
4-Chloro-3-methylphenol	ND		5.6	0.62	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
4-Chlorophenyl phenyl ether	ND		5.6	0.23	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
4-Nitrophenol	ND		11	1.5	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Acenaphthene	ND		5.6	0.067	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Acenaphthylene	ND		5.6	0.038	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Anthracene	ND		5.6	0.059	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Benzidine	ND	L	90	2.8	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Benzo[a]anthracene	ND		5.6	0.048	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Benzo[a]pyrene	ND		5.6	0.065	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Benzo[b]fluoranthene	ND		5.6	0.069	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Benzo[g,h,i]perylene	ND		5.6	0.11	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Benzo[k]fluoranthene	ND		5.6	0.047	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Bis(2-chloroethoxy)methane	ND		5.6	0.095	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Bis(2-chloroethyl)ether	ND		5.6	1.2	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Bis(2-chloroisopropyl) ether	ND		5.6	0.096	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Bis(2-ethylhexyl) phthalate	ND		11	0.97	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Butyl benzyl phthalate	ND		5.6	1.5	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Chrysene	ND		5.6	0.040	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Dibenz[a,h]anthracene	ND		5.6	0.062	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Diethyl phthalate	ND		5.6	0.19	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Dimethyl phthalate	ND		5.6	0.19	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Di-n-butyl phthalate	ND		5.6	1.1	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Di-n-octyl phthalate	ND		5.6	5.0	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Fluoranthene	ND		5.6	0.12	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Fluorene	ND		5.6	0.048	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Hexachlorobenzene	ND		5.6	0.31	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Hexachlorobutadiene	ND		5.6	0.69	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Hexachlorocyclopentadiene	ND		5.6	0.51	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Hexachloroethane	ND		5.6	0.54	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Indeno[1,2,3-cd]pyrene	ND		5.6	0.21	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Isophorone	ND		5.6	0.18	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Naphthalene	ND		5.6	0.090	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Nitrobenzene	ND		5.6	0.12	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
N-Nitrosodimethylamine	ND		11	1.1	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
N-Nitrosodi-n-propylamine	ND		5.6	0.26	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
N-Nitrosodiphenylamine	ND		5.6	0.44	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Pentachlorophenol	ND		11	0.46	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Phenanthrene	ND		5.6	0.080	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Phenol	ND		5.6	0.14	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625
Pyrene	ND		5.6	0.046	ug/L	1.00	11/29/10 17:58	MAF	10K2613	625

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	MDL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTK1664-01 (Process effluent - Water) - cont.						**Sampled: 11/24/10**			**Recvd: 11/24/10 16:15**	
Acid and Base/Neutral Extractables by EPA Method 625 - cont.										
2-Fluorophenol	*44 %*		*Surr Limits: (17-120%)*				*11/29/10 17:58*	*MAF*	*10K2613*	*625*
Phenol-d5	*33 %*		*Surr Limits: (10-120%)*				*11/29/10 17:58*	*MAF*	*10K2613*	*625*
Nitrobenzene-d5	*75 %*		*Surr Limits: (42-120%)*				*11/29/10 17:58*	*MAF*	*10K2613*	*625*
2-Fluorobiphenyl	*78 %*		*Surr Limits: (44-120%)*				*11/29/10 17:58*	*MAF*	*10K2613*	*625*
2,4,6-Tribromophenol	*106 %*		*Surr Limits: (52-151%)*				*11/29/10 17:58*	*MAF*	*10K2613*	*625*
p-Terphenyl-d14	*84 %*		*Surr Limits: (22-125%)*				*11/29/10 17:58*	*MAF*	*10K2613*	*625*
General Chemistry Parameters										
Cyanide	**0.461**		0.0100	0.0050	mg/L	1.00	12/02/10 12:36	JME	10K2728	335.4
pH	**7.36**		NA	0.00	SU	1.00	11/24/10 22:30	JLN	10K2440	4500-H+ B

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Acid and Base/Neutral Extractables by EPA Method 625									
625	10K2613	RTK1664-01	890.00	mL	1.00	mL	11/29/10 09:09	JXB	3510C MB
General Chemistry Parameters									
335.4	10K2728	RTK1664-01	50.00	mL	50.00	mL	11/30/10 10:30	KLD	Cn Digestion
4500-H+ B	10K2440	RTK1664-01	25.00	mL	25.00	mL	11/24/10 22:30	JLN	No prep pH
Volatile Organic Compounds									
624	10K2697	RTK1664-01	5.00	mL	5.00	mL	11/30/10 10:27	TRB	5030B MS

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
Blank Analyzed: 11/30/10 (Lab Number:10K2697-BLK1, Batch: 10K2697)											
1,1,1-Trichloroethane			5.0	0.38	ug/L	ND					
1,1,2,2-Tetrachloroethane			5.0	0.26	ug/L	ND					
1,1,2-Trichloroethane			5.0	0.48	ug/L	ND					
1,1-Dichloroethane			5.0	0.59	ug/L	ND					
1,1-Dichloroethene			5.0	0.85	ug/L	ND					
1,2-Dichlorobenzene			5.0	0.44	ug/L	ND					
1,2-Dichloroethane			5.0	0.60	ug/L	ND					
1,2-Dichloropropane			5.0	0.61	ug/L	ND					
1,3-Dichlorobenzene			5.0	0.54	ug/L	ND					
1,4-Dichlorobenzene			5.0	0.51	ug/L	ND					
2-Chloroethyl vinyl ether			25	1.8	ug/L	ND					
Benzene			5.0	0.60	ug/L	ND					
Bromodichloromethane			5.0	0.54	ug/L	ND					
Bromoform			5.0	0.47	ug/L	ND					
Bromomethane			5.0	1.2	ug/L	ND					
Carbon Tetrachloride			5.0	0.51	ug/L	ND					
Chlorobenzene			5.0	0.48	ug/L	ND					
Chlorodibromomethane			5.0	0.41	ug/L	ND					
Chloroethane			5.0	0.87	ug/L	ND					
Chloroform			5.0	0.54	ug/L	ND					
Chloromethane			5.0	0.64	ug/L	ND					
cis-1,3-Dichloropropene			5.0	0.33	ug/L	ND					
Ethylbenzene			5.0	0.46	ug/L	ND					
Methylene Chloride			5.0	0.81	ug/L	ND					
Tetrachloroethene			5.0	0.34	ug/L	ND					
Toluene			5.0	0.45	ug/L	ND					
trans-1,2-Dichloroethene			5.0	0.59	ug/L	ND					
trans-1,3-Dichloropropene			5.0	0.44	ug/L	ND					
Trichloroethene			5.0	0.60	ug/L	ND					
Trichlorofluoromethane			5.0	0.45	ug/L	ND					
Vinyl chloride			5.0	0.75	ug/L	ND					
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*97*	*72-130*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*97*	*69-121*			
Surrogate: Toluene-d8					*ug/L*		*95*	*70-123*			

LCS Analyzed: 11/30/10 (Lab Number:10K2697-BS1, Batch: 10K2697)

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Volatile Organic Compounds											
LCS Analyzed: 11/30/10 (Lab Number:10K2697-BS1, Batch: 10K2697)											
1,1,1-Trichloroethane		20.0	5.0	0.38	ug/L	18.8	94	75-125			
1,1,2,2-Tetrachloroethane		20.0	5.0	0.26	ug/L	19.0	95	61-140			
1,1,2-Trichloroethane		20.0	5.0	0.48	ug/L	18.6	93	71-129			
1,1-Dichloroethane		20.0	5.0	0.59	ug/L	19.1	95	73-128			
1,1-Dichloroethene		20.0	5.0	0.85	ug/L	16.1	81	51-150			
1,2-Dichlorobenzene		20.0	5.0	0.44	ug/L	16.5	83	63-137			
1,2-Dichloroethane		20.0	5.0	0.60	ug/L	19.2	96	68-132			
1,2-Dichloropropane		20.0	5.0	0.61	ug/L	19.2	96	34-166			
1,3-Dichlorobenzene		20.0	5.0	0.54	ug/L	16.6	83	73-127			
1,4-Dichlorobenzene		20.0	5.0	0.51	ug/L	16.2	81	63-137			
2-Chloroethyl vinyl ether		100	25	1.8	ug/L	107	107	1-224			
Benzene		20.0	5.0	0.60	ug/L	19.2	96	64-136			
Bromodichloromethane		20.0	5.0	0.54	ug/L	20.2	101	66-135			
Bromoform		20.0	5.0	0.47	ug/L	18.0	90	71-129			
Bromomethane		20.0	5.0	1.2	ug/L	16.7	84	14-186			
Carbon Tetrachloride		20.0	5.0	0.51	ug/L	19.1	96	73-127			
Chlorobenzene		20.0	5.0	0.48	ug/L	18.8	94	66-134			
Chlorodibromomethane		20.0	5.0	0.41	ug/L	18.9	94	68-133			
Chloroethane		20.0	5.0	0.87	ug/L	19.6	98	38-162			
Chloroform		20.0	5.0	0.54	ug/L	18.8	94	68-133			
Chloromethane		20.0	5.0	0.64	ug/L	21.4	107	1-204			
cis-1,3-Dichloropropene		20.0	5.0	0.33	ug/L	19.0	95	24-176			
Ethylbenzene		20.0	5.0	0.46	ug/L	19.0	95	59-141			
Methylene Chloride		20.0	5.0	0.81	ug/L	19.4	97	61-140			
Tetrachloroethene		20.0	5.0	0.34	ug/L	18.4	92	74-127			
Toluene		20.0	5.0	0.45	ug/L	18.0	90	75-126			
trans-1,2-Dichloroethene		20.0	5.0	0.59	ug/L	18.6	93	70-131			
trans-1,3-Dichloropropene		20.0	5.0	0.44	ug/L	18.4	92	50-150			
Trichloroethene		20.0	5.0	0.60	ug/L	18.8	94	67-134			
Trichlorofluoromethane		20.0	5.0	0.45	ug/L	22.3	112	48-152			
Vinyl chloride		20.0	5.0	0.75	ug/L	21.7	109	4-196			
Surrogate: 1,2-Dichloroethane-d4					*ug/L*		*97*	*72-130*			
Surrogate: 4-Bromofluorobenzene					*ug/L*		*100*	*69-121*			
Surrogate: Toluene-d8					*ug/L*		*96*	*70-123*			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 11/29/10 (Lab Number:10K2613-BLK1, Batch: 10K2613)											
1,2,4-Trichlorobenzene			10	0.49	ug/L	ND					
1,2-Dichlorobenzene			10	0.14	ug/L	ND					
1,2-Diphenylhydrazine			10	0.063	ug/L	ND					
1,3-Dichlorobenzene			10	0.069	ug/L	ND					
1,4-Dichlorobenzene			10	0.090	ug/L	ND					
2,4,6-Trichlorophenol			5.0	0.23	ug/L	ND					
2,4-Dichlorophenol			5.0	0.30	ug/L	ND					
2,4-Dimethylphenol			5.0	0.13	ug/L	ND					
2,4-Dinitrophenol			10	0.84	ug/L	ND					
2,4-Dinitrotoluene			5.0	0.26	ug/L	ND					
2,6-Dinitrotoluene			5.0	0.72	ug/L	ND					
2-Chloronaphthalene			5.0	0.068	ug/L	ND					
2-Chlorophenol			5.0	0.16	ug/L	ND					
2-Nitrophenol			5.0	0.14	ug/L	ND					
3,3'-Dichlorobenzidine			5.0	0.82	ug/L	ND					
4,6-Dinitro-2-methylphenol			10	0.76	ug/L	ND					
4-Bromophenyl phenyl ether			5.0	0.11	ug/L	ND					
4-Chloro-3-methylphenol			5.0	0.56	ug/L	ND					
4-Chlorophenyl phenyl ether			5.0	0.21	ug/L	ND					
4-Nitrophenol			10	1.3	ug/L	ND					
Acenaphthene			5.0	0.060	ug/L	ND					
Acenaphthylene			5.0	0.034	ug/L	ND					
Anthracene			5.0	0.052	ug/L	ND					
Benzidine			80	2.5	ug/L	ND					
Benzo[a]anthracene			5.0	0.043	ug/L	ND					
Benzo[a]pyrene			5.0	0.058	ug/L	ND					
Benzo[b]fluoranthene			5.0	0.062	ug/L	ND					
Benzo[g,h,i]perylene			5.0	0.10	ug/L	ND					
Benzo[k]fluoranthene			5.0	0.042	ug/L	ND					
Bis(2-chloroethoxy)methane			5.0	0.085	ug/L	ND					
Bis(2-chloroethyl)ether			5.0	1.1	ug/L	ND					
Bis(2-chloroisopropyl) ether			5.0	0.086	ug/L	ND					
Bis(2-ethylhexyl) phthalate			10	0.86	ug/L	ND					
Butyl benzyl phthalate			5.0	1.3	ug/L	ND					

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Blank Analyzed: 11/29/10 (Lab Number:10K2613-BLK1, Batch: 10K2613)											
Chrysene			5.0	0.036	ug/L	ND					
Dibenz[a,h]anthracene			5.0	0.055	ug/L	ND					
Diethyl phthalate			5.0	0.17	ug/L	ND					
Dimethyl phthalate			5.0	0.17	ug/L	ND					
Di-n-butyl phthalate			5.0	0.94	ug/L	ND					
Di-n-octyl phthalate			5.0	4.5	ug/L	ND					
Fluoranthene			5.0	0.11	ug/L	ND					
Fluorene			5.0	0.043	ug/L	ND					
Hexachlorobenzene			5.0	0.28	ug/L	ND					
Hexachlorobutadiene			5.0	0.62	ug/L	ND					
Hexachlorocyclopentadiene			5.0	0.45	ug/L	ND					
Hexachloroethane			5.0	0.48	ug/L	ND					
Indeno[1,2,3-cd]pyrene			5.0	0.19	ug/L	ND					
Isophorone			5.0	0.16	ug/L	ND					
Naphthalene			5.0	0.080	ug/L	ND					
Nitrobenzene			5.0	0.11	ug/L	ND					
N-Nitrosodimethylamine			10	0.96	ug/L	ND					
N-Nitrosodi-n-propylamine			5.0	0.23	ug/L	ND					
N-Nitrosodiphenylamine			5.0	0.40	ug/L	ND					
Pentachlorophenol			10	0.41	ug/L	ND					
Phenanthrene			5.0	0.071	ug/L	ND					
Phenol			5.0	0.12	ug/L	ND					
Pyrene			5.0	0.041	ug/L	ND					
Surrogate: 2-Fluorophenol					*ug/L*		*51*	*17-120*			
Surrogate: Phenol-d5					*ug/L*		*38*	*10-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*86*	*42-120*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*87*	*44-120*			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*116*	*52-151*			
Surrogate: p-Terphenyl-d14					*ug/L*		*120*	*22-125*			
LCS Analyzed: 11/29/10 (Lab Number:10K2613-BS1, Batch: 10K2613)											
1,2,4-Trichlorobenzene		50.0	10	0.49	ug/L	28.6	57	44-142			
1,2-Dichlorobenzene		50.0	10	0.14	ug/L	25.6	51	32-129			
1,2-Diphenylhydrazine		50.0	10	0.063	ug/L	45.8	92	47-146			
1,3-Dichlorobenzene		50.0	10	0.069	ug/L	24.1	48	1-172			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Analyzed: 11/29/10 (Lab Number:10K2613-BS1, Batch: 10K2613)											
1,4-Dichlorobenzene		50.0	10	0.090	ug/L	25.1	50	20-124			
2,4,6-Trichlorophenol		50.0	5.0	0.23	ug/L	44.1	88	37-144			
2,4-Dichlorophenol		50.0	5.0	0.30	ug/L	40.5	81	39-135			
2,4-Dimethylphenol		50.0	5.0	0.13	ug/L	39.3	79	32-119			
2,4-Dinitrophenol		50.0	10	0.84	ug/L	47.1	94	1-191			
2,4-Dinitrotoluene		50.0	5.0	0.26	ug/L	49.1	98	39-139			
2,6-Dinitrotoluene		50.0	5.0	0.72	ug/L	52.2	104	50-158			
2-Chloronaphthalene		50.0	5.0	0.068	ug/L	35.8	72	60-118			
2-Chlorophenol		50.0	5.0	0.16	ug/L	33.3	67	23-134			
2-Nitrophenol		50.0	5.0	0.14	ug/L	40.7	81	29-182			
3,3'-Dichlorobenzidine		50.0	5.0	0.82	ug/L	67.3	135	1-262			
4,6-Dinitro-2-methylphenol		50.0	10	0.76	ug/L	57.3	115	1-181			
4-Bromophenyl phenyl ether		50.0	5.0	0.11	ug/L	46.9	94	53-127			
4-Chloro-3-methylphenol		50.0	5.0	0.56	ug/L	44.0	88	22-147			
4-Chlorophenyl phenyl ether		50.0	5.0	0.21	ug/L	43.3	87	25-158			
4-Nitrophenol		50.0	10	1.3	ug/L	21.8	44	1-132			
Acenaphthene		50.0	5.0	0.060	ug/L	40.8	82	47-145			
Acenaphthylene		50.0	5.0	0.034	ug/L	41.6	83	33-145			
Anthracene		50.0	5.0	0.052	ug/L	47.9	96	27-133			
Benzidine		50.0	80	2.5	ug/L	83.9	168	1-120			L1
Benzo[a]anthracene		50.0	5.0	0.043	ug/L	51.1	102	33-143			
Benzo[a]pyrene		50.0	5.0	0.058	ug/L	56.1	112	17-163			
Benzo[b]fluoranthene		50.0	5.0	0.062	ug/L	47.0	94	24-159			
Benzo[g,h,i]perylene		50.0	5.0	0.10	ug/L	44.1	88	1-219			
Benzo[k]fluoranthene		50.0	5.0	0.042	ug/L	45.1	90	11-162			
Bis(2-chloroethoxy)methane		50.0	5.0	0.085	ug/L	36.1	72	33-184			
Bis(2-chloroethyl)ether		50.0	5.0	1.1	ug/L	32.2	64	12-158			
Bis(2-chloroisopropyl) ether		50.0	5.0	0.086	ug/L	32.4	65	36-166			
Bis(2-ethylhexyl) phthalate		50.0	10	0.86	ug/L	66.1	132	8-158			
Butyl benzyl phthalate		50.0	5.0	1.3	ug/L	64.5	129	1-152			
Chrysene		50.0	5.0	0.036	ug/L	50.1	100	17-168			
Dibenz[a,h]anthracene		50.0	5.0	0.055	ug/L	47.6	95	1-227			
Diethyl phthalate		50.0	5.0	0.17	ug/L	51.9	104	1-114			
Dimethyl phthalate		50.0	5.0	0.17	ug/L	48.5	97	1-112			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
LCS Analyzed: 11/29/10 (Lab Number:10K2613-BS1, Batch: 10K2613)											
Di-n-butyl phthalate		50.0	5.0	0.94	ug/L	55.6	111	1-118			
Di-n-octyl phthalate		50.0	5.0	4.5	ug/L	65.3	131	4-146			
Fluoranthene		50.0	5.0	0.11	ug/L	49.9	100	26-137			
Fluorene		50.0	5.0	0.043	ug/L	45.1	90	59-121			
Hexachlorobenzene		50.0	5.0	0.28	ug/L	47.3	95	1-152			
Hexachlorobutadiene		50.0	5.0	0.62	ug/L	26.6	53	24-116			
Hexachlorocyclopentadiene		50.0	5.0	0.45	ug/L	26.8	54	5-120			
Hexachloroethane		50.0	5.0	0.48	ug/L	23.2	46	40-113			
Indeno[1,2,3-cd]pyrene		50.0	5.0	0.19	ug/L	47.0	94	1-171			
Isophorone		50.0	5.0	0.16	ug/L	38.4	77	21-196			
Naphthalene		50.0	5.0	0.080	ug/L	32.9	66	21-133			
Nitrobenzene		50.0	5.0	0.11	ug/L	38.6	77	35-180			
N-Nitrosodimethylamine		50.0	10	0.96	ug/L	22.1	44	19-120			
N-Nitrosodi-n-propylamine		50.0	5.0	0.23	ug/L	38.7	77	1-230			
N-Nitrosodiphenylamine		50.0	5.0	0.40	ug/L	62.3	125	54-125			
Pentachlorophenol		50.0	10	0.41	ug/L	50.1	100	14-176			
Phenanthrene		50.0	5.0	0.071	ug/L	48.2	96	54-120			
Phenol		50.0	5.0	0.12	ug/L	16.2	32	5-112			
Pyrene		50.0	5.0	0.041	ug/L	49.3	99	52-115			
Surrogate: 2-Fluorophenol					*ug/L*		*42*	*17-120*			
Surrogate: Phenol-d5					*ug/L*		*31*	*10-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*76*	*42-120*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*79*	*44-120*			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*103*	*52-151*			
Surrogate: p-Terphenyl-d14					*ug/L*		*98*	*22-125*			
Matrix Spike Analyzed: 11/29/10 (Lab Number:10K2613-MS1, Batch: 10K2613)											
QC Source Sample: RTK1664-01											
1,2,4-Trichlorobenzene	ND	95.2	19	0.94	ug/L	67.5	71	44-142			
1,2-Dichlorobenzene	ND	95.2	19	0.28	ug/L	63.7	67	32-129			
1,2-Diphenylhydrazine	ND	95.2	19	0.12	ug/L	86.5	91	47-146			
1,3-Dichlorobenzene	ND	95.2	19	0.13	ug/L	60.4	63	1-172			
1,4-Dichlorobenzene	ND	95.2	19	0.17	ug/L	61.9	65	20-124			
2,4,6-Trichlorophenol	ND	95.2	9.5	0.45	ug/L	84.3	89	37-144			
2,4-Dichlorophenol	ND	95.2	9.5	0.57	ug/L	83.7	88	39-135			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Matrix Spike Analyzed: 11/29/10 (Lab Number:10K2613-MS1, Batch: 10K2613)											
QC Source Sample: RTK1664-01											
2,4-Dimethylphenol	ND	95.2	9.5	0.26	ug/L	78.7	83	32-119			
2,4-Dinitrophenol	ND	95.2	19	1.6	ug/L	87.8	92	1-191			
2,4-Dinitrotoluene	ND	95.2	9.5	0.50	ug/L	91.9	96	39-139			
2,6-Dinitrotoluene	ND	95.2	9.5	1.4	ug/L	98.4	103	50-158			
2-Chloronaphthalene	ND	95.2	9.5	0.13	ug/L	75.1	79	60-118			
2-Chlorophenol	ND	95.2	9.5	0.30	ug/L	72.8	76	23-134			
2-Nitrophenol	ND	95.2	9.5	0.27	ug/L	82.1	86	29-182			
3,3'-Dichlorobenzidine	ND	95.2	9.5	1.6	ug/L	96.6	101	1-262			
4,6-Dinitro-2-methylphenol	ND	95.2	19	1.4	ug/L	106	111	1-181			
4-Bromophenyl phenyl ether	ND	95.2	9.5	0.22	ug/L	90.3	95	53-127			
4-Chloro-3-methylphenol	ND	95.2	9.5	1.1	ug/L	88.0	92	22-147			
4-Chlorophenyl phenyl ether	ND	95.2	9.5	0.40	ug/L	82.4	87	25-158			
4-Nitrophenol	ND	95.2	19	2.6	ug/L	60.6	64	1-132			
Acenaphthene	ND	95.2	9.5	0.11	ug/L	83.5	88	47-145			
Acenaphthylene	ND	95.2	9.5	0.065	ug/L	83.1	87	33-145			
Anthracene	ND	95.2	9.5	0.10	ug/L	88.8	93	27-133			
Benzidine	ND	95.2	150	4.8	ug/L	23.3	24	1-120			J
Benzo[a]anthracene	ND	95.2	9.5	0.082	ug/L	91.6	96	33-143			
Benzo[a]pyrene	ND	95.2	9.5	0.11	ug/L	101	106	17-163			
Benzo[b]fluoranthene	ND	95.2	9.5	0.12	ug/L	87.5	92	24-159			
Benzo[g,h,i]perylene	ND	95.2	9.5	0.19	ug/L	85.2	89	1-219			
Benzo[k]fluoranthene	ND	95.2	9.5	0.080	ug/L	79.8	84	11-162			
Bis(2-chloroethoxy)methane	ND	95.2	9.5	0.16	ug/L	74.4	78	33-184			
Bis(2-chloroethyl)ether	ND	95.2	9.5	2.1	ug/L	68.3	72	12-158			
Bis(2-chloroisopropyl) ether	ND	95.2	9.5	0.16	ug/L	69.6	73	36-166			
Bis(2-ethylhexyl) phthalate	ND	95.2	19	1.6	ug/L	129	135	8-158			
Butyl benzyl phthalate	ND	95.2	9.5	2.5	ug/L	127	133	1-152			
Chrysene	ND	95.2	9.5	0.068	ug/L	89.2	94	17-168			
Dibenz[a,h]anthracene	ND	95.2	9.5	0.11	ug/L	87.1	92	1-227			
Diethyl phthalate	ND	95.2	9.5	0.33	ug/L	97.3	102	1-114			
Dimethyl phthalate	ND	95.2	9.5	0.32	ug/L	90.0	94	1-112			
Di-n-butyl phthalate	ND	95.2	9.5	1.8	ug/L	103	108	1-118			
Di-n-octyl phthalate	ND	95.2	9.5	8.5	ug/L	118	124	4-146			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Matrix Spike Analyzed: 11/29/10 (Lab Number:10K2613-MS1, Batch: 10K2613)											
QC Source Sample: RTK1664-01											
Fluoranthene	ND	95.2	9.5	0.21	ug/L	91.5	96	26-137			
Fluorene	ND	95.2	9.5	0.081	ug/L	86.4	91	59-121			
Hexachlorobenzene	ND	95.2	9.5	0.52	ug/L	88.0	92	1-152			
Hexachlorobutadiene	ND	95.2	9.5	1.2	ug/L	70.0	73	24-116			
Hexachlorocyclopentadiene	ND	95.2	9.5	0.86	ug/L	69.5	73	5-120			
Hexachloroethane	ND	95.2	9.5	0.92	ug/L	60.7	64	40-113			
Indeno[1,2,3-cd]pyrene	ND	95.2	9.5	0.35	ug/L	85.3	90	1-171			
Isophorone	ND	95.2	9.5	0.30	ug/L	75.5	79	21-196			
Naphthalene	ND	95.2	9.5	0.15	ug/L	72.6	76	21-133			
Nitrobenzene	ND	95.2	9.5	0.21	ug/L	80.8	85	35-180			
N-Nitrosodimethylamine	ND	95.2	19	1.8	ug/L	56.6	59	19-120			
N-Nitrosodi-n-propylamine	ND	95.2	9.5	0.44	ug/L	81.9	86	1-230			
N-Nitrosodiphenylamine	ND	95.2	9.5	0.75	ug/L	119	125	54-125			
Pentachlorophenol	ND	95.2	19	0.79	ug/L	94.3	99	14-176			
Phenanthrene	ND	95.2	9.5	0.14	ug/L	89.1	94	54-120			
Phenol	ND	95.2	9.5	0.23	ug/L	47.1	49	5-112			
Pyrene	ND	95.2	9.5	0.078	ug/L	89.3	94	52-115			
Surrogate: 2-Fluorophenol					*ug/L*		*59*	*17-120*			
Surrogate: Phenol-d5					*ug/L*		*48*	*10-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*81*	*42-120*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*83*	*44-120*			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*103*	*52-151*			
Surrogate: p-Terphenyl-d14					*ug/L*		*84*	*22-125*			
Matrix Spike Dup Analyzed: 11/29/10 (Lab Number:10K2613-MSD1, Batch: 10K2613)											
QC Source Sample: RTK1664-01											
1,2,4-Trichlorobenzene	ND	95.2	19	0.94	ug/L	64.5	68	44-142	5	34	
1,2-Dichlorobenzene	ND	95.2	19	0.28	ug/L	59.7	63	32-129	6	38	
1,2-Diphenylhydrazine	ND	95.2	19	0.12	ug/L	86.4	91	47-146	0.2	20	
1,3-Dichlorobenzene	ND	95.2	19	0.13	ug/L	57.1	60	1-172	6	37	
1,4-Dichlorobenzene	ND	95.2	19	0.17	ug/L	57.8	61	20-124	7	40	
2,4,6-Trichlorophenol	ND	95.2	9.5	0.45	ug/L	85.0	89	37-144	0.8	20	
2,4-Dichlorophenol	ND	95.2	9.5	0.57	ug/L	78.9	83	39-135	6	23	
2,4-Dimethylphenol	ND	95.2	9.5	0.26	ug/L	75.9	80	32-119	4	18	

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Matrix Spike Dup Analyzed: 11/29/10 (Lab Number:10K2613-MSD1, Batch: 10K2613)											
QC Source Sample: RTK1664-01											
2,4-Dinitrophenol	ND	95.2	19	1.6	ug/L	92.7	97	1-191	6	29	
2,4-Dinitrotoluene	ND	95.2	9.5	0.50	ug/L	92.6	97	39-139	0.8	20	
2,6-Dinitrotoluene	ND	95.2	9.5	1.4	ug/L	98.8	104	50-158	0.4	17	
2-Chloronaphthalene	ND	95.2	9.5	0.13	ug/L	75.1	79	60-118	0	30	
2-Chlorophenol	ND	95.2	9.5	0.30	ug/L	69.1	73	23-134	5	26	
2-Nitrophenol	ND	95.2	9.5	0.27	ug/L	77.5	81	29-182	6	28	
3,3'-Dichlorobenzidine	ND	95.2	9.5	1.6	ug/L	107	112	1-262	10	31	
4,6-Dinitro-2-methylphenol	ND	95.2	19	1.4	ug/L	108	114	1-181	2	30	
4-Bromophenyl phenyl ether	ND	95.2	9.5	0.22	ug/L	91.7	96	53-127	2	16	
4-Chloro-3-methylphenol	ND	95.2	9.5	1.1	ug/L	85.6	90	22-147	3	16	
4-Chlorophenyl phenyl ether	ND	95.2	9.5	0.40	ug/L	84.2	88	25-158	2	15	
4-Nitrophenol	ND	95.2	19	2.6	ug/L	62.7	66	1-132	3	24	
Acenaphthene	ND	95.2	9.5	0.11	ug/L	83.8	88	47-145	0.3	25	
Acenaphthylene	ND	95.2	9.5	0.065	ug/L	84.1	88	33-145	1	22	
Anthracene	ND	95.2	9.5	0.10	ug/L	89.0	93	27-133	0.2	15	
Benzidine	ND	95.2	150	4.8	ug/L	32.6	34	1-120	33	50	J
Benzo[a]anthracene	ND	95.2	9.5	0.082	ug/L	95.5	100	33-143	4	15	
Benzo[a]pyrene	ND	95.2	9.5	0.11	ug/L	104	109	17-163	3	15	
Benzo[b]fluoranthene	ND	95.2	9.5	0.12	ug/L	87.6	92	24-159	0.2	17	
Benzo[g,h,i]perylene	ND	95.2	9.5	0.19	ug/L	86.3	91	1-219	1	19	
Benzo[k]fluoranthene	ND	95.2	9.5	0.080	ug/L	82.7	87	11-162	4	19	
Bis(2-chloroethoxy)methane	ND	95.2	9.5	0.16	ug/L	69.4	73	33-184	7	23	
Bis(2-chloroethyl)ether	ND	95.2	9.5	2.1	ug/L	64.4	68	12-158	6	33	
Bis(2-chloroisopropyl) ether	ND	95.2	9.5	0.16	ug/L	67.9	71	36-166	2	36	
Bis(2-ethylhexyl) phthalate	ND	95.2	19	1.6	ug/L	129	135	8-158	0	15	
Butyl benzyl phthalate	ND	95.2	9.5	2.5	ug/L	135	141	1-152	6	15	
Chrysene	ND	95.2	9.5	0.068	ug/L	92.6	97	17-168	4	15	
Dibenz[a,h]anthracene	ND	95.2	9.5	0.11	ug/L	88.4	93	1-227	1	18	
Diethyl phthalate	ND	95.2	9.5	0.33	ug/L	99.1	104	1-114	2	15	
Dimethyl phthalate	ND	95.2	9.5	0.32	ug/L	91.9	97	1-112	2	15	
Di-n-butyl phthalate	ND	95.2	9.5	1.8	ug/L	105	110	1-118	2	15	
Di-n-octyl phthalate	ND	95.2	9.5	8.5	ug/L	123	129	4-146	4	15	
Fluoranthene	ND	95.2	9.5	0.21	ug/L	90.8	95	26-137	0.8	15	

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Acid and Base/Neutral Extractables by EPA Method 625											
Matrix Spike Dup Analyzed: 11/29/10 (Lab Number:10K2613-MSD1, Batch: 10K2613)											
QC Source Sample: RTK1664-01											
Fluorene	ND	95.2	9.5	0.081	ug/L	87.1	91	59-121	0.8	18	
Hexachlorobenzene	ND	95.2	9.5	0.52	ug/L	86.6	91	1-152	2	15	
Hexachlorobutadiene	ND	95.2	9.5	1.2	ug/L	64.6	68	24-116	8	50	
Hexachlorocyclopentadiene	ND	95.2	9.5	0.86	ug/L	66.8	70	5-120	4	50	
Hexachloroethane	ND	95.2	9.5	0.92	ug/L	56.9	60	40-113	6	43	
Indeno[1,2,3-cd]pyrene	ND	95.2	9.5	0.35	ug/L	87.4	92	1-171	2	17	
Isophorone	ND	95.2	9.5	0.30	ug/L	71.5	75	21-196	5	21	
Naphthalene	ND	95.2	9.5	0.15	ug/L	68.8	72	21-133	5	31	
Nitrobenzene	ND	95.2	9.5	0.21	ug/L	75.2	79	35-180	7	27	
N-Nitrosodimethylamine	ND	95.2	19	1.8	ug/L	53.9	57	19-120	5	22	
N-Nitrosodi-n-propylamine	ND	95.2	9.5	0.44	ug/L	77.0	81	1-230	6	23	
N-Nitrosodiphenylamine	ND	95.2	9.5	0.75	ug/L	122	128	54-125	2	15	M15
Pentachlorophenol	ND	95.2	19	0.79	ug/L	97.0	102	14-176	3	21	
Phenanthrene	ND	95.2	9.5	0.14	ug/L	89.3	94	54-120	0.2	16	
Phenol	ND	95.2	9.5	0.23	ug/L	46.3	49	5-112	2	36	
Pyrene	ND	95.2	9.5	0.078	ug/L	92.4	97	52-115	3	15	
Surrogate: 2-Fluorophenol					*ug/L*		*56*	*17-120*			
Surrogate: Phenol-d5					*ug/L*		*47*	*10-120*			
Surrogate: Nitrobenzene-d5					*ug/L*		*78*	*42-120*			
Surrogate: 2-Fluorobiphenyl					*ug/L*		*82*	*44-120*			
Surrogate: 2,4,6-Tribromophenol					*ug/L*		*104*	*52-151*			
Surrogate: p-Terphenyl-d14					*ug/L*		*88*	*22-125*			

Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike
Lackawanna, NY 14218

Work Order: RTK1664

Project: River Bend - Effluent
Project Number: [none]

Received: 11/24/10
Reported: 12/03/10 12:57

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	MDL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
General Chemistry Parameters											
LCS Analyzed: 11/24/10 (Lab Number:10K2440-BS1, Batch: 10K2440)											
pH		7.00	NA	0.00	SU	7.05	101	99.3-100.8			
General Chemistry Parameters											
Blank Analyzed: 12/02/10 (Lab Number:10K2728-BLK1, Batch: 10K2728)											
Cyanide			0.0100	0.0050	mg/L	ND					
LCS Analyzed: 12/02/10 (Lab Number:10K2728-BS1, Batch: 10K2728)											
Cyanide		0.400	0.0100	0.0050	mg/L	0.361	90	90-110			

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Tucker	Project Manager: Bryan Hann	Date: 11-24-10	Chain of Custody Number: 174049
Address: 2558 Hamburg Turnpike Suite 300	Telephone Number (Area Code)/Fax Number: (716) 856-0599 / (716) 856-0583	Lab Number:	Page 1 of 1
City: Buffalo / State: NY / Zip Code: 14218	Site Contact: Paul W Werthman	Lab Contact: B Fischer	
Project Name and Location (State): Riverbend GWPTS Effluent	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: 0171-009-500			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: PP VOC 624	SVOC 625	Tot CN	pH	Special Instructions/ Conditions of Receipt
Process Effluent	11-24-10	8:00		X			X			X	X		8	4	1	1	624 + 625 analysis to be composited in lab

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

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

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Paul W Werthman	11-24-10	8:30	1. Received By:	11-24-10	10:10
2. Relinquished By:	11/24/10	16:15	2. Received By:	11/24/10	1615
3. Relinquished By:	Date	Time	3. Received By:	Date	Time

Comments

3.0

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

ATTACHMENT 2

FLOW METER CALIBRATION DATA

Northeast Metrology Corp.
2601 Genesee Street
Buffalo, NY 14225
716-827-3770 ISO/IEC 17025:2005 Accredited
www.vantek-nem.com www.nemcal.com

Calibration Certificate

Company:	STEELFIELDS RIVERBEND	**Certificate #:**	1104484
Address:	197 BARAGA STREET BUFFALO, NY 14210	**Calibration Date:**	1/5/2010
		PO/Acct:	0171-003-500
Contact:	PAUL W. WERTHMAN	**Page:**	1
Department:			

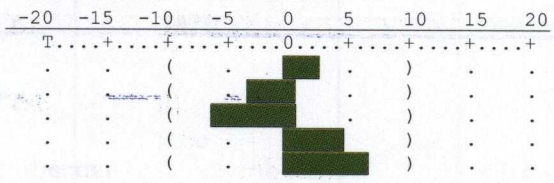
Gage Desc:	Flow Transmitter / Sensor	**Control #:**	SFRB#80210142061
Manufacturer:	Georg Fischer Signet	**Model:**	8550 / 515
Location:		**Serial #:**	80210142061

Repairs:

+ / - Tolerances: 2.000% / 2.000%
Graph Scale: +0.100000

GPM

Nominal	Actual	Deviation
+53.050000	+53.290000	+0.240000
+53.050000	+52.790000	-0.260000
+53.050000	+52.490000	-0.560000
+53.310000	+53.730000	+0.420000
+52.540000	+53.100000	+0.560000



Comments:

CALIBRATION PERFORMED AT AMBIENT CONDITIONS: 55.4°F & 53.0% R.H.
RESET TOTAL GALLONS @ 11,517,800 (YEAR)
PERM GALLONS: 64,306,778 (LIFE)
mA LOOP OUTPUT: 12.38 - 12.78

Procedure:

110476:Flowme01.gdf (Manual 1000)

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:
NEM-6006: Flowmeter (Master)
821/261191-99, 821/264157-00, 821/256463-99, 821/263668-00 Cal Date / Due Date: 4/26/2006 -- 4/27/2011
NEM-9217: Thermohygrometer
Doc210426-A Cal Date / Due Date: 1/2/2008 -- 1/3/2010

Gage Status: PASS **Due Date: 1/6/2011**

Dimensional calibration performed in NEM laboratory @ 68°F (±2.0°F) : (20°C (±1°C)) relative humidity less than 45%. Electronic & Mechanical calibration performed at ambient temperature.
ALL PERTINENT DATA AND READINGS CALIBRATED ARE AS FOUND OR AS LEFT UNLESS OTHERWISE DENOTED IN COMMENTS.
Calibration performed in accordance with one or more of the following specifications: ISO/IEC 17025:2005, ANSI/NCSL Z540-1-1994, Former MIL-STD 45662A, ISO 9001:2000, ISO 10012-1:1992(E).
Gage Blocks meet or exceed Federal Specifications for the grade and accuracy applicable to these items in accordance with Federal Specification GGG-G-15C.
Calibration meets or exceeds 4 : 1 ratio, with the exception of gage blocks stated above.
Calibration is performed on premesis at Northeast Metrology Corp. unless otherwise denoted in Comments.
Note the recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal statutes.

Certified By: Garrick Shick Signature: Garrick Shick

This certificate is not valid unless all 1 page(s) are present.

