TRANSMITTAL

DEPARTMENT OF PUBLIC WORKS
B.U.R.A. – Design & Construction
616 City Hall, 65 Niagara Square, Buffalo, New York 14202
Phone: (716) 851-2959 Fax: (716) 851-4080

TO: David Szymanski, EPS-1
NYSDEC - Region 9, Buffalo
Div. of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203-2915

DATE: 11/17/09
FROM: Francisco Guzmán

CC: Dennis Sutton

PROJECT: City of Buffalo, Kingsley Park Site

RE: 2011 Periodic Review Report (November 5, 2009 to August 2, 2011

WE ARE SENDING YOU:

Copies	Dated	Description
1Disc	Oct 2011	Kingsley Park, Buffalo, NY – Periodic Review Report
1	10/24, 10/28/11	Enclosure 1 NYSDEC Site Management Periodic Review Report Notice Institutional & Engineering Controls Certification Form

REMARKS:

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. 915124

Site Name Diarsenol Co., Kingsley Park

Site Address: Kingsley Street Zip Code: 14208
City/Town: Buffalo
County: Erie
Site Acreage: 2.0

Reporting Period: November 05, 2009 to August 02, 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? Restricted-Residential, 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

SITE NO. 915124 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
100.50-5-18.1	City of Buffalo	O&M Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
100.50-5-18.1	Leachate Collection

Control Description for Site No. 915124

Parcel: 100.50-5-18.1

Site Monitoring and Maintenance Plan (12/1994)

- Maintain groundwater collection trench discharging to municipal sewer sytem and groundwater monitoring wells.
- Groundwater monitoring.

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. 915124

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 Francisco Guzman at 616 City Hall
print name print business address

am certifying as Project Manager/REP (Owner or Remedial Party)

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

Signature of Owner or Remedial Party Rendering Certification — Date: 10/24/11

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

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

I Thomas Forbes at 2558 Hamburg Turnpike, Buffalo NY 14218
print name print business address

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

STATE OF NEW YORK
THOMAS H. FORBES
No. 70[illegible]
LICENSED PROFESSIONAL ENGINEER
Stamp
(Required for PE)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification — Date: 10/28/11

October 28, 2011

Mr. Dennis Sutton, P.G., C.P.G.
Environmental Project Manager
C. of Buffalo Dept. of Community Dev.
Office of Strategic Planning
Room 920, City Hall
65 Niagara Square
Buffalo, New York 14202

Mr. Francisco Guzman
Project Manager – BURA Architect
C. of Buffalo Dept. of Community Dev.
Office of Strategic Planning
Room 616, City Hall
65 Niagara Square
Buffalo, New York 14202

Re: City of Buffalo, Kingsley Park Site
Former Diarsenol Company Site (Facility Code: 915124)
2011 Periodic Review Report (November 5, 2009 to August 2, 2011)

Gentlemen:

Benchmark Environmental Engineering & Science, PLLC has completed the attached Periodic Review Report (PRR) for the above-referenced site. To complete the City's NYSDEC-required obligation under DER-10, please remit a hard copy of the completed Institutional and Engineering Control's (IC/EC) Certification Form (Appendix A of the PRR) along with the prepared CD (enclosed) to Mr. David Szymanski of the NYSDEC. A second CD containing the PRR has been enclosed for your files.

Please contact us if you have any questions or require additional information.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Bryan C. Hann
Project Manager

c: T. Forbes, Benchmark

File: 0136-002-600

Periodic Review Report

November 5, 2009 to August 2, 2011

Diarsenol Company, Kingsley Park Site
Site No. 915124
Buffalo, New York

October 2011 0009-011-100

Prepared For:

City of Buffalo
Department of Public Works

Prepared By:

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

2558 Hamburg Turnpike, Suite 300, Buffalo, New York 14218 | phone: (716) 856-0599 | fax: (716) 856-0583

PERIODIC REVIEW REPORT

FOR THE

DIARSENOL CO., KINGSLEY PARK SITE (BCP SITE NO. C915124)