APPENDIX C

SITE PHOTOGRAPH LOG

(PROVIDED ELECTRONICALLY)

SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: Area I - Site Conditions – (looking west)

Photo 2: Area I – Site Conditions (looking east)

Photo 3: Area I - Site Conditions (looking north)

Photo 4: Area I – Example of fence damage

SITE PHOTOGRAPHS

Photo 5:

Photo 6:

Photo 7:

Photo 8:

Photo 5: Area II – North side slope of Containment Cell (looking east)

Photo 6: Area II - Site Conditions Pump Station adjacent to storm water pond

Photo 7: Area II – Storm water feature within detention pond

Photo 8: Area II – CSX rail access gate (looking west)

SITE PHOTOGRAPHS

Photo 9:

Photo 10:

Photo 11:

Photo 12:

Photo 9: Area II – Exterior of GWTS building along Baraga Street (looking northwest)

Photo 10: Area II – Interior of GWTS building

Photo 11: Area III - Site conditions (looking north)

Photo 12: Area III – Site conditions (looking south toward Tifft Street)

SITE PHOTOGRAPHS

Photo 13:

Photo 14:

Photo 15:

Photo 16:

Photo 13: Former August Feine parcel, remaining block building (looking southwest)

Photo 14: Area I – monitoring well A1-MW-7 with snow pile remnants at right (looking south)

Photo 15: Area I – debris left behind following partial snow pile melt (looking east)

Photo 16: Area I – debris left behind following partial snow pile melt (looking west)

SITE PHOTOGRAPHS

Photo 17:

Photo 18:

Photo 19:

Photo 20:

Photo 17: Former August Feine building following June 2006 fire (looking west)

Photo 18: Former August Feine building following June 2006 fire (looking south into building)

Photo 19: Former August Feine building following June 2006 fire (looking east), fire truck on road

Photo 20: Former August Feine parcel following emergency demolition and cleanup (looking northeast)

APPENDIX D

GROUNDWATER MONITORING REPORTS

(PROVIDED ELECTRONICALLY)

MAY 2009 – COMPREHENSIVE ANNUAL GROUNDWATER MONITORING REPORT AND FIRST SEMI ANNUAL AREA III ORC MONITORING EVENT

NOVEMBER 2009 – SECOND SEMI-ANNUAL AREA III ORC MONITORING EVENT

MAY 2010 – COMPREHENSIVE ANNUAL GROUNDWATER MONITORING REPORT AND FIRST SEMI-ANNUAL AREA III ORC MONITORING EVENT

NOVEMBER 2010 – SECOND SEMI-ANNUAL AREA III ORC MONITORING EVENT

APPENDIX D-1

MAY 2009

COMPREHENSIVE ANNUAL GROUNDWATER MONITORING REPORT
&
FIRST SEMI ANNUAL AREA III ORC MONITORING EVENT

TURNKEY

September 8, 2009

Mr. Maurice Moore
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Riverbend Site (formerly Steelfields) (V00619-9)
2009 Comprehensive Annual Groundwater Monitoring Report

Dear Mr. Moore:

On behalf of our client, Riverbend, LLC, TurnKey Environmental Restoration, LLC, has prepared this comprehensive letter report to transmit the results of the May 2009 groundwater monitoring event conducted at Area I (Former Steel Plant Parcel), Area II (Former Coke Plant Parcel), and Area III (Former Warehouse Parcel) of BUDC's Riverbend Site, Buffalo, NY (see Figure 1). This letter report also includes the results of the May 2009 Oxygen Release Compound (ORC) monitoring event for Area III. The current groundwater monitoring event was performed from May 11-15, 2009. The LTGWM network wells are summarized in Table 1 and shown on Figure 1. A summary of field activities and findings for all three areas of the Site are presented below.

PURPOSE

The activities performed during the current site-wide groundwater monitoring event were performed in general accordance with the following documents:

- *Work Plan for Long-Term Groundwater Monitoring (LTGWM) of Area I* (revised September 2002);
- *Work Plan for LTGWM of Areas II and III* (October 2007) submitted as Attachment A4 of Appendix HH of the Final Engineering Report for Areas II and III (May 2008);
- February 15, 2008 NYSDEC comment letter for Area III (comments 8, 9, and 10);
- May 5, 2008 Response to NYSDEC comment letter for Areas II and III (comment/response no. 22);
- *ORC Maintenance and Monitoring Manual* (March 2008) submitted as Attachment A5 of Appendix HH of the Final Engineering Report for Areas II and III (May 2008); and
- May 5, 2008 Response to NYSDEC Comment letter for Areas II and III (comment/response no. 19)

This annual report includes a tabular and/or graphical assessment and detailed discussion of groundwater quality trends on an Area by Area basis. Groundwater flow patterns, however, are discussed on a site-wide basis. Groundwater samples were analyzed for the parameters identified by Area in Table 2.

GROUNDWATER ELEVATIONS & FLOW

Depth to water measurements and calculated groundwater elevations measured from 11 wells and 2 Buffalo River staff gauges in Area I, 19 wells in Area II, and 5 wells in Area III on May 11, 2009 are summarized in Table 3. The Lake Erie elevation presented in Table 3 was obtained from the National Oceanic and Atmospheric Administration/National Ocean Service's (NOAA/NOS) Center for Operational Oceanographic Products and Services (CO-OPS) web page; Great Lakes Water Level Data Inventory for station number 9063020 Buffalo, Lake Erie, New York.

An isopotential map, presented as Figure 1, was prepared from the May 2009 groundwater elevations and the collection system as-built invert elevations. The baseline isopotential map prepared by Geomatrix from the June 1998 groundwater elevations representing groundwater flow conditions at the Site prior to the Area II Containment Cell construction is presented as Figure 2 for comparison. Comparison of the May 2009 and June 1998 maps indicate that the groundwater mound located between Areas I and II observed in June 1998 has retreated significantly to the southeast and outside the perimeter of the Containment Cell. The groundwater depression in June 1998 around the terminal basin is no longer present due to the discontinuation in January 2009 of storm water management activities at the Site in that area (i.e., pumping from the basin to the sanitary sewer). Further examination of Figure 1 indicates significant lowering of the water table of between 2 to 7 feet throughout the containment cell and extending north and east beyond the containment cell as generally predicted in the selected remedial approach groundwater flow model (Geomatrix, December 1998) (see Attachment 1). Current groundwater flow is toward the collection trench from all directions. The groundwater flow, as depicted on Figure 1, also shows that potentially impacted groundwater from outside the containment cell to the north on the Former August Feine and Norfolk Southern parcels is being drawn back toward the collection system, as predicted by pre-design MODFLOW® modeling.

GROUNDWATER COLLECTION SYSTEM EVALUATION

An evaluation of the slurry wall effectiveness included comparing groundwater elevations from a single well pair identified as A2-MW-19 and A2-MW-7. Monitoring Well A2-MW-19 is located outside the Containment Cell and Well A2-MW-7 is located within the Cell as shown on Figure 1. A groundwater elevation comparison of this well pair indicates that groundwater outside the Cell is higher than inside the Cell and an inward hydraulic gradient toward the Cell has been established, as predicted by the pre-design MODFLOW® model.

Based upon the results of this evaluation and the isopotential map discussed earlier, the groundwater collection/containment system appears to be effectively collecting impacted groundwater and controlling groundwater migration within the Area II Containment Cell as well as to the east and north of the containment cell. Routine system monitoring and maintenance in conjunction with long-term groundwater monitoring of Areas I and II, as scheduled, is expected to be sufficient to continue to assess the long-term effectiveness of the containment cell.

AREA I FIELD ACTIVITIES & FINDINGS

Table 4 summarizes the Area I annual LTGWM event field-measured parameters and analytical results for Wells A1-MW-1, A1-MW-2, A1-MW-3, A1-MW-4, A1-MW-5, A1-MW-6, A1-MW-8, A1-MW-9, A1-MW-M2, and A1-P-4. Compounds detected above method detection limits are shown on the table with their associated concentration and NYSDEC Groundwater Quality Standard (NYSDEC TOGS 1.1.1, Ambient Water Quality Standards and Guidance Values, June 1998) for comparison. Concentrations exceeding NYSDEC Groundwater Quality Standards (GWQSs) are shaded. Upon examination of Table 4, the following observations are apparent:

- Field pH measurements at Well A1-MW-5 exceeded the upper GWQS of 8.5 and one of two field pH measurements at Well A1-MW-6 was slightly below the lower GWQS of 6.5.
- VOCs benzene, n-butylbenzene, sec-butylbenzene, isopropylbenzene, and n-propylbenzene were all detected at concentrations exceeding their respective GWQSs at Well A1-MW-6 only.
- Total arsenic was detected at a concentration slightly exceeding the GWQS at Wells A1-MW-6 and A1-MW-8 only.
- All remaining parameters analyzed at all other locations within Area I during the current monitoring event were reported as "non-detect" or at a concentration significantly below their respective GWQSs.

A discussion of the moving average trend analysis is presented later in this report.

During the current monitoring event, field personnel also performed visual immiscible layer surveillance and observed no non-aqueous phase liquid (NAPL) in any of the Area I wells listed in Table 1, except Well A1-MW-6. Not including the initial well development and sampling events, A1-MW-6 has been monitored since the February 2005 installation of the PetroTrap™ free product passive skimmer or almost 5 years. Since installation, a total of approximately 5.5 gallons of recovered product has been removed (see Table 5). In accordance with the LTGWM Plan, all recovered product is temporarily stored in a 5-gallon container and staged within the on-site Groundwater Pre-Treatment Building until a licensed used oil service contractor picks up the recovered product for proper recycling or disposal.

As indicated in Table 5, seasonal increases in product thickness and recovery are apparent during the typical late Fall and early Spring rainy periods. Based upon the progress to date, monitoring of A1-MW-6 should continue in accordance with the Area I LTGWM Plan on a monthly basis.

AREA II FIELD ACTIVITIES & FINDINGS

Table 6 summarizes the Area II annual LTGWM event field-measured parameters and analytical results for Wells A2-MW-3, A2-MW-4R, A2-MW-5, A2-MW-10, A2-MW-13, A2-

MW-14, A2-MW-16, and A2-MW-17. The table also includes field and laboratory results for Well A2-MW-15, which is monitored every two years. Compounds detected above method detection limits are shown on the table with their associated concentration and GWQS for comparison. Concentrations exceeding the GWQSs are shaded. Upon examination of Table 6, the following observations are apparent:

- Field pH measurements at Wells A2-MW-15 and A2-MW-16 were slightly below the lower GWQS of 6.5.
- VOCs benzene, tert-butylbenzene, and isopropylbenzene were all detected at concentrations exceeding their respective GWQSs at Well A2-MW-17. VOC benzene was also detected at a concentration exceeding the GWQS at Wells A2-MW-13 and A2-MW-16.
- All remaining parameters analyzed at all other locations within Area II during the current monitoring event were reported as "non-detect" or at a concentration significantly below their respective GWQSs.

A discussion of the moving average trend analysis is presented later in this report.

AREA III FIELD ACTIVITIES & FINDINGS

Table 7 summarizes the Area III LTGWM event field-measured parameters and analytical results for Wells A3-MW-3, A3-MW-6, A3-MW-7, A3-MW-9, and A3-MW-10. Compounds detected above method detection limits are shown on the table with their associated concentration and GWQS for comparison. Concentrations exceeding the GWQSs are shaded. Upon examination of Table 7, the following observations are apparent:

- Field pH measurements at Wells A3-MW-7 and A3-MW-9 exceeded the upper GWQS of 8.5 and the field pH measurements at Well A3-MW-10 were below the lower GWQS of 6.5.
- VOCs benzene, p-cymene, and toluene were all detected at concentrations exceeding their respective GWQSs at Well A3-MW-7. VOC benzene was also detected at a concentration exceeding the GWQS at Wells A3-MW-3, A3-MW-9, and A3-MW-10.
- All remaining parameters analyzed at all other locations within Area III during the current monitoring event were reported as "non-detect" or at a concentration significantly below their respective GWQSs.

A discussion of the moving average trend analysis is presented later in this report.

In accordance with NYSDEC-approved procedures, ORC Wells A3-ORC-1 through A3-ORC-11 are to be purged until 10 well volumes are removed or to dryness for four consecutive days, whichever occurs first, in order to obtain representative groundwater samples within the ORC area of Area III. Table 8 summarizes the current Area III ORC event field-measured parameters and analytical results. Compounds detected above method detection limits are shown on Table 8 with their associated concentration and GWQS for comparison. Concentrations exceeding the GWQSs are shaded. Upon examination of

Table 8, benzene exceeded the GWQS for all eleven wells monitored. In addition, pH was measured below the lower limit GWQS of 6.5 at all of the ORC wells except A3-ORC-1, which exceeded the upper limit GWQS of 8.5.

The ORC "socks", suspended in each of the ORC wells are to be replaced when depleted, generally every six months. During the current monitoring event, ORC socks were removed and checked for depletion; none of which required replacement.

MOVING AVERAGE TREND ANALYSIS (MATA)

In general accordance with the LTGWM Plan for each Area of the Site, any parameter exceeding the GWQS/GV for two consecutive events are to be statistically evaluated for all monitoring wells listed in Table 1. Statistical evaluation for each parameter of interest involves the averaging of four sequential monitoring event concentrations and plotting the moving average. The Area by Area 4-year moving average trend analysis (MATA) as well as the concentration versus time plots for those monitored locations and parameters requiring tracking (as defined above) are presented in Attachment 2 and summarized in Table 9. Only the Area I MATA plots have been included in the attachment. Area II and Area III plots are not included due to insufficient data; a minimum of three moving average data points are required to assess a trend in the data. As more data is collected, MATA assessments will be made for Area II and III monitoring locations, as necessary.

As indicated in Table 9 and presented in Attachment 2, the Area I MATA assessment indicates the following:

- The concentration versus time and MATA plots for the field measured pH at Well A1-MW-5, although elevated above the GWQS, continues to indicate a neutral trend (neither increasing nor decreasing) since September 2004.
- The MATA plot for n-propylbenzene at Well A1-MW-6 at first glance indicates an increasing 4-year moving average trend, however upon closer inspection the trend is being influenced by an unusually high concentration reported in August 2007 of more than 10 times historic values (i.e., outlier). The concentration versus time plot shown on the same chart, however, indicates a return to historic ranges in April 2008 and May 2009 as well as a pronounced decreasing trend.
- Although the concentration versus time plot for total arsenic at Well A1-MW-6 reveals a wide concentration range from a high 0.29 mg/L in December 2006 to non-detect in August 2007, the MATA plot clearly indicates a decreasing trend since August 2007.
- The concentration versus time plot for total arsenic at Well A1-MW-8 indicates a period of moderation from December 2006 to April 2008 where the arsenic concentration actually began to decrease, however the data from the May 2009 event has indicated a higher concentration. The MATA plot does indicate a slight increasing trend and this compound at this location will continue to be monitored.

PLANNED ACTIVITIES

In accordance with the LTGWM Plans identified earlier in this report, all newly installed wells in the groundwater monitoring program are to be sampled semi-annually for two years, then annually thereafter. In addition, existing wells are to be sampled semi-annually for one year, then annually thereafter. As of this monitoring event, the semi-annual monitoring requirements for all newly installed and existing wells of Areas I and II as well as Area III existing Wells A3-MW-3 and A3-MW-6 have been completed. Two of four required semi-annual events have also been completed for newly-installed Area III Wells A3-MW-9 and A3-MW-10 with two additional semi-annual events to be completed.

A schedule summarizing the past, present, and future monitoring events is presented in Table 1. The next planned comprehensive monitoring event for Areas I, II, and III is tentatively scheduled for May 2010. The third of four semi-annual monitoring events for Area III Wells A3-MW-9 and A3-MW-10 is tentatively scheduled for October 2009 with the fourth and final semi-annual event occurring during the comprehensive May 2010 event. Area III ORC well monitoring is expected to be performed in November 2009 and again in May 2010 (every six months).

Please contact us if you have any questions.

Sincerely,
TurnKey Environmental Restoration, LLC

Bryan C. Hann
Project Manager

Enclosures

cc: Peter Cammarata (BUDC) – ecopy
David Stebbins (BUDC) – ecopy
Paul Werthman (TurnKey) – ecopy
Walt Meisner (TurnKey) – ecopy

File: 0171-001-600

TABLES

TABLE 1

GROUNDWATER MONITORING NETWORK AND SAMPLE FREQUENCY [1,2]

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Well Designation	Type of Well		Monitoring Event							
	New	Existing	Year 1		Year 2		Year 3	Year 4	Year 5	Year 6
			1 SA	2SA	1 SA	2SA	Annual	Annual	Annual	Annual
AREA I: Former Steel Plant Parcel										
A1-MW-1		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	**May-09**	●
A1-MW-2		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	**May-09**	●
A1-MW-3		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	**May-09**	●
A1-MW-4	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	**May-09**	●
A1-MW-5	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	**May-09**	●
A1-MW-6	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	**May-09**	●
A1-MW-7	x		*water level only*							
A1-MW-8	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	**May-09**	●
A1-MW-9	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	**May-09**	●
A1-MW-M2		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	**May-09**	●
A1-P-4		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	**May-09**	●
AREA II: Former Coke Plant Parcel										
A2-MW-3		x	Jul-07	Dec-07	Apr-08		**May-09**	●	●	●
A2-MW-4R		x	Jul-07	Dec-07	Apr-08		**May-09**	●	●	●
A2-MW-5		x	Jul-07	Dec-07	Apr-08		**May-09**	●	●	●
A2-MW-6		x	*water level only*							
A2-MW-7		x	*water level only*							
A2-MW-10		x	Dec-07	Apr-08	**May-09**		●	●	●	●
A2-MW-12		x	*water level only*							
A2-MW-13		x	Jul-07	Dec-07	Apr-08		**May-09**	●	●	●
A2-MW-14	x		Jul-07	Dec-07	Apr-08	**May-09**	●	●	●	●
A2-MW-15 [3]	x		Jul-07	Dec-07	~~X~~	**May-09**	~~X~~	●	~~X~~	●
A2-MW-16	x		Jul-07	Dec-07	Apr-08	**May-09**	●	●	●	●
A2-MW-17	x		Jul-07	Dec-07	Apr-08	**May-09**	●	●	●	●
A2-MW-18	x		*water level only*							
A2-MW-19	x		*water level only*							
A2-MW-20	x		*water level only*							
AREA III: Former Warehouse Parcel										
A3-MW-3		x	**Oct-08**	**May-09**	●		●	●	●	●
A3-MW-6		x	**Oct-08**	**May-09**	●		●	●	●	●
A3-MW-7		x	Jul-07	Dec-07	Apr-08		**May-09**	●	●	●
A3-MW-9	x		**Oct-08**	**May-09**	●	●	●	●	●	●
A3-MW-10	x		**Oct-08**	**May-09**	●	●	●	●	●	●
AREA III - ORC wells (every 6 months)										
A3-ORC-1		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-2		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-3		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-4		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-5		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-6		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-7		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-8		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-9		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-10		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●
A3-ORC-11		x	Jul-07	Dec-07	Apr-08	**Nov-08**	**May-09**	●	●	●

Notes:

1. Per the LTGWM Plan, newly installed monitoring wells require four consecutive semi-annual groundwater monitoring events, then annually thereafter.
2. Per the LTGWM Plan, existing monitoring wells require two consecutive semi-annual groundwater monitoring events, then annually thereafter.
3. Monitoring well will be sampled every two years.

Oct-08 / Nov-08	= first semi-annual monitoring event
May-09	= second semi-annual and/or annual monitoring event
x	= type of monitoring well
●	= to be monitored beyond the current contract year.

TABLE 2

ANALYTICAL PARAMETERS PER AREA

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Area I & II Wells	Area III Wells	Area III ORC Wells
Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level	Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level	Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level
STARS List VOCs (Method 8021)	STARS List VOCs (Method 8021)	Benzene (Method 8021)
Arsenic (Method 6010)	Arsenic (Method 6010)	Alkalinity (Method 310.2)
Chromium (Method 6010)	Chromium (Method 6010)	
Lead (Method 6010)	Lead (Method 6010)	
Total Petroleum Hydrocarbons (TPH) (Method 1664) for wells: A1-MW-1 A1-MW-3 A1-MW-6 A1-MW-9	Cyanide (Method 335)	

Notes:
1. For the first semi-annual event, wells were analyzed for "Full List" (i.e., TCL and STARS List VOCs).

TABLE 3

GROUNDWATER ELEVATION MEASUREMENTS
May 11, 2009

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Monitoring Location	TOR Elevation (fmsl)	DTP (fbTOR)	DTW (fbTOR)	Product Thickness (feet)	Groundwater Elevation (fmsl)	Corrected Groundwater Elevation [1] (fmsl)
Area I Monitoring Wells [2]						
A1-MW-1	586.38	NP	8.86	NP	577.52	577.52
A1-MW-2	586.39	NP	7.43	NP	578.96	578.96
A1-MW-3	591.98	NP	17.52	NP	574.46	574.46
A1-MW-4	586.70	NP	6.70	NP	580.00	580.00
A1-MW-5	590.48	NP	5.88	NP	584.60	584.60
A1-MW-6	591.60	17.65	17.96	0.31	573.64	573.91
A1-MW-7	586.97	NP	12.70	NP	574.27	574.27
A1-MW-8	589.47	NP	10.89	NP	578.58	578.58
A1-MW-9	588.05	NP	12.11	NP	575.94	575.94
A1-MW-M2	587.85	NP	7.41	NP	580.44	580.44
A1-P-4	589.37	NP	12.95	NP	576.42	576.42
Area II Monitoring Wells [3]						
A2-MW-3	588.95	NP	6.92	NP	582.03	582.03
A2-MW-4R	588.59	NP	6.60	NP	581.99	581.99
A2-MW-5	587.25	NP	5.35	NP	581.90	581.90
A2-MW-6	592.69	NP	9.46	NP	583.23	583.23
A2-MW-7	602.05	NP	19.95	NP	582.10	582.10
A2-MW-10	593.59	NP	9.95	NP	583.64	583.64
A2-MW-11	587.01	*~ no measurement obtained ~*				
A2-MW-12	604.12	NP	17.91	NP	586.21	586.21
A2-MW-13	597.90	NP	13.61	NP	584.29	584.29
A2-MW-14	593.02	NP	7.56	NP	585.46	585.46
A2-MW-15	589.56	NP	7.81	NP	581.75	581.75
A2-MW-16	597.62	NP	13.79	NP	583.83	583.83
A2-MW-17	596.94	NP	13.83	NP	583.11	583.11
A2-MW-18	587.64	NP	4.79	NP	582.85	582.85
A2-MW-19	592.02	NP	8.82	NP	583.20	583.20
A2-MW-20	591.54	NP	7.91	NP	583.63	583.63
A2-PW-1	601.76	*~ no measurement obtained ~*				
A2-PW-2	603.91	*~ no measurement obtained ~*				
A2-PW-3	603.88	*~ no measurement obtained ~*				
A2-PW-4	598.75	*~ no measurement obtained ~*				
Area III Monitoring Wells [3]						
A3-MW-3	585.40	NP	4.40	NP	581.00	581.00
A3-MW-6	585.70	NP	2.56	NP	583.14	583.14
A3-MW-7	586.39	NP	4.34	NP	582.05	582.05
A3-MW-9	597.61	NP	15.06	NP	582.55	582.55
A3-MW-10	585.41	NP	5.75	NP	579.66	579.66

TABLE 3

GROUNDWATER ELEVATION MEASUREMENTS
May 11, 2009

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Monitoring Location	TOR Elevation (fmsl)	DTP (fbTOR)	DTW (fbTOR)	Product Thickness (feet)	Groundwater Elevation (fmsl)	Corrected Groundwater Elevation [1] (fmsl)
Area III ORC Monitoring Wells [3]						
A3-ORC-1	587.17	NP	5.05	NP	582.12	582.12
A3-ORC-2	587.35	NP	5.22	NP	582.13	582.13
A3-ORC-3	587.55	NP	5.22	NP	582.33	582.33
A3-ORC-4	587.14	NP	4.81	NP	582.33	582.33
A3-ORC-5	587.77	NP	5.31	NP	582.46	582.46
A3-ORC-6	587.53	NP	6.70	NP	580.83	580.83
A3-ORC-7	587.16	NP	5.45	NP	581.71	581.71
A3-ORC-8	587.51	NP	5.53	NP	581.98	581.98
A3-ORC-9	585.15	NP	3.16	NP	581.99	581.99
A3-ORC-10	587.60	NP	5.63	NP	581.97	581.97
A3-ORC-11	587.70	NP	5.30	NP	582.40	582.40
Surface Water [4,5]						
SG-01 (downstream)	585.07	NP	11.60	NP	573.47	573.47
SG-02 (upstream)	590.72	NP	16.82	NP	573.90	573.90
Lake Erie	NA	NA	NA	NA	NA	572.25

Notes:

1. Groundwater elevations are corrected if free product (i.e., LNAPL) is present.
2. Area I monitoring well reference point elevations (i.e., top of riser for wells and sheet pile for staff gauges) as surveyed by TurnKey on November 10, 2004.
3. Monitoring well elevations have been surveyed at various times by TurnKey or Steelfields.
4. Staff Gauge (SG) locations are located at the upstream and downstream locations indicated on Figure 1. Each staff gauge was surveyed on January 3, 2008 by Niagara Boundary personnel.
5. Source: NOAA Tides & Currents Web Page- Buffalo, NY Station ID 9063020; average daily elevation of Buffalo, New York Station #9063020.

Definitions:

DTP = depth to product, if present
DTW = detph to water
fmsl = feet above mean sea level
fbTOR = feet below top of riser
NP = no measureable product was present
R = replacement well
TOR = top of riser

TABLE 4

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Area I: Former Steel Plant Parcel

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Parameter	Monitoring Location and Date of Sample Collection																				GWQS/GV [1]
	A1-MW-1		A1-MW-2		A1-MW-3		A1-MW-4		A1-MW-5		A1-MW-6		A1-MW-8		A1-MW-9		A1-MW-M2		A1-P-4		
	05/11/09		05/11/09		05/11/09		05/11/09		05/11/09		05/12/09		05/12/09		05/11/09		05/11/09		05/11/09		
Field Measurements (units as indicated) [2]																					
Sample No.	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	**NA**
pH (units)	7.41	7.38	7.64	7.60	6.80	6.80	6.68	6.69	**10.38**	**10.37**	**6.48**	6.50	6.86	6.84	7.16	7.15	7.01	7.04	6.67	6.64	**6.5 - 8.5**
Temperature (degrees C)	10.0	9.8	8.6	8.7	11.0	11.0	11.3	10.8	11.3	11.4	11.6	12.0	11.4	11.7	11.1	11.0	10.8	10.6	10.5	11.0	**NA**
Specific Conductance (uS)	574.7	565.9	432.8	437.1	946.3	950.6	772.0	759.2	672.2	669.5	1223	1214	1842	1858	665.3	686.0	578.7	576.0	717.5	719.1	**NA**
Turbidity (NTU)	40.1	30.9	2.9	1.91	37.8	24.9	27.8	17.7	3.26	2.24	NA	NA	50.8	34.7	34.6	17.9	44.6	27.6	24.4	16.1	**NA**
Dissolved Oxygen (mg/L)	1.24	1.39	1.47	1.45	1.47	1.34	2.64	2.69	1.65	1.73	1.94	1.68	1.03	1.14	1.46	1.37	1.70	1.80	4.15	4.65	**NA**
Eh (mV)	- 144	- 139	- 121	- 115	- 48	- 51	- 29	- 42	- 100	- 102	- 104	- 108	- 145	- 148	- 104	- 109	+ 8	+ 15	+ 17	+ 22	**NA**
Visual Observation	clear		clear		clear		clear		clear		oil globules [3]		light orange		clear		clear		clear		**NA**
Olfactory Observation	sulfur-like		none		none		none		none		petro-like		none		none		none		none		**NA**
Volatile Organic Compounds (ug/L)																					
Benzene	0.18 J		ND		ND		ND		0.22		**3.4**		ND		ND		ND		ND		**0.7**
n-Butylbenzene	ND		ND		ND		ND		0.92		**13**		ND		ND		ND		ND		**5**
sec-Butylbenzene	ND		ND		ND		ND		ND		**13**		ND		ND		ND		ND		**5**
tert-Butylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
p-Cymene (4-Isopropyltoluene)	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Ethylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Isopropylbenzene	ND		ND		ND		ND		ND		**20**		ND		ND		ND		ND		**5**
Methyl tert butyl ether	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**10**
n-Propylbenzene	ND		ND		ND		ND		ND		**33**		ND		ND		ND		ND		**5**
Toluene	0.33		ND		0.2 J		ND		ND		2.7		ND		0.26		ND		ND		**5**
1,2,4-Trimethylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
1,3,5-Trimethylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Xylenes, Total	ND		ND		ND		ND		0.39 J		4		ND		ND		ND		ND		**15**
Total VOCs	***0.51***		***0***		***0.2***		***0***		***1.53***		***89.1***		***0***		***0.26***		***0***		***0***		**10**
Inorganics (mg/L)																					
Total Arsenic	0.024		ND		ND		ND		ND		**0.071**		**0.0537**		ND		ND		ND		**0.025**
Total Chromium	ND		ND		ND		ND		ND		ND		ND		ND		ND		0.005		**0.05**
Total Lead	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**0.025**
Total Petroleum Hyrdocarbons (mg/L)																					
TPH	ND		--		ND		--		--		ND		--		ND		--		--		**NA**

Notes:

1. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998)
2. Field measurements were collected immediately before and after groundwater sample collection.
3. Light non-aqueous phase liquid (LNAPL) detected; approximately 0.31 feet in thickness.
4. " NA " = Not Applicable, a GWQS/GV has not been established for this parameter.
5. " ND " = the sample location was analyzed for this parameter, but reported at a concentration less than the method detection limit.
6. " -- " = compound is not analyzed at this location

= Shaded values represent exceedances of the NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value.

TurnKey Environmental Restoration, LLC

TABLE 5

SUMMARY OF LNAPL THICKNESS / REMOVAL IN A1-MW-6
Area I: Former Republic (LTV) Steel Plant Parcel

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Date	Days Since Last Visit	LNAPL Measurement			Quantity Removed [1] (oz.)	Height of Petro-Trap (fbTOR)	Comments
		Top (fbTOR)	Bottom (fbTOR)	Thickness (feet)			
09/21/04	0	18.10	18.40	0.30	NA	--	well development
09/23/04	2	18.10	18.40	0.30	NA	--	Fall 2004 groundwater monitoring event
02/01/05	**131**	**17.50**	**20.85**	**3.35**	**NA**	**16.0**	**installed PetroTrap passive skimmer**
02/08/05	7	17.94	19.89	1.95	16	16.0	first LNAPL removal from Petro Trap
02/11/05	3	17.89	19.75	1.86	20	16.0	ok
02/15/05	4	18.10	18.52	0.42	20	16.0	ok
02/18/05	3	17.59	17.91	0.32	12	16.0	ok
02/25/05	7	18.02	18.51	0.49	2	16.0	Petro Trap tubing was tangled
03/04/05	7	18.13	18.63	0.50	6	16.0	Petro Trap tubing was tangled
03/18/05	14	18.00	18.74	0.74	3.5	16.0	checked Petro Trap for leaks, none located
04/08/05	21	17.37	18.20	0.83	24	15.0	ok; raised Petro Trap approximately 1-foot
04/14/05	6	17.65	17.81	0.16	22	15.0	ok
04/28/05	14	16.23	16.25	0.02	25.6	15.0	ok
05/17/05	19	17.62	17.80	0.18	14	14.0	~14 oz. of water in Petro Trap; raised approx. 1-foot
06/21/05	35	17.68	17.71	0.03	14	14.0	ok
07/18/05	27	18.03	18.11	0.08	12	15.0	ok, lowered approx. 1-foot
09/09/05	53	18.34	18.42	0.08	8	15.0	ok
09/20/05	11	18.33	18.38	0.05	22	15.0	ok; Area I LTGWM Event
10/31/05	41	18.50	18.52	0.02	24	15.0	ok
11/23/05	23	18.95	18.96	0.01	22	15.0	ok
12/28/05	35	19.35	19.36	0.01	22	15.0	ok
01/30/06	33	18.43	18.44	0.01	24	15.0	ok
02/27/06	28	18.38	19.06	0.68	24	15.0	ok
03/28/06	29	18.44	19.31	0.87	24	15.0	ok
04/27/06	30	18.39	19.17	0.78	24	15.0	ok
05/18/06	21	18.41	19.05	0.64	8	15.0	ok; Area I LTGWM Event
06/30/06	43	17.82	18.35	0.53	8	15.0	ok
07/31/06	31	17.95	18.64	0.69	16	15.0	ok
12/01/06	123	19.41	21.65	2.24	16	15.0	ok; Area I LTGWM Event, removed oily water.
06/30/07	211	17.98	20.51	2.53	8	15.0	ok
07/31/07	31	18.31	21.40	3.09	22	14.0	~12oz. Water in Trap; raised PetroTrap approx. 1'
08/22/07	22	18.50	20.11	1.61	4	14.0	ok
09/29/07	38	18.86	21.72	2.86	4	14.0	ok
10/30/07	31	19.10	21.04	1.94	3	14.0	ok
11/28/07	29	19.47	20.52	1.05	2	14.0	checked Petro Trap for leaks, none located
12/28/07	30	18.93	20.42	1.49	14	15.0	~12oz. Water in Trap; lowered PetroTrap approx. 1'
08/12/08	228	17.98	19.60	1.62	30	15.0	ok, bailed down product removed ~1.0 gal
09/10/08	29	18.61	20.10	1.49	4	15.0	Needs to be ajusted and claened
10/08/08	28	18.90	20.46	1.56	8	17.5	Dropped trap to 17.41 fbgs, cleaned off filter.
11/11/08	34	18.79	21.00	2.21	11	17.5	ok
12/16/08	35	18.64	20.86	2.22	1	17.5	ok
01/07/09	22	18.28	21.20	2.92	1	17.0	raised trap to 17.0 fbgs
02/11/09	35	18.52	21.22	2.70	64	17.0	17 oz in trap, bailed 47 oz
03/10/09	27	17.50	19.63	2.13	2	17.0	ok
04/01/09	22	18.12	19.08	0.96	48	17.0	Bailed ~40oz, ~8 was removed from trap
05/06/09	35	17.61	19.81	2.20	3	17.0	ok
05/12/09	6	17.65	17.96	0.31	18	17.0	ok
06/02/09	21	17.64	18.17	0.53	2	17.0	ok
07/08/09	36	17.96	18.17	0.21	20	17.0	ok
08/06/09	29	18.05	19.75	1.70	1.5	17.0	ok
Total Quantity Removed To Date:					**703.6 oz.**	**or 5.50 gal.**	

Notes:
1. The PetroTrap canister used has a capacity of 25.6 oz. (0.2 gal).
2. Data from January 1, 2007 through July 31, 2008 was collected by EnSol, Inc.; data before and after this time has been collected by TurnKey Environmmental Restoration, LLC.

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 6

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Area II: Former Coke Plant Parcel

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Parameter	Monitoring Location and Date of Sample Collection																		GWQS/GV [1]
	A2-MW-3		A2-MW-4R		A2-MW-5		A2-MW-10		A2-MW-13		A2-MW-14		A2-MW-15		A2-MW-16		A2-MW-17		
	05/13/09		05/13/09		05/13/09		05/13/09		05/13/09		05/12/09		05/12/09		05/13/09		05/13/09		
Field Measurements (units as indicated) [2]																			
Sample No.	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	NA
pH (units)	7.03	7.10	7.12	7.11	7.05	7.02	7.75	7.75	7.23	7.24	7.11	7.10	**6.35**	**6.37**	**6.36**	**6.39**	6.74	6.74	**6.5 - 8.5**
Temperature (degrees C)	9.8	9.5	9.2	9.4	10.2	10.5	10.3	10.3	11.6	10.9	10.2	10.2	10.4	10.7	12.3	12.4	10.3	10.3	NA
Specific Conductance (uS)	818.3	818.1	1023.0	1022.0	762.1	766.3	1992.0	2041.0	2252.0	2260.0	629.9	631.8	1309.0	1316.0	2180.0	2155.0	2894.0	2894.0	NA
Turbidity (NTU)	3.8	9.31	37.1	46.1	3.06	4.93	28.6	11.8	18.3	9.36	4.13	2.67	30.6	21.0	159	138	2.6	2.16	NA
Dissolved Oxygen (mg/L)	1.81	1.59	1.86	1.26	1.53	1.53	1.44	1.43	1.64	1.14	4.92	4.97	1.78	1.45	1.55	2.01	1.16	1.11	NA
Eh (mV)	0	0	- 101	- 101	- 70	- 79	- 115	- 112	- 133	- 133	- 16	0	- 20	- 21	- 66	- 88	- 117	- 115	NA
Visual Observation	clear		clear		clear		clear		clear		clear		clear		clear		clear		NA
Olfactory Observation	none		none		none		none		none		none		none		sulfur-like		none		NA
Volatile Organic Compounds (ug/L)																			
Benzene	ND		0.2 J		ND		0.65		**0.85**		ND		ND		**10**		**62**		**0.7**
n-Butylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
sec-Butylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		1.8		**5**
tert-Butylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		**9.5**		**5**
p-Cymene (4-Isopropyltoluene)	ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Ethylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		1.9		**5**
Isopropylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		**6.1**		**5**
Methyl tert butyl ether	ND		ND		ND		ND		ND		ND		ND		ND		ND		**10**
n-Propylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Toluene	0.29		ND		ND		ND		ND		ND		ND		ND		0.33		**5**
1,2,4-Trimethylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
1,3,5-Trimethylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Xylenes, Total	ND		ND		ND		ND		ND		ND		ND		ND		ND		**15**
Total VOCs	***0.29***		***0.2***		***0***		***0.65***		***0.85***		***0***		***0***		***10***		***81.63***		**10**
Inorganics (mg/L)																			
Total Arsenic	ND		ND		ND		ND		ND		ND		ND		0.0122		ND		**0.025**
Total Chromium	ND		ND		ND		ND		ND		0.0093		ND		0.0133		ND		**0.05**
Total Lead	ND		ND		ND		ND		ND		ND		ND		0.0153		ND		**0.025**

Notes:

1. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998)
2. Field measurements were collected immediately before and after groundwater sample collection.
3. Light non-aqueous phase liquid (LNAPL) detected; approximately 0.31 feet in thickness.
4. " NA " = Not Applicable, a GWQS/GV has not been established for this parameter.
5. " ND " = the sample location was analyzed for this parameter, but reported at a concentration less than the method detection limit.

= Shaded values represent exceedances of the NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value.

TABLE 7

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Area III: Former Warehouse Parcel

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Parameter	Monitoring Location and Date of Sample Collection										GWQS/GV [1]
	A3-MW-3		A3-MW-6		A3-MW-7		A3-MW-9		A3-MW-10		
	05/12/09		05/12/09		05/12/09		05/12/09		05/12/09		
Field Measurements (units as indicated) [2]											
Sample No.	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	**NA**
pH (units)	7.16	7.13	8.22	8.24	**10.30**	**10.21**	**11.74**	**11.72**	**5.61**	**5.63**	**6.5 - 8.5**
Temperature (degrees C)	13.3	13.5	10.0	10.9	10.4	10.9	10.4	11.3	11.4	11.0	**NA**
Specific Conductance (uS)	1229	1444	1185	1197	830.0	834.7	6925	7030	5847	5865	**NA**
Turbidity (NTU)	12	2.92	2	1.3	22.9	32.8	0.7	10.7	23	24.1	**NA**
Dissolved Oxygen (mg/L)	2.99	2.71	2.76	2.92	1.08	1.19	1.82	1.97	1.11	1.37	**NA**
Eh (mV)	- 149	- 136	- 187	- 179	- 255	- 230	- 158	- 151	- 14	0	**NA**
Visual Observation	clear		clear		clear		clear		clear		**NA**
Olfactory Observation	none		sulfur-like		sulfur-like		none		none		**NA**
Volatile Organic Compounds (ug/L)											
Benzene	**12**		0.44		**270**		**10**		**34,000**		**0.7**
n-Butylbenzene	ND		ND		1		ND		ND		**5**
sec-Butylbenzene	ND		ND		ND		ND		ND		**5**
tert-Butylbenzene	ND		ND		ND		ND		ND		**5**
p-Cymene (4-Isopropyltoluene)	ND		ND		**5.4**		ND		ND		**5**
Ethylbenzene	ND		ND		0.55		ND		ND		**5**
Isopropylbenzene	ND		ND		ND		ND		ND		**5**
Methyl tert butyl ether	ND		ND		ND		ND		ND		**10**
n-Propylbenzene	ND		ND		ND		ND		ND		**5**
Toluene	ND		ND		**11**		4.1		ND		**5**
1,2,4-Trimethylbenzene	ND		ND		1.7		0.61		ND		**5**
1,3,5-Trimethylbenzene	ND		ND		0.55		ND		ND		**5**
Xylenes, Total	ND		ND		7		1.4		ND		**15**
Total VOCs	***12***		***0.44***		***297.2***		***16.11***		***34,000***		**10**
Inorganics (mg/L)											
Total Arsenic	0.0192		ND		0.012		ND		0.0109		**0.025**
Total Chromium	ND		ND		ND		ND		ND		**0.05**
Total Lead	ND		ND		ND		ND		ND		**0.025**
Wet Chemistry (mg/L)											
Cyanide	**5.53**		0.0266		0.17		ND		0.154		**0.2**

Notes:

1. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998)
2. Field measurements were collected immediately before and after groundwater sample collection.
3. Light non-aqueous phase liquid (LNAPL) detected; approximately 0.31 feet in thickness.
4. " NA " = Not Applicable, a GWQS/GV has not been established for this parameter.
5. " ND " = the sample location was analyzed for this parameter, but reported at a concentration less than the method detection limit.

= Shaded values represent exceedances of the NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value.

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 8

SUMMARY OF ORC ANALYTICAL RESULTS
Area III: Former Warehouse Parcel

2009 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER	A3-ORC-1	A3-ORC-2	A3-ORC-3	A3-ORC-4	A3-ORC-5	A3-ORC-6	A3-ORC-7	A3-ORC-8	A3-ORC-9	A3-ORC-10	A3-ORC-11	GWQS [2]
Field Measurements During Purge (units as shown) [1]												
Static Depth to Water (fbTOR)	5.05	5.22	5.22	4.81	5.31	6.70	5.45	5.53	3.11	5.63	5.30	--
Total Depth (fbTOR)	14.18	14.45	14.38	14.38	13.96	14.93	14.38	14.63	13.98	14.55	14.57	--
One Casing Volume (gallons)	5.90	6.00	5.90	6.20	5.60	5.30	5.80	5.90	7.00	5.80	6.00	--
Number of Volumes Purged	7.3	6.8	5.3	5.1	8.3	8.0	6.0	7.1	10.1	6.0	10.0	--
Sample Determination [3]	4-days	4-days	4-days	4-days	4-days	4-days	4-days	4-days	volume	4-days	volume	--
Purge: Day 1 (05/12/09) (gallons)	10.0	13.0	7.5	8.0	12.0	11.0	8.0	12.0	70.5	10.0	24.0	--
Purge: Day 2 (05/13/09) (gallons)	10.0	8.0	8.0	7.5	11.0	11.5	9.0	10.0		8.0	20.0	--
Purge: Day 3 (05/14/09) (gallons)	13.0	10.0	8.0	8.0	11.5	10.0	9.0	10.0		8.5	16.0	--
Purge: Day 4 (05/15/09) (gallons)	10.0	10.0	8.0	8.0	12.0	10.0	9.0	10.0		8.5		--
Sample Collection (date indicated)	05/15/09	05/15/09	05/15/09	05/15/09	05/15/09	05/15/09	05/15/09	05/15/09	05/13/09	05/15/09	05/15/09	--
Cumulative Volume Purged (gallons)	43.0	41.0	31.5	31.5	46.5	42.5	35.0	42.0	70.5	35.0	60.0	--
Field Measurements During Sample Collection (units as shown) [3]												
pH (units)	**10.80**	**4.66**	**4.65**	**5.91**	**4.13**	**4.53**	**5.16**	**3.74**	**2.93**	**3.91**	**5.46**	6.5 - 8.5
Temperature (deg C)	14.9	16.0	14.6	15.9	13.8	14.5	12.3	14.3	13.9	13.2	11.7	--
Specific Conductance (uS)	168.8	8005	8193	7179	8653	11960	10900	14.82	11910	9645	6390	--
Turbidity (NTU)	279	44.1	115	227	666	> 1000	> 1000	601	441	454	311	--
Dissolved Oxygen (ppm)	2.31	1.45	1.32	1.98	1.62	1.28	2.14	1.42	1.62	1.63	2.04	--
ORP (mV)	- 328	+ 148	+ 151	- 46	+ 173	+ 76	+ 29	+ 198	+ 258	+ 196	- 29	--
Visual Observation	clear	sl. Orange	sl. orange	sl. orange	sl. orange	sl. orange	tan	sl. orange	sl. orange	sl. orange	brown	--
Volatile Organic Compounds (mg/L):												
Benzene	**11**	**94**	**25**	**1.5**	**120**	**30**	**9.6**	**180**	**980**	**300**	**0.014**	0.001
Wet Chemistry (mg/L):												
Alkalinity	203	62.8	62.9	114	12.1	74.7	137	ND	ND	ND	193	--

Notes:

1. Field measurements were collected immediately before groundwater sample collection.
2. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998).
3. NYSDEC requirement: purge 10 well volumes or to dryness for 4 consecutive days, then sample. "Volume" indicates that 10 well volumes were purged prior to sample collection and "4-days" indicates that the well was purged to dryness 4 consecutive days prior to sample collection.
4. " D " = Analysis performed at the secondary dilution factor.
5. " ND " indicates parameter was not detected above laboratory reporting limit and is reported herein as not detected (ND).

= Shaded values represent exceedances of the NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value.

TABLE 9

AREA-BY-AREA MOVING AVERAGE TREND ANALYSIS (MATA) SUMMARY

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Location	No. of Data Pts.	MATA Pts.	Moving Average Trend [1] [increasing (I), decreasing (D), neutral (N)]			
			pH	n-Propylbenzene	Total Arsenic	CN
Area I Monitoring Wells						
A1-MW-1	**6**	**3**	NA	NA	NA	--
A1-MW-2	**6**	**3**	NA	NA	NA	--
A1-MW-3	**6**	**3**	NA	NA	NA	--
A1-MW-4	**7**	**4**	NA	NA	NA	--
A1-MW-5	**7**	**4**	**N**	NA	NA	--
A1-MW-6	**7**	**4**	NA	**I**	**D**	--
A1-MW-8	**7**	**4**	NA	NA	**I**	--
A1-MW-9	**7**	**4**	NA	NA	NA	--
A1-MW-M2	**6**	**3**	NA	NA	NA	--
A1-P-4	**6**	**3**	NA	NA	NA	--
Area II Monitoring Wells						
A2-MW-3	**4**	**1**	*TBD*	*TBD*	*TBD*	--
A2-MW-4R	**4**	**1**	*TBD*	*TBD*	*TBD*	--
A2-MW-5	**4**	**1**	*TBD*	*TBD*	*TBD*	--
A2-MW-10	**3**	**3/4**	*TBD*	*TBD*	*TBD*	--
A2-MW-13	**4**	**1**	*TBD*	*TBD*	*TBD*	--
A2-MW-14	**4**	**1**	*TBD*	*TBD*	*TBD*	--
A2-MW-15	**3**	**3/4**	*TBD*	*TBD*	*TBD*	--
A2-MW-16	**4**	**1**	*TBD*	*TBD*	*TBD*	--
A2-MW-17	**4**	**1**	*TBD*	*TBD*	*TBD*	--
Area III Monitoring Wells						
A3-MW-3	**2**	**1/2**	*TBD*	*TBD*	*TBD*	*TBD*
A3-MW-6	**2**	**1/2**	*TBD*	*TBD*	*TBD*	*TBD*
A3-MW-7	**4**	**1**	*TBD*	*TBD*	*TBD*	*TBD*
A3-MW-9	**2**	**1/2**	*TBD*	*TBD*	*TBD*	*TBD*
A3-MW-10	**2**	**1/2**	*TBD*	*TBD*	*TBD*	*TBD*

Notes:

1. In general accordance with the LTGWM Plan for each Area and based upon the groundwater results to date any parameter exceeding the groundwater quality standard for two (2) consecutive events will be statistically evaluated.
2. TBD = to be determined; insufficient data exists to make a trend determination.
3. " -- " = not analyzed for this parameter.
4. NA = indicates there have not been two consecutive exceedances of the GWQS/GV at this location and trending is "not applicable".

= Concentration versus time and 4-year moving average plots are provided in Attachment 2.

FIGURES

LEGEND:

- A1-MW-2 — RIVERBEND MONITORING WELL
- SG-01 — BUFFALO RIVER STAFF GAUGE LOCATION
- A4-MW-5R — OFF-SITE MONITORING WELL
- A3-ORC-1 — ORC SOCK WELL
- PS2 or MH2 — GROUNDWATER COLLECTION SYSTEM PUMP STATION (PS) OR MANHOLE (MH)]
- APPROX. TAR & BLUE SOIL/FILL EXCAVATION LIMITS
- 579 — GROUNDWATER CONTOUR (MAJOR)
- GROUNDWATER CONTOUR (MINOR)
- GROUNDWATER FLOW DIRECTION

Notes:
1. Groundwater elevations for the Riverbend Site - Areas I, II, and III monitoring/ORC wells were obtained by TurnKey personnel on May 11, 2009.
2. "NM" indicates water level was not measured at this location.

BUFFALO RIVER

SOUTH PARK AVE.

O'CONNER ST.

BARKER ST.

MYSTIC ST.

BELL AVE.

ABBY ST.

TIFFT ST.

BERM AREA

A1-MW-7 (574.3)

A2-MW-17 (583.1)

A2-MW-16 (583.8)

A2-MW-13 (584.3)

MH6 (inv. 580.2)

MH7 (inv. 580.4)

MH5 (inv. 579.9)

A2-MW-14 (585.5)

A2-MW-12 (586.2)

A2-PW-3 (NM)

PS2 (inv. 578.6)

A2-MW-15 (581.8)

MH4 (inv. 580.5)

A2-MW-18 (582.9)

A1-MW-8 (578.6)

A1-P-4 (582.0)

A1-P-3 (NM)

RIVERBEND AREA I (89.89 ACRES)

REPUTED NORFOLK SOUTHERN (20.11 ACRES)

RIVERBEND (FMR. AUGUST HEINE & SONS, INC PROPERTY) (4.77 ACRES)

A2-MW-11 (NM)

A2-PW-2 (NM)

A2-MW-10 (583.6)

A1-MW-5 (584.6)

A2-MW-20 (583.6)

MH3 (inv. 579.5)

SLURRY WALL (purple)

A2-MW-19 (583.2)

PS2 (inv. 577.7)

A2-MW-7 (582.1)

MH3 (inv. 579.0)

AREA II CONTAINMENT CELL

AREA II (46.71 ACRES)

A1-MW-3 (574.5)

SG-02 (573.9)

A1-MW-1 (577.5)

A1-MW-2 (579.9)

A1-P-2 (NM)

A1-MW-9 (575.9)

A1-MW-6 (573.9)

A2-MW-6 (583.2)

A2-PW-1 (NM)

MH1 (inv. 578.4)

PS1 (inv. 578.7)

TERMINAL BASIN

DETENTION POND

A2-MW-3 (582.0)

A1-MW-M2 (574.9)

SG-01 (573.5)

A2-MW-5 (581.9)

A2-MW-4R (582.0)

A1-MW-4 (580.0)

A3-MW-9 (582.6)

A3-MW-3 (581.0)

A3-MW-6 (583.1)

A3-MW-7 (582.1)

RIVERBEND AREA III (42.41 ACRES)

A4-MW-5R

40 SPACES

PLANT AREA 140,000 S.F.

20' WIDE ACCESS ROAD

FUTURE EXPANSION 100,000 S.F.

A4-MW-9

A4-MW-10

HYDRO-AIR (FORMERLY STEELFIELDS) AREA IV (30.91 ACRES)

A3-ORC-1 (582.1)

A3-ORC-2 (582.1)

A3-ORC-3 (582.3)

A3-ORC-4 (582.3)

A3-ORC-5 (582.5)

A3-ORC-6 (580.8)

A3-ORC-7 (581.7)

A3-ORC-8 (582.0)

A3-ORC-9 (582.0)

A3-ORC-10 (582.0)

A3-ORC-11 (582.4)

A3-MW-10 (579.7)

A4-MW-1

A4-MW-1A

A4-MW-7R

A4-MW-8R

575 577 579 581 583 585

200' 0' 200' 400'

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

TurnKey Environmental Restoration, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0171-001-600

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH
DATE: AUGUST 2009
CHECKED BY:
APPROVED BY:

SITE PLAN & ISOPOTENTIAL MAP - MAY 11, 2009

GROUNDWATER / ORC MONITORING EVENT
FORMER STEEL MANUFACTURING SITE
BUFFALO, NEW YORK

PREPARED FOR
RIVERBEND, LLC

FIGURE 1

EXPLANATION

A1-P-4 PIEZOMETER

A1-MW-F2 MONITORING WELL

FILL THICKNESS (ft)

7/582 BASE OF FILL ELEVATION (ft msl)

142 HYDRAULIC CONDUCTIVITY (ft/day)

584 GROUNDWATER ELEVATION CONTOUR IN FEET (DASHED WHERE INFERRED)

BUILDING FOUNDATION

REMEDIATION ZONE

A1-MW-F2 578 579 580 581 582 583

A1-P-4 4/583

A1-P-3 9/580.5 312

A1-MW-A2 14.7/<575

A1-MW-K2 8.3/<579 82

A1-MW-2 >11/<573 425

A1-MW-1 5.5/578.5 133

A1-P-1 11.5/574.2 595

A1-P-2 7.5/578 122

A1-MW-M2 6.5/<580

TERMINAL BASIN SUMP

AREA 1

AREA 2

AREA 3

A2-MW-13 14/581 74

A2-MW-12 9/579 5

A2-OW-7 A2-PW-3 8/581 57

A2-PW-8 A2-OW-9

A2-MW-11 7.5/580 167

A2-MW-10 11/580 266

A2-OW-5 A2-PW-2 9/580 9/580

A2-OW-5 A2-OW-4

A2-MW-9 7/582 142

A2-MW-8 9.5/579 43

A2-MW-7 8/581

A2-MW-6 8/578 1077

A2-OW-2 A2-PW-1 A2-OW-1 9/579 255

A2-OW-1

A2-MW-5 7/578 312

A2-MW-4 8/578 91

A2-MW-3 6/580 963

A3-MW-3

A3-MW-6 17/572.4 12

A3-MW-7 5/578 283

A3-GW-4

A4-MW-6

A4-MW-5

A4-MW-4

A4-MW-3

A4-MW-3A

A4-MW-2

A4-MW-2A

A4-MW-1

A4-MW-1A 28

A4-MW-8 8/577

A4-MW-7 7/576

BUFFALO RIVER

N

200' 0' 200' 400'

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

Note: Original drawing prepared by Geomatrix Consultants, Inc., June 1998.

TURNKEY ENVIRONMENTAL RESTORATION LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0171-001-600

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH

DATE: AUGUST 2009

CHECKED BY:

APPROVED BY:

ISOPOTENTIAL MAP - JUNE 1998

GROUNDWATER / ORC MONITORING EVENT

FORMER STEEL MANUFACTURING SITE

BUFFALO, NEW YORK

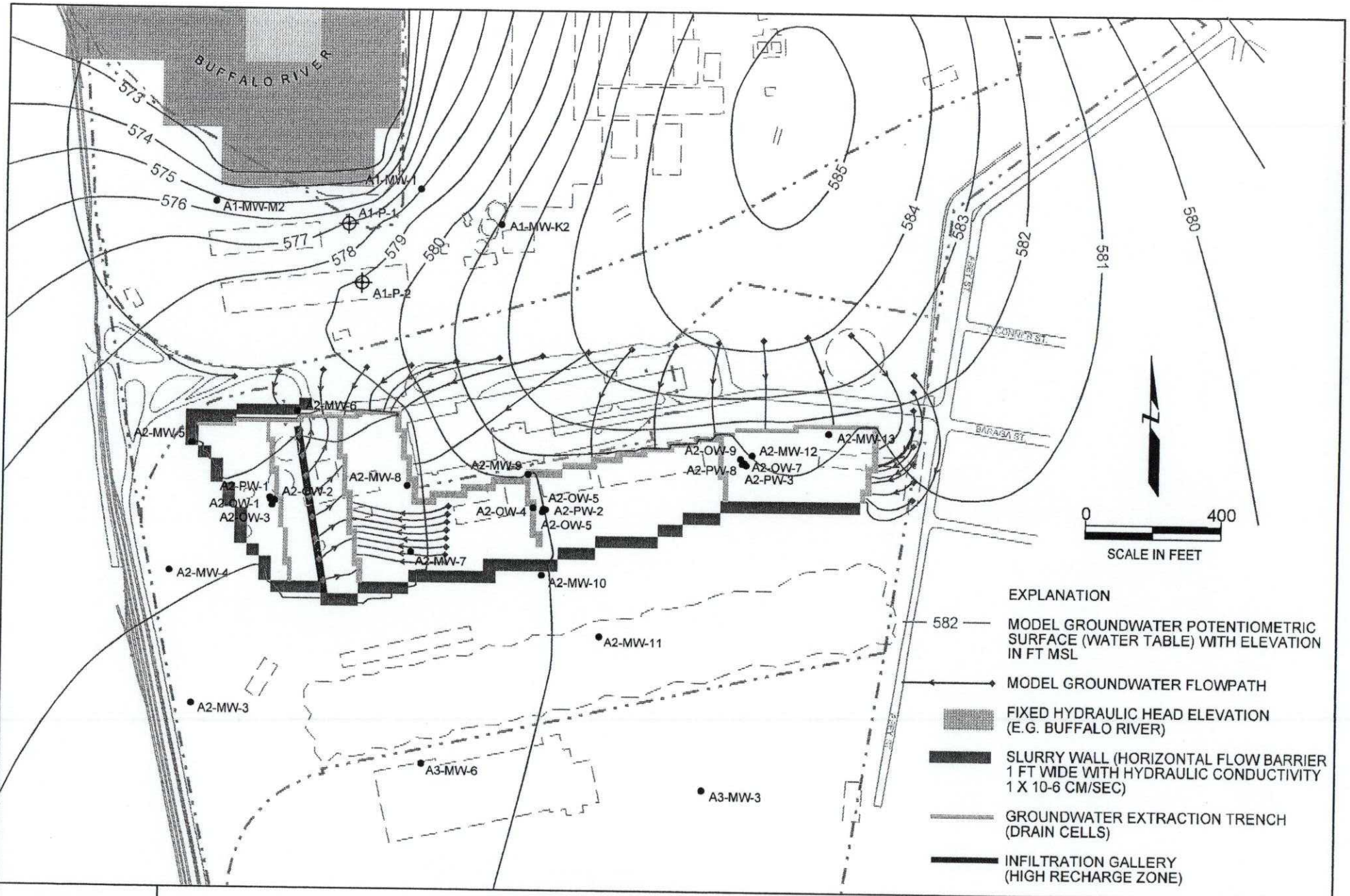
PREPARED FOR

RIVERBEND, LLC

FIGURE 2

ATTACHMENT 1

GROUNDWATER FLOW MODEL (GEOMATRIX, DECEMBER 1998)



GEOMATRIX

SIMULATED GROUNDWATER CONTOURS AND FLOWPATHS
REMEDIAL ALTERNATIVE 2
LTV Steel
Buffalo, New York

Figure 11

Project No. B4991

MAP_WT3X.pen

CHECKED:_____ \\SFPRNT2\Splash Hold Job-Name\matrix.ctb

q:\buffalo\b4991\gfm_981f_fig_11.dgn

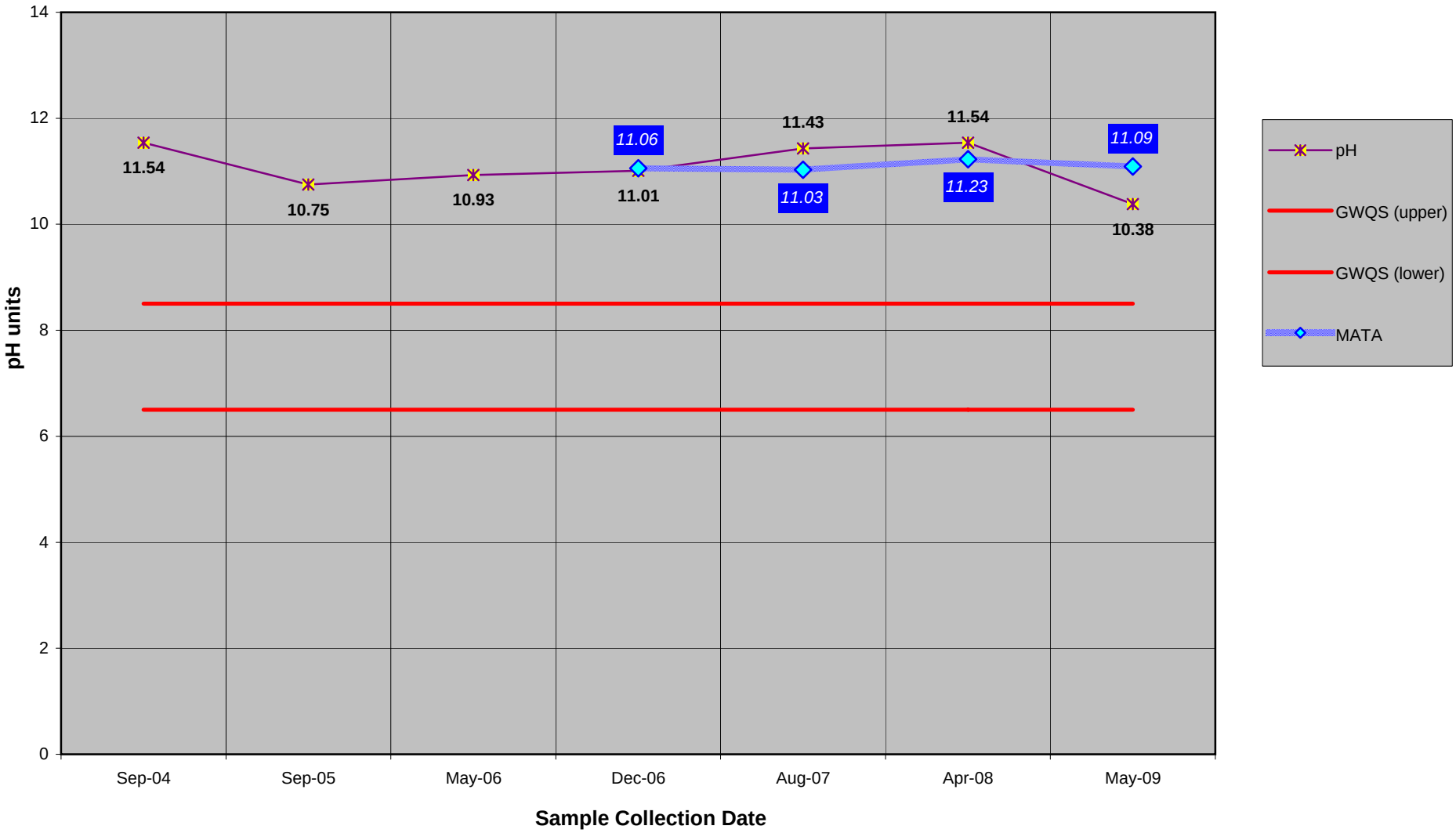
ATTACHMENT 2

CONCENTRATION VERSUS TIME & MOVING AVERAGE TREND ANALYSIS (MATA) PLOTS

ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-5
pH

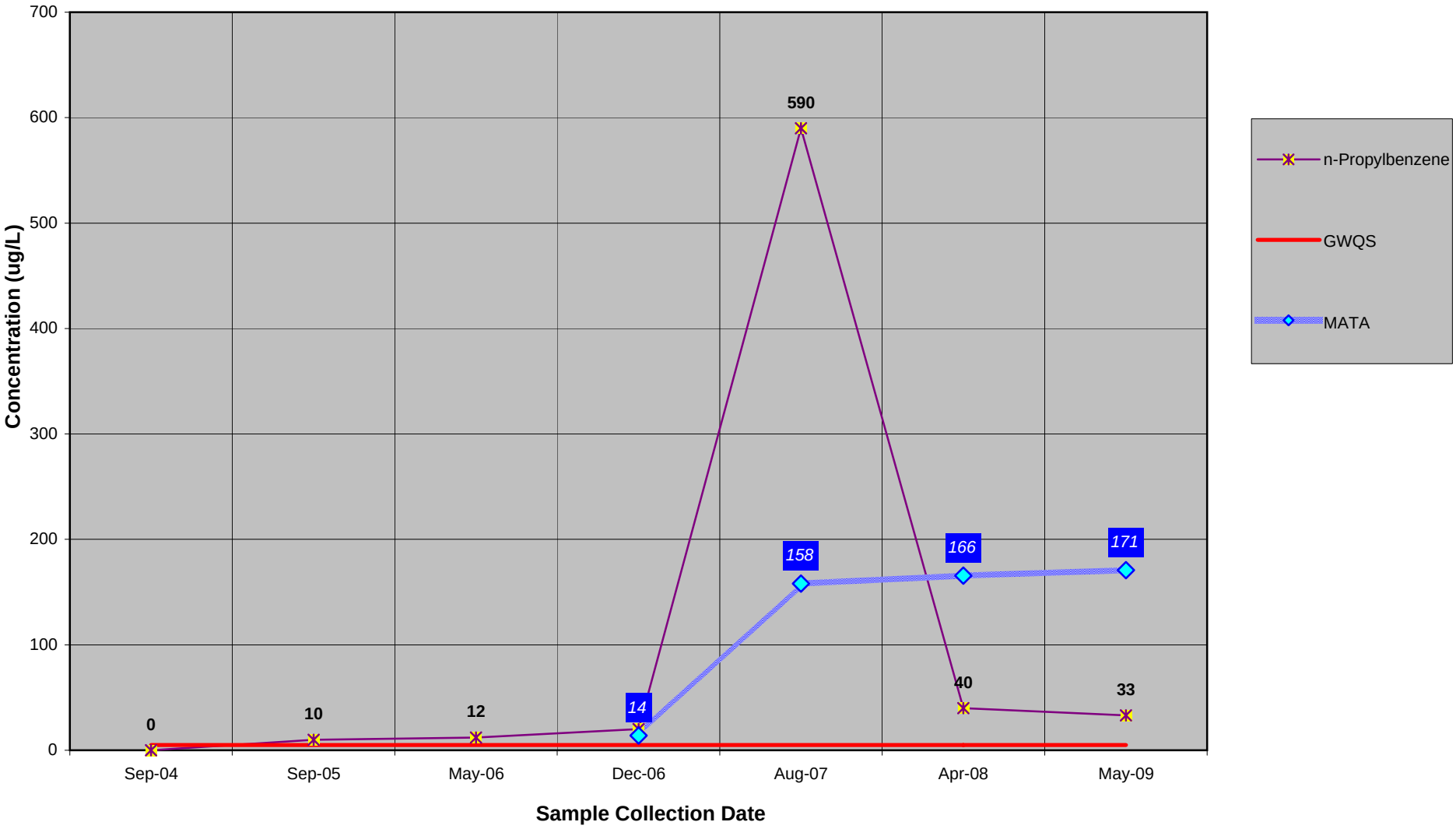
Riverbend Area I LTGWM
Buffalo, New York



ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-6
n-PROPYLBENZENE

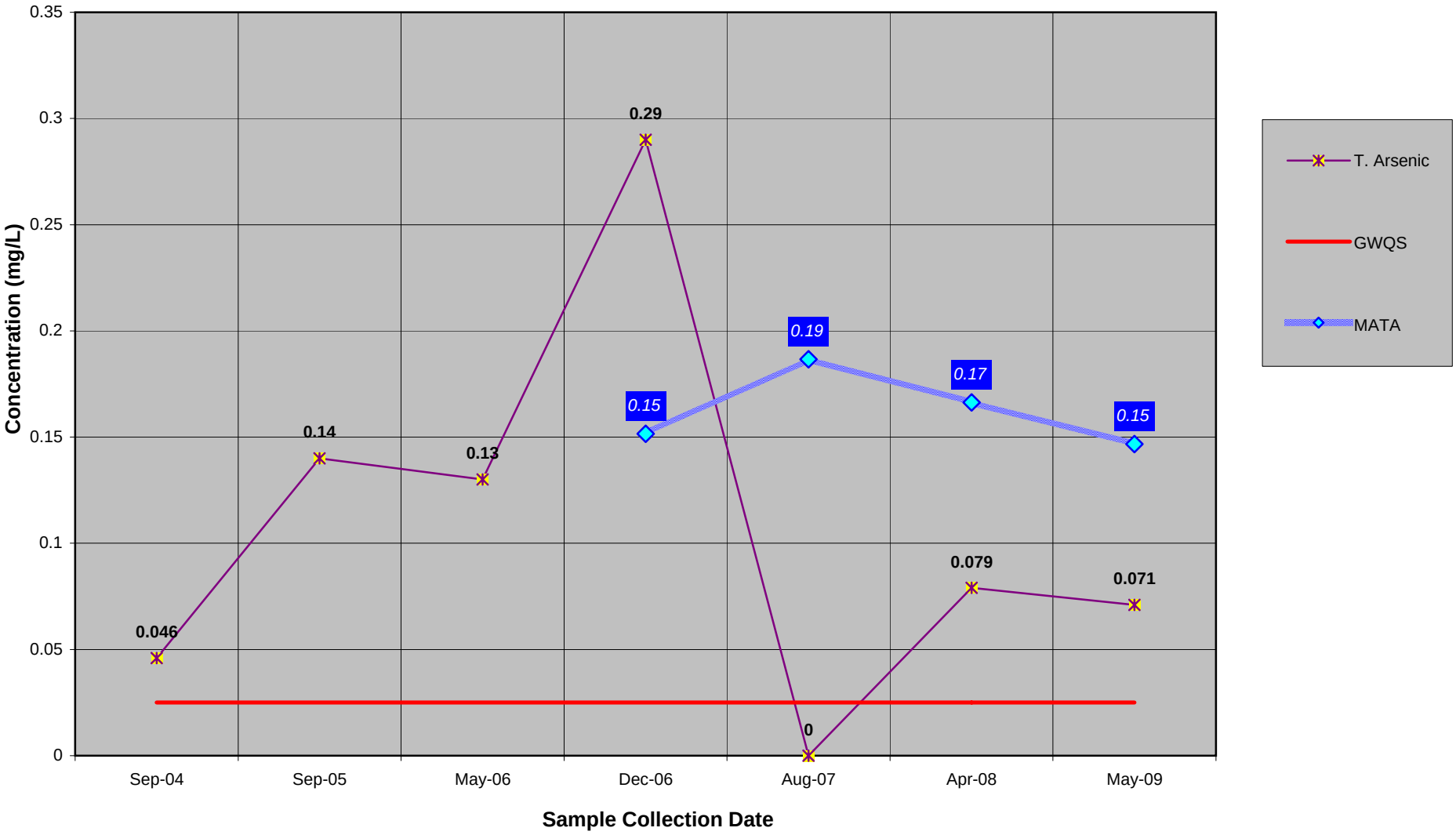
Riverbend Area I LTGWM
Buffalo, New York



ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-6
TOTAL ARSENIC

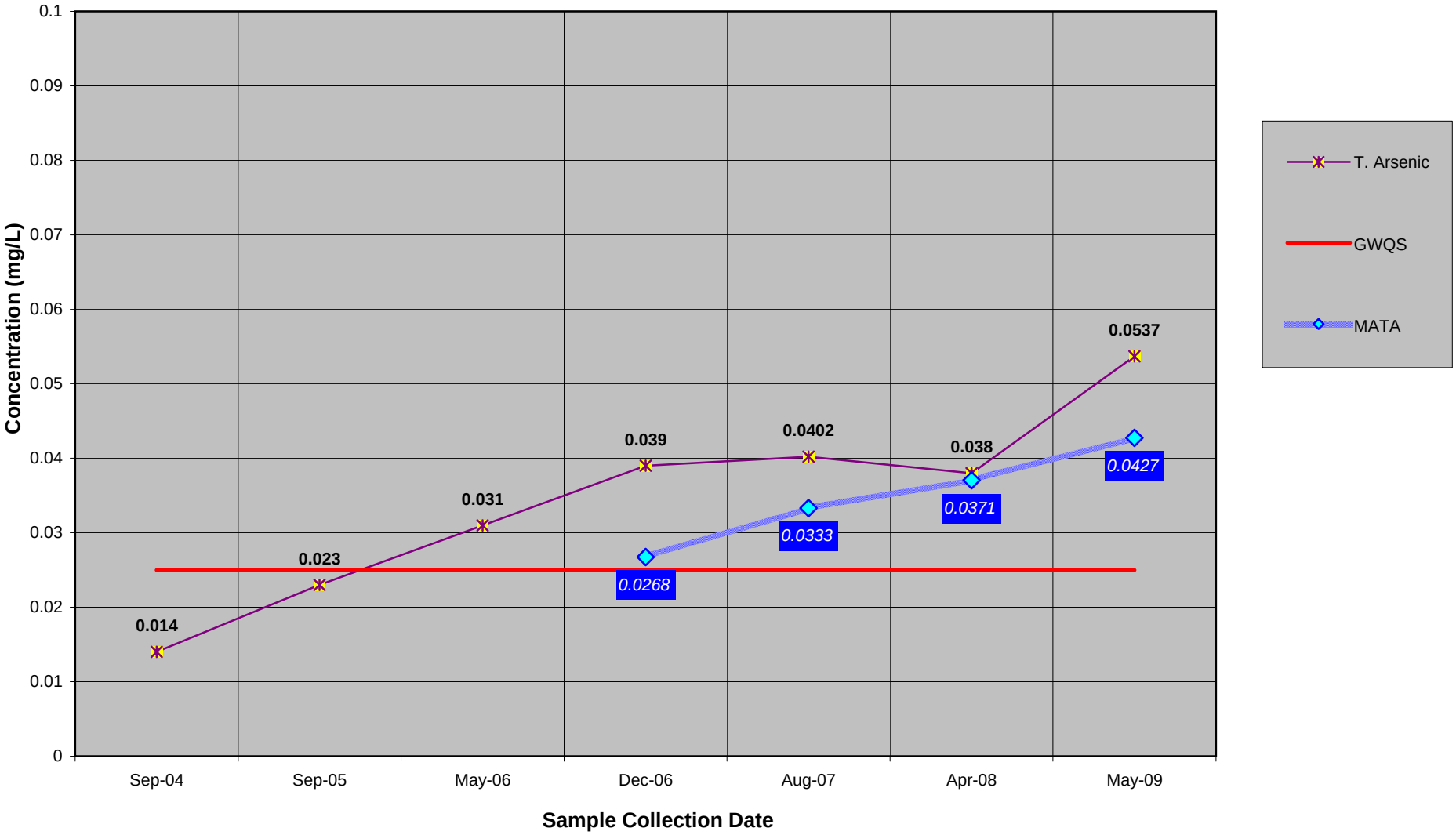
Riverbend Area I LTGWM
Buffalo, New York



ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-8
TOTAL ARSENIC

Riverbend Area I LTGWM
Buffalo, New York



APPENDIX D-2

NOVEMBER 2009

SECOND SEMI-ANNUAL AREA III ORC MONITORING EVENT

TURNKEY

December 7, 2009

Mr. Maurice Moore
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Riverbend Site (formerly Steelfields) (V00619-9)
Area III Semi-Annual Groundwater Monitoring Report – October 2009
Area III ORC Bi-Annual Monitoring Report – November 2009

Dear Mr. Moore:

On behalf of our client, Riverbend, LLC, TurnKey Environmental Restoration, LLC, has prepared this letter report to transmit the results of the October 2009 semi-annual groundwater monitoring event and the November 2009 Oxygen Release Compound (ORC) bi-annual monitoring event for Area III (Former Warehouse Parcel) of BUDC's Riverbend Site, Buffalo, NY (formerly Steelfields, see Figure 1).

PURPOSE

In general accordance with the October 2007 Long-Term Groundwater Monitoring (LTGWM) Work Plan (Attachment A4 of Appendix HH of the Final Engineering Report for Areas II and III, May 2008), the February 15, 2008 NYSDEC Comment letter for Area III (comments 8, 9, and 10), and the May 5, 2008 Response to NYSDEC Comment letter for Areas II and III (comment/response no. 22), newly installed wells in the Groundwater Monitoring Program are to be sampled semi-annually for two years, then annually thereafter. In addition, existing wells are to be sampled semi-annually for one year, then annually thereafter. The current monitoring event, conducted on October 30, 2009, completes the third of four semi-annual monitoring events for newly installed wells A3-MW-9 and A3-MW-10. All existing wells have satisfied the semi-annual monitoring requirement and were not monitored during this event. The Groundwater Monitoring Network wells and sample frequency for the Riverbend Site is presented in Table 1.

In accordance with the March 2008 ORC Maintenance and Monitoring Manual (Attachment A5 of Appendix HH of the Final Engineering Report for Areas II and III, May 2008) and the May 5, 2008 Response to NYSDEC Comment letter for Areas II and III (comment/response no. 19), ORC wells A3-ORC-1 through A3-ORC-11 are to be purged, on a bi-annual basis (every 6 months), until 10 well volumes are removed or for four consecutive days, whichever occurs first, in order to obtain representative groundwater samples within the ORC area of Area III. From November 3-6, 2009, TurnKey personnel purged and collected groundwater samples for field analysis of dissolved oxygen, pH,

oxidation-reduction potential (ORP), temperature, and water level as well as laboratory analysis of alkalinity and benzene from the eleven Area III ORC wells. In addition, the ORC "socks", suspended in each of the ORC wells, were removed and assessed during the current monitoring event; none of the socks required replacement and were re-installed.

OCTOBER 2009 SEMI-ANNUAL GROUNDWATER MONITORING EVENT

Both Area III monitoring Wells A3-MW-9 and A3-MW-10 were purged and sampled using a non-dedicated Mini-Typhoon® submersible pump (decontaminated between wells) and dedicated pump tubing, following low-flow purge and sample collection procedures. Samples from both locations were transferred to laboratory-supplied, pre-preserved sample bottles and transported, under chain of custody command, to TestAmerica, Inc. in Amherst NY, for analysis of: STARS List volatile organic compounds (VOCs) per Method 8021; total arsenic, total chromium, and total lead per Method 6010; and cyanide per Method 335.

Field measurements and laboratory analytical results are summarized on Table 2. Groundwater Quality Standards and Guidance Values (GWQSs/GVs) (NYSDEC TOGS 1.1.1, June 1998) are provided for comparison. As indicated on Table 2, benzene was the only VOC detected at a concentration exceeding the GWQS at both monitoring well locations; toluene was only detected above the GWQS at one location, A3-MW-10. In addition, pH at both wells exceeded the GWQS (one above the upper limit of 8.5 and one below the limit of 6.5).

NOVEMBER 2009 ORC MONITORING EVENT

All eleven Area III ORC wells, A3-ORC-1 through A3-ORC-11, were purged and sampled using dedicated polyethylene disposable bailers. As shown in Table 3, three of the eleven wells were sampled upon completing the 10 well volume requirement, while the remaining 8 wells were sampled on the fourth day of purging. Samples from all eleven locations were transferred to laboratory-supplied, pre-preserved sample bottles and transported, under chain of custody command, to TestAmerica for analysis of benzene per SW846 Method 8021 and alkalinity per MCAWW Method 310.1.

Field measurements and laboratory analytical results are summarized on Table 3. GWQSs/GVs are provided for comparison. As indicated on Table 3, benzene was detected at a concentration exceeding the GWQS at all eleven ORC well locations. In addition, pH was measured below GWQS of 6.5 at all of the ORC wells.

PLANNED ACTIVITIES

The next planned monitoring event for Area III is tentatively scheduled for May 2009. This event will represent the last of four consecutive semi-annual monitoring events for newly installed wells A3-MW-9 and A3-MW-10 as well as the comprehensive annual groundwater monitoring event for the Riverbend Site (Areas I, II, and III).

Please contact us if you have any questions.