BUFFALO, NEW YORK

October 2011 0009-011-100

Prepared for:

City of Buffalo

Prepared By:

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

PERIODIC REVIEW REPORT
City of Buffalo – Kingsley Park Site
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PERIODIC REVIEW REPORT
City of Buffalo – Kingsley Park Site
Table of Contents

FIGURES

APPENDICIES

1.0 INTRODUCTION

Benchmark Environmental Engineering and Science, PLLC (Benchmark) has prepared this Periodic Review Report (PRR) on behalf of the City of Buffalo (COB) to summarize the post-remedial status of New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C915124, located on Kingsley Street in the City of Buffalo, Erie County, New York (Site; see Figure 1).

This PRR has been prepared for the Diarsenol Company – Kingsley Park Site in accordance with NYSDEC DER-10 *Technical Guidance for Site Investigation and Remediation* (Ref. 1). The NYSDEC's Institutional and Engineering Controls (IC/EC) Certification Form has been completed for the Site (see Appendix A). This PRR and associated inspection form have been completed for the post-remedial activities at the Site for the reporting period from November 5, 2009 to August 2, 2011.

1.1 Background

The Diarsenol Company, Kingsley Park Site is an approximately 2-acre Inactive Hazardous Waste Site located in the City of Buffalo, Erie County, New York (see Figure 1). The Site is situated in an urban residential neighborhood and is bounded by Kingsley Street on the south and Riley Street on the north (see Figure 2). The Site is east of Jefferson Avenue and west of Roehrer Avenue, with homes located in close proximity to the Park along the south side of Riley and Kingsley Streets. There are no nearby bodies of water and the Site is flat with no more than one to two feet of local topographic relief.

The Diarsenol Company was a pharmaceutical manufacturer that produced an arsenic-based medication consisting of up to 31 percent arsenic. The company operated from 1925 until the early 1940s at the Kingsley Park location. From the 1940s until 1967, various owners occupied the Site. In 1967, the City of Buffalo acquired the property and by 1972 all the Diarsenol buildings were removed and a public park and playground were in place.

It is suspected that off-specification products or unused raw materials were disposed behind the former building in a depression detected during the Site investigation or otherwise released during building demolition.

1.2 Regulatory History

A number of sampling efforts and environmental investigations have been conducted at the Kingsley Park Site. Previous activities include sampling by the Erie County Department of Environmental Planning in 1983, NUS Corp. in 1986, Ecology & Environment in 1989 (NYSDEC Phase II Study), and the New York State Department of Health (NYSDOH) in June and July 1990.

In September 1990, the NYSDEC requested that Engineering-Science, Inc. (ES) conduct an Interim Remedial Investigation (IRI) of the Kingsley Park Site. The IRI consisted of collecting and analyzing surface and shallow subsurface soil samples from the park and surrounding properties; installing 14 soil borings; and constructing one groundwater monitoring well. Soil sampling determined that shallow soils in the park and surrounding properties, as well as a localized area of deeper soils in the park, were contaminated with arsenic at levels ranging from background, which was determined to be 10-20 parts per million (ppm), to 7,090 ppm.

The ES IRI Report was completed in February 1991. In March 1991, the NYSDEC approved the report, prepared a bid package, and procured a contractor for an Interim Remedial Measure (IRM). The IRM consisted of excavation and removal of soils containing elevated arsenic levels from the park and surrounding properties; backfilling and restoration; and the installation of four groundwater monitoring wells. During the IRM, a total of 11,549 tons of arsenic-contaminated soil were removed from the Site. Of this total, approximately 1,981 tons of soil was disposed as hazardous waste and 9,568 tons were disposed as non-hazardous waste. The construction phase of the IRM was completed in June 1992.