Sincerely,
TurnKey Environmental Restoration, LLC

Bryan C. Hann
Project Manager

Enclosures

cc: Peter Cammarata (BUDC) – ecopy
David Stebbins (BUDC) – ecopy
Paul Werthman (TurnKey) – ecopy
Walt Meisner (TurnKey) – ecopy

File: 0171-001-600

TABLES

REVISED JULY 2009

TABLE 1

GROUNDWATER MONITORING NETWORK AND SAMPLE FREQUENCY [1,2]

Riverbend, LLC
Former Steel Manufacturing Site
Buffalo, New York

Well Designation	Type of Well		Monitoring Event									
	New	Existing	Year 1		Year 2		Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
			1 SA	2SA	1 SA	2SA	Annual	Annual	Annual	Annual	Annual	Annual
AREA I												
A1-MW-1		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	May-09	**May-10**	●	●
A1-MW-2		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	May-09	**May-10**	●	●
A1-MW-3		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	May-09	**May-10**	●	●
A1-MW-4	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	**May-10**	●	●
A1-MW-5	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	**May-10**	●	●
A1-MW-6	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	**May-10**	●	●
A1-MW-7	x		*water level only*									
A1-MW-8	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	**May-10**	●	●
A1-MW-9	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	**May-10**	●	●
A1-MW-M2		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	May-09	**May-10**	●	●
A1-P-4		x	Sep-04	Sep-05	Dec-06		Aug-07	Apr-08	May-09	**May-10**	●	●
AREA II												
A2-MW-3		x	Jul-07	Dec-07	Apr-08		May-09	**May-10**	●	●	●	●
A2-MW-4R		x	Jul-07	Dec-07	Apr-08		May-09	**May-10**	●	●	●	●
A2-MW-5		x	Jul-07	Dec-07	Apr-08		May-09	**May-10**	●	●	●	●
A2-MW-6		x	*water level only*									
A2-MW-7		x	*water level only*									
A2-MW-10		x	Dec-07	Apr-08	May-09		**May-10**	●	●	●	●	●
A2-MW-12		x	*water level only*									
A2-MW-13		x	Jul-07	Dec-07	Apr-08		May-09	**May-10**	●	●	●	●
A2-MW-14	x		Jul-07	Dec-07	Apr-08	May-09	**May-10**	●	●	●	●	●
A2-MW-15 [3]	x		Jul-07	Dec-07	~~X~~	May-09	~~X~~	**May-10**	~~X~~	●	~~X~~	●
A2-MW-16	x		Jul-07	Dec-07	Apr-08	May-09	**May-10**	●	●	●	●	●
A2-MW-17	x		Jul-07	Dec-07	Apr-08	May-09	**May-10**	●	●	●	●	●
A2-MW-18	x		*water level only*									
A2-MW-19	x		*water level only*									
A2-MW-20	x		*water level only*									
AREA III												
A3-MW-3		x	Oct-08	May-09	**May-10**		●	●	●	●	●	●
A3-MW-6		x	Oct-08	May-09	**May-10**		●	●	●	●	●	●
A3-MW-7		x	Jul-07	Dec-07	Apr-08		May-09	**May-10**	●	●	●	●
A3-MW-9	x		Oct-08	May-09	**Oct-09**	**May-10**	●	●	●	●	●	●
A3-MW-10	x		Oct-08	May-09	**Oct-09**	**May-10**	●	●	●	●	●	●
AREA III - ORC wells (every 6 months)												
A3-ORC-1		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-2		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-3		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-4		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-5		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-6		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-7		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-8		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-9		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-10		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●
A3-ORC-11		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	**Nov-09**	**May-10**	●	●	●

Notes:

1. Per the LTGWM Plan, newly installed monitoring wells require four consecutive semi-annual groundwater monitoring events, then annually thereafter.
2. Per the LTGWM Plan, existing monitoring wells require two consecutive semi-annual groundwater monitoring events, then annually thereafter.
3. Monitoring well will be sampled every two years.

Oct-09 / Nov-09	= first semi-annual monitoring event
May-10	= second semi-annual and/or annual monitoring event
x	= type of monitoring well
●	= to be monitored beyond the current contract year.

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

2009: Year 2 First Semi-Annual Event
Area III Long-Term Groundwater Monitoring
Riverbend, LLC
Buffalo, New York

PARAMETER	A3-MW-9		A3-MW-10		GWQS [4]
Field Measurements (units as shown) [3]					
pH (units)	**11.25**	**11.23**	**5.47**	**5.45**	6.5 - 8.5
Temperature (deg C)	12.9	13.0	15.1	15.1	--
Specific Conductance (uS)	6661	6162	6103	6076	--
Turbidity (NTU)	8.57	4.69	42.5	34.6	--
Dissolved Oxygen (ppm)	2.83	2.92	0.6	1.45	--
ORP (mV)	-152	-178	-43	-42	--
Volatile Organic Compounds (mg/L):					
Benzene	**0.0026**		**1.5 D**		0.001
Toluene	0.00074		**0.0063 D**		0.005
1,2,4-Trimethylbenzene	0.00015 J		ND		
Xylenes, Total	0.0003		ND		0.015
Total Inorganic Compounds (mg/L):					
Arsenic	ND		ND		0.025
Chromium	ND		ND		0.05
Lead	0.0103		ND		0.025
Wet Chemistry (mg/L):					
Cyanide - Total	ND		0.184		0.2

Notes:

1. Only those compounds detected above the method detection limit at a minimum of one sample location are shown.
2. Shaded and bolded values represent exceedances of the GWQS/GV. **BOLD**
3. Field measurements were collected immediately before and after groundwater sample collection.
4. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as per 6 NYCRR Part 703.
5. " J " = Estimated Value
6. " ND " indicates parameter was not detected above laboratory reporting limit and is reported herein as not detected (ND).
7. " NM " indicates parameter was not measured due to insufficient well volume.

TABLE 3

SUMMARY OF ORC ANALYTICAL RESULTS [1,2]

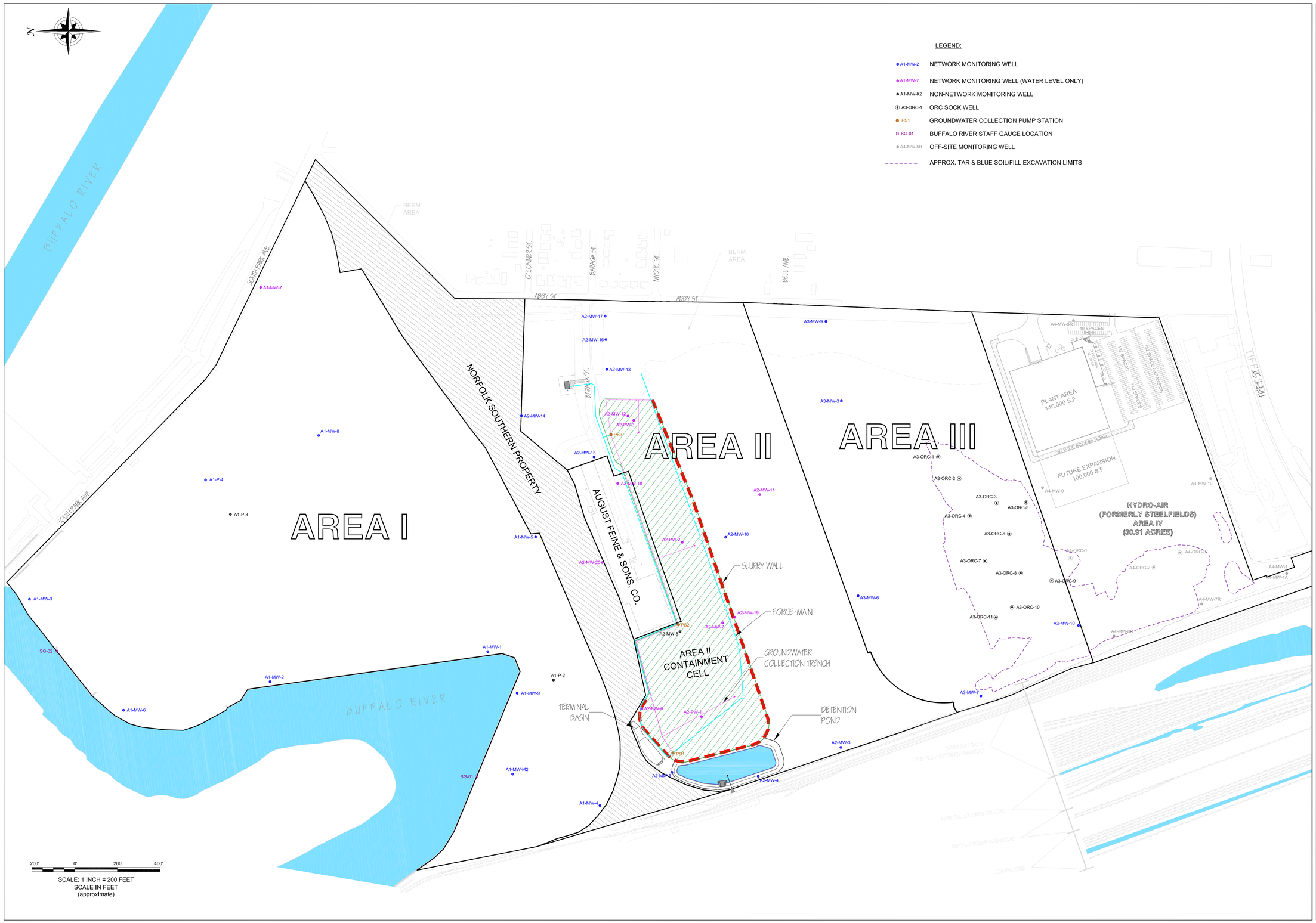
2008 Second Semi-Annual Event
Area III Long-Term Groundwater Monitoring
Riverbend, LLC
Buffalo, New York

PARAMETER	A3-ORC-1	A3-ORC-2	A3-ORC-3	A3-ORC-4	A3-ORC-5	A3-ORC-6	A3-ORC-7	A3-ORC-8	A3-ORC-9	A3-ORC-10	A3-ORC-11	GWQS [4]
Field Measurements During Purge (units as shown) [3]												
Purge: Day 1 (11/03/09) (gallons)	18.0	15.0	10.0	8.0	15.0	13.0	10.0	13.0		10.0	26.0	--
Purge: Day 2 (11/04/09) (gallons)	18.0	15.0	8.0	8.0	12.0	10.0	10.0	10.0		10.0	22.0	--
Purge: Day 3 (11/05/09) (gallons)	18.0	15.0	8.0	8.0	12.0	10.0	10.0	10.0	70.0	10.0	13.0	--
Purge: Day 4 (11/06/09) (gallons)	9.0	15.0	8.0	8.0	12.0	9.0	10.0	10.0		10.0		--
Sample Collection (date indicated)	11/06/09	11/06/09	11/06/09	11/06/09	11/06/09	11/06/09	11/06/09	11/06/09	11/05/09	11/06/09	11/05/09	--
Cumulative Volume Purged (gallons)	63.0	60.0	34.0	32.0	51.0	42.0	40.0	43.0	70.0	40.0	61.0	--
Initial Depth to Water (fbTOR)	4.51	4.89	5.16	4.74	4.98	5.54	5.31	5.56	3.31	5.31	5.13	--
Total Depth (fbTOR)	14.18	14.45	14.38	14.38	13.96	14.93	14.38	14.63	13.98	14.55	14.57	--
One Casing Volume (gallons)	6.3	6.2	6.0	6.2	5.8	6.1	5.9	5.9	6.9	6.0	6.1	--
Number of Volumes Purged	10.0	9.7	5.7	5.2	8.8	6.9	6.8	7.3	10.1	6.7	10.0	--
Sample Determination [5]	volume	4-days	4-days	4-days	4-days	4-days	4-days	4-days	volume	4-days	volume	--
Field Measurements During Sample Collection (units as shown) [3]												
pH (units)	**5.61**	**4.58**	**4.26**	**5.51**	**5.66**	**4.04**	**4.91**	**3.34**	**2.50**	**3.12**	**5.31**	6.5 - 8.5
Temperature (deg C)	11.1	13.2	12.9	11.9	12.2	10.9	11.0	11.0	10.0	10.9	12.3	--
Specific Conductance (uS)	3,027	7,991	8,181	7,987	9,481	12,640	10,130	15,110	14,920	9,426	6,703	--
Turbidity (NTU)	420	93.8	115	222	216	331	327	428	668	75.2	340	--
Dissolved Oxygen (ppm)	0.93	1.61	1.01	0.99	0.94	1.07	1.01	0.91	1.44	1.53	2.54	--
ORP (mV)	-35	32	119	-32	114	33	-12	17.2	269	140	-59	--
Volatile Organic Compounds (mg/L):												
Benzene	**1.6 D**	**16 D**	**6 D**	**0.035 D**	**32 D**	**6.9 D**	**2.1 D**	**41 D**	**230 D**	**76 D**	**0.003 D**	0.001
Wet Chemistry (mg/L):												
Alkalinity	269	317	330	310	ND	331	143	ND	ND	ND	316	--

Notes:

1. Only those compounds detected above the method detection limit at a minimum of one sample location are shown.
2. Shaded and bolded values represent exceedances of the GWQS/GV. **BOLD**
3. Field measurements were collected immediately before groundwater sample collection.
4. NYSDEC Class "GA" Groundwater Quality Standards (GWQS) as per 6 NYCRR Part 703.
5. NYSDEC requirement: purge 10 well volumes or to dryness for 4 consecutive days, then sample. "Volume" indicates that 10 well volumes were purged prior to sample collection and "4-days" indicates that the well was purged to dryness 4 consecutive days prior to sample collection.
6. " D " = Analysis performed at the secondary dilution factor.
7. " ND " indicates parameter was not detected above laboratory reporting limit and is reported herein as not detected (ND).

FIGURES



TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0171-001-600

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH
DATE: AUGUST 2009
CHECKED BY:
APPROVED BY:

SITE PLAN

GROUNDWATER / ORC MONITORING EVENT
FORMER STEEL MANUFACTURING SITE
BUFFALO, NEW YORK

PREPARED FOR
RIVERBEND, LLC

FIGURE 1

APPENDIX D-3

MAY 2010

COMPREHENSIVE ANNUAL GROUNDWATER MONITORING REPORT
&
FIRST SEMI ANNUAL AREA III ORC MONITORING EVENT

February 2, 2011

Mr. Maurice Moore
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Riverbend Site (formerly Steelfields) (V00619-9)
2010 Comprehensive Annual Groundwater Monitoring Report

Dear Mr. Moore:

On behalf of our client, Riverbend, LLC, TurnKey Environmental Restoration, LLC, has prepared this comprehensive letter report to transmit the results of the May 2010 groundwater monitoring event conducted at Area I (Former Steel Plant Parcel), Area II (Former Coke Plant Parcel), and Area III (Former Warehouse Parcel) of BUDC's Riverbend Site, Buffalo, NY (see Figure 1). This letter report also includes the results of the May and November 2010 Oxygen Release Compound (ORC) monitoring events for Area III. The current groundwater monitoring event was performed May 11-14, 2010. The LTGWM network wells are summarized in Table 1 and shown on Figure 1. A summary of field activities and findings for all three areas of the Site are presented below.

PURPOSE

The activities performed during the current site-wide groundwater monitoring event were performed in general accordance with the following documents:

- *Work Plan for Long-Term Groundwater Monitoring (LTGWM) of Area I* (revised September 2002);
- *Work Plan for LTGWM of Areas II and III* (October 2007) submitted as Attachment A4 of Appendix HH of the Final Engineering Report for Areas II and III (May 2008);
- February 15, 2008 NYSDEC comment letter for Area III (comments 8, 9, and 10);
- May 5, 2008 Response to NYSDEC comment letter for Areas II and III (comment/response no. 22);
- *ORC Maintenance and Monitoring Manual* (March 2008) submitted as Attachment A5 of Appendix HH of the Final Engineering Report for Areas II and III (May 2008); and
- May 5, 2008 Response to NYSDEC Comment letter for Areas II and III (comment/response no. 19)

This annual report includes a tabular and/or graphical assessment and detailed discussion of groundwater quality trends on an Area by Area basis. Groundwater flow patterns, however, are discussed on a site-wide basis. Groundwater samples were analyzed for the parameters identified by Area in Table 2.

GROUNDWATER ELEVATIONS & FLOW

Depth to water measurements and calculated groundwater elevations measured from 11 wells and 2 Buffalo River staff gauges in Area I, 18 of the 19 wells in Area II, and 5 monitoring wells and 11 ORC monitoring wells in Area III on May 17, 2010 are summarized in Table 3. During the current monitoring event, Area II well A2-MW-14 was identified as damaged beyond repair and was not sampled or sounded. The Lake Erie elevation presented in Table 3 was obtained from the National Oceanic and Atmospheric Administration/National Ocean Service's (NOAA/NOS) Center for Operational Oceanographic Products and Services (CO-OPS) web page; Great Lakes Water Level Data Inventory for station number 9063020 Buffalo, Lake Erie, New York.

An isopotential map, presented as Figure 1, was prepared from the May 2010 groundwater elevations and the collection system as-built invert elevations. The baseline isopotential map prepared by Geomatrix from the June 1998 groundwater elevations representing groundwater flow conditions at the Site prior to the Area II Containment Cell construction is presented as Figure 2 for contrast. Comparison of the May 2010 and June 1998 maps indicate that the groundwater mound located between Areas I and II observed in June 1998 is no longer present; replaced instead by a groundwater "sink" created by the groundwater collection system. The groundwater depression in June 1998 around the terminal basin is also no longer present due to the discontinuation (in January 2009) of storm water management activities at the Site in that area (i.e., pumping from the basin to the sanitary sewer). Further examination of Figure 1 indicates significant lowering of the water table of between 2 to 7 feet throughout the containment cell and extending north and east beyond the containment cell as generally predicted in the selected remedial approach groundwater flow model (Geomatrix, December 1998) (see Attachment 1). Current groundwater flow is toward the collection trench from all directions. The groundwater flow, as depicted on Figure 1, also shows that potentially impacted groundwater from outside the containment cell to the north on the Former August Feine and Norfolk Southern parcels is being drawn back toward the collection system, as predicted by pre-design MODFLOW® modeling.

GROUNDWATER COLLECTION SYSTEM EVALUATION

An evaluation of the slurry wall effectiveness included comparing groundwater elevations from a single well pair identified as A2-MW-19 and A2-MW-7. Monitoring Well A2-MW-19 is located outside the Containment Cell and Well A2-MW-7 is located within the Cell as shown on Figure 1. A groundwater elevation comparison of this well pair indicates that groundwater outside the Cell is higher than inside the Cell and an inward hydraulic gradient toward the Cell has been established, as predicted by the pre-design MODFLOW® model.

Based upon the results of this evaluation and the isopotential map discussed earlier, the groundwater collection/containment system appears to be effectively collecting impacted groundwater and controlling groundwater migration within the Area II Containment Cell as well as to the east and north of the containment cell. Routine system monitoring and maintenance in conjunction with long-term groundwater monitoring of Areas I and II, as

scheduled, is expected to be sufficient to continue to assess the long-term effectiveness of the containment cell.

AREA I FIELD ACTIVITIES & FINDINGS

Table 4 summarizes the Area I annual LTGWM event field-measured parameters and analytical results for Wells A1-MW-1, A1-MW-2, A1-MW-3, A1-MW-4, A1-MW-5, A1-MW-6, A1-MW-8, A1-MW-9, A1-MW-M2, and A1-P-4. Compounds detected above method detection limits are shown on the table with their associated concentration and NYSDEC Groundwater Quality Standard (NYSDEC TOGS 1.1.1, Ambient Water Quality Standards and Guidance Values, June 1998) for comparison. Concentrations exceeding NYSDEC Groundwater Quality Standards (GWQSs) are shaded. Upon examination of Table 4, the following observations are apparent:

- Field pH measurements at Well A1-MW-5 exceeded the upper GWQS of 8.5 and one of the field pH measurements at Well A1-MW-6 were slightly below the lower GWQS of 6.5.
- VOCs benzene, n-butylbenzene, sec-butylbenzene, isopropylbenzene, and n-propylbenzene were all detected at concentrations exceeding their respective GWQSs at Well A1-MW-6 only.
- Total arsenic was detected at a concentration slightly exceeding the GWQS at Wells A1-MW-6 and A1-MW-8 only.
- All remaining parameters analyzed at all other locations within Area I during the current monitoring event were reported as "non-detect" or at a concentration significantly below their respective GWQSs.

A discussion of the moving average trend analysis is presented later in this report.

During the current monitoring event, field personnel also performed visual immiscible layer surveillance and observed no non-aqueous phase liquid (NAPL) in any of the Area I wells listed in Table 1, except Well A1-MW-6. Not including the initial well development and sampling events, A1-MW-6 has been monitored since the February 2005 installation of the PetroTrap™ free product passive skimmer or more than 5 years. Since installation, a total of approximately six gallons of recovered product has been removed (see Table 5). In accordance with the LTGWM Plan, all recovered product is temporarily stored in a 5-gallon container and staged within the on-site Groundwater Pre-Treatment System (GWPTS) building until a licensed used oil service contractor picks up the recovered product for proper recycling or disposal.

As indicated in Table 5, seasonal increases in product thickness and recovery are apparent during the typical late Fall and early Spring rainy periods. Based upon the progress to date, monitoring of A1-MW-6 should continue in accordance with the Area I LTGWM Plan on a monthly basis.

AREA II FIELD ACTIVITIES & FINDINGS

Table 6 summarizes the Area II annual LTGWM event field-measured parameters and analytical results for Wells A2-MW-3, A2-MW-4R, A2-MW-5, A2-MW-10, A2-MW-13, A2-MW-14, A2-MW-16, and A2-MW-17. Well A2-MW-15, which is monitored every two years, was not sampled during the current monitoring event. Compounds detected above method detection limits are shown on the table with their associated concentration and GWQS for comparison. Concentrations exceeding the GWQSs are shaded. Upon examination of Table 6, the following observations are apparent:

- A2-MW-14 was damaged; therefore no water level or sample could be obtained for the May 2010 monitoring event.
- No VOCs, especially BETX or other petroleum based compounds associated with historic activities performed on site, were detected at concentrations above their respective GWQSs at all monitoring well locations.
- All remaining parameters analyzed at all other locations within Area II during the current monitoring event were reported as "non-detect" or at a concentration significantly below their respective GWQSs.

A discussion of the moving average trend analysis is presented later in this report.

AREA III FIELD ACTIVITIES & FINDINGS

Table 7 summarizes the Area III LTGWM event field-measured parameters and analytical results for Wells A3-MW-3, A3-MW-6, A3-MW-7, A3-MW-9, and A3-MW-10. Compounds detected above method detection limits are shown on the table with their associated concentration and GWQS for comparison. Concentrations exceeding the GWQSs are shaded. Upon examination of Table 7, the following observations are apparent:

- Field pH measurements at Wells A3-MW-7 and A3-MW-9 exceeded the upper GWQS of 8.5 and the field pH measurements at Well A3-MW-10 were below the lower GWQS of 6.5.
- The VOC benzene was detected at a concentration exceeding the GWQS at Wells A3-MW-7, A3-MW-9, and A3-MW-10.
- Total cyanide was detected in Well A3-MW-3 exceeding the GWQS.
- Total lead was detected in Well A3-MW-9 exceeding the GWQS.
- All remaining parameters analyzed at all other locations within Area III (excluding ORC wells) during the current monitoring event were reported as "non-detect" or at a concentration significantly below their respective GWQSs.

A discussion of the moving average trend analysis is presented later in this report.

In accordance with NYSDEC-approved procedures, ORC Wells A3-ORC-1 through A3-ORC-11 are to be purged until 10 well volumes are removed or to dryness for four consecutive days, whichever occurs first, in order to obtain representative groundwater samples within the ORC area of Area III. Table 8 summarizes the current Area III ORC event field-measured parameters and analytical results. Compounds detected above method detection limits are shown on Table 8 with their associated concentration and GWQS for comparison. Concentrations exceeding the GWQSs are shaded. Upon examination of Table 8, benzene exceeded the GWQS for all eleven wells monitored for the May 2010 event. In addition, pH was measured below the lower limit GWQS of 6.5 at all of the ORC wells except A3-ORC-1, which exceeded the upper limit GWQS of 8.5.

The ORC "socks", suspended in each of the ORC wells are to be replaced when depleted. During the current monitoring event, ORC socks were removed and checked; none of which required replacement.

MOVING AVERAGE TREND ANALYSIS (MATA)

In general accordance with the LTGWM Plan for each Area of the Site, any parameter exceeding the GWQS/GV for two consecutive events is to be statistically evaluated for all monitoring wells listed in Table 1. Statistical evaluation for each parameter of interest involves the averaging of four sequential monitoring event concentrations and plotting the moving average. The Area by Area 4-year moving average trend analysis (MATA) as well as the concentration versus time plots for those monitored locations and parameters requiring tracking (as defined above) are presented in Attachment 2 and summarized in Table 9. Only the Area I MATA plots have been included in the attachment. Area II and Area III plots are not included due to insufficient data; a minimum of three moving average data points are required to assess a trend in the data. As more data is collected, MATA assessments will be made for Area II and III monitoring locations, as necessary.

As indicated in Table 9 and presented in Attachment 2, the Area I MATA assessment indicates the following:

- The concentration versus time and MATA plots for the field measured pH at Well A1-MW-5, although elevated above the GWQS, continues to indicate a neutral trend (neither increasing nor decreasing) since September 2004.
- The MATA plot for n-butylbenzene and n-propylbenzene at Well A1-MW-6 at first glance indicates an increasing 4-year moving average trend; however upon closer inspection the trend is being influenced by unusually high concentrations of these two analytes reported in August 2007 of more than 10 times historic values (i.e., outlier). The concentration versus time plot shown on the same charts, however, indicates a return to historic ranges from April 2008 through May 2010 as well as the start of a neutral or slightly decreasing trend.
- Similar to the above, the MATA plot of isopropylbenzene at Well A1-MW-6 at first glance indicates an increasing 4-year moving average trend; however upon closer

inspection the trend is being influenced by an outlier reported in May 2009 of more than 3 times historic concentrations. The concentration versus time plot shown on the same plot, however indicates that the trend is returning to historic concentrations.

- Although the concentration versus time plot for total arsenic at Well A1-MW-6 reveals a wide concentration range from a high 0.29 mg/L in December 2006 to non-detect in August 2007, the MATA plot clearly indicates a decreasing trend since August 2007.
- The concentration versus time plot for total arsenic at Well A1-MW-8 indicates a period of moderation from December 2006 to April 2008 where the arsenic concentration actually began to decrease, however the data from the May 2010 event has indicated a higher concentration. The MATA plot does indicate a slight increasing trend and this compound at this location will continue to be monitored.

PLANNED ACTIVITIES

A schedule summarizing the past, present, and future monitoring events is presented in Table 1. The next planned comprehensive monitoring event for Areas I, II, and III is tentatively scheduled for May 2011. Area III ORC well monitoring was performed in November 2010 and tentatively scheduled for May 2011 (every six months).

Please contact us if you have any questions.

Sincerely,
TurnKey Environmental Restoration, LLC

Bryan C. Hann
Project Manager

Enclosures

ec: Peter Cammarata (BUDC)
David Stebbins (BUDC)
Paul Werthman (TurnKey)

File: 0171-001-600

TABLES

TABLE 1

GROUNDWATER MONITORING NETWORK AND SAMPLE FREQUENCY [1,2]

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Well Designation	Type of Well		Monitoring Event									
	New	Existing	Year 1		Year 2		Year 3		Year 4	Year 5	Year 6	Year 7	Year 8
			1 SA	2SA	1 SA	2SA	Annual		Annual	Annual	Annual	Annual	Annual
AREA I													
A1-MW-1		x	Sep-04	Sep-05	Dec-06		Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-MW-2		x	Sep-04	Sep-05	Dec-06		Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-MW-3		x	Sep-04	Sep-05	Dec-06		Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-MW-4	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-MW-5	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-MW-6	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-MW-7	x		*water level only*										
A1-MW-8	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-MW-9	x		Sep-04	Sep-05	May-06	Dec-06	Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-MW-M2		x	Sep-04	Sep-05	Dec-06		Aug-07		Apr-08	May-09	May-10	**May-11**	●
A1-P-4		x	Sep-04	Sep-05	Dec-06		Aug-07		Apr-08	May-09	May-10	**May-11**	●
AREA II													
A2-MW-3		x	Jul-07	Dec-07	Apr-08		May-09		May-10	**May-11**	●	●	●
A2-MW-4R		x	Jul-07	Dec-07	Apr-08		May-09		May-10	**May-11**	●	●	●
A2-MW-5		x	Jul-07	Dec-07	Apr-08		May-09		May-10	**May-11**	●	●	●
A2-MW-6		x	*water level only*										
A2-MW-7		x	*water level only*										
A2-MW-10		x	Dec-07	Apr-08	May-09		May-10		**May-11**	●	●	●	●
A2-MW-12		x	*water level only*										
A2-MW-13		x	Jul-07	Dec-07	Apr-08		May-09		May-10	●	●	●	●
A2-MW-14	x		Jul-07	Dec-07	Apr-08	May-09	May-10		**May-11**	●	●	●	●
A2-MW-15 [3]	x		Jul-07	Dec-07	~~Apr-08~~	May-09	~~May-10~~		**May-11**	~~●~~	●	~~●~~	●
A2-MW-16	x		Jul-07	Dec-07	Apr-08	May-09	May-10		**May-11**	●	●	●	●
A2-MW-17	x		Jul-07	Dec-07	Apr-08	May-09	May-10		**May-11**	●	●	●	●
A2-MW-18	x		*water level only*										
A2-MW-19	x		*water level only*										
A2-MW-20	x		*water level only*										
AREA III													
A3-MW-3		x	Oct-08	May-09	May-10		**May-11**		●	●	●	●	●
A3-MW-6		x	Oct-08	May-09	May-10		**May-11**		●	●	●	●	●
A3-MW-7		x	Jul-07	Dec-07	Apr-08		May-09		May-10	**May-11**	●	●	●
A3-MW-9	x		Oct-08	May-09	Oct-09	May-10	**May-11**		●	●	●	●	●
A3-MW-10	x		Oct-08	May-09	Oct-09	May-10	**May-11**		●	●	●	●	●
AREA III - ORC wells (every 6 months)													
A3-ORC-1		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-2		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-3		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-4		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-5		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-6		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-7		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-8		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-9		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-10		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●
A3-ORC-11		x	Jul-07	Dec-07	Apr-08	Nov-08	May-09	Nov-09	May-10	**Nov-10**	**May-11**	●	●

Notes:

1. Per the LTGWM Plan, newly installed monitoring wells require four consecutive semi-annual groundwater monitoring events, then annually thereafter.
2. Per the LTGWM Plan, existing monitoring wells require two consecutive semi-annual groundwater monitoring events, then annually thereafter.
3. Monitoring well will be sampled every two years.

May-11	= tentatively scheduled future monitoring event
x	= type of monitoring well
●	= to be monitored beyond the current contract year.

TABLE 2

ANALYTICAL PARAMETERS PER AREA

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Area I & II Wells	Area III Wells	Area III ORC Wells
Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level	Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level	Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level
STARS List VOCs (Method 8021)	STARS List VOCs (Method 8021)	Benzene (Method 8021)
Arsenic (Method 6010)	Arsenic (Method 6010)	Alkalinity (Method 310.2)
Chromium (Method 6010)	Chromium (Method 6010)	
Lead (Method 6010)	Lead (Method 6010)	
Total Petroleum Hydrocarbons (TPH) (Method 1664) for wells: A1-MW-1 A1-MW-3 A1-MW-6 A1-MW-9	Cyanide (Method 335)	

Notes:
1. For the first semi-annual event, wells were analyzed for "Full List" (i.e., TCL and STARS List VOCs).

TABLE 3

GROUNDWATER ELEVATION MEASUREMENTS
May 17, 2010

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Monitoring Location	TOR Elevation (fmsl)	DTP (fbTOR)	DTW (fbTOR)	Product Thickness (feet)	Groundwater Elevation (fmsl)	Corrected Groundwater Elevation [1] (fmsl)
Area I Monitoring Wells [2]						***11 Wells***
A1-MW-1	586.38	NP	8.53	NP	577.85	577.85
A1-MW-2	586.39	NP	6.87	NP	579.52	579.52
A1-MW-3	591.98	NP	18.15	NP	573.83	573.83
A1-MW-4	586.70	NP	6.06	NP	580.64	580.64
A1-MW-5	590.48	NP	5.00	NP	585.48	585.48
A1-MW-6	591.60	18.03	20.24	2.21	571.36	573.30
A1-MW-7	586.97	NP	11.86	NP	575.11	575.11
A1-MW-8	589.47	NP	11.83	NP	577.64	577.64
A1-MW-9	588.05	NP	11.92	NP	576.13	576.13
A1-MW-M2	587.85	NP	6.88	NP	580.97	580.97
A1-P-4	589.37	NP	6.94	NP	582.43	582.43
Area II Monitoring Wells [3]						***19 Wells***
A2-MW-3	588.95	NP	6.45	NP	582.50	582.50
A2-MW-4R	588.59	NP	6.09	NP	582.50	582.50
A2-MW-5	587.25	NP	4.83	NP	582.42	582.42
A2-MW-6	592.69	NP	8.91	NP	583.78	583.78
A2-MW-7	602.05	NP	19.39	NP	582.66	582.66
A2-MW-10R	593.59	NP	9.31	NP	584.28	584.28
A2-MW-11	590.11	NP	6.22	NP	583.89	583.89
A2-MW-12	604.12	NP	17.45	NP	586.67	586.67
A2-MW-13	597.90	NP	12.78	NP	585.12	585.12
A2-MW-14 [6]	593.02	*~ d e s t r o y e d ~*				
A2-MW-15	589.56	NP	4.38	NP	585.18	585.18
A2-MW-16	597.62	NP	12.99	NP	584.63	584.63
A2-MW-17	596.94	NP	13.11	NP	583.83	583.83
A2-MW-18	587.64	NP	4.10	NP	583.54	583.54
A2-MW-19	592.02	NP	8.21	NP	583.81	583.81
A2-MW-20	591.54	NP	6.57	NP	584.97	584.97
A2-PW-1	601.76	NP	20.04	NP	581.72	581.72
A2-PW-2	603.91	NP	18.17	NP	585.74	585.74
A2-PW-3	603.88	NP	20.07	NP	583.81	583.81
Area III Monitoring Wells [3]						***5 Wells***
A3-MW-3	585.40	NP	3.09	NP	582.31	582.31
A3-MW-6	585.70	NP	2.33	NP	583.37	583.37
A3-MW-7	586.39	NP	3.87	NP	582.52	582.52
A3-MW-9	597.61	NP	14.48	NP	583.13	583.13
A3-MW-10	585.41	NP	5.29	NP	580.12	580.12

TABLE 3

GROUNDWATER ELEVATION MEASUREMENTS
May 17, 2010

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Monitoring Location	TOR Elevation (fmsl)	DTP (fbTOR)	DTW (fbTOR)	Product Thickness (feet)	Groundwater Elevation (fmsl)	Corrected Groundwater Elevation [1] (fmsl)
Area III ORC Monitoring Wells [3]						***11 Wells***
A3-ORC-1	587.17	NP	4.21	NP	582.96	582.96
A3-ORC-2	587.35	NP	4.50	NP	582.85	582.85
A3-ORC-3	587.55	NP	4.50	NP	583.05	583.05
A3-ORC-4	587.14	NP	4.19	NP	582.95	582.95
A3-ORC-5	587.77	NP	4.33	NP	583.44	583.44
A3-ORC-6	587.53	NP	4.82	NP	582.71	582.71
A3-ORC-7	587.16	NP	5.12	NP	582.04	582.04
A3-ORC-8	587.51	NP	5.10	NP	582.41	582.41
A3-ORC-9	585.15	NP	2.71	NP	582.44	582.44
A3-ORC-10	587.60	NP	5.10	NP	582.50	582.50
A3-ORC-11	587.70	NP	4.79	NP	582.91	582.91
Surface Water [4,5]						***3 Locations***
SG-01 (downstream)	585.07	NP	12.81	NP	572.26	572.26
SG-02 (upstream)	590.72	NP	18.02	NP	572.70	572.70
Lake Erie	NA	NA	NA	NA	NA	571.16

Notes:

1. Groundwater elevations are corrected if free product (i.e., LNAPL) is present.
2. Area I monitoring well reference point elevations (i.e., top of riser for wells and sheet pile for staff gauges) as surveyed by TurnKey on November 10, 2004.
3. Monitoring well elevations have been surveyed at various times by TurnKey or Steelfields.
4. Staff Gauge (SG) locations are located at the upstream and downstream locations indicated on Figure 1. Each staff gauge was surveyed on January 3, 2008 by Niagara Boundary personnel.
5. Source: NOAA Tides & Currents Web Page- Buffalo, NY Station ID 9063020; average daily elevation of Buffalo, New York Station #9063020.
6. During the May 2010 monitoring event, this well appeared to be vandalized and damaged beyond repair.

Definitions:

DTP = depth to product, if present
DTW = detph to water
fmsl = feet above mean sea level
fbTOR = feet below top of riser
NP = no measureable product was present
R = replacement well
TOR = top of riser

TABLE 4

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Area I: Former Steel Plant Parcel

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Parameter	Monitoring Location and Date of Sample Collection																				GWQS/GV [1]
	A1-MW-1		A1-MW-2		A1-MW-3		A1-MW-4		A1-MW-5		A1-MW-6		A1-MW-8		A1-MW-9		A1-MW-M2		A1-P-4		
	05/18/10		05/18/10		05/18/10		05/17/10		05/17/10		05/17/10		05/18/10		05/18/10		05/17/10		05/18/10		
Field Measurements (units as indicated) [2]																					
Sample No.	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	**NA**
pH (units)	7.20	7.19	7.53	7.50	7.04	6.97	6.80	6.76	**10.27**	**10.29**	**6.31**	**6.40**	6.71	6.73	7.02	7.04	7.10	7.13	6.98	6.98	**6.5 - 8.5**
Temperature (degrees C)	9.9	9.6	9.7	9.6	11.3	11.5	12.6	11.1	11.0	12.4	13.8	13.9	10.8	10.9	10.9	11.0	12.3	12.3	10.5	10.2	**NA**
Specific Conductance (uS)	551.0	542.0	476.2	478.0	1144	1010	832.9	824.6	655.4	644.6	1130	1137	1948	1961	610.7	609.6	569.2	569.0	539.3	530.4	**NA**
Turbidity (NTU)	81.6	26	4.79	3.88	45.9	11.2	36.6	16	1.54	1.47	8.8	6.91	167	151	1.68	0.99	31.7	26.9	16.7	15.6	**NA**
Dissolved Oxygen (mg/L)	2.96	1.45	1.29	1.43	6.02	4.60	2.23	1.56	1.77	1.49	2.99	1.61	2.39	2.70	2.29	2.36	2.15	2.69	8.05	8.30	**NA**
Eh (mV)	- 115	- 115	- 122	- 117	+ 4	+ 19	+ 33	+ 8	- 116	- 116	- 104	- 103	- 116	- 116	- 89	- 80	+ 28	+ 29	- 21	- 12	**NA**
Visual Observation	clear		clear		clear		clear		clear		oil globules [3]		light orange		clear		clear		clear		**NA**
Olfactory Observation	musty		Sulfur like		none		none		Sl. Musty Odor		petro-like		none		none		none		none		**NA**
Volatile Organic Compounds (ug/L)																					
Benzene	ND		ND		ND		ND		0.071 J		**1.9 DJ**		ND		ND		ND		ND		**1**
n-Butylbenzene	ND		ND		ND		ND		ND		**5.3 DJ**		ND		ND		ND		ND		**5**
sec-Butylbenzene	ND		ND		ND		ND		ND		3.2 DJ		ND		ND		ND		ND		**5**
tert-Butylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
p-Cymene (4-Isopropyltoluene)	ND		ND		ND		ND		ND		0.54 DJ		ND		ND		ND		ND		**5**
Ethylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Isopropylbenzene	ND		ND		ND		ND		ND		**5.3 D**		ND		ND		ND		ND		**5**
Methyl tert butyl ether	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**10**
n-Propylbenzene	ND		ND		ND		ND		ND		**10 D**		ND		ND		ND		ND		**5**
Toluene	ND		ND		ND		ND		ND		0.95 DJB		ND		ND		ND		ND		**5**
1,2,4-Trimethylbenzene	ND		ND		ND		ND		0.077 J		ND		ND		ND		ND		ND		**5**
1,3,5-Trimethylbenzene	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**5**
Xylenes, Total	ND		ND		ND		ND		ND		1.4		ND		ND		ND		ND		**15**
Total VOCs	***0***		***0***		***0***		***0***		***0.148***		***28.59***		***0***		***0***		***0***		***0***		**10**
Total Inorganics (mg/L)																					
Total Arsenic	**0.0335**		ND		ND		ND		ND		**0.0744**		**0.101**		0.0102		ND		ND		**0.025**
Total Chromium	ND		ND		ND		ND		ND		ND		ND		ND		ND		0.026		**0.05**
Total Lead	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND		**0.025**
Soluble Inorganics (mg/L)																					
Souble Arsenic	ND		--		--		--		--		--		0.0175		--		--				**0.025**
Total Petroleum Hyrdocarbons (mg/L)																					
TPH	ND		--		ND		--		--		91.4		--		ND		--		--		**NA**

Notes:
1. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998)
2. Field measurements were collected immediately before and after groundwater sample collection.
3. Light non-aqueous phase liquid (LNAPL) detected; approximately 2.39 feet in thickness.
4. " NA " = Not Applicable, a GWQS/GV has not been established for this parameter.
5. " ND " = the sample location was analyzed for this parameter, but reported at a concentration less than the method detection limit.
6. " -- " = compound is not analyzed at this location

= Shaded values represent exceedances of the NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value.

TABLE 5

SUMMARY OF LNAPL THICKNESS / REMOVAL IN A1-MW-6
Area I: Former Republic (LTV) Steel Plant Parcel

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Date	Days Since Last Visit	LNAPL Measurement			Quantity Removed [1] (oz.)	Height of Petro-Trap (fbTOR)	Comments
		Top (fbTOR)	Bottom (fbTOR)	Thickness (feet)			
09/21/04	0	18.10	18.40	0.30	NA	--	well development
09/23/04	2	18.10	18.40	0.30	NA	--	Fall 2004 groundwater monitoring event
02/01/05	**131**	**17.50**	**20.85**	**3.35**	**NA**	**16.0**	**installed PetroTrap passive skimmer**
02/08/05	7	17.94	19.89	1.95	16	16.0	first LNAPL removal from Petro Trap
02/11/05	3	17.89	19.75	1.86	20	16.0	ok
02/15/05	4	18.10	18.52	0.42	20	16.0	ok
02/18/05	3	17.59	17.91	0.32	12	16.0	ok
02/25/05	7	18.02	18.51	0.49	2	16.0	Petro Trap tubing was tangled
03/04/05	7	18.13	18.63	0.50	6	16.0	Petro Trap tubing was tangled
03/18/05	14	18.00	18.74	0.74	3.5	16.0	checked Petro Trap for leaks, none located
04/08/05	21	17.37	18.20	0.83	24	15.0	ok; raised Petro Trap approximately 1-foot
04/14/05	6	17.65	17.81	0.16	22	15.0	ok
04/28/05	14	16.23	16.25	0.02	25.6	15.0	ok
05/17/05	19	17.62	17.80	0.18	14	14.0	~14 oz. of water in Petro Trap; raised approx. 1-foot
06/21/05	35	17.68	17.71	0.03	14	14.0	ok
07/18/05	27	18.03	18.11	0.08	12	15.0	ok, lowered approx. 1-foot
09/09/05	53	18.34	18.42	0.08	8	15.0	ok
09/20/05	11	18.33	18.38	0.05	22	15.0	ok; Area I LTGWM Event
10/31/05	41	18.50	18.52	0.02	24	15.0	ok
11/23/05	23	18.95	18.96	0.01	22	15.0	ok
12/28/05	35	19.35	19.36	0.01	22	15.0	ok
01/30/06	33	18.43	18.44	0.01	24	15.0	ok
02/27/06	28	18.38	19.06	0.68	24	15.0	ok
03/28/06	29	18.44	19.31	0.87	24	15.0	ok
04/27/06	30	18.39	19.17	0.78	24	15.0	ok
05/18/06	21	18.41	19.05	0.64	8	15.0	ok; Area I LTGWM Event
06/30/06	43	17.82	18.35	0.53	8	15.0	ok
07/31/06	31	17.95	18.64	0.69	16	15.0	ok
12/01/06	123	19.41	21.65	2.24	16	15.0	ok; Area I LTGWM Event, removed oily water.
06/30/07	211	17.98	20.51	2.53	8	15.0	ok
07/31/07	31	18.31	21.40	3.09	22	14.0	~12oz. Water in Trap; raised PetroTrap approx. 1'
08/22/07	22	18.50	20.11	1.61	4	14.0	ok
09/29/07	38	18.86	21.72	2.86	4	14.0	ok
10/30/07	31	19.10	21.04	1.94	3	14.0	ok
11/28/07	29	19.47	20.52	1.05	2	14.0	checked Petro Trap for leaks, none located
12/28/07	30	18.93	20.42	1.49	14	15.0	~12oz. Water in Trap; lowered PetroTrap approx. 1'
08/12/08	228	17.98	19.60	1.62	30	15.0	ok, bailed down product removed ~1.0 gal. TK took over monitoring
09/10/08	29	18.61	20.10	1.49	4	15.0	Needs to be ajusted and claened
10/08/08	28	18.90	20.46	1.56	8	17.5	Lowered trap to 17.41 fbgs, cleaned off filter.
11/11/08	34	18.79	21.00	2.21	11	17.5	ok
12/16/08	35	18.64	20.86	2.22	1	17.5	ok
01/07/09	22	18.28	21.20	2.92	1	17.0	raised trap to 17.0 fbgs
02/11/09	35	18.52	21.22	2.70	64	17.0	17 oz in trap, bailed 47 oz
03/10/09	27	17.50	19.63	2.13	2	17.0	ok
04/01/09	22	18.12	19.08	0.96	48	17.0	Bailed ~40oz, ~8 was removed from trap
05/06/09	35	17.61	19.81	2.20	3	17.0	ok
05/12/09	6	17.65	17.96	0.31	18	17.0	ok
06/02/09	21	17.64	18.17	0.53	2	17.0	ok
07/08/09	36	17.96	18.17	0.21	20	17.0	ok
08/06/09	29	18.05	19.75	1.70	1.5	17.0	ok
09/01/09	26	18.11	19.20	1.09	3	17.0	ok
10/06/09	35	17.84	19.62	1.78	6	17.0	ok
11/03/09	28	17.82	19.11	1.29	10	17.0	ok
12/01/09	28	18.07	18.50	0.43	20	17.0	ok
01/13/10	43	18.22	18.75	0.53	5	17.0	ok
02/10/10	28	18.03	19.00	0.97	4	17.0	ok
03/05/10	23	19.31	20.81	1.50	3	17.0	ok
04/06/10	32	18.61	20.41	1.80	4	17.0	ok
05/05/10	29	18.41	20.20	1.79	1	17.0	ok
05/17/10	12	18.03	20.42	2.39	1	17.0	ok
Total Quantity Removed To Date:					**760.6 oz.**	**or 5.94 gal.**	

Notes:

1. The PetroTrap canister used has a capacity of 25.6 oz. (0.2 gal).
2. Data from January 1, 2007 through July 31, 2008 was collected by EnSol, Inc.; data before and after this time has been collected by TurnKey Environmmental Restoration, LLC.

TABLE 6

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Area II: Former Coke Plant Parcel

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Parameter	Monitoring Location and Date of Sample Collection																		GWQS/GV [1]
	A2-MW-3		A2-MW-4R		A2-MW-5		A2-MW-10		A2-MW-13		A2-MW-14		A2-MW-15 [6]		A2-MW-16		A2-MW-17		
	05/18/10		05/18/10		05/18/10		05/19/10		05/19/10		NS		NS		05/19/10		05/19/10		
Field Measurements (units as indicated) [2]																			
Sample No.	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	**NA**
pH (units)	7.30	7.30	7.12	7.11	6.97	6.97	7.29	7.29	7.12	7.10	NS	NS	NS	NS	6.67	6.67	6.51	6.59	**6.5 - 8.5**
Temperature (degrees C)	9.6	9.7	9.6	9.6	10.0	9.9	11.4	12.0	12.6	13.0	NS	NS	NS	NS	12.4	13.7	13.1	12.0	**NA**
Specific Conductance (uS)	773.7	774.1	948.2	948.7	712.4	713.2	1993	1986	1867	1867	NS	NS	NS	NS	1710	1807	2847	2822	**NA**
Turbidity (NTU)	9.66	8.39	34.5	36.9	6.52	5.6	20.5	15.3	15.8	12.4	NS	NS	NS	NS	95.2	158	24.7	10.4	**NA**
Dissolved Oxygen (mg/L)	3.14	3.00	1.76	1.66	2.90	2.79	2.70	2.45	1.54	1.24	NS	NS	NS	NS	3.11	2.70	1.80	1.39	**NA**
Eh (mV)	- 24	- 24	- 64	- 69	- 83	- 82	- 69	- 71	- 117	- 121	NS	NS	NS	NS	- 25	- 46	- 100	- 103	**NA**
Visual Observation	clear		clear		clear		clear		clear		NS		NS		grey		clear		**NA**
Olfactory Observation	no odor		no odor		musty		musty		musty		NS		NS		musty		musty		**NA**
Volatile Organic Compounds (ug/L)																			
Benzene	ND		ND		ND		0.19 J		0.52		NS		NS		0.68		0.68		**1**
n-Butylbenzene	ND		ND		ND		ND		ND		NS		NS		ND		ND		**5**
sec-Butylbenzene	ND		ND		ND		ND		ND		NS		NS		ND		0.23 J		**5**
tert-Butylbenzene	ND		ND		ND		ND		ND		NS		NS		ND		2.6		**5**
p-Cymene (4-Isopropyltoluene)	ND		ND		ND		ND		ND		NS		NS		ND		ND		**5**
Ethylbenzene	ND		ND		ND		ND		ND		NS		NS		ND		ND		**5**
Isopropylbenzene	ND		ND		ND		ND		ND		NS		NS		0.12 J		0.034 J		**5**
Methyl tert butyl ether	ND		ND		ND		ND		ND		NS		NS		ND		ND		**10**
n-Propylbenzene	ND		ND		ND		ND		ND		NS		NS		ND		ND		**5**
Toluene	ND		ND		ND		ND		ND		NS		NS		0.071 B,J		ND		**5**
1,2,4-Trimethylbenzene	ND		ND		ND		ND		ND		NS		NS		ND		ND		**5**
1,3,5-Trimethylbenzene	ND		ND		ND		ND		ND		NS		NS		ND		ND		**5**
Xylenes, Total	ND		ND		ND		ND		0.076 J		NS		NS		0.057 J		ND		**15**
Total VOCs	***0***		***0***		***0***		***0.19***		***0.596***		***0***		***0***		***0.928***		***3.544***		**10**
Inorganics (mg/L)																			
Total Arsenic	ND		ND		ND		ND		ND		NS		NS		0.0113		ND		**0.025**
Total Chromium	ND		ND		ND		ND		ND		NS		NS		0.0127		ND		**0.05**
Total Lead	ND		ND		ND		ND		ND		NS		NS		0.013		ND		**0.025**

Notes:
1. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998)
2. Field measurements were collected immediately before and after groundwater sample collection.
3. " NA " = Not Applicable, a GWQS/GV has not been established for this parameter.
4. " ND " = the sample location was analyzed for this parameter, but reported at a concentration less than the method detection limit.
5. " NS " = this monitoring location was damaged and was not sampled
5. " - - " = This parameter was not analyzed.
6. Well A2-MW-15 is monitored every two years. The next tentatively scheduled event is May 2011.

= Shaded values represent exceedances of the NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value.

TABLE 7

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
Area III: Former Warehouse Parcel

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Parameter	Monitoring Location and Date of Sample Collection										GWQS/GV [1]
	A3-MW-3		A3-MW-6		A3-MW-7		A3-MW-9		A3-MW-10		
	05/19/10		05/19/10		05/19/10		05/19/10		05/19/10		
Field Measurements (units as indicated) [2]											
Sample No.	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	*Initial*	*Final*	**NA**
pH (units)	7.01	NM	7.75	7.80	**10.10**	**10.06**	**11.34**	**11.34**	**5.37**	**5.41**	**6.5 - 8.5**
Temperature (degrees C)	16.2	NM	12.4	12.6	12.8	12.3	11.5	12.0	11.6	12.2	**NA**
Specific Conductance (uS)	1256	NM	1341	1351	691.6	689.6	7440	7280	5757	5735	**NA**
Turbidity (NTU)	30.2	NM	7.83	4.82	7.81	5.86	3.48	4.19	43.6	35.9	**NA**
Dissolved Oxygen (mg/L)	3.23	NM	3.25	3.25	2.05	2.23	2.68	2.85	0.93	1.12	**NA**
Eh (mV)	- 109	NM	- 152	- 154	- 197	- 187	- 139	- 133	0	0	**NA**
Visual Observation	clear		clear		clear		clear		clear		**NA**
Olfactory Observation	musty		musty		musty		none		none		**NA**
Volatile Organic Compounds (ug/L)											
Benzene	0.79		0.18 J		**37**		**3.4**		**3600 D**		**1**
n-Butylbenzene	ND		ND		ND		0.14 J		ND		**5**
sec-Butylbenzene	ND		ND		ND		0.23 J		0.35 DJ		**5**
tert-Butylbenzene	ND		ND		ND		ND		ND		**5**
p-Cymene (4-Isopropyltoluene)	ND		ND		ND		ND		ND		**5**
Ethylbenzene	ND		ND		0.15 J		ND		0.76 DJ		**5**
Isopropylbenzene	ND		ND		ND		ND		2.4 D		**5**
Methyl tert butyl ether	ND		ND		ND		ND		ND		**10**
n-Propylbenzene	ND		ND		0.25 J		ND		1.8 DJ		**5**
Toluene	0.074 JB		ND		1.7 B		0.93 B		3.3 DB		**5**
1,2,4-Trimethylbenzene	ND		ND		0.42		0.26		0.71 DJ		**5**
1,3,5-Trimethylbenzene	ND		ND		0.21		ND		ND		**5**
Xylenes, Total	0.14 J		ND		1.4		0.36 J		2.2 DJ		**15**
Total VOCs	***1.004***		***0.18***		***41.13***		***5.32***		***3,612***		**10**
Inorganics (mg/L)											
Total Arsenic	0.102		ND		0.0104		ND		0.0109		**0.025**
Total Chromium	0.0086		ND		ND		ND		ND		**0.05**
Total Lead	0.0088		ND		ND		**0.0308**		ND		**0.025**
Wet Chemistry (mg/L)											
Cyanide	**11.1**		0.0353		0.0247		ND		0.154		**0.2**

Notes:

1. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998)
2. Field measurements were collected immediately before and after groundwater sample collection.
3. " B " = Analyte found in the associated blank, as well as the sample.
4. " D " = analyzed at the secondary dilution factor.
5. " J " = Estimated Value
6. " NA " = Not Applicable, a GWQS/GV has not been established for this parameter.
7. " ND " = the sample location was analyzed for this parameter, but reported at a concentration less than the method detection limit.
8. " NM " = insufficient water for field analysis; parameter was not measured.

= Shaded values represent exceedances of the NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value.

TABLE 8

SUMMARY OF ORC ANALYTICAL RESULTS
Area III: Former Warehouse Parcel

2010 Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER	A3-ORC-1	A3-ORC-2	A3-ORC-3	A3-ORC-4	A3-ORC-5	A3-ORC-6	A3-ORC-7	A3-ORC-8	A3-ORC-9	A3-ORC-10	A3-ORC-11	GWQS [2]
Field Measurements During Purge (units as shown) [1]												
Static Depth to Water (fbTOR)	4.61	4.96	4.89	4.53	4.76	5.16	5.35	5.40	2.91	5.69	5.15	--
Total Depth (fbTOR)	14.08	14.45	14.38	14.38	14.03	14.36	14.36	14.63	14.03	14.55	14.57	--
One Casing Volume (gallons)	6.10	6.10	6.10	6.40	6.00	6.00	5.80	6.00	7.20	5.70	6.10	--
Number of Volumes Purged	9.5	7.4	5.4	4.4	9.3	6.7	6.6	6.7	10.0	6.3	10.2	--
Sample Determination [3]	4-days	4-days	4-days	4-days	4-days	4-days	4-days	4-days	volume	4-days	volume	--
Purge: Day 1 (05/11/10) (gallons)	15.0	10.0	9.0	7.0	14.0	10.0	9.0	10.0		8.0	25.0	--
Purge: Day 2 (05/12/10) (gallons)	13.0	11.0	8.0	7.0	13.0	10.0	9.0	10.0		9.0	22.0	--
Purge: Day 3 (05/13/10) (gallons)	15.0	12.0	8.0	7.0	14.0	10.0	10.0	10.0	72.0	10.0	15.0	--
Purge: Day 4 (05/14/10) (gallons)	15.0	12.0	8.0	7.0	15.0	10.0	10.0	10.0		9.0		--
Sample Collection (date indicated)	05/14/10	05/14/10	05/14/10	05/14/10	05/14/10	05/14/10	05/14/10	05/14/10	05/13/09	05/14/10	05/13/10	--
Cumulative Volume Purged (gallons)	58.0	45.0	33.0	28.0	56.0	40.0	38.0	40.0	72.0	36.0	62.0	--
Field Measurements During Sample Collection (units as shown) [3]												
pH (units)	**9.82**	**4.73**	**4.57**	**5.74**	**3.85**	**4.34**	**5.53**	**3.40**	**3.06**	**3.78**	**5.59**	6.5 - 8.5
Temperature (deg C)	13.6	13.7	14.6	13.7	13.6	13.6	15.8	13.8	10.7	13.1	10.9	--
Specific Conductance (uS)	1972	7677	7137	7332	9087	12.01 (ms)	10.71 (ms)	14.41 (ms)	14.04 (ms)	9743	6543	--
Turbidity (NTU)	>1000	56.5	49.1	143	54.8	155	285	197	168	157	243	--
Dissolved Oxygen (ppm)	0.06	1.29	1.65	1.43	1.08	1.05	1.95	0.91	2.02	1.37	2.27	--
ORP (mV)	- 300	+ 28	+ 161	- 1	+ 215	+ 124	+ 6	+ 219	+ 239	+ 199	- 14	--
Visual Observation	black sed	Orange	sl. orange	sl. orange	sl. orange	sl. orange	grey	sl. orange	sl. orange	sl. orange	black sed	--
Volatile Organic Compounds (mg/L):												
Benzene	**2.2 D**	**4.6 D**	**15 D**	**0.0073 D**	**30 D**	**6.9 D**	**0.13 D**	**42 D**	**240 D**	**73 D**	**0.0085 D**	0.001
Wet Chemistry (mg/L):												
Alkalinity	151 D	193 D	209 D	265 D	ND	167 D	364 D	ND	ND	ND	263 D	--

Notes:

1. Field measurements were collected immediately before groundwater sample collection.
2. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998).
3. NYSDEC requirement: purge 10 well volumes or to dryness for 4 consecutive days, then sample. "Volume" indicates that 10 well volumes were purged prior to sample collection and "4-days" indicates that the well was purged to dryness 4 consecutive days prior to sample collection.
4. " D " = Analysis performed at the secondary dilution factor.
5. " ND " indicates parameter was not detected above laboratory reporting limit and is reported herein as not detected (ND).

= Shaded values represent exceedances of the NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value.

TABLE 9

AREA-BY-AREA MOVING AVERAGE TREND ANALYSIS (MATA) SUMMARY

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

Location	No. of Data Pts.	MATA Pts.	Moving Average Trend [1] [increasing (I), decreasing (D), neutral (N)]					
			pH	n-Butylbenzene	Isopropylbezene	n-Propylbenzene	Total Arsenic	CN
Area I Monitoring Wells								
A1-MW-1	**7**	**4**	NA	NA	NA	NA	NA	--
A1-MW-2	**7**	**4**	NA	NA	NA	NA	NA	--
A1-MW-3	**7**	**4**	NA	NA	NA	NA	NA	--
A1-MW-4	**8**	**5**	NA	NA	NA	NA	NA	--
A1-MW-5	**8**	**5**	**N**	NA	NA	NA	NA	--
A1-MW-6	**8**	**5**	NA	**N**	**N**	**N**	**D**	--
A1-MW-8	**8**	**5**	NA	NA	NA	NA	**I**	--
A1-MW-9	**8**	**5**	NA	NA	NA	NA	NA	--
A1-MW-M2	**7**	**4**	NA	NA	NA	NA	NA	--
A1-P-4	**7**	**4**	NA	NA	NA	NA	NA	--
Area II Monitoring Wells								
A2-MW-3	**5**	**2**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
A2-MW-4R	**5**	**2**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
A2-MW-5	**5**	**2**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
A2-MW-10	**4**	**1**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
A2-MW-13	**5**	**2**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
A2-MW-14	**4**	**1**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
A2-MW-15	**3**	**0**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
A2-MW-16	**5**	**2**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
A2-MW-17	**5**	**2**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	--
Area III Monitoring Wells								
A3-MW-3	**3**	**0**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*
A3-MW-6	**3**	**0**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*
A3-MW-7	**5**	**1**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*
A3-MW-9	**4**	**1**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*
A3-MW-10	**4**	**1**	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*	*TBD*

Notes:

1. In general accordance with the LTGWM Plan for each Area and based upon the groundwater results to date any parameter exceeding the groundwater quality standard for two (2) consecutive
2. TBD = to be determined; insufficient data exists to make a trend determination.
3. " -- " = not analyzed for this parameter.
4. NA = indicates there have not been two consecutive exceedances of the GWQS/GV at this location and trending is "not applicable".

= Concentration versus time and 4-year moving average plots are provided in Attachment 2.

FIGURES

F:\CAD\Turnkey\Riverbend (Donna)_Drawings\Area 1\2010 Comprehensive GWM Report\Figure 1 - Site Plan & Isopotential Map (2010).dwg

LEGEND:

- A1-MW-2 — RIVERBEND MONITORING WELL
- SG-01 — BUFFALO RIVER STAFF GAUGE LOCATION
- A4-MW-5R — OFF-SITE MONITORING WELL
- A3-ORC-1 — ORC SOCK WELL
- PS2 or MH2 — GROUNDWATER COLLECTION SYSTEM PUMP STATION (PS) OR MANHOLE (MH)]
- APPROX. TAR & BLUE SOIL/FILL EXCAVATION LIMITS
- 579 — GROUNDWATER CONTOUR (MAJOR)
- GROUNDWATER CONTOUR (MINOR)
- GROUNDWATER FLOW DIRECTION

Notes:
1. Groundwater elevations for the Riverbend Site - Areas I, II, and III monitoring/ORC wells were obtained by TurnKey personnel on May 17, 2010.
2. "NM" indicates water level was not measured at this location.

BUFFALO RIVER

SOUTH PARK AVE.

O'CONNER ST.

BARKER ST.

MYSTIC ST.

ABBY ST.

BELL AVE.

TIFFT ST.

BERM AREA

A1-MW-7 575.1

A1-MW-8 577.6

A1-P-4 582.4

A1-P-3 NM

A1-MW-3 573.8

SG-02 572.7

A1-MW-6 573.3

A1-MW-5 585.5

A1-MW-1 577.9

A1-MW-2 579.5

A1-P-2 NM

A1-MW-9 576.1

A1-MW-M2 581.0

A1-MW-4 580.6

SG-01 572.3

A2-MW-17 583.8

A2-MW-16 584.6

A2-MW-13 585.1

A2-MW-14 destroyed

A2-MW-12 586.7

A2-PW-3 583.8

A2-MW-15 585.2

A2-MW-18 583.5

A2-PW-2 585.7

A2-MW-20 585.0

A2-MW-10R 584.3

A2-MW-19 583.8

A2-MW-7 582.7

A2-MW-6 583.8

A2-PW-1 581.7

A2-MW-5 582.4

A2-MW-4R 582.5

A2-MW-3 582.5

A3-MW-9 583.1

A3-MW-3 582.3

A3-MW-6 583.4

A3-MW-7 582.5

A3-ORC-1 583.0

A3-ORC-2 582.9

A3-ORC-3 583.1

A3-ORC-4 583.0

A3-ORC-5 583.4

A3-ORC-6 582.7

A3-ORC-7 582.0

A3-ORC-8 582.4

A3-ORC-9 582.4

A3-ORC-10 582.5

A3-ORC-11 582.9

A3-MW-10 580.1

A4-MW-5R

A4-MW-9

A4-MW-10

A4-MW-1

A4-MW-1A

A4-MW-7R

A4-MW-8R

MH1 (inv. 578.4)

MH2 (inv. 579.9)

MH3 (inv. 579.5)

MH4 (inv. 580.9)

MH5 (inv. 580.2)

MH7 (inv. 580.4)

PS1 (inv. 578.6)

PS2 (inv. 577.7)

RIVERBEND AREA I (69.89 ACRES)

RIVERBEND (FMR. AUGUST FEINE & SONS, INC PROPERTY) (4.77 ACRES)

RIVERBEND AREA III (42.41 ACRES)

AREA II (46.71 ACRES)

RE-PUTED NORFOLK SOUTHERN PROPERTY (20.11 ACRES)

NORFOLK SOUTHERN PROPERTY

TERMINAL BASIN

DETENTION POND

PLANT AREA 140,000 S.F.

40 SPACES

12 SPACES

15 SPACES

15 SPACES

SPACE EXPANSION

FUTURE EXPANSION 10,000 S.F.

SOUTH PARK AVE.

BUFFALO RIVER

574 576 578 580 582 584

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

200' 0' 200' 400'

TurnKey Environmental Restoration, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0171-003-600

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH
DATE: OCTOBER 2010
CHECKED BY:
APPROVED BY:

DISCLAIMER:
PROPERTY OF BENCHMARK EES, PLLC. IMPORTANT: USE OF THIS PLAN IS LIMITED TO THE PARTIES TO WHICH IT WAS ADDRESSED AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE REPRODUCED IN ANY FORM OR USED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN THOSE FOR WHICH IT WAS PREPARED WITHOUT THE WRITTEN CONSENT OF BENCHMARK EES, PLLC.

SITE PLAN & ISOPOTENTIAL MAP - MAY 17, 2010

GROUNDWATER / ORC MONITORING EVENT
FORMER STEEL MANUFACTURING SITE
BUFFALO, NEW YORK

PREPARED FOR
RIVERBEND, LLC

FIGURE 1

EXPLANATION

A1-P-4 PIEZOMETER

A1-MW-F2 MONITORING WELL

FILL THICKNESS (ft)

7/582 BASE OF FILL ELEVATION (ft msl)

142 HYDRAULIC CONDUCTIVITY (ft/day)

584 GROUNDWATER ELEVATION CONTOUR IN FEET (DASHED WHERE INFERRED)

BUILDING FOUNDATION

REMEDIATION ZONE

A1-MW-F2 578 579 580 581 582 583

A1-P-4 4/583

A1-P-3 9/580.5 312

A1-MW-A2 14.7/<575

A1-MW-K2 8.3/<579 82

A1-MW-2 >11/<573 425

A1-MW-1 5.5/578.5 133

A1-P-1 11.5/574.2 595

A1-P-2 7.5/578 122

A1-MW-M2 6.5/<580

TERMINAL BASIN SUMP

AREA 1

AREA 2

AREA 3

A2-MW-13 14/581 74

A2-MW-12 9/579 5

A2-OW-7 A2-PW-3 8/581 57

A2-PW-8 A2-OW-9

A2-MW-11 7.5/580 167

A2-MW-10 11/580 266

A2-OW-5 A2-PW-2 9/580 9/580

A2-OW-5 A2-OW-4

A2-MW-9 7/582 142

A2-MW-8 9.5/579 43

A2-MW-7 8/581

A2-MW-6 8/578 1077

A2-OW-2 A2-PW-1 A2-OW-1 9/579 255

A2-OW-1

A2-MW-5 7/578 312

A2-MW-4 8/578 91

A2-MW-3 6/580 963

A3-MW-3

A3-MW-6 17/572.4 12

A3-MW-7 5/578 283

A3-GW-4

A4-MW-6

A4-MW-5

A4-MW-4

A4-MW-3

A4-MW-3A

A4-MW-2

A4-MW-2A

A4-MW-1

A4-MW-1A 28

A4-MW-8 8/577

A4-MW-7 7/576

BUFFALO RIVER

N

200' 0' 200' 400'

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

Note: Original drawing prepared by Geomatrix Consultants, Inc., June 1998.

TURNKEY ENVIRONMENTAL RESTORATION LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0171-001-600

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH

DATE: AUGUST 2009

CHECKED BY:

APPROVED BY:

ISOPOTENTIAL MAP - JUNE 1998

GROUNDWATER / ORC MONITORING EVENT

FORMER STEEL MANUFACTURING SITE

BUFFALO, NEW YORK

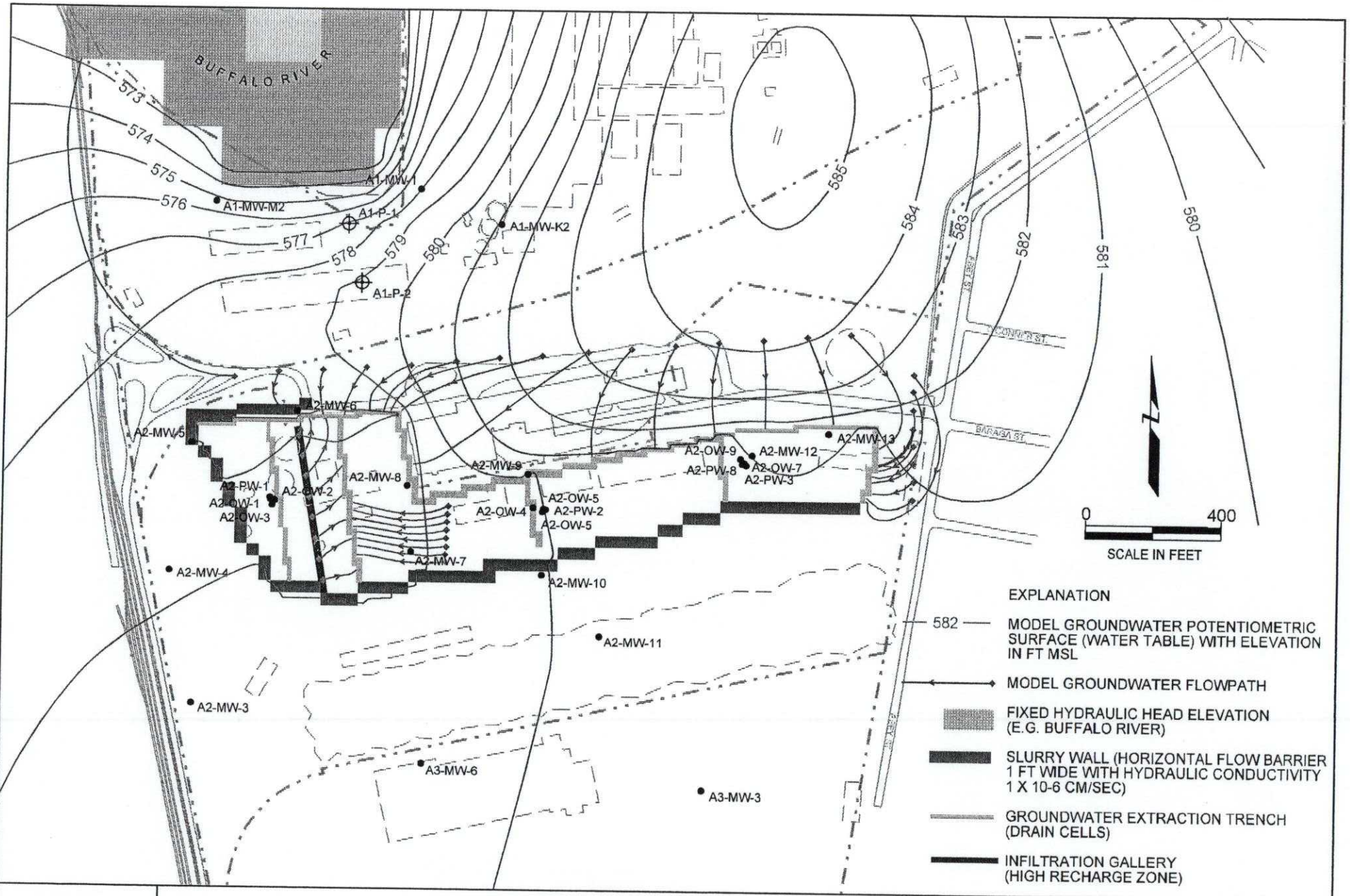
PREPARED FOR

RIVERBEND, LLC

FIGURE 2

ATTACHMENT 1

GROUNDWATER FLOW MODEL (GEOMATRIX, DECEMBER 1998)



GEOMATRIX

SIMULATED GROUNDWATER CONTOURS AND FLOWPATHS
REMEDIAL ALTERNATIVE 2
LTV Steel
Buffalo, New York

Figure 11

Project No. B4991

MAP_WT3X.pen

CHECKED:_____ \\SFPRNT2\Splash Hold Job-Name\matrix.ctb

q:\buffalo\b4991\gfm_981f_fig_11.dgn

ATTACHMENT 2

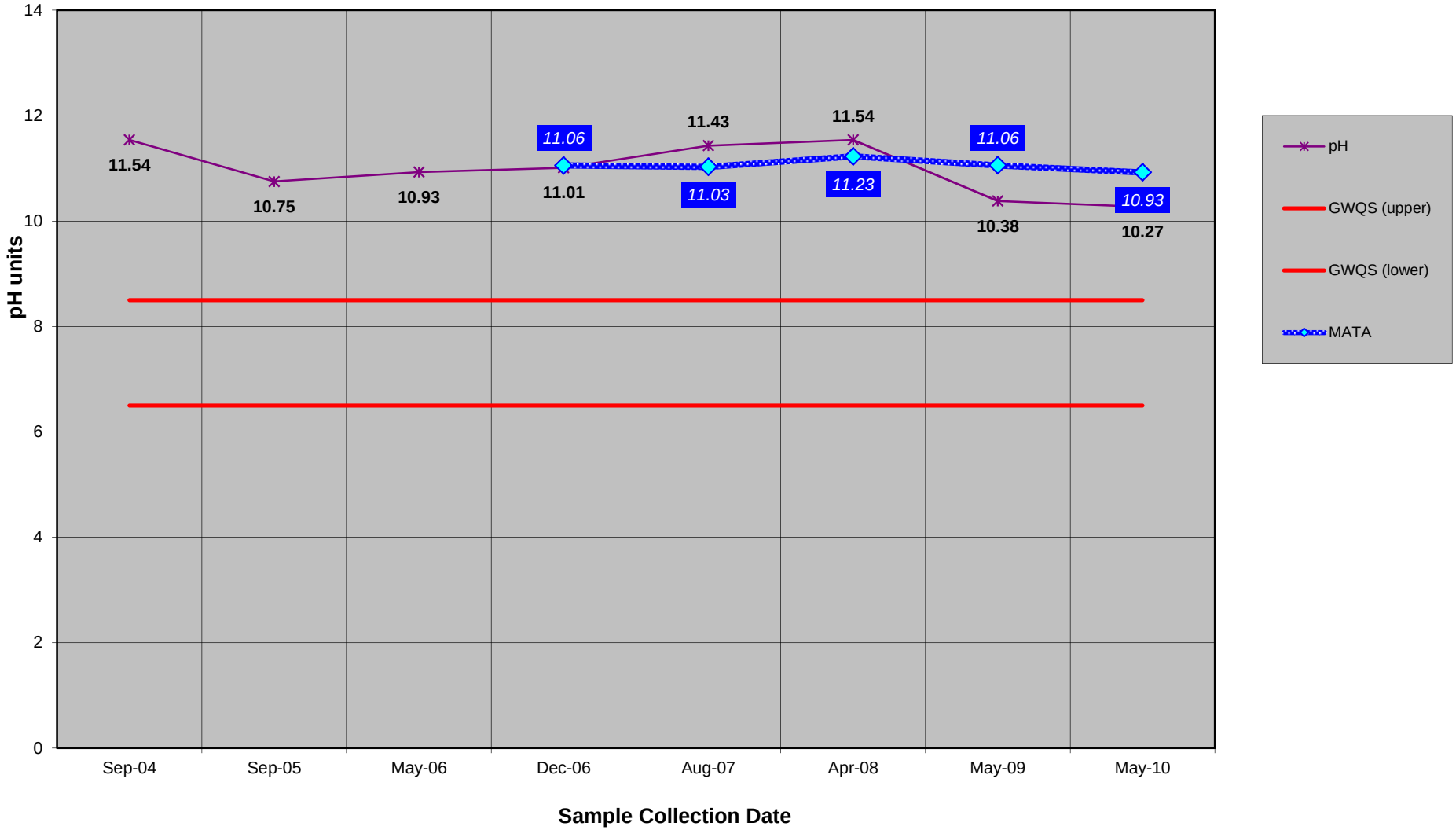
CONCENTRATION VERSUS TIME & MOVING AVERAGE TREND ANALYSIS (MATA) PLOTS

TURNKEY ENVIRONMENTAL RESTORATION, LLC

ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-5
pH

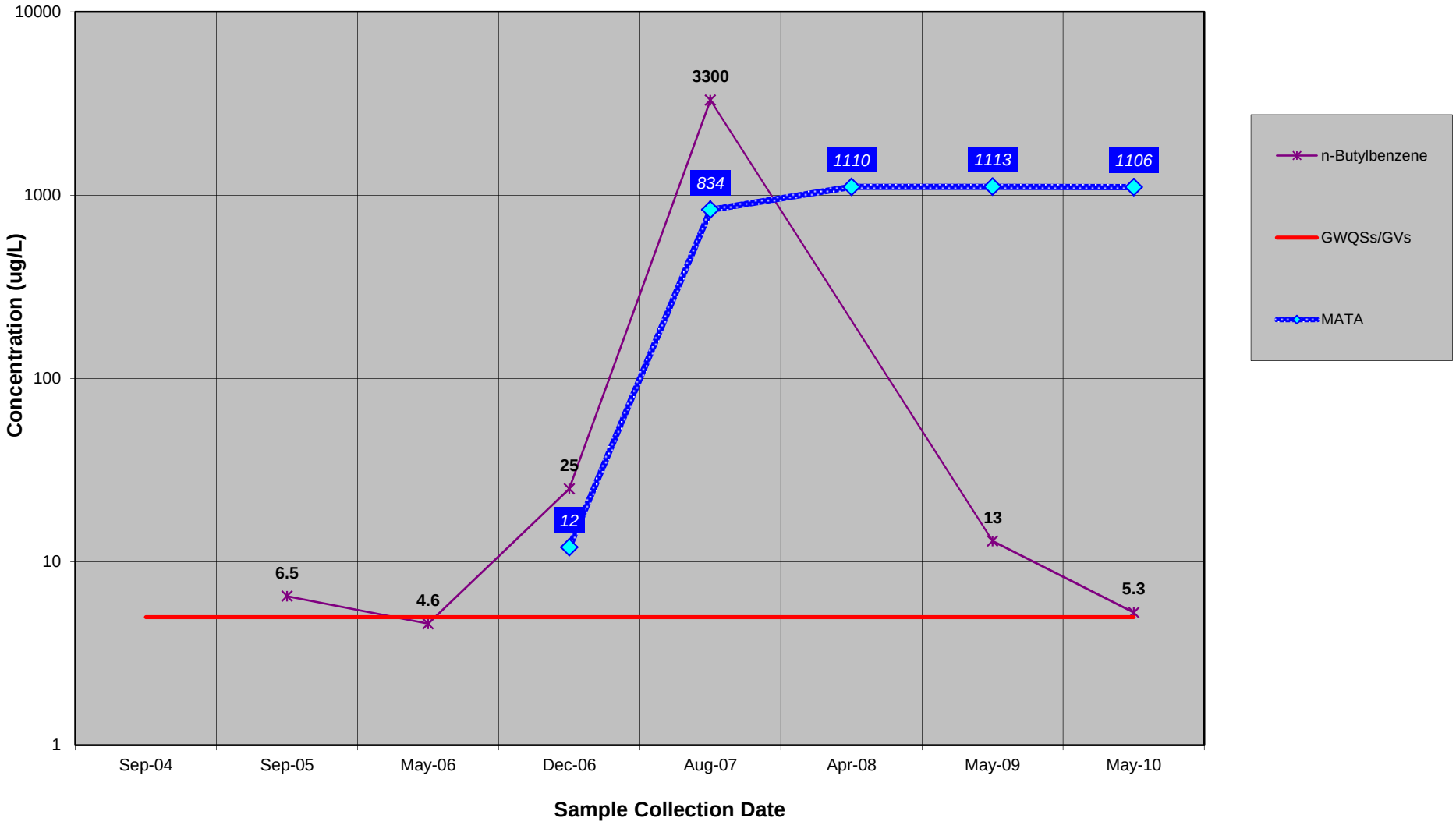
Riverbend Area I LTGWM
Buffalo, New York



ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-6
n-BUTYLBENZENE

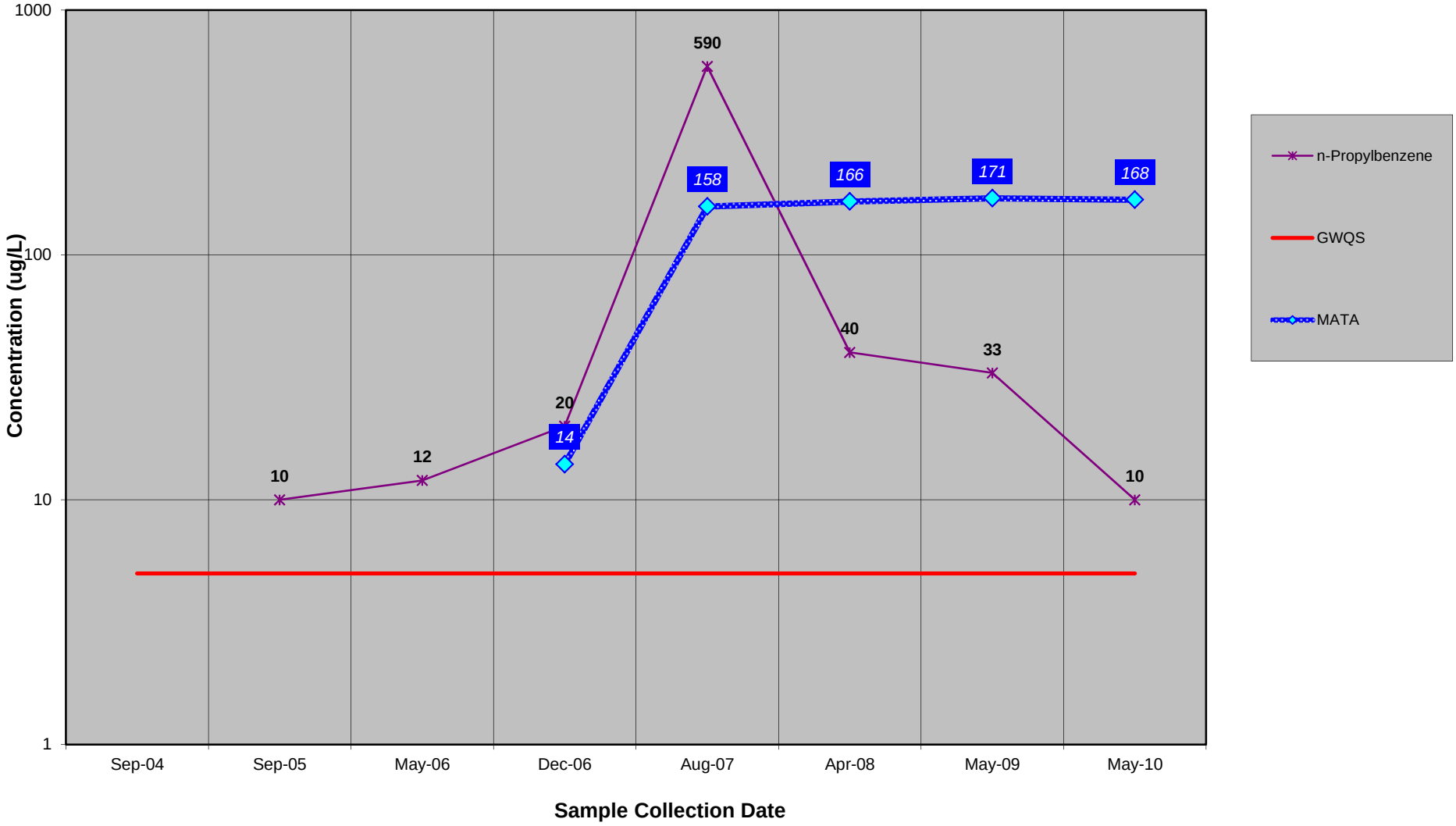
Riverbend Area I LTGWM
Buffalo, New York



ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-6
n-PROPYLBENZENE

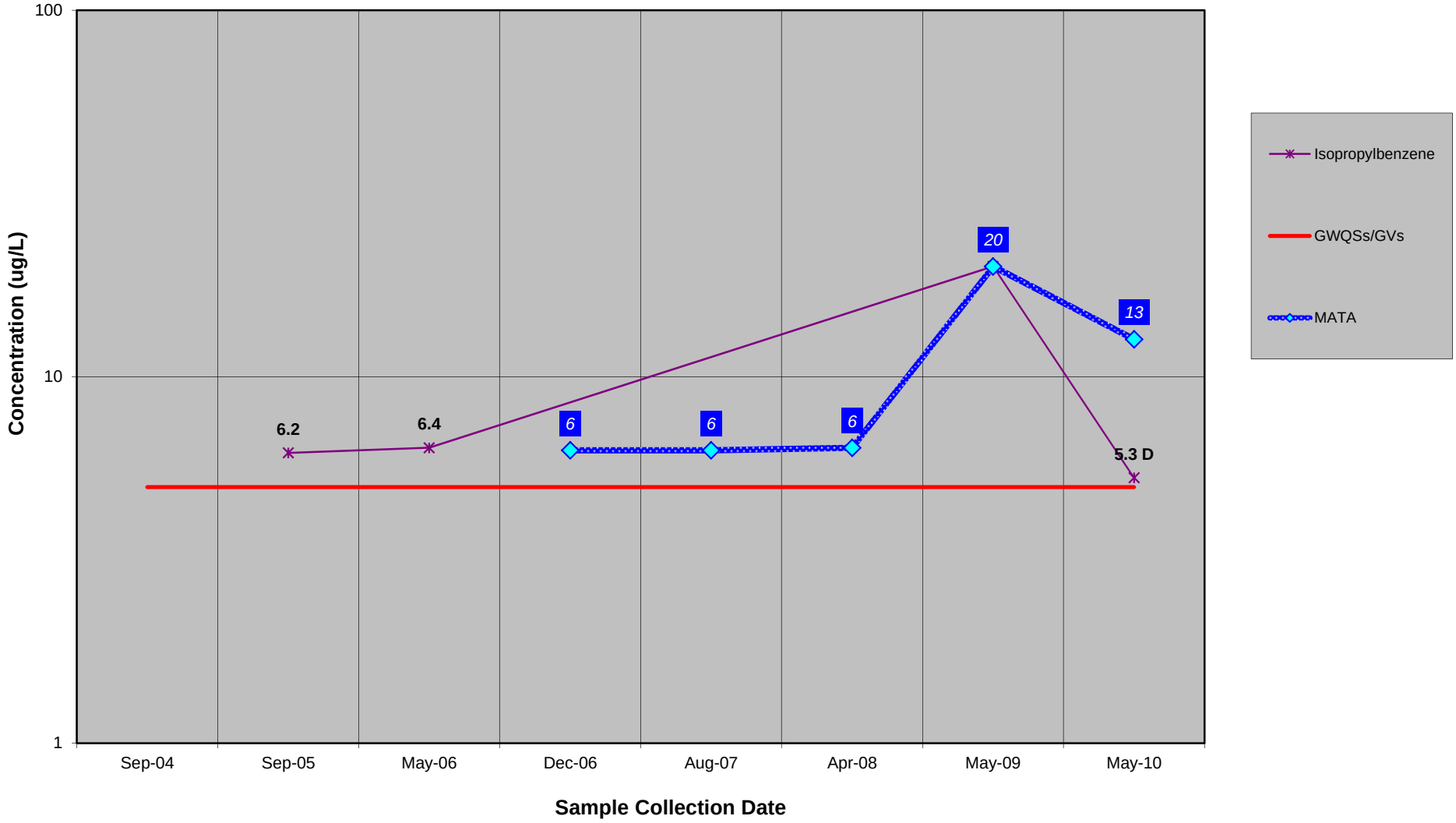
Riverbend Area I LTGWM
Buffalo, New York



ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-6
ISOPROPYLBENZENE

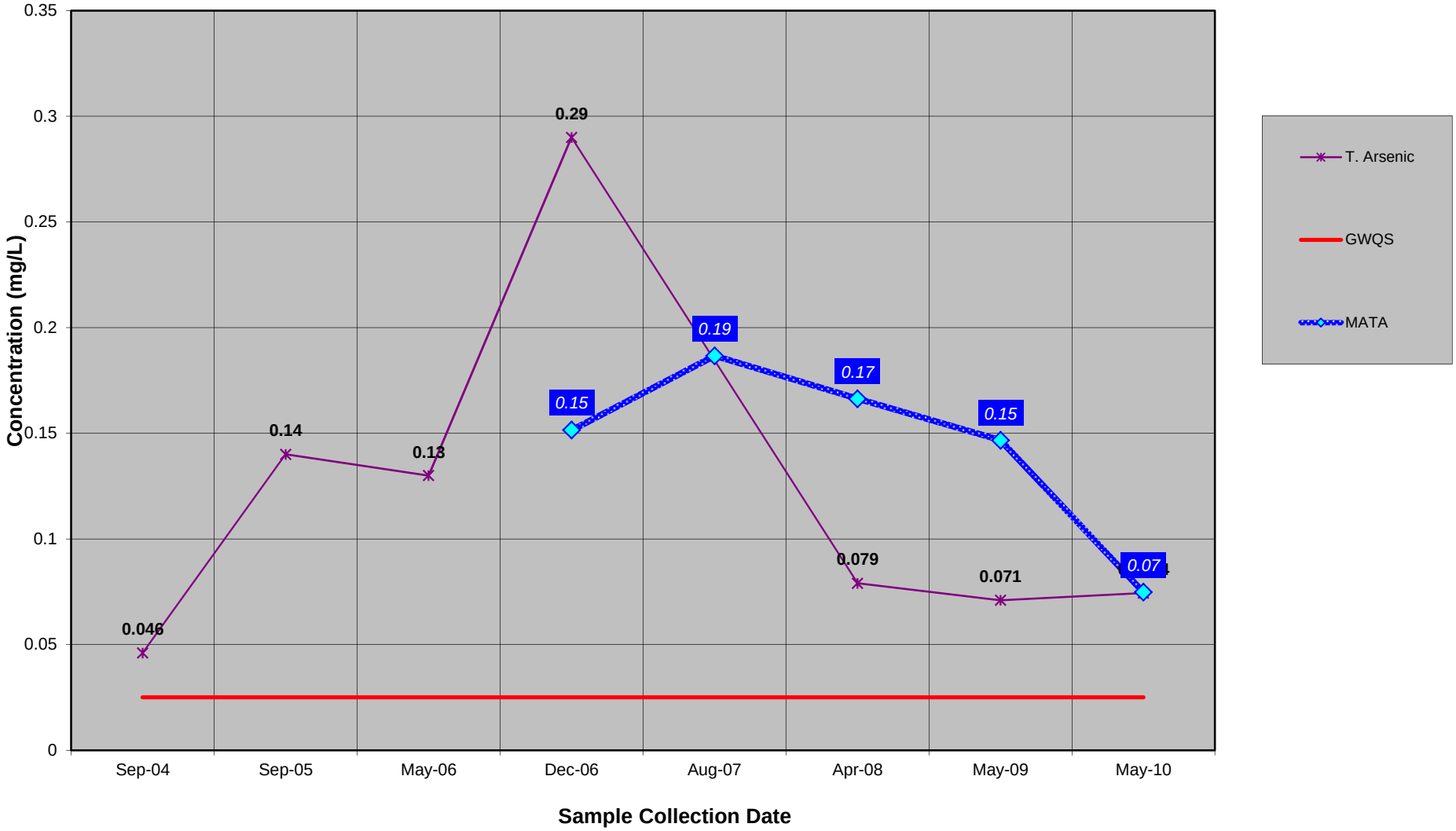
Riverbend Area I LTGWM
Buffalo, New York



ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-6
TOTAL ARSENIC

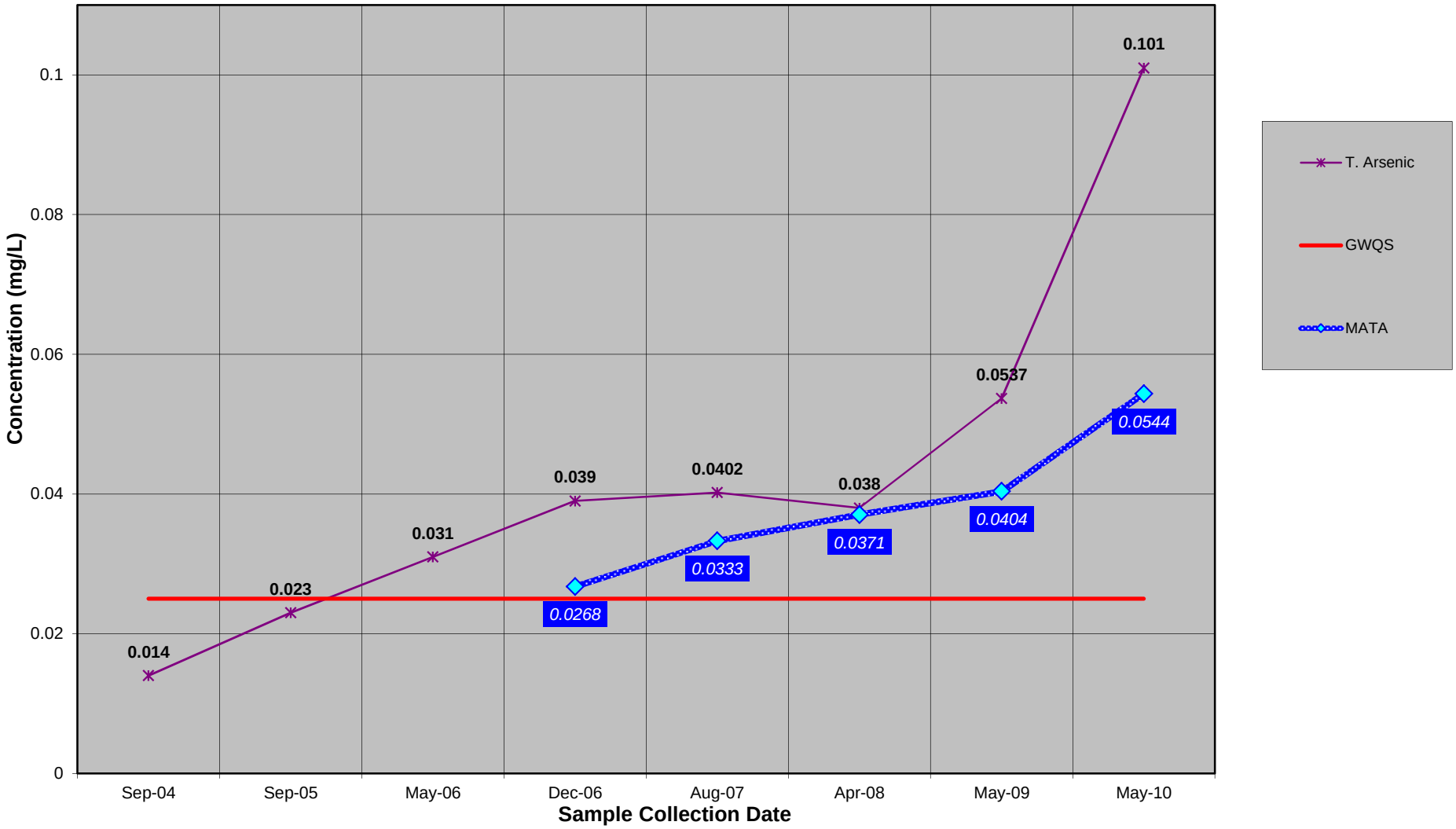
Riverbend Area I LTGWM
Buffalo, New York



ATTACHMENT 2

MOVING AVERAGE TREND ANALYSIS
A1-MW-8
TOTAL ARSENIC

Riverbend Area I LTGWM
Buffalo, New York



APPENDIX D-4

NOVEMBER 2010

SECOND SEMI-ANNUAL AREA III ORC MONITORING EVENT

TURNKEY

February 9, 2010

Mr. Maurice Moore
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Riverbend Site (formerly Steelfields) (V00619-9)
Area III ORC Bi-Annual Monitoring Report – November 2010

Dear Mr. Moore:

On behalf of our client, Riverbend, LLC, TurnKey Environmental Restoration, LLC, has prepared this letter report to transmit the results of the November 2010 Oxygen Release Compound (ORC) bi-annual monitoring event for Area III (Former Warehouse Parcel) of BUDC's Riverbend Site, Buffalo, NY (formerly Steelfields, see Figure 1).

PURPOSE

In accordance with the March 2008 ORC Maintenance and Monitoring Manual (Attachment A5 of Appendix HH of the Final Engineering Report for Areas II and III, May 2008) and the May 5, 2008 Response to NYSDEC Comment letter for Areas II and III (comment/response no. 19), ORC wells A3-ORC-1 through A3-ORC-11 are to be purged, on a bi-annual basis (every 6 months), until 10 well volumes are removed or for four consecutive days, whichever occurs first, in order to obtain representative groundwater samples within the ORC area of Area III. From November 15-18, 2010, TurnKey personnel purged and collected groundwater samples for field analysis of dissolved oxygen, pH, oxidation-reduction potential (ORP), temperature, and water level as well as laboratory analysis of alkalinity and benzene from the eleven Area III ORC wells. In addition, the ORC "socks", suspended in each of the ORC wells, were removed and assessed during the current monitoring event; none of the socks required replacement and were re-installed.

NOVEMBER 2009 ORC MONITORING EVENT

All eleven Area III ORC wells, A3-ORC-1 through A3-ORC-11, were purged and sampled using dedicated polyethylene disposable bailers. As shown in Table 1, three of the eleven wells were sampled upon completing the 10 well volume requirement, while the remaining eight wells were sampled on the fourth day of purging. Samples from all eleven locations were transferred to laboratory-supplied, pre-preserved sample bottles and transported, under

chain of custody command, to TestAmerica for analysis of benzene per SW846 Method 8021 and alkalinity per MCAWW Method 310.1.

Field measurements and laboratory analytical results are summarized on Table 1. GWQSs/GVs are provided for comparison. As indicated on Table 1, benzene was detected at a concentration exceeding the GWQS at all eleven ORC well locations. In addition, pH was measured below GWQS of 6.5 at all of the ORC wells, with one exception. Well A3-ORC-1 pH was measured above the GWQS of 8.5.

PLANNED ACTIVITIES

The next planned monitoring event for Area III is tentatively scheduled for May 2011. This event is the comprehensive annual groundwater monitoring event for the Riverbend Site (Areas I, II, and III).

Please contact us if you have any questions.

Sincerely,
TurnKey Environmental Restoration, LLC

Bryan C. Hann
Project Manager

Enclosures

ec: Peter Cammarata (BUDC)
David Stebbins (BUDC)
Paul Werthman (TurnKey)

File: 0171-003-600

TABLES

TABLE 1

SUMMARY OF ORC ANALYTICAL RESULTS

Area III: Former Warehouse Parcel
2010 Second Semi-Annual ORC Monitoring Event
Riverbend, LLC
Buffalo, New York

PARAMETER	A3-ORC-1	A3-ORC-2	A3-ORC-3	A3-ORC-4	A3-ORC-5	A3-ORC-6	A3-ORC-7	A3-ORC-8	A3-ORC-9	A3-ORC-10	A3-ORC-11	GWQS [2]
Field Measurements During Purge (units as shown) [1]												
Static Depth to Water (fbTOR)	5.95	6.23	6.54	5.91	6.43	6.81	6.75	6.73	4.35	6.55	6.03	--
Total Depth (fbTOR)	14.08	14.43	14.39	14.37	14.01	14.38	14.38	14.68	14.03	14.55	14.57	--
One Casing Volume (gallons)	5.30	5.35	5.10	5.50	4.90	4.90	4.90	5.10	6.30	5.20	5.50	--
Number of Volumes Purged	8.7	9.0	5.5	5.1	10.2	6.5	6.7	7.3	10.3	7.9	10.2	--
Sample Determination [3]	4-days	4-days	4-days	4-days	volume	4-days	4-days	4-days	volume	4-days	volume	--
Purge: Day 1 (05/11/09)/(11/15/10) (gallons)	14.0	14.0	7.0	7.0	15.0	8.0	9.0	10.0		14.0	26.0	--
Purge: Day 2 (05/12/09)/(11/16/10) (gallons)	10.0	12.0	7.0	7.0	12.0	8.0	8.0	9.0		9.0	22.0	--
Purge: Day 3 (05/13/09)/(11/17/10) (gallons)	10.0	12.0	7.0	7.0	12.0	8.0	8.0	9.0		9.0	8.0	--
Purge: Day 4 (05/14/09)/(11/18/10) (gallons)	12.0	10.0	7.0	7.0	11.0	8.0	8.0	9.0	65.0	9.0		--
Sample Collection (date indicated)	11/18/10	11/18/10	11/18/10	11/18/10	11/18/10	11/18/10	11/18/10	11/18/10	11/18/10	11/18/10	11/17/10	--
Cumulative Volume Purged (gallons)	46.0	48.0	28.0	28.0	50.0	32.0	33.0	37.0	65.0	41.0	56.0	--
Field Measurements During Sample Collection (units as shown) [3]												
pH (units)	**10.62**	**4.61**	**4.63**	**5.71**	**3.87**	**4.41**	**5.38**	**3.64**	**2.73**	**3.60**	**5.31**	6.5 - 8.5
Temperature (deg C)	12.3	13.3	12.6	11.5	11.6	12.3	10.3	12.2	11.3	10.0	15.3	--
Specific Conductance (uS)	1606	7781	7493	8522	9388	12.24(ms)	10.47(ms)	12.85(ms)	10.96(ms)	9825	6543	--
Turbidity (NTU)	>1000	65.7	124	91.7	65	>1000	233	360	81.3	81.7	124	--
Dissolved Oxygen (ppm)	0.05	1.58	1.18	1.55	1.51	1.28	1.62	1.33	1.22	1.37	1.71	--
ORP (mV)	- 299	+ 112	+ 113	- 83	+ 126	+ 34	+ 0	+ 180	+ 224	+ 185	+ 24	--
Visual Observation	black sed	Yellow tint	Yellow tint	Yellow tint	Yellow tint	Yellow tint	grey	sl. orange	sl. orange	Yellow Staining		--
Volatile Organic Compounds (mg/L):												
Benzene	**1.9 D**	**13 D**	**5.4 D**	**0.0032 D**	**37 D**	**7 D**	**0.84 D**	**48 D**	**220 D**	**89 D**	**0.0026 D**	0.001
Wet Chemistry (mg/L):												
Alkalinity	155 D	141 D	272 D	301 D	ND	128 D	283 D	ND	ND	ND	215 D	--

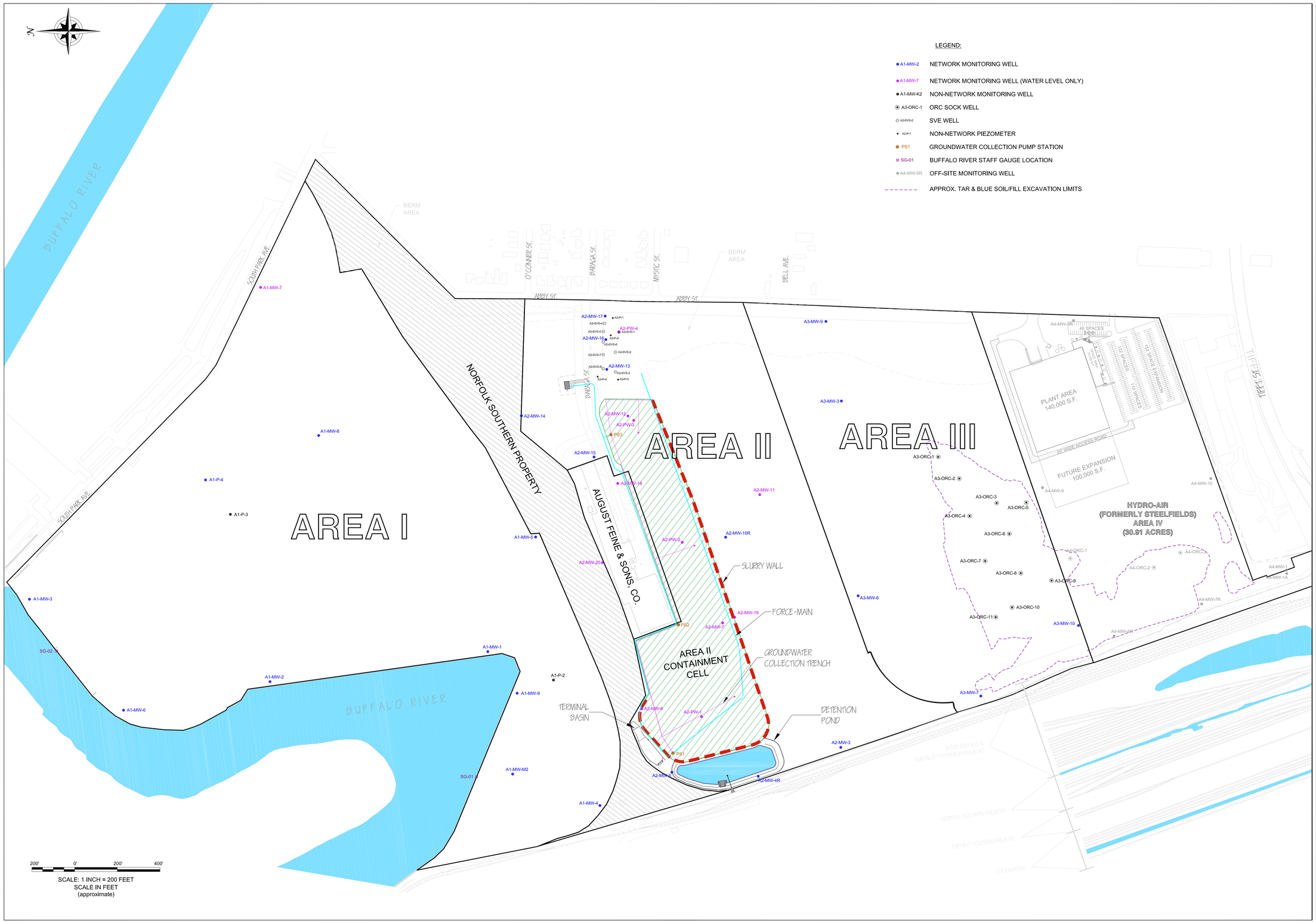
Notes:

1. Field measurements were collected immediately before groundwater sample collection.
2. NYSDEC Class "GA" Groundwater Quality Standard/Guidance Value 6NYCRR Part 703 (effective June 1998).
3. NYSDEC requirement: purge 10 well volumes or to dryness for 4 consecutive days, then sample. "Volume" indicates that 10 well volumes were purged prior to sample collection and "4-days" indicates that the well was purged to dryness 4 consecutive days prior to sample collection.
4. " D " = Analysis performed at the secondary dilution factor.
5. " ND " indicates parameter was not detected above laboratory reporting limit and is reported herein as not detected (ND).

###

FIGURES

F:\GAD\Turnkey\Riverbend (former)_Site\Basics\CTO#4 Progress\Figure 1 Site Plan May 2010.dwg



TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0171-001-600

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH
DATE: MAY 2010
CHECKED BY:
APPROVED BY:

SITE PLAN

GROUNDWATER / ORC MONITORING EVENT
FORMER STEEL MANUFACTURING SITE
BUFFALO, NEW YORK

PREPARED FOR
RIVERBEND, LLC

FIGURE 1

APPENDIX E

AREA III ORC ANNUAL INSPECTION FORMS

(PROVIDED ELECTRONICALLY)

MAY 2009
NOVEMBER 2009
MAY 2010
NOVEMBER 2010

APPENDIX E-1

NOVEMBER 2009

AREA III ORC ANNUAL INSPECTION FORMS

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Long-Term GWM Project No.: 0171-003-600

Project Location: Area III Client: Riverbend, LLC

Preparer's Name: Tom Bechtold Date/Time: 11/6/09 1300

sample location:	A3-ORC-1	A3-ORC-2	A3-ORC-3	A3-ORC-4	A3-ORC-5	A3-ORC-6
purge start:	11/3/09	11/3/09	11/3/09	11/3/09	11/3/09	11/3/09
purge end:	11/6/09	11/6/09	11/6/09	11/6/09	11/6/09	11/6/09
total volumes purged:	63 gal	60 gals	34 gals	32 gals	51 gals	42 gals
sampling dates:	11/6/09	11/6/09	11/6/09	11/6/09	11/6/09	11/6/09

Field groundwater quality measurements:

Water Level	4.51	5.09	5.38	4.94	5.16	5.21
Bottom Depth	14.18	14.75	14.38	14.38	13.96	14.93
pH	5.61	4.58	4.26	5.51	5.16	4.04
Temperature	11.1	13.2	12.4	11.9	12.2	10.9
DO	.93	1.61	1.01	.99	.94	1.07
ORP	-35	32	119	-37	114	33

Well Integrity:

Cement seal	Cracked	Cracked	Cracked	Cracked	Cracked	Cracked
Pro-Casing condition	NA	NA	NA	NA	NA	NA
Lock condition	good	good	good	good	good	good
J-plug condition	good	good	good	good	good	good

Leaks in lock & J-plug surface seal

Refer to Site Plan for well locations

ORC Sock's:

Have any Socks been replaced ? ☐ yes ☒ no

If replaced on what date and why.

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why.

Are all ORC wells being sampled and maintained according to the site management plan ☒ yes ☐ no

If no please state why.

Initial: TAB Date: 11/6/09

ORC WELL ANNUAL INSPECTION FORM
Active ORC monitoring wells

Project Name: Long-Term GWM | Project No.: 017-003-600

Project Location: Area III | Client: Riverbend

Preparer's Name: Tom Bekkedahl | Date/Time: 11/6/09 1300

sample location:	A3-ORC-7	A3-ORC-8	A3-ORC-9	A3-ORC-10	A3-ORC-11	
purge start:	11/3/09	11/3/09	11/5/09	11/3/09	11/3/09	
purge end:	11/6/09	11/6/09	11/5/09	11/6/09	11/5/09	
total volumes purged:	40 gals	43 gals	70 gals	40 gals	62 gal	
sampling dates:	11/6/09	11/6/09	11/5/09	11/6/09	11/5/09	

Field groundwater quality measurements:

Water Level	5.54	6.06	7.37	5.81	10.41	
Bottom Depth	14.63	14.63	13.98	14.55	14.57	
pH	4.91	3.34	2.50	3.12	5.31	
Temperature	11.0	11.0	10.0	10.9	12.3	
DO	1.01	.91	1.44	1.53	2.54	
ORP	-12	172	269	140	-59	

Well Integrity:

Cement seal	Cracked	Cracked	Cracked	Cracked	Cracked	Cracked
Pro-Casing condition	NA	NA	NA	NA	NA	NA
Lock condition	good	good	good	good	good	good
J-plug condition	good	good	good	good	good	good

Cracks like ground to surface

Refer to Site Plan for well locations

ORC Sock's:

Have any Socks been replaced ? ☐ yes ☒ no

If replaced on what date and why.

Are socks fully submerged in well screens. ☒ yes ☐ no

If no explain why.

Are all ORC wells being sampled and maintained according to the site management plan ☐ yes ☒ no

If no please state why.

Initial: TAB Date: 11/6/09

APPENDIX E-2

NOVEMBER 2010

AREA III ORC ANNUAL INSPECTION FORMS

TURNKEY

ANNUAL INSPECTION FORM
ORC Monitoring Wells

Project Name: Area 4ff ORC wells Project No.: 0171-003-600

Project Location: Riverbend Client: Riverbend

Preparer's Name: TAB Date/Time: 11/19/10 1500

	A3-ORC-7	A3-ORC-8	A3-ORC-9	A3-ORC-10	A3-ORC-11	
Sampling dates:	11/18/10	11/18/10	11/18/10	11/18/10	11/17/10	
Field groundwater quality measurements						
Water Level	6.91	7.03	5.63	6.66	9.98	
Bottom Depth	14.38	~~14.68~~	~~2.73~~ 14.03	14.55	14.57	
pH (units)	5.38	3.64	2.73	3.60	5.31	
Temperature (deg. F)	10.3	12.2	11.3	10.0	15.3	
Sp. Cond. (uS/mS)	10.47 ms	12.85 (ms)	10.96(ms)	9825	6453	
DO (ppm)	1.62	1.33	1.22	1.37	1.71	
ORP (mV)	0	180	224	184	24	
Laboratory Analysis (check all those that apply)						
Benzene Method 8021	x	x	x	x	x	
Total Alkalinity	x	x	x	x	x	

Refer to Figure 1 for well locations

Well integrity:

Cement seal	☒ good	☐ poor	If poor, note Well No.(s): Cracking on well seals
Pro - casing condition	☐ good	☒ poor	If poor, note damage: No pro casings
Lock condition	☒ good	☐ poor	If poor, note Well No.(s):
Working J - plug	☒ yes	☐ no	If no, note Well No.(s):

ORC Socks:

Have any Socks been replaced? ☐ yes ☒ no

If yes, indicate replacement date and reason:

Are socks fully submerged in well screens? ☒ yes ☐ no

If no, explain why not:

General:

Are all ORC wells being sampled and maintained according to the Site Management Plan? ☒ yes ☐ no

If no, explain why not:

Initial: TAB Date: 11/19/10

TurnKey Environmental Restoration, LLC

ANNUAL INSPECTION FORM
ORC Monitoring Wells

Project Name: Area III Orc Wells Project No.: 6171-003-600

Project Location: Rifle Client: Riverbend

Preparer's Name: TAB Date/Time: 11/19/10 1500

	A3-ORC-1	A3-ORC-2	A3-ORC-3	A3-ORC-4	A3-ORC-5	A3-ORC-6
Sampling dates:	11/18/10	11/18/10	11/18/10	11/18/10	11/18/10	11/18/10
Field groundwater quality measurements						
Water Level	5.94	6.38	6.98	6.01	9.76	7.02
Bottom Depth	14.08	14.43	14.39	* 14.37	14.01	14.38
pH (units)	10.62	4.61	4.63	5.71	3.87	4.41
Temperature (deg. F)	12.3	13.3	12.6	16.5	11.6	12.3
Sp. Cond. (uS/mS)	1606	7781	7493	8522	4388	12.24 mS
DO (ppm)	.05	1.58	1.18	1.55	1.57	1.28
ORP (mV)	-299	112	113	~83	126	34
Laboratory Analysis (check all those that apply)						
Benzene Method 8021	x	x	x	x	x	x
Total Alkalinity	x	x	x	x	x	x

Refer to Figure 1 for well locations *ORC-4, Was Damaged, A New PVC Stickup was Put Back on.

Well integrity:

Cement seal	☒ good	☐ poor	If poor, note Well No.(s): Cracks on cement seals
Pro - casing condition	☐ good	☒ poor	If poor, note damage: No procasing on wells
Lock condition	☒ good	☐ poor	If poor, note Well No.(s):
Working J - plug	☒ yes	☐ no	If no, note Well No.(s):

ORC Socks:

Have any Socks been replaced? ☐ yes ☒ no

If yes, indicate replacement date and reason:

Are socks fully submerged in well screens? ☒ yes ☐ no

If no, explain why not:

General:

Are all ORC wells being sampled and maintained according to the Site Management Plan? ☒ yes ☐ no

If no, explain why not:

Initial: TAB Date: 11/19/10

APPENDIX F

PROPOSED MODIFICATION LETTER

(PROVIDED ELECTRONICALLY)

April 25, 2011

Mr. Maurice Moore
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Riverbend, LLC – Buffalo, New York Site
NYSDEC Site No. V00619-9
Modification Request for Areas I, II, and III

Dear Mr. Moore:

This letter is intended to request Department approval of our proposed revisions to the Long-Term Groundwater Monitoring and Site Management Plans for the Riverbend, LLC Site (see Figure 1) as further detailed below.

PURPOSE

Based upon an evaluation of operations and maintenance (O&M) procedures and analytical data from 2007 to the present, it is our intention to modify the O&M, monitoring, and reporting requirements for Areas I, II, and III at the Riverbend Site immediately upon your approval. To that end, we are proposing to:

- reduce the frequency of Area II groundwater pre-treatment system (GWPTS) on-site visits by utilizing off-site remote monitoring via the internet;
- reduce the Area II O&M reporting frequency from quarterly (four times per year) to annually;
- modify the groundwater parameter lists of Areas I, II, and III by eliminating those parameters no longer relevant to the assessment of Site groundwater quality; and
- modify the current purging requirement from 10 well volumes (or 4 days, whichever occurs first) to low-flow sampling of the eleven oxygen release compound (ORC) wells in Area III.

The following sections detail our justifications for these proposed modifications and Figure 1 presents all referenced monitoring locations.

AREA II O&M MODIFICATIONS

The entire perimeter collection system and GWPTS were constructed and programmed utilizing a personal computer and Sensaphone SCADA 3000 AutoDialer. The SCADA 3000 has capabilities for real-time remote monitoring and certain remote system access and process control. Following re-installation of a high-speed internet connection, the system variables can be monitored nearly continuously, enabling more efficient and proactive operation, maintenance, and monitoring. We propose to reduce the number of on-site O&M monitoring visits from the current frequency of three times per week to one by utilizing this remote system. We recognize that more frequent on-site monitoring may be required based on remote monitoring observations and alarm conditions; however the majority of time will only require one visit per week.

AREA II O&M REPORTING

Because the Area II groundwater collection system and GWPTS have been operating since 2008 with little to no major interruptions or shut-downs, we propose to reduce the O&M reporting frequency from quarterly to annually (once per year). We believe that with this established track record, it warrants a reduction in reporting frequency. We do, however, understand that the NYSDEC still has the option to request any information from Riverbend at any time throughout the calendar year prior to the annual submittal.

PARAMETER MODIFICATIONS

As part of our historical database for Areas I, II, and III, all analyzed parameters have been tabulated since 2004 for Area I and 2007 for Areas II and III. Based upon this thorough summary, we were able to determine which compounds were never detected above method detection limits as well as which detected compounds were consistently reported at concentrations below the NYSDEC Class GA Groundwater Quality Standard/Guidance Value (GWQS/GV). Our assessment also included time-concentration trend analysis of detected compounds as well as a determination of the adequacy of each compound as an appropriate indicator of groundwater quality impairment for each Area. Supporting documentation including summary tables and concentration versus time plots (where appropriate) for Areas I, II, and III are presented in Attachments 1, 2, and 3, respectively.

As a result of our assessment, a summary of our proposed parameter list modifications for Areas I, II, and III are included in the attached Table 1. Justification for these modifications is discussed below.

- **Area I: Former Republic Steel Plant Parcel**
  - Eliminate arsenic, chromium, and lead analysis at wells A1-MW-1, A1-MW-2, A1-MW-3, A1-MW-4, A1-MW-5, A1-MW-9, A1-MW-M2, and A1-P-4. With the exception of occasional outliers, analytical data for these compounds at these locations indicates that they have historically been reported as non-

detect or at concentrations significantly below their respective GWQSs with no discernable trend. Arsenic was reported slightly above the GWQS at well A1-MW-1 during one event, which is not consistent with historical results for this location since that time and is therefore considered to be an outlier. Based on historical results, these inorganic parameters at the wells identified above are not considered to be relevant to the assessment of Area I groundwater quality.