Following completion of the IRM, the new wells were sampled and arsenic was detected at levels exceeding groundwater standards. Two additional rounds of groundwater sampling were conducted by ES in 1992. Arsenic was detected at levels exceeding groundwater standards in three of the five site wells. In order to address this contamination, the NYSDEC issued a work assignment to ES in June 1993 to conduct a supplemental Remedial Investigation/Feasibility Study (RI/FS). ES completed the field investigation in December 1993, and the final report was issued in February 1994.

A Record of Decision (ROD) was signed on March 31, 1994 calling for the installation of a shallow groundwater collection system to collect groundwater in areas where

it fails to meet standards and convey the collected groundwater to a municipal sewer line. The ROD also called for continued monitoring of Site groundwater.

2.0 SITE OVERVIEW

ES completed the remedial design in October 1994 and provided construction management for the installation of a shallow groundwater collection system. Construction was completed on November 25, 1994 and consisted of the installation of an approximately 7-foot deep trench in the vicinity of MW-1, MW-2, and MW-3 (see Figure 2). The collection system uses the relatively high permeability fill installed previously during the IRM and crushed stone to collect the contaminated groundwater. Collected groundwater is discharged to the sanitary sewer system under Riley Street. The collection trench is equipped with a sampling port that is monitored by the Buffalo Sewer Authority (BSA) for arsenic (total and dissolved), barium, cadmium, and bis(2-ethylhexyl) phthalate. Site monitoring also includes annual collection and analysis of groundwater from two on-site monitoring wells and the preparation of two semi-annual isopotential maps.

3.0 SITE MANAGEMENT

3.1 Monitoring and Maintenance Program

A Site Monitoring and Maintenance (M&M) Plan was prepared by ES and submitted to the NYSDEC in January 1994 (Ref. 2). In March 2004, Benchmark prepared a sampling and inspection schedule for groundwater monitoring to be performed in support of operation and maintenance activities. The program consists of groundwater monitoring, well maintenance, and reporting; and annual inspection & certification.

3.1.1 Groundwater Monitoring

In accordance with Benchmark's letter dated March 18, 2004 (Ref. 3), the following groundwater monitoring activities are being performed to monitor the effectiveness of the shallow groundwater collection system:

- Annual groundwater sample collection from monitoring wells MW-1 and MW-2 using low flow sampling techniques during seasonal dry weather conditions.
- Analysis of field parameters (pH, Eh, temperature, turbidity, specific conductivity) at MW-1 and MW-2 during the low-flow sampling procedure.
- Analysis of collected samples for total arsenic and cadmium by a NY State Department of Health ELAP-certified laboratory.
- Inspection and documentation of the structural integrity of all monitoring wells.
- Semi-annual collection of groundwater elevation data from all monitoring wells (MW-1 through MW-9).

During the current PRR reporting period, annual groundwater monitoring and well inspection were conducted in August 2010 and June 2011. Semi-annual groundwater elevation data was also collected in December 2009, August 2010, December 2010, and June 2011 during that same period. Appendix B includes the Annual and Semi-Annual Reports previously submitted to the NYSDEC. The annual reports also include the results of the collection system water sample obtained by the BSA. The sampling port is located approximately 60 feet west of MW-2, and is used to monitor the quality of the discharge to the sanitary sewer system.

3.1.2 Annual Inspection and Certification

In accordance with NYSDEC DER-10 6.3(a)(4), this PRR is to provide the information necessary to document the basis for the IC/EC certification. The certification primarily consists of an annual Site inspection to complete the NYSDEC's IC/EC Certification Form in order to confirm that the IC/ECs:

- Are in place, performing properly, and remain effective;
- That nothing has occurred that would impair the ability of the controls to protect the public health and environment;
- That nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls; and
- That access is available to the Site to evaluate continued maintenance of such controls.

A Site inspection of the property was conducted on June 16, 2011 by a Benchmark employee who meets the requirements of a Qualified Environmental Professional (QEP). At the time of the inspection, the Site was in compliance with the EC/ICs. Appendix A includes the completed Institutional and Engineering Controls Certification form. Appendix C is a photographic log showing the current condition of the Site.