- Eliminate chromium and lead analysis for wells A1-MW-6 and A1-MW-8 for reasons stated above. Arsenic will continue to be monitored at these two locations.

- Eliminate total petroleum hydrocarbon (TPH) monitoring of wells A1-MW-1, A1-MW-3, A1-MW-6, and A1-MW-9. TPH has been reported as non-detect at all locations since 2004, with one exception. Although well A1-MW-6 has historically detected TPH, due primarily to the presence of LNAPL, the lack of a GWQS for this compound plus continued analysis of volatile organic compounds (VOCs) means that the TPH analysis is redundant and unnecessary at this location.

- **Area II: Former Donner-Hanna Coke Plant Parcel**

  - Eliminate arsenic, chromium, and lead analysis at all Area II wells. With only a few exceptions (e.g., outliers), these metals have been reported as non-detect in all Area II wells since 2007. At those locations where metals were detected, concentrations were reported well below their respective GWQSs. Metals concentrations were only reported slightly above their respective GWQSs at two locations (A2-MW-4R and A2-MW-14) during a single event for each, which were immediately followed by several non-detect events or reported at concentrations well below the standard. There is no discernable trend (either increasing or decreasing) at either of these locations as a result. Based on historical results, these parameters are not considered to be relevant to the assessment of Area II groundwater quality.

- **Area III – Former Republic (LTV) Warehouse Parcel**

  - Eliminate arsenic, chromium, and lead analysis at all Area III wells except for one. Only well A3-MW-3 consistently reported arsenic concentrations exceeding the GWQS during two of three events. For the other wells and with only a few exceptions (e.g., outliers), these metals have been reported as non-detect in all Area III wells since 2007. At those locations where metals were detected, reported concentrations were well below their respective GWQSs. There was only one occurrence of a reported concentration slightly

exceeding the GWQS; arsenic at well A3-MW-3 and lead at A3-MW-9. There is no discernable trend (either increasing or decreasing) at either of these locations. Based on historical results, these parameters are not considered to be relevant to the assessment of Area III groundwater quality.

- Eliminate cyanide at all Area III wells except for one. Only well A3-MW-3 consistently reported cyanide concentrations exceeding the GWQS during every event, all other concentrations were either outliers (e.g., occurring during only one event) or reported well below the GWQS. Based on historical results, cyanide is not considered to be relevant to the assessment of Area III groundwater quality, except in the vicinity of A3-MW-3.

- Modify the current purging requirement from 10 well volumes (or 4 days, whichever occurs first) to low-flow sampling of the eleven oxygen release compound (ORC) wells in Area III. Because oxygen is being released at these locations, dissolved oxygen will be monitored during low-flow sampling and only upon stabilization will representative groundwater samples be collected. Modification of this procedure will greatly reduce the volume of groundwater currently being purged from each ORC well while obtaining the same representative groundwater data.

As you know, the next comprehensive site-wide groundwater monitoring event is tentatively scheduled for May 2011 so we are anxious begin implementation of the proposed modifications immediately upon your approval. If you wish to discuss our proposed modifications further, please contact me at your earliest convenience.

Sincerely,
TurnKey Environmental Restoration, LLC

Bryan C. Hann
Project Manager

Enclosures

ec: P. Cammarata (Riverbend)
D. Stebbins (Riverbend)
P. Werthman (TurnKey)
D. Szymanski (NYSDEC)

file: 0171-006-500

TABLES

TABLE 1

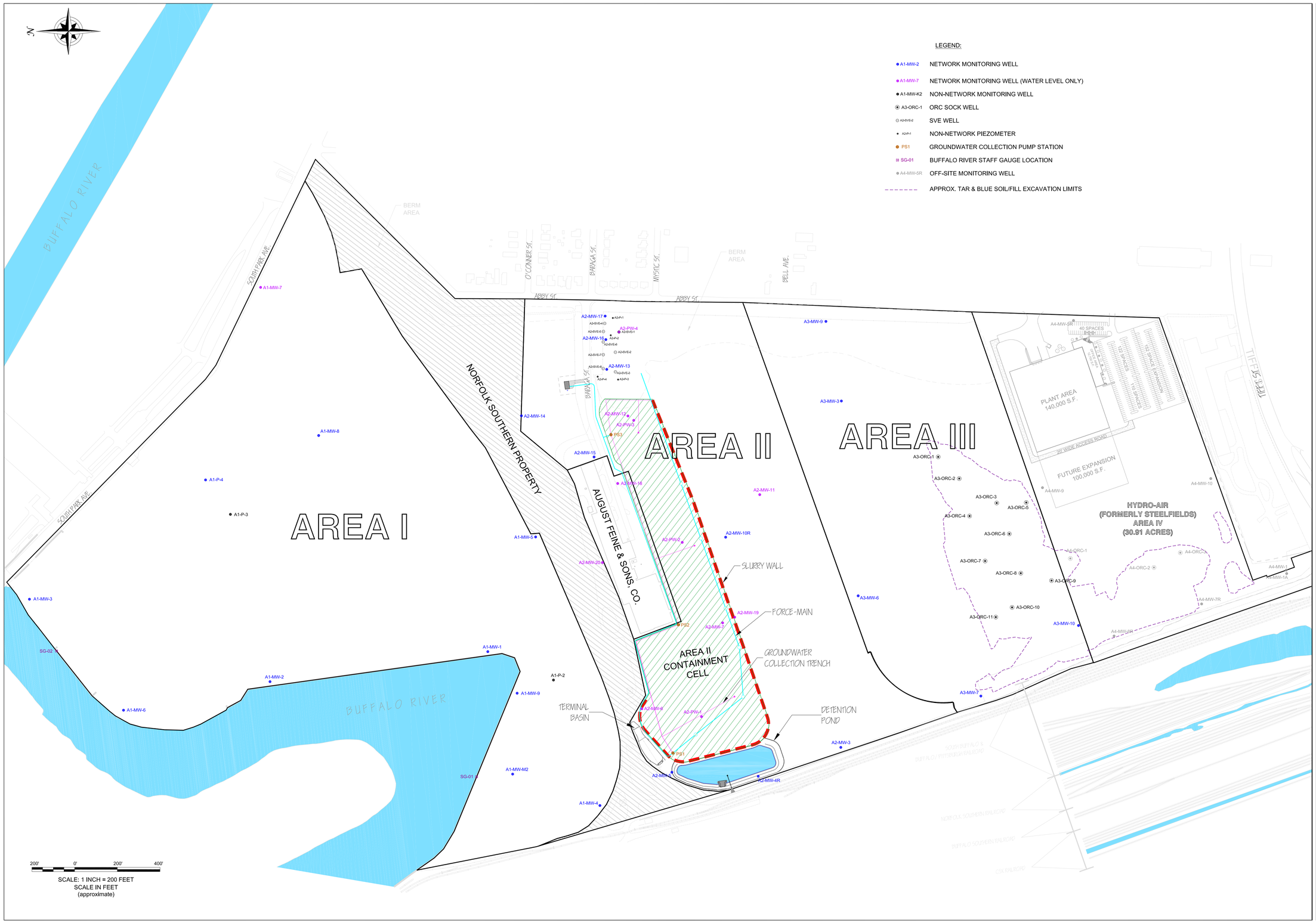
ANALYTICAL PARAMETERS PER AREA
PROPOSED MODIFICATIONS

Modification Request for Areas I, II, and III
Riverbend, LLC
Buffalo, New York

Location	Modification Request
Area I Wells	
Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level	continue monitoring
STARS List VOCs (Method 8021)	continue monitoring
Arsenic (Method 6010)	only analyze at wells A1-MW-6 and A1-MW-8
Chromium (Method 6010)	no longer analyze for this compound
Lead (Method 6010)	no longer analyze for this compound
Total Petroleum Hydrocarbons (TPH) (Method 1664) for wells: A1-MW-1 A1-MW-3 A1-MW-6 A1-MW-9	no longer analyze for this compound
Area II Wells	
Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level	continue monitoring
STARS List VOCs (Method 8021)	continue monitoring
Arsenic (Method 6010)	no longer analyze for this compound
Chromium (Method 6010)	no longer analyze for this compound
Lead (Method 6010)	no longer analyze for this compound
Area III Wells	
Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level	continue monitoring
STARS List VOCs (Method 8021)	continue monitoring
Arsenic (Method 6010)	only analyze at well A3-MW-3
Chromium (Method 6010)	no longer analyze for this compound
Lead (Method 6010)	no longer analyze for this compound
Cyanide (Method 335)	only analyze at well A3-MW-3
Area III ORC Wells	
Field Parameters: pH, temperature, dissolved oxygen, turbidity, ORP, water level	continue monitoring
Benzene (Method 8021)	continue monitoring
Alkalinity (Method 310.2)	continue monitoring
Purging Procedure (10 volumes or 4 days)	modify to low-flow sampling once DO has stabilized

FIGURES

F:\GAD\Turnkey\Riverbend (former)_Site\Basics\CTO#4 Progress\Figure 1 Site Plan May 2010.dwg



TURNKEY ENVIRONMENTAL RESTORATION, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0171-001-600

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH
DATE: MAY 2010
CHECKED BY:
APPROVED BY:

SITE PLAN

GROUNDWATER / ORC MONITORING EVENT
FORMER STEEL MANUFACTURING SITE
BUFFALO, NEW YORK

PREPARED FOR
RIVERBEND, LLC

FIGURE 1

ATTACHMENT 1

AREA I

HISTORIC SUMMARY TABLES
&
CONCENTRATION VS. TIME PLOTS

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-1

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	7.84	7.25		7.25	7.22	7.74	7.41	7.20
Temperature (^{o}C)	--	15.4	16.4		12.0	14.9	7.5	10.0	9.9
Sp. Conductance (uS)	--	730	672		636	685	623	575	551.0
Turbidity (NTU)	--	7.1	0.77		9.01	3	31	40.1	81.6
DO (ppm)	--	NM	NM		3.4	11.1	7.49	1.24	2.96
Eh (mV)	--	-86	-136		-135	-115	77	-144	- 115
STARS VOCs (ug/L)									
Benzene	**1**	< 10	< 0.2		< 0.2	< 0.7	< 0.2	0.18 J	< 0.2
n-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	0.33	< 0.2
1,2,4-Trimethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 30	< 0.6		< 0.6	< 4	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)									
Arsenic	**0.025**	0.015	0.014		0.011	< 0.01	< 0.01	0.024	**0.0335**
Chromium	**0.05**	< 0.002	< 0.002		< 0.002	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003		< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**	< 5	< 5		< 5	< 5	< 5	< 5	< 5

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-2

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	7.23	7.23		7.32	7.38	7.74	7.64	7.53
Temperature (^{o}C)	--	17.4	18.6		11.1	17.1	7.1	8.6	9.7
Sp. Conductance (uS)	--	845	870		670	817	1	433	476.2
Turbidity (NTU)	--	1.27	0.93		1.9	0	14	2.9	4.79
DO (ppm)	--	NM	NM		3.19	9.1	3.23	1.47	1.29
Eh (mV)	--	-23	-110		-80	-72	257	-121	- 122
STARS VOCs (ug/L)									
Benzene	**1**	< 10	< 0.2		< 0.2	< 0.7	< 0.2	< 0.2	< 0.2
n-Butylbenzene	**5**	< 10	1.1		< 0.4	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 10	0.85		< 0.4	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 10	0.8		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 10	0.77		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 30	< 0.6		< 0.6	< 4	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)									
Arsenic	**0.025**	< 0.0049	< 0.004		< 0.0045	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.002	< 0.002		< 0.002	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003		< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**		< 5						

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD = Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-3

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	7.42	7.23		6.68	7.22	7.10	6.80	7.04
Temperature (^{o}C)	--	14.8	15.8		12.5	14.0	10.1	11.0	11.3
Sp. Conductance (uS)	--	1084	1168		929	100	1	946	1144
Turbidity (NTU)	--	6.8	13.2		17.9	59	54	37.8	45.9
DO (ppm)	--	NM	NM		4	11.08	2.05	1.47	6.02
Eh (mV)	--	113	-24		0	29	185	-48	+ 4
STARS VOCs (ug/L)									
Benzene	**1**	< 10	< 0.2		< 0.2	< 0.7	< 0.2	< 0.2	< 0.2
n-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	0.2 J	0.2 J
1,2,4-Trimethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 30	< 0.6		< 0.6	< 4	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)									
Arsenic	**0.025**	< 0.0049	< 0.004		< 0.0045	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.002	< 0.002		< 0.002	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003		< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**	< 5	< 5		< 5	< 5	< 5	< 5	< 5

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-4

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	7.95	6.65	6.94	6.83	6.69	7.33	6.68	6.80
Temperature (^{o}C)	--	15.2	17.3	10.4	11.0	14.9	8.2	11.3	12.6
Sp. Conductance (uS)	--	773	893	977	810	805	1	772	832.9
Turbidity (NTU)	--	7	14.9	33.7	11.3	61	56	27.8	36.6
DO (ppm)	--	NM	NM	NM	4.3	11.33	4.12	2.64	2.23
Eh (mV)	--	90	-42	70	-92	-81	136	-29	+ 33
STARS VOCs (ug/L)									
Benzene	**1**	< 10	< 0.2	< 0.2	< 0.2	< 0.7	< 0.2	< 0.2	< 0.2
n-Butylbenzene	**5**	< 10	< 0.4	0.38 J	< 0.4	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 10	< 0.4	0.22 J	< 0.4	< 1	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 30	< 0.6	< 0.6	< 0.6	< 4	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)									
Arsenic	**0.025**	< 0.0049	0.0048	< 0.004	< 0.0045	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003	< 0.003	< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**		< 5						

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-5

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	**11.54**	**10.75**	**10.93**	**11.01**	**11.43**	**11.54**	**10.38**	**10.27**
Temperature (^{o}C)	--	15.4	17.5	11.4	11.0	16.2	7.7	11.3	11.0
Sp. Conductance (uS)	--	897	866	742	580	800	0	672	655.4
Turbidity (NTU)	--	2.65	0.62	4.46	1.63	6	18	3.26	1.54
DO (ppm)	--	NM	NM	NM	3.49	10.76	3.7	1.65	1.77
Eh (mV)	--	-159	-103	-114	-165	-170	89	-100	- 116
STARS VOCs (ug/L)									
Benzene	**1**	< 10	< 0.2	< 0.2	< 0.2	< 0.7	< 0.2	0.22	0.071 J
n-Butylbenzene	**5**	< 10	< 0.4	< 0.4	0.31 J	< 1	< 0.4	0.92	< 0.4
sec-Butylbenzene	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	0.077 J
1,3,5-Trimethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 30	< 0.6	< 0.6	< 0.6	< 4	< 0.6	0.39 J	< 0.6
Total Metals (mg/L)									
Arsenic	**0.025**	< 0.0049	< 0.004	< 0.004	< 0.0045	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003	< 0.003	< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**		< 5						

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-6

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	7.06	7.07	7.10	6.50	6.89	7.13	**6.48**	**6.31**
Temperature (^{o}C)	--	16.3	15.3	11.8	9.6	18.8	10.7	11.6	13.8
Sp. Conductance (uS)	--	1202	1251	1271	1303	130	1	1223	1130
Turbidity (NTU)	--	47.3	35	69	>1000	21	131	NA	8.8
DO (ppm)	--	NM	NM	NM	3.98	10.13	1.2	1.94	2.99
Eh (mV)	--	-68	-56	-138	-112	-138	90	-104	- 104
STARS VOCs (ug/L)									
Benzene	**1**	< 50	**4.1**	**3.9**	< 10	< 500	< 20	**3.4**	**1.9 D,J**
n-Butylbenzene	**5**	< 50	**6.5**	4.6	**25**	**3300**	< 40	**13**	**5.3 D,J**
sec-Butylbenzene	**5**	< 50	4.2	**6.3**	< 20	< 500	< 40	**13**	3.2 D,J
tert-Butylbenzene	**5**	< 50	< 0.4	< 0.4	< 20	< 500	< 40	< 2	< 4
p-Cymene (4-Isopropyltoluene)	**5**	< 50	< 0.4	0.97	< 20	< 500	< 40	< 2	0.54 D
Ethylbenzene	**5**	< 50	< 0.2	1.2	< 10	< 500	< 20	< 1	< 2
Isopropylbenzene	**5**	< 50	**6.2**	**6.4**	< 10	< 500	< 20	**20**	**5.3 D**
Methyl-t-Butyl Ether (MTBE)	**10***	< 50	< 0.4	< 0.4	< 20	< 500	< 40	< 2	< 4
n-Propylbenzene	**5**	< 50	**10**	**12**	**20**	**590**	**40**	**33**	**10 D**
Toluene	**5**	< 50	0.21	1.1	< 10	< 500	< 20	2.7	0.95 D,J,B
1,2,4-Trimethylbenzene	**5**	< 50	< 0.2	1.7	< 10	**880**	< 20	< 1	< 2
1,3,5-Trimethylbenzene	**5**	< 50	< 0.2	0.33	< 10	**650**	< 20	< 1	< 2
Xylenes (total)	**15**	< 150	0.93	1.5	< 30	< 2000	< 60	4	1.4
Total Metals (mg/L)									
Arsenic	**0.025**	0.046	**0.14**	**0.13**	**0.29**	< 1	**0.079**	**0.071**	**0.0774**
Chromium	**0.05**	0.0026	< 0.002	0.0035	**0.084**	< 1	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003	0.004	**0.12**	< 5	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**	< 5	109	5.6	6300	6080	3720	< 5	91.4

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-8

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	6.86	6.96	6.88	6.75	6.69	7.19	6.86	6.71
Temperature (^{o}C)	**--**	15.5	17.6	10.8	12.0	13.4	8.4	11.4	10.8
Sp. Conductance (uS)	**--**	2132	1891	1958	2051	170	1	1842	1948
Turbidity (NTU)	**--**	49.9	103	37.4	39.7	630	86	50.8	167
DO (ppm)	**--**	NM	NM	NM	3.95	11.71	11.44	1.03	2.39
Eh (mV)	**--**	-57	-57	-99	-129	-6	130	-145	- 116
STARS VOCs (ug/L)									
Benzene	**1**	< 10	< 0.2	< 1	< 0.2	< 0.7	< 4	< 2	< 2
n-Butylbenzene	**5**	< 10	< 0.4	< 2	< 0.4	< 1	< 8	< 4	< 4
sec-Butylbenzene	**5**	< 10	< 0.4	< 2	< 0.4	< 1	< 8	< 4	< 4
tert-Butylbenzene	**5**	< 10	< 0.4	< 2	< 0.4	< 1	< 8	< 4	< 4
p-Cymene (4-Isopropyltoluene)	**5**	< 10	< 0.4	< 2	< 0.4	< 1	< 8	< 4	< 4
Ethylbenzene	**5**	< 10	< 0.2	< 1	< 0.2	< 1	< 4	< 2	< 2
Isopropylbenzene	**5**	< 10	< 0.2	< 1	< 0.2	< 1	< 4	< 2	< 2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	< 0.4	< 2	< 0.4	< 1	< 8	< 4	< 4
n-Propylbenzene	**5**	< 10	< 0.2	< 1	< 0.2	< 1	< 4	< 2	< 2
Toluene	**5**	< 10	< 0.2	< 1	< 0.2	< 1	< 4	< 2	< 2
1,2,4-Trimethylbenzene	**5**	< 10	< 0.2	< 1	< 0.2	< 1	< 4	< 2	< 2
1,3,5-Trimethylbenzene	**5**	< 10	< 0.2	< 1	< 0.2	< 1	< 4	< 2	< 2
Xylenes (total)	**15**	< 30	< 0.6	< 3	< 0.6	< 4	< 12	< 4	< 4
Total Metals (mg/L)									
Arsenic	**0.025**	0.014	0.023	**0.031**	**0.039**	**0.0402**	**0.038**	**0.0537**	**0.101**
Chromium	**0.05**	0.0043	< 0.002	< 0.002	< 0.002	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003	< 0.003	< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**		< 5						

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-9

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	7.76	6.97	7.08	7.08	7.52	7.26	7.16	7.02
Temperature (^{o}C)	**--**	12.9	15.3	11.3	11.3	12.7	7.7	11.1	10.9
Sp. Conductance (uS)	**--**	724	1765	840	860	715	0	665	610.7
Turbidity (NTU)	**--**	0.6	2.06	3.35	0.58	11	13	34.6	1.68
DO (ppm)	**--**	NM	NM	NM	3.7	12.36	6.6	1.46	2.29
Eh (mV)	**--**	-59	-126	-111	-127	-154	199	-104	- 89
STARS VOCs (ug/L)									
Benzene	**1**	< 10	< 0.2	< 0.2	< 0.2	< 0.7	< 0.2	< 0.2	< 0.2
n-Butylbenzene	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**5**	< 10	< 0.4	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	0.5	< 0.4	< 0.4	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 10	< 0.2	< 0.2	< 0.2	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 30	< 0.6	< 0.6	< 0.6	< 4	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)									
Arsenic	**0.025**	0.0084	0.013	0.0077	0.007	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.002	< 0.002	< 0.002	< 0.002	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003	< 0.003	< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**	< 5	< 5	< 5	< 5	< 5	6.8	< 5	< 4.9

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-MW-M2

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	7.40	7.30		7.04	7.11	7.59	7.01	7.10
Temperature (^{o}C)	--	16.5	17.6		11.9	15.7	8.6	10.8	12.3
Sp. Conductance (uS)	--	725	680		681	60	1	579	569.2
Turbidity (NTU)	--	22	3.56		5.25	12	30	44.6	31.7
DO (ppm)	--	NM	NM		3.98	11.04	2.08	1.7	2.15
Eh (mV)	--	130	-107		-63	-4	160	8	+ 28
STARS VOCs (ug/L)									
Benzene	**1**	< 10	< 0.2		< 0.2	< 0.7	< 0.2	< 0.2	< 0.2
n-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**5**	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 10	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 30	< 0.6		< 0.6	< 4	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)									
Arsenic	**0.025**	< 0.0049	0.0059		< 0.0045	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.002	< 0.002		< 0.002	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.003	< 0.003		< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**		< 5						

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 1

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A1-P-4

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date							
		Sep-04	Sep-05	May-06	Dec-06	Aug-07	Apr-08	May-09	May-10
Water Quality Field Measurements									
pH (units)	**6.5 - 8.5**	7.20	6.78		7.56	6.98	7.03	6.67	6.98
Temperature (^{o}C)	--	16.7	16.8		11.3	15.0	8.5	10.5	10.5
Sp. Conductance (uS)	--	987	877		329	885	89	718	539.3
Turbidity (NTU)	--	5.5	3.53		6.39	3	25	24.4	16.7
DO (ppm)	--	NM	NM		9.18	10.68	3.98	4.15	8.05
Eh (mV)	--	131	74		52.4	101	318	17	- 21
STARS VOCs (ug/L)									
Benzene	**1**	< 5	< 0.2		< 0.2	< 0.7	< 0.2	< 0.2	< 0.2
n-Butylbenzene	**5**	< 5	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 5	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 5	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**5**	< 5	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 5	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 5	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 0.4		< 0.4	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 5	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 5	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 5	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 5	< 0.2		< 0.2	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 15	< 0.6		< 0.6	< 4	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)									
Arsenic	**0.025**	< 0.0049	< 0.004		< 0.0045	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.002	0.026		**0.058**	< 0.01	0.0084	0.005	0.026
Lead	**0.025**	< 0.003	< 0.003		< 0.003	< 0.05	< 0.005	< 0.005	< 0.005
Total Petroleum Hyrdocarbons (mg/L)									
TPH	**NA**		< 5						

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

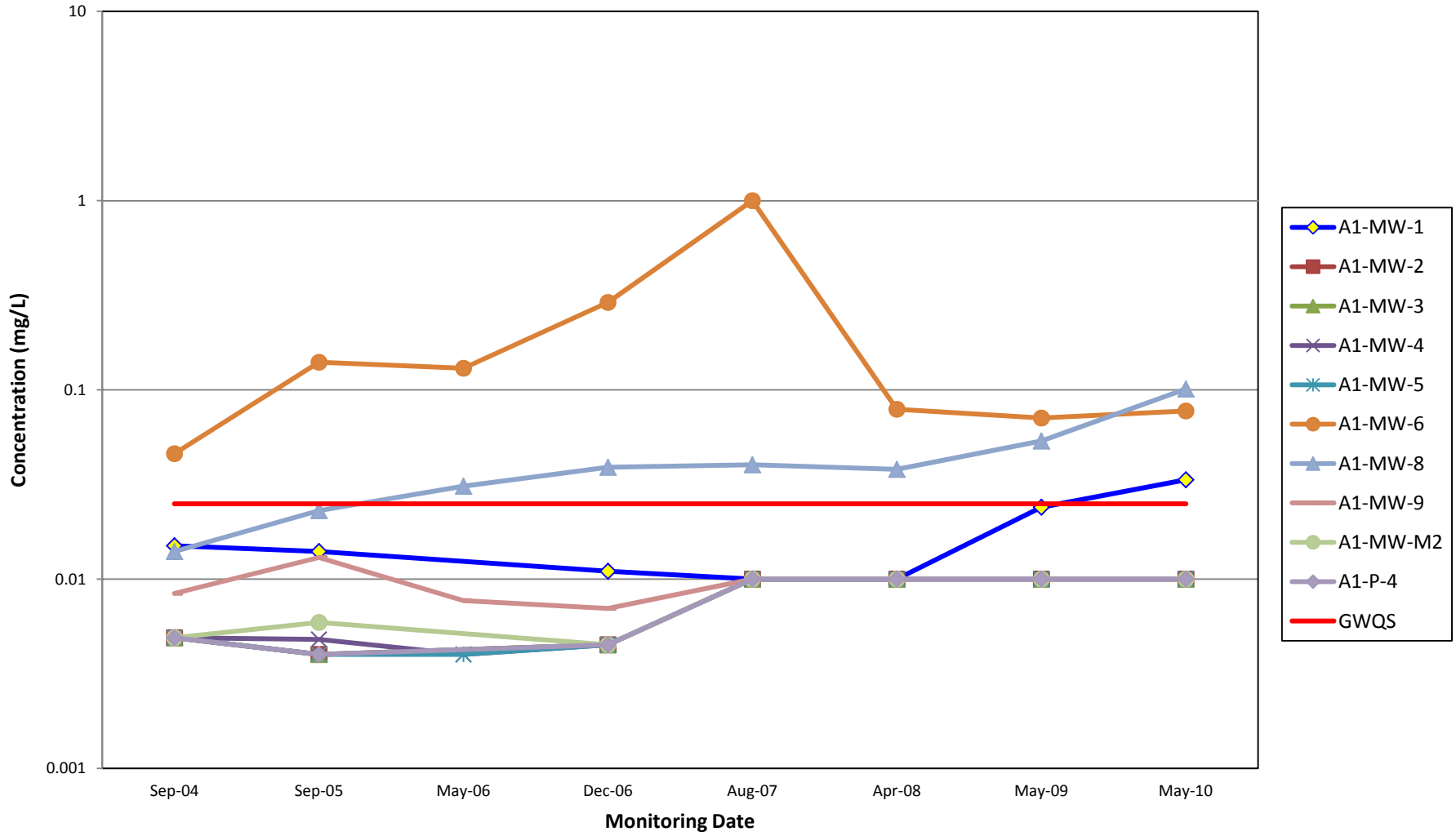
fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

Attachment 1

Arsenic
Concentrations vs. Time

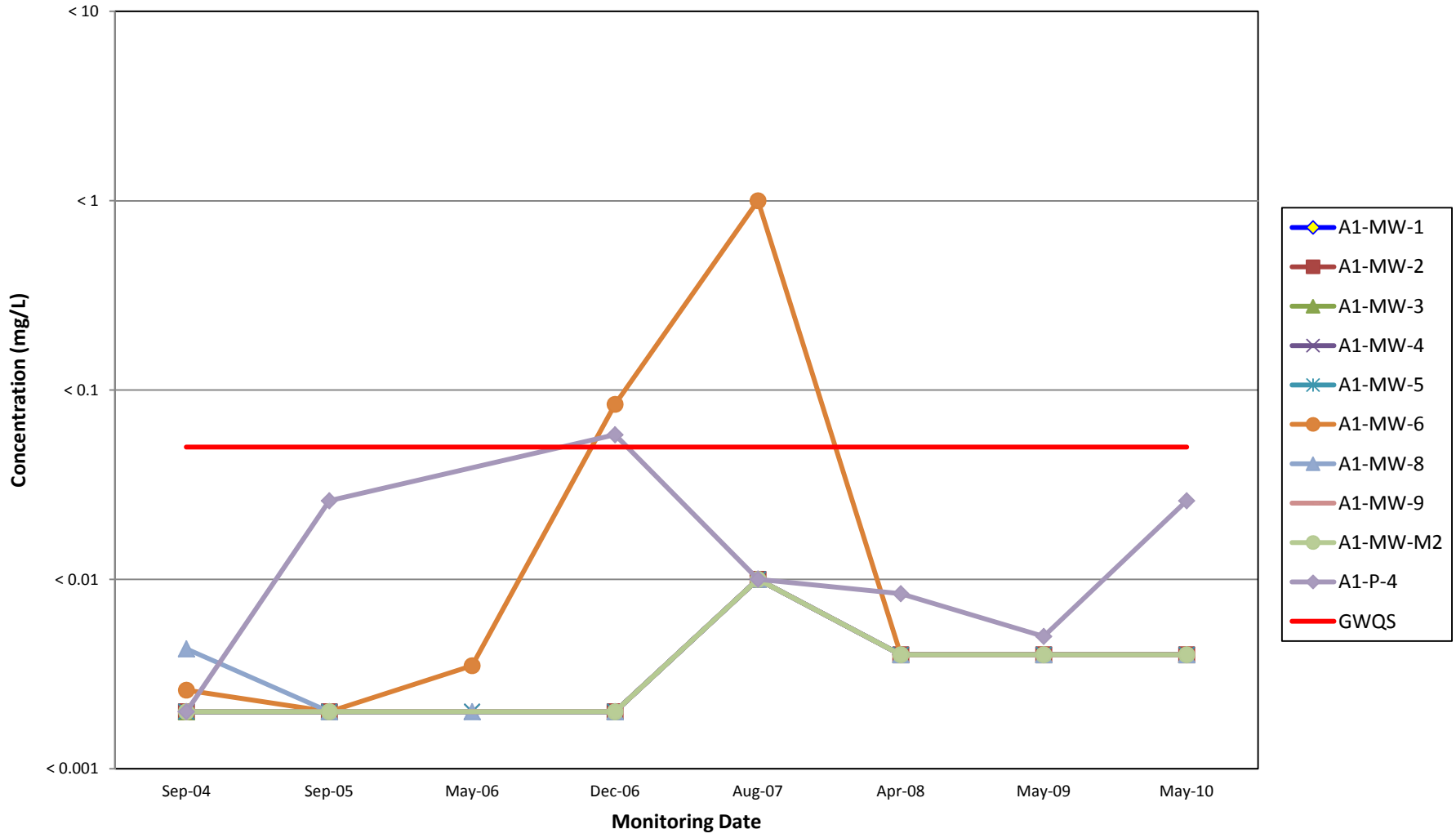
Area I
Riverbend Site



Attachment 1

Chromium
Concentrations vs. Time

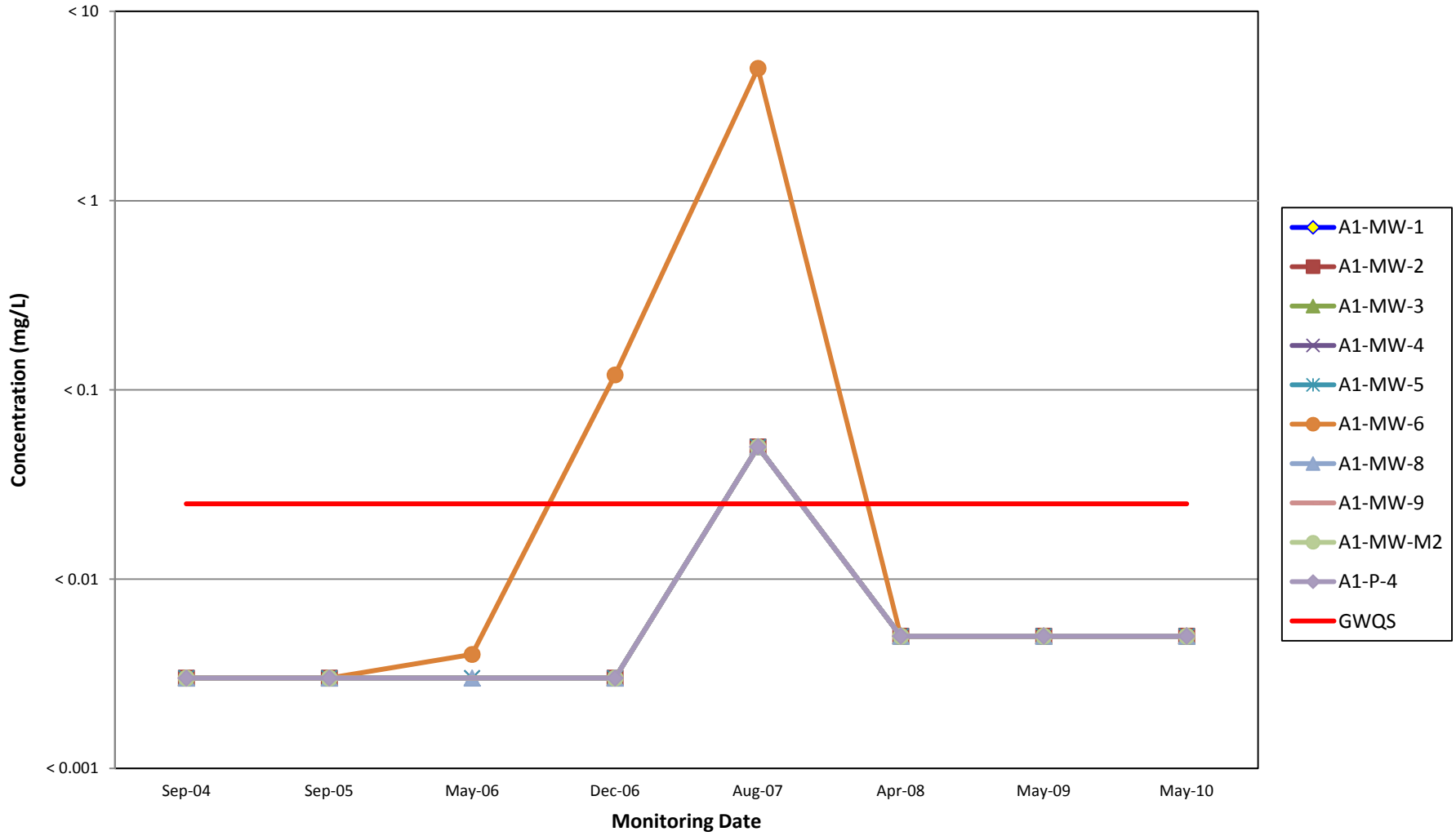
Area I
Riverbend Site



Attachment 1

Lead
Concentrations vs. Time

Area I
Riverbend Site



ATTACHMENT 2

AREA II

HISTORIC SUMMARY TABLES
&
CONCENTRATION VS. TIME PLOTS

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-3

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**	6.57	7.42	8.02	7.03	7.30
Temperature (^{o}C)	**--**	15.9	9.4	9.4	9.8	9.6
Sp. Conductance (uS)	**--**	127	482	0	818.3	773.7
Turbidity (NTU)	**--**	140	35	114	3.8	9.66
DO (ppm)	**--**	11.95	2.13	3.02	1.81	3.14
Eh (mV)	**--**	98	200	237	0	- 24
STARS VOCs (ug/L)						
Benzene	**1**	< 1	< 0.7	< 0.2	< 0.2	< 0.2
n-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 5	< 1		< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**--**	< 5	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 5	< 1	< 0.2	0.29	< 0.2
1,2,4-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 10	< 2	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)						
Arsenic	**0.025**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.01	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.05	< 0.05	< 0.005	< 0.005	< 0.005

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-4R

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**	7.11	7.16	7.41	7.12	7.12
Temperature (^{o}C)	**--**	19.0	10.1	7.9	9.2	9.6
Sp. Conductance (uS)	**--**	163	1229	0	1023.0	948.2
Turbidity (NTU)	**--**	> 1000	72	119	37.1	34.5
DO (ppm)	**--**	15.65	2.71	4.13	1.86	1.76
Eh (mV)	**--**	-117	176	148	- 101	- 64
STARS VOCs (ug/L)						
Benzene	**1**	**12**	< 0.7	< 0.2	0.2 J	< 0.2
n-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 5	< 1		< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**--**	< 5	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 10	< 2	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)						
Arsenic	**0.025**	**0.0264**	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	**0.0566**	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	**0.0728**	< 0.05	< 0.005	< 0.005	< 0.005

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-5

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**	6.86	7.06	7.55	7.05	6.97
Temperature (^{o}C)	**--**	19.7	10.7	7.1	10.2	10.0
Sp. Conductance (uS)	**--**	96	1012	0	762.1	712.4
Turbidity (NTU)	**--**	66	23	69	3.06	6.52
DO (ppm)	**--**	15.97	3.05	8.91	1.53	2.90
Eh (mV)	**--**	-28	227	251	- 70	- 83
STARS VOCs (ug/L)						
Benzene	**1**	< 1	< 0.7	< 0.2	< 0.2	< 0.2
n-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 5	< 1		< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**--**	< 5	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 10	< 2	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)						
Arsenic	**0.025**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.01	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.05	< 0.05	< 0.005	< 0.005	< 0.005

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-10

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**		7.97	7.50	7.75	7.29
Temperature (^{o}C)	**--**		10.2	8.7	10.3	11.4
Sp. Conductance (uS)	**--**		926	81	1992.0	1993
Turbidity (NTU)	**--**		19	26	28.6	20.5
DO (ppm)	**--**		2.73	2.28	1.44	2.70
Eh (mV)	**--**		119	228	- 115	- 69
STARS VOCs (ug/L)						
Benzene	**1**		< 0.7	< 0.2	0.65	0.19 J
n-Butylbenzene	**5**		< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**		< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**		< 1		< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**--**		< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**		< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**		< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***		< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**		< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**		< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**		< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**		< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**		< 2	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)						
Arsenic	**0.025**		< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**		< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**		< 0.05	< 0.005	< 0.005	< 0.005

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-13

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**	6.75	7.64	7.73	7.23	7.12
Temperature (^{o}C)	**--**	15.8	11.8	4.1	11.6	12.6
Sp. Conductance (uS)	**--**	250	562	0	2252.0	1867
Turbidity (NTU)	**--**	29	8	91	18.3	15.8
DO (ppm)	**--**	11.42	2.6	4.5	1.64	1.54
Eh (mV)	**--**	-98	49	268	- 133	- 117
STARS VOCs (ug/L)						
Benzene	**1**	< 1	< 0.7	< 0.2	0.85	0.52
n-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 5	< 1		< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**--**	< 5	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,2,4-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 10	< 2	< 0.6	< 0.6	0.076 J
Total Metals (mg/L)						
Arsenic	**0.025**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.01	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.05	< 0.05	< 0.005	< 0.005	< 0.005

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-14

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**	7.39	7.53	6.99	7.11	
Temperature (^{o}C)	**--**	31.2	10.1	7.1	10.2	
Sp. Conductance (uS)	**--**	785	582	0	629.9	
Turbidity (NTU)	**--**	16	29	23	4.13	
DO (ppm)	**--**	6.31	7.61	5.34	4.92	
Eh (mV)	**--**	161	286	373	- 16	
STARS VOCs (ug/L)						
Benzene	**1**	< 1	< 0.7	< 0.2	< 0.2	
n-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	
sec-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	
tert-Butylbenzene	**5**	< 5	< 1		< 0.4	
p-Cymene (4-Isopropyltoluene)	**--**	< 5	< 1	< 0.4	< 0.4	
Ethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	
Isopropylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 1	< 0.4	< 0.4	
n-Propylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	
Toluene	**5**	< 5	< 1	< 0.2	< 0.2	
1,2,4-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	
1,3,5-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	
Xylenes (total)	**15**	< 10	< 2	< 0.6	< 0.6	
Total Metals (mg/L)						
Arsenic	**0.025**	< 0.01	< 0.01	< 0.01	< 0.01	
Chromium	**0.05**	0.0356	**0.0639**	0.011	0.0093	
Lead	**0.025**	< 0.05	< 0.05	< 0.005	< 0.005	

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-15

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**	**6.37**	6.76		**6.35**	
Temperature (^{o}C)	**--**	18.8	10.8		10.4	
Sp. Conductance (uS)	**--**	128	149		1309.0	
Turbidity (NTU)	**--**	130	49		30.6	
DO (ppm)	**--**	10.43	5.92		1.78	
Eh (mV)	**--**	-72	257		- 20	
STARS VOCs (ug/L)						
Benzene	**1**	< 1	< 0.7		< 0.2	
n-Butylbenzene	**5**	< 5	< 1		< 0.4	
sec-Butylbenzene	**5**	< 5	< 1		< 0.4	
tert-Butylbenzene	**5**	< 5	< 1		< 0.4	
p-Cymene (4-Isopropyltoluene)	**--**	< 5	< 1		< 0.4	
Ethylbenzene	**5**	< 5	< 1		< 0.2	
Isopropylbenzene	**5**	< 5	< 1		< 0.2	
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 1		< 0.4	
n-Propylbenzene	**5**	< 5	< 1		< 0.2	
Toluene	**5**	< 5	< 1		< 0.2	
1,2,4-Trimethylbenzene	**5**	< 5	< 1		< 0.2	
1,3,5-Trimethylbenzene	**5**	< 5	< 1		< 0.2	
Xylenes (total)	**15**	< 10	< 2		< 0.6	
Total Metals (mg/L)						
Arsenic	**0.025**	< 0.01	< 0.01		< 0.01	
Chromium	**0.05**	< 0.01	< 0.01		< 0.004	
Lead	**0.025**	< 0.05	< 0.05		< 0.005	

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-16

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**	**6.38**	**6.33**	6.87	**6.36**	6.67
Temperature (^{o}C)	**--**	19.9	11.0	5.3	12.3	12.4
Sp. Conductance (uS)	**--**	261	1617	0	2180.0	1710
Turbidity (NTU)	**--**	210	41	218	159	95.2
DO (ppm)	**--**	10.63	2.27	3.27	1.55	3.11
Eh (mV)	**--**	-84	219	299	- 66	- 25
STARS VOCs (ug/L)						
Benzene	**1**	**1.2**	**1.2**	0.53	**10**	0.68
n-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
tert-Butylbenzene	**5**	< 5	< 1		< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**--**	< 5	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	0.12 J
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 5	< 1	< 0.2	< 0.2	0.071 BJ
1,2,4-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 10	< 2	< 0.6	< 0.6	0.057 J
Total Metals (mg/L)						
Arsenic	**0.025**	0.0137	< 0.01	< 0.01	0.0122	0.0113
Chromium	**0.05**	< 0.01	< 0.01	0.011	0.0133	0.0127
Lead	**0.025**	< 0.05	< 0.05	0.0083	0.0153	0.013

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 2

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A2-MW-17

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date				
		Jul-07	Dec-07	Apr-08	May-09	May-10
Water Quality Field Measurements						
pH (units)	**6.5 - 8.5**	6.53	6.75	6.94	6.74	6.51
Temperature (^{o}C)	**--**	17.1	10.9	7.4	10.3	13.1
Sp. Conductance (uS)	**--**	334	10	0	2894.0	2847
Turbidity (NTU)	**--**	81	5	30	2.6	24.7
DO (ppm)	**--**	11.09	2.92	2.94	1.16	1.80
Eh (mV)	**--**	-121	127	111	- 117	- 100
STARS VOCs (ug/L)						
Benzene	**1**	**14**	**3.6**	**2.7**	**62**	0.68
n-Butylbenzene	**5**	< 5	< 1	< 0.4	< 0.4	< 0.4
sec-Butylbenzene	**5**	< 5	< 1	< 0.4	1.8	0.23 J
tert-Butylbenzene	**5**	< 5	2.5		**9.5**	2.6
p-Cymene (4-Isopropyltoluene)	**--**	< 5	< 1	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**	< 5	< 1	< 0.2	1.9	< 0.2
Isopropylbenzene	**5**	< 5	< 1	< 0.2	**6.1**	0.034 J
Methyl-t-Butyl Ether (MTBE)	**10***	< 5	< 1	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Toluene	**5**	< 5	< 1	< 0.2	0.33	< 0.2
1,2,4-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
1,3,5-Trimethylbenzene	**5**	< 5	< 1	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**	< 10	< 2	< 0.6	< 0.6	< 0.6
Total Metals (mg/L)						
Arsenic	**0.025**	< 0.01	0.012	< 0.01	< 0.01	< 0.01
Chromium	**0.05**	< 0.01	< 0.01	< 0.004	< 0.004	< 0.004
Lead	**0.025**	< 0.05	< 0.05	< 0.005	< 0.005	< 0.005

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations.

Definitions:

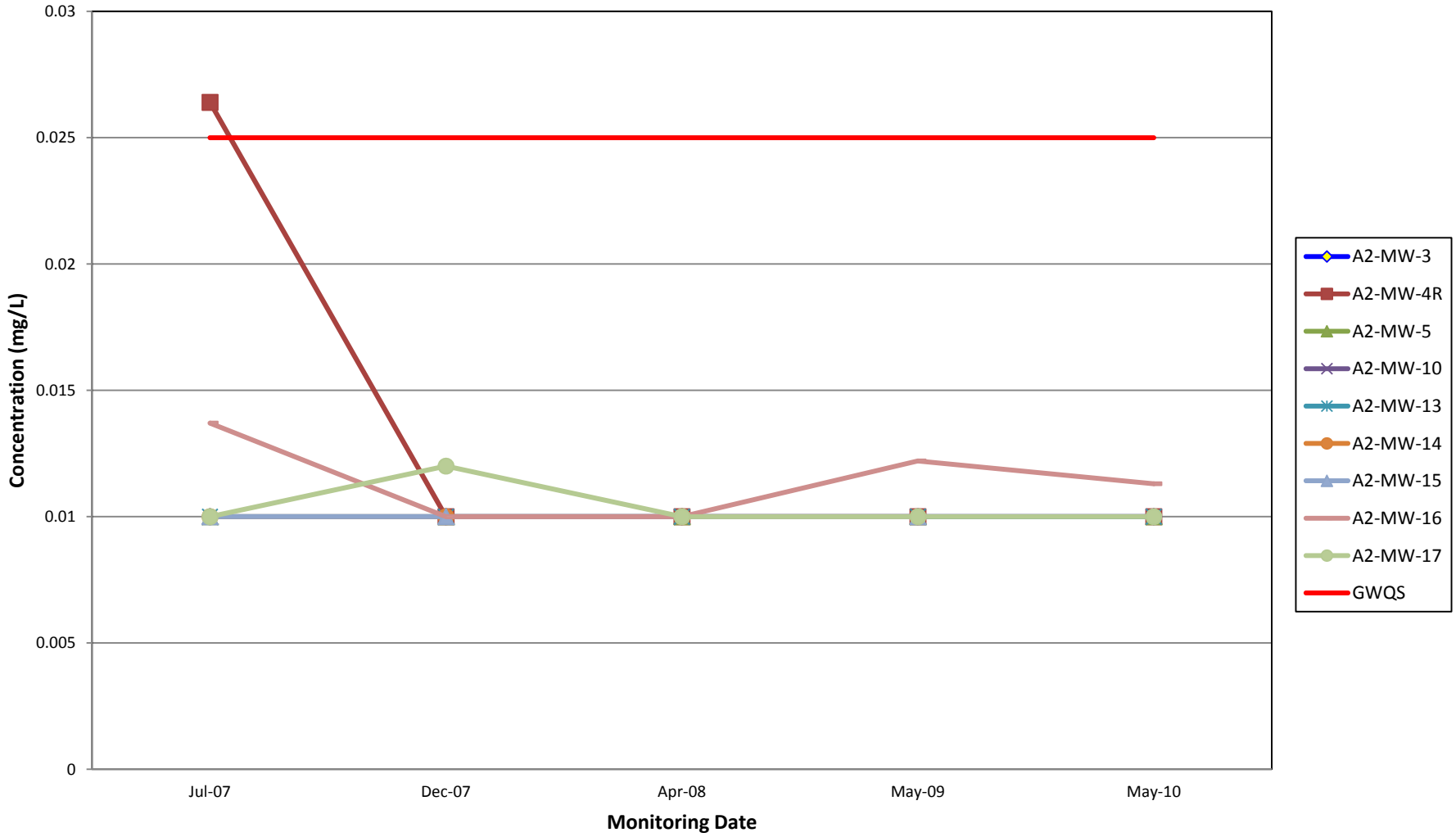
fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

Attachment 2

Arsenic
Concentrations vs. Time

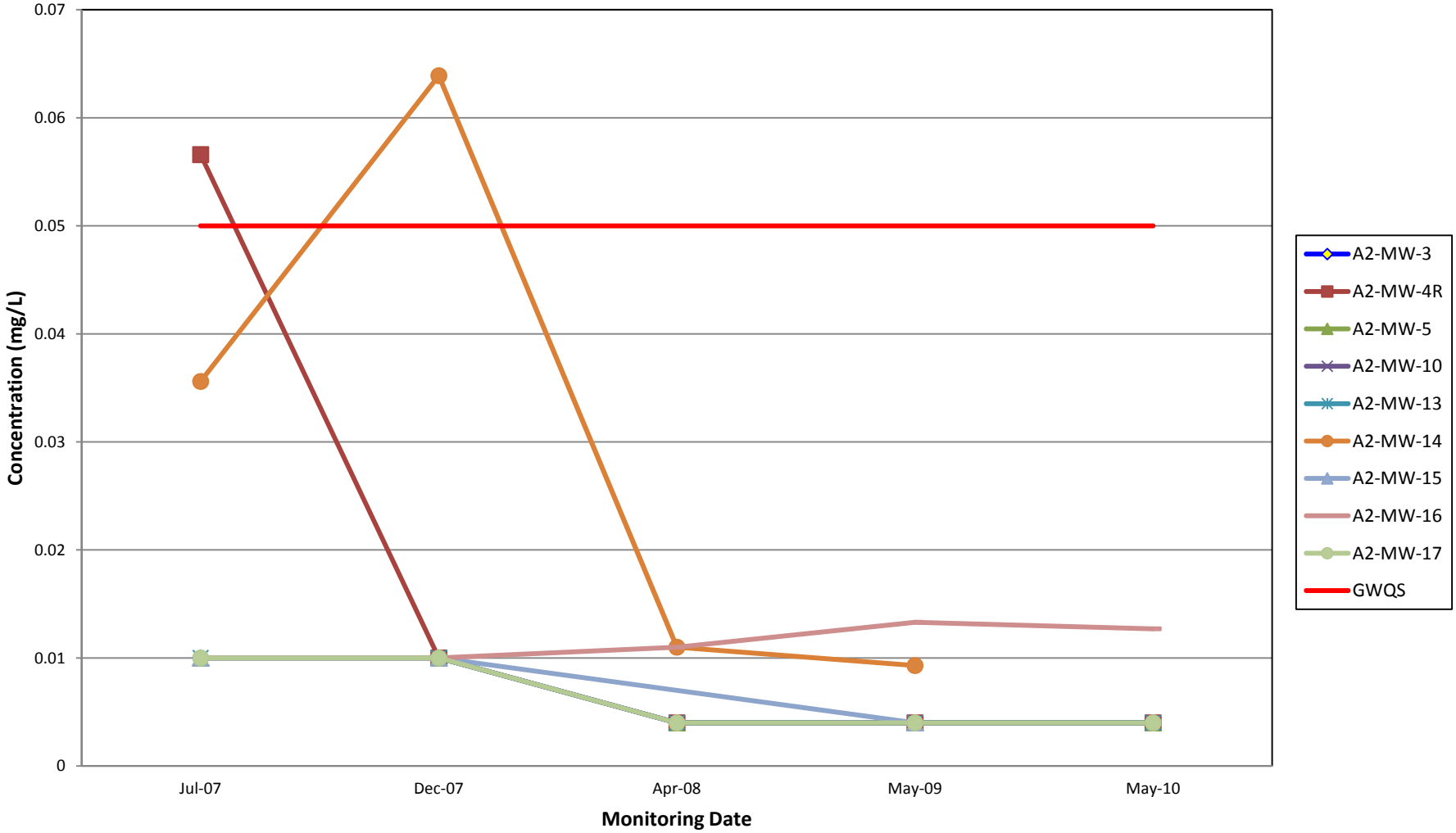
Area II
Riverbend Site



Attachment 2

Chromium
Concentrations vs. Time

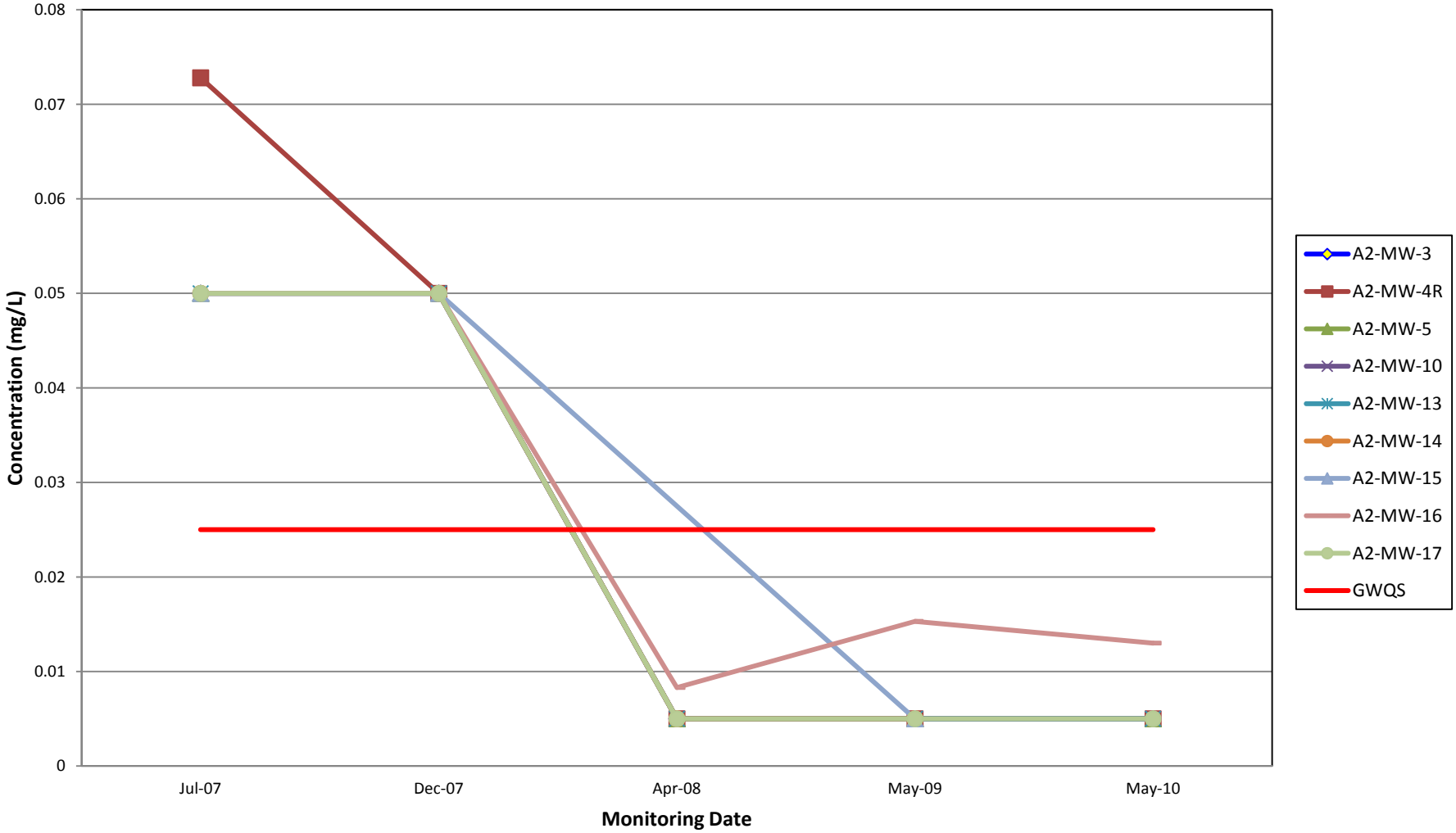
Area II
Riverbend Site



Attachment 2

Lead
Concentrations vs. Time

Area II
Riverbend Site



ATTACHMENT 3

AREA III

HISTORIC SUMMARY TABLES
&
CONCENTRATION VS. TIME PLOTS

ATTACHMENT 3

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A3-MW-3

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date						
		Jul-07	Dec-07	Apr-08	Oct-08	May-09	Oct-09	May-10
Water Quality Field Measurements								
pH (units)	**6.5 - 8.5**				7.08	7.16		7.01
Temperature (^{o}C)	**--**				16.4	13.3		16.2
Sp. Conductance (uS)	**--**				1896	1229		1256
Turbidity (NTU)	**--**				25.2	12		30.2
DO (ppm)	**--**				3.8	2.99		3.23
Eh (mV)	**--**				-87	- 149		- 109
STARS VOCs (ug/L)								
Benzene	**1**				**1.1**	**12**		0.79
n-Butylbenzene	**5**				< 0.4	< 8		< 0.4
sec-Butylbenzene	**5**				< 0.4	< 8		< 0.4
tert-Butylbenzene	**5**				< 0.4	< 8		< 0.4
p-Cymene (4-Isopropyltoluene)	**--**				< 0.4	< 8		< 0.4
Ethylbenzene	**5**				< 0.2	< 4		< 0.2
Isopropylbenzene	**5**				< 0.2	< 4		< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***				< 0.4	< 8		< 0.4
n-Propylbenzene	**5**				< 0.2	< 4		< 0.2
Toluene	**5**				< 0.2	< 4		0.074 BJ
1,2,4-Trimethylbenzene	**5**				< 0.2	< 4		< 0.2
1,3,5-Trimethylbenzene	**5**				< 0.2	< 4		< 0.2
Xylenes (total)	**15**				< 0.6	< 8		0.14 J
Total Metals (mg/L)								
Arsenic	**0.025**				**0.098**	0.0192		**0.102**
Chromium	**0.05**				0.016	< 0.004		0.0086
Lead	**0.025**				0.013	< 0.005		0.0088
Wet Chemistry (mg/L)								
Cyanide	**0.2**				**4.63**	**5.53**		**11.1 D**

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Lim

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD = Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
= Not analyzed for this parameter during this event.

ATTACHMENT 3

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A3-MW-6

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date						
		Jul-07	Dec-07	Apr-08	Oct-08	May-09	Oct-09	May-10
Water Quality Field Measurements								
pH (units)	**6.5 - 8.5**				8.17	8.22		7.75
Temperature (^{o}C)	**--**				16.3	10.0		12.4
Sp. Conductance (uS)	**--**				1147.0	1185		1341
Turbidity (NTU)	**--**				15.4	2		7.83
DO (ppm)	**--**				1.00	2.76		3.25
Eh (mV)	**--**				- 220	- 187		- 152
STARS VOCs (ug/L)								
Benzene	**1**				< 0.2	0.44		0.18 J
n-Butylbenzene	**5**				< 0.4	< 0.4		< 0.4
sec-Butylbenzene	**5**				< 0.4	< 0.4		< 0.4
tert-Butylbenzene	**5**				< 0.4	< 0.4		< 0.4
p-Cymene (4-Isopropyltoluene)	**--**				< 0.4	< 0.4		< 0.4
Ethylbenzene	**5**				< 0.2	< 0.2		< 0.2
Isopropylbenzene	**5**				< 0.2	< 0.2		< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***				< 0.4	< 0.4		< 0.4
n-Propylbenzene	**5**				< 0.2	< 0.2		< 0.2
Toluene	**5**				< 0.2	< 0.2		< 0.2
1,2,4-Trimethylbenzene	**5**				< 0.2	< 0.2		< 0.2
1,3,5-Trimethylbenzene	**5**				< 0.2	< 0.2		< 0.2
Xylenes (total)	**15**				< 0.6	< 0.4		< 0.4
Total Metals (mg/L)								
Arsenic	**0.025**				0.01	< 0.01		< 0.01
Chromium	**0.05**				< 0.002	< 0.004		< 0.004
Lead	**0.025**				0.0045	< 0.005		< 0.005
Wet Chemistry (mg/L)								
Cyanide	**0.2**				0.04	0.0266		0.0353

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Lim

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD = Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
= Not analyzed for this parameter during this event.

ATTACHMENT 3

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A3-MW-7

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date						
		Jul-07	Dec-07	Apr-08	Oct-08	May-09	Oct-09	May-10
Water Quality Field Measurements								
pH (units)	**6.5 - 8.5**	**10.01**	**10.43**	**10.30**		**10.30**		**10.10**
Temperature (^{o}C)	--	24.9	8.7	9.0		10.4		12.8
Sp. Conductance (uS)	--	112	1139	NM		830.0		691.6
Turbidity (NTU)	--	22	8	129		22.9		7.81
DO (ppm)	--	8.8	2.95	5.17		1.08		2.05
Eh (mV)	--	-116	1	13		- 255		- 197
STARS VOCs (ug/L)								
Benzene	**1**	**71**	**82**	< 0.2		**270**		**37**
n-Butylbenzene	**5**	< 10	< 1	< 0.4		1		0.25 J
sec-Butylbenzene	**5**	< 10	< 1	< 0.4		< 0.4		< 0.4
tert-Butylbenzene	**5**	< 10	< 1	< 0.4		< 0.4		< 0.4
p-Cymene (4-Isopropyltoluene)	--	< 10	< 1	< 0.4		**5.4**		< 0.4
Ethylbenzene	**5**	< 10	< 1	< 0.2		0.55		0.15 J
Isopropylbenzene	**5**	< 10	< 1	< 0.2		< 0.2		< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***	< 10	< 1	< 0.4		< 0.4		< 0.4
n-Propylbenzene	**5**	< 10	< 1	< 0.2		< 0.2		< 0.2
Toluene	**5**	< 10	2.5	< 0.2		**11**		1.7 B
1,2,4-Trimethylbenzene	**5**	< 10	< 1	< 0.2		1.7		0.42
1,3,5-Trimethylbenzene	**5**	< 10	< 1	< 0.2		0.55		0.21
Xylenes (total)	**15**	< 20	< 4	< 0.6		7		1.4
Total Metals (mg/L)								
Arsenic	**0.025**	0.0201	0.0141	0.016		0.012		0.0104
Chromium	**0.05**	< 0.01	< 0.01	0.012		< 0.004		< 0.004
Lead	**0.025**	< 0.05	< 0.05	0.021		< 0.005		< 0.005
Wet Chemistry (mg/L)								
Cyanide	**0.2**	0.195	**0.211**	**0.243**		0.17		0.0247

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Lim

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD	= Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
	= Not analyzed for this parameter during this event.

ATTACHMENT 3

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A3-MW-9

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date						
		Jul-07	Dec-07	Apr-08	Oct-08	May-09	Oct-09	May-10
Water Quality Field Measurements								
pH (units)	**6.5 - 8.5**				**11.74**	**11.74**	**11.25**	**11.34**
Temperature (^{o}C)	**--**				15.8	10.4	12.9	11.5
Sp. Conductance (uS)	**--**				2066	6925	6661	7440
Turbidity (NTU)	**--**				27.2	0.7	8.57	3.48
DO (ppm)	**--**				0.16	1.82	2.83	2.68
Eh (mV)	**--**				-288	- 158	-152	- 139
STARS VOCs (ug/L)								
Benzene	**1**				**1.4 J**	**10**	**2.6**	**3.4**
n-Butylbenzene	**5**				< 0.4	< 0.4	< 0.4	0.14 J
sec-Butylbenzene	**5**				< 0.4	< 0.4	< 0.4	0.23 J
tert-Butylbenzene	**5**				< 0.4	< 0.4	< 0.4	< 0.4
p-Cymene (4-Isopropyltoluene)	**--**				< 0.4	< 0.4	< 0.4	< 0.4
Ethylbenzene	**5**				< 0.2	< 0.2	< 0.2	< 0.2
Isopropylbenzene	**5**				< 0.2	< 0.2	< 0.2	< 0.2
Methyl-t-Butyl Ether (MTBE)	**10***				< 0.4	< 0.4	< 0.4	< 0.4
n-Propylbenzene	**5**				< 0.2	< 0.2	< 0.2	< 0.2
Toluene	**5**				0.27	4.1	0.74	0.93 B
1,2,4-Trimethylbenzene	**5**				< 0.2	0.61	0.15 J	0.26
1,3,5-Trimethylbenzene	**5**				< 0.2	< 0.2	< 0.2	< 0.2
Xylenes (total)	**15**				< 0.6	1.4	0.3	0.36 J
Total Metals (mg/L)								
Arsenic	**0.025**				0.013	< 0.01	< 0.01	< 0.01
Chromium	**0.05**				< 0.002	< 0.004	< 0.004	< 0.004
Lead	**0.025**				0.011	< 0.005	0.0103	**0.0308**
Wet Chemistry (mg/L)								
Cyanide	**0.2**				< 0.01	< 0.01	< 0.01	< 0.01

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Lim

Definitions:

fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD = Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
= Not analyzed for this parameter during this event.

ATTACHMENT 3

HISTORICAL GROUNDWATER ANALYTICAL DATA SUMMARY [1,2]
A3-MW-10

Comprehensive Groundwater Monitoring Report
Riverbend, LLC
Buffalo, New York

PARAMETER [3]	GWQS/GV (ug/L) [4]	Sample Date						
		Jul-07	Dec-07	Apr-08	Oct-08	May-09	Oct-09	May-10
Water Quality Field Measurements								
pH (units)	**6.5 - 8.5**				**5.90**	**5.61**	**5.47**	**5.41**
Temperature (^{o}C)	--				16.1	11.4	15.1	12.2
Sp. Conductance (uS)	--				6271	5847	6103	5735
Turbidity (NTU)	--				36.8	23	42.5	35.9
DO (ppm)	--				0.98	1.11	0.6	1.12
Eh (mV)	--				-20	- 14	-43	0
STARS VOCs (ug/L)								
Benzene	**1**				**520**	**34000**	**1500 D**	**3600 D**
n-Butylbenzene	**5**				< 4	< 80	< 40	< 4
sec-Butylbenzene	**5**				< 4	< 80	< 40	0.35 DJ
tert-Butylbenzene	**5**				< 4	< 80	< 40	< 4
p-Cymene (4-Isopropyltoluene)	--				< 4	< 80	< 40	< 4
Ethylbenzene	**5**				< 2	< 40	< 20	0.76 DJ
Isopropylbenzene	**5**				4.5	< 40	< 20	2.4 D
Methyl-t-Butyl Ether (MTBE)	**10***				< 4	< 80	< 40	< 4
n-Propylbenzene	**5**				< 2	< 40	< 20	1.8 DJ
Toluene	**5**				< 2	< 40	**6.3 DJ**	3.3 DB
1,2,4-Trimethylbenzene	**5**				< 2	< 40	< 20	0.71 DJ
1,3,5-Trimethylbenzene	**5**				< 2	< 40	< 20	< 2
Xylenes (total)	**15**				3 J	< 80	< 40	2.2 DJ
Total Metals (mg/L)								
Arsenic	**0.025**				0.005	0.109	< 0.01	< 0.01
Chromium	**0.05**				< 0.01	< 0.004	< 0.02	< 0.02
Lead	**0.025**				< 0.003	< 0.005	< 0.005	< 0.005
Wet Chemistry (mg/L)								
Cyanide	**0.2**				0.164	0.154	0.184	0.146

Notes:

1. Concentrations exceeding the Class "GA" Groundwater Quality Standard/Guidance Value (GWQS/GV) are shaded yellow.
2. Any parameter exceeding the Class "GA" GWQS/GV for two consecutive events will undergo moving average trend analysis.
3. Benzene, total lead, and TPH requires moving average trend analysis irrespective of concentration.
4. Values per NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Lim

Definitions:

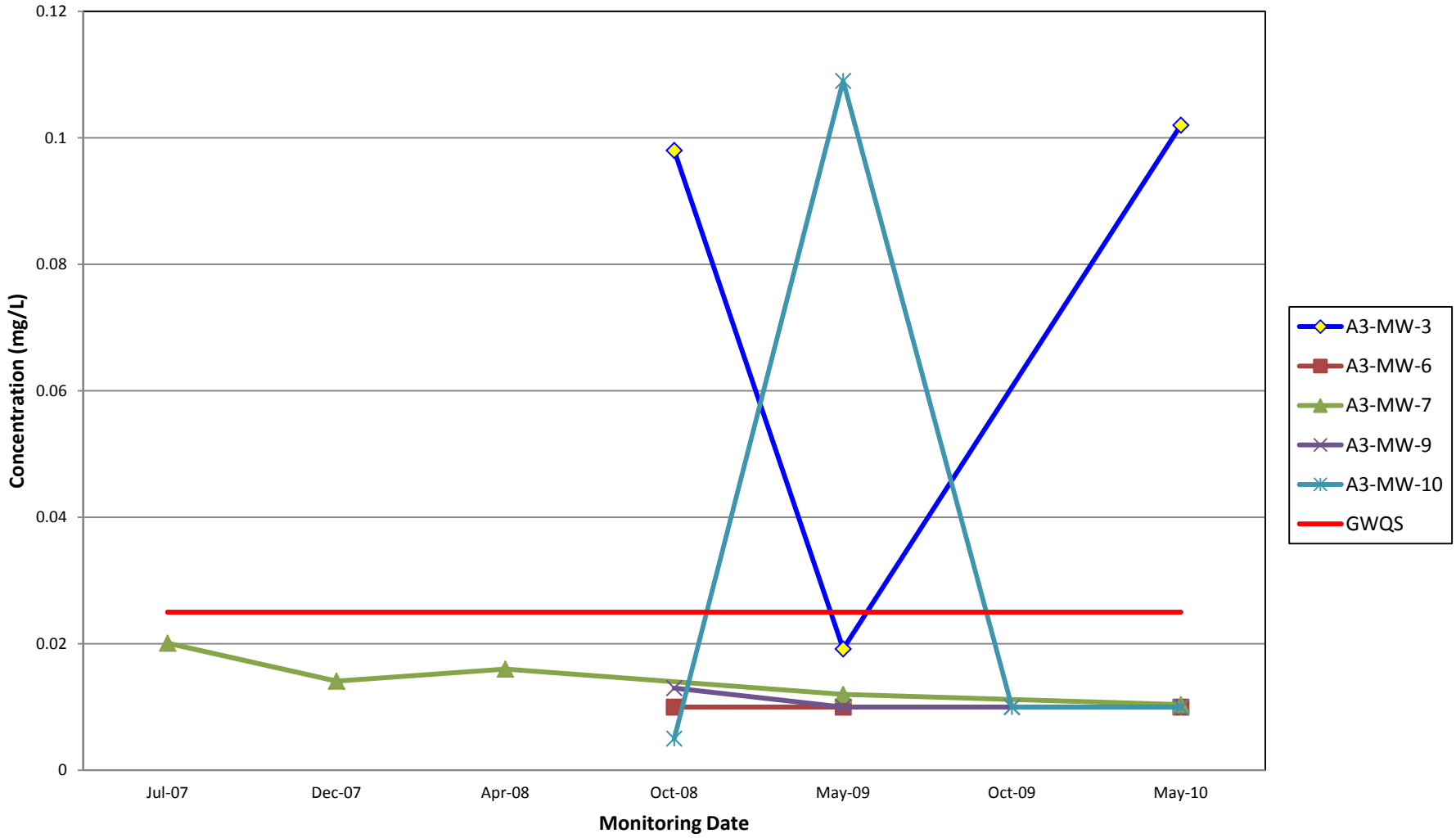
fbTOR = Feet below top of riser.
J = Estimated value; result is less than the sample quantitation limit but greater than zero.
B = Analyte was found in the associated blank, as well as in the sample.
D = Indicates value obtained through dilution of sample.
GWQS/GV = NYSDEC Class GA Groundwater Quality Standard (GWQS) / Guidance Value (GV)
ND = parameter was analyzed for, but not detected
" * " = NYSDEC Class GA Groundwater Quality Guidance Value (GWQGV)

BOLD = Analytical result exceeds Class GA Water Quality Standards (TOGS 1.1.1)
= Not analyzed for this parameter during this event.

Attachment 3

Arsenic
Concentrations vs. Time

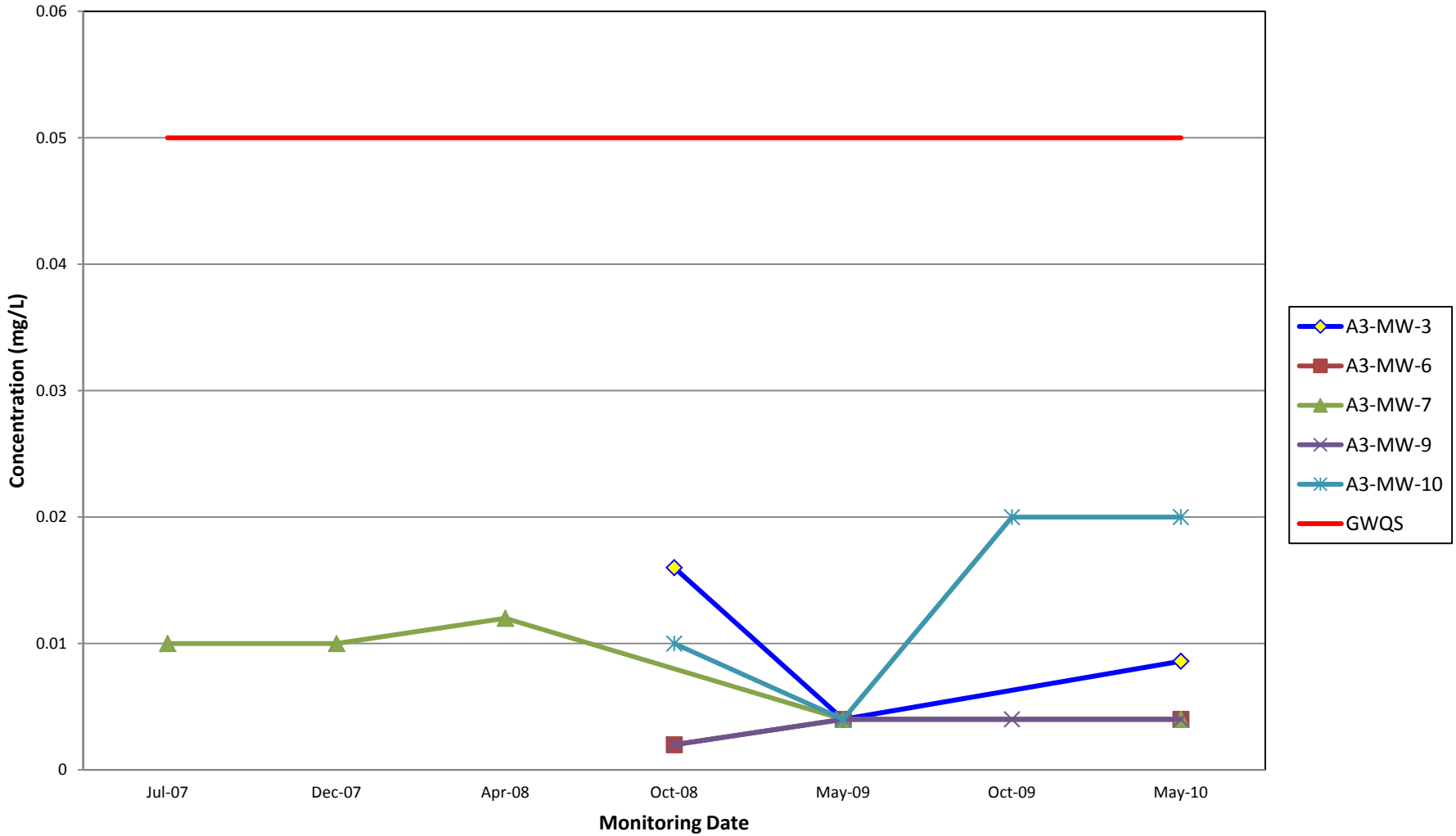
Area III
Riverbend Site



Attachment 3

Chromium
Concentrations vs. Time

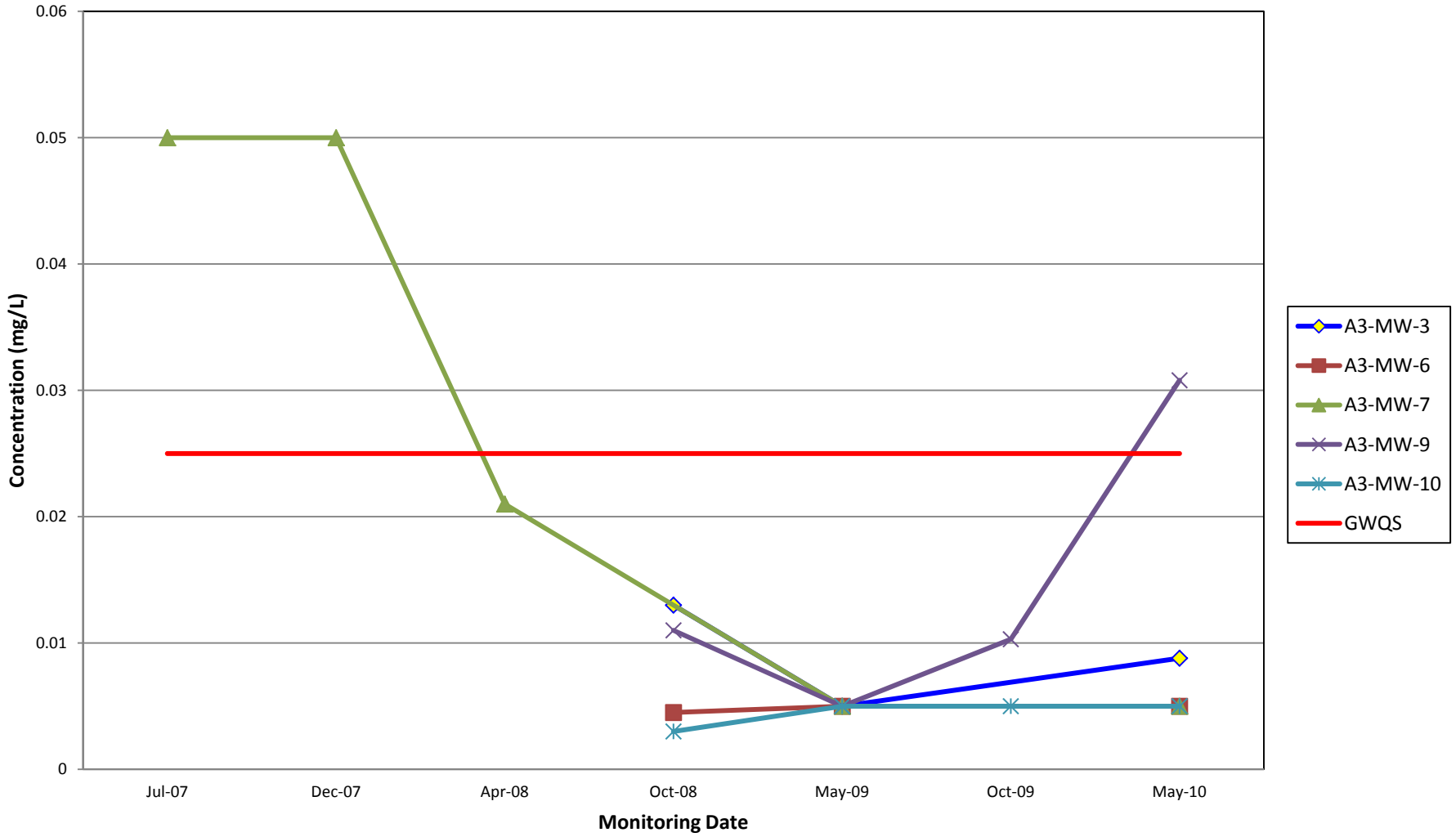
Area III
Riverbend Site



Attachment 3

Lead
Concentrations vs. Time

Area III
Riverbend Site



Attachment 3

Cyanide
Concentrations vs. Time

Area III
Riverbend Site