3.2 Engineering and Institutional Control Requirements and Compliance

The following engineering and institutional controls are to be maintained as a requirement of the BCA for the Site:

- **Engineering Control**: The groundwater collection trench continues to operate as designed and is being maintained and monitored as required.
- **Institutional Control**: The monitoring and maintenance activities outlined in Benchmark's March 18, 2004 letter are being conducted.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions from the monitoring, maintenance, and inspection activities performed during the current PRR reporting period are as follows:

- The shallow groundwater collection system has been in operation for nearly 17 years.
- At the time of the Site inspection, the Site was in compliance with the Engineering and Institutional Controls including: groundwater monitoring, inspection, and maintenance of the groundwater monitoring wells; inspection and maintenance of the collection system; and monitoring of the discharge to the sanitary sewer.
- Based on the depth-to-groundwater measurements, the inferred groundwater flow direction indicates shallow groundwater continues to migrate toward the on-site groundwater collection system as designed, which is consistent with historic post-collection system flow patterns at the Site.
- Analytical results obtained during the August 2010 sampling event indicate that total arsenic concentrations exceed the Class "GA" Ground Water Quality Standards (GWQS; 0.025 mg/L) at wells MW-1 (0.0622 mg/L) and MW-2 (0.741 mg/L). These results are consistent with prior (2004 through 2009) sampling events, showing a neutral trend (neither increasing nor decreasing) at both well locations. Similarly, cadmium concentrations in well MW-1 have exceeded the GWQS (0.005 mg/L) since 2006, including the August 2010 monitoring event (0.0067 mg/L). Cadmium concentrations continue to be reported below the GWQS at well MW-2. Cadmium results for both wells show a neutral trend.
- Analytical results obtained during the June 2011 sampling event indicate that total arsenic concentrations exceed the Class "GA" GWQS (0.025 mg/L) at both monitoring wells MW-1 (0.055 mg/L) and MW-2 (0.39 mg/L). These results are consistent with prior (2004 through 2010) sampling events, showing no increasing or decreasing trend at well MW-1 and the beginning of a decreasing trend at well MW-2. The cadmium concentration in well MW-1 was reported below the GWQS (0.005 mg/L) for the first time since 2005 and continues to be reported below the GWQS at well MW-2. Cadmium results for both wells continue to show a neutral trend.
- Based on a visual inspection, all wells were observed to be structurally sound with the following exceptions:
    - The concrete surface seal of well MW-2 is loose and the road box cover is broken.
    - The concrete surface seal of well MW-9 is cracked.

- The bolts to the road box cover are stripped at wells MW-5 and MW-7.

Repairs to these wells will be completed by the next reporting period.

- The analytical results obtained from the BSA for the collection system water samples (permit #10-03-BU216) collected on August 30, 2010 and August 16, 2011 indicated barium concentrations (0.02 mg/L for both events) below the BSA's discharge requirement of 10 mg/L. Arsenic and cadmium results were both reported as non-detect.
- Based on a visual inspection of the sub drain sampling port and cleanout (the only portions of the sub drain system visible for inspection), no repairs are necessary.

Based upon the above conclusions, the shallow groundwater collection system has been in operation and compliance with the M&M Plan nearly 17 years with little to no change in groundwater quality since 2004. Similarly, the hydraulic capture of this system has shown little to no change from year to year during that period. Therefore, a modification to the groundwater monitoring frequency from semi-annually (e.g., one groundwater sampling/water level event in June and one water level event in December) to a single event every five years is recommended. During each quinquennial event, groundwater samples will be collected and an isopotential map prepared. Reduction to this frequency will continue to be an effective assessment of the Site going forward.

5.0 DECLARATION/LIMITATION

Benchmark Environmental Engineering & Science, PLLC personnel conducted the annual Site inspection for Brownfield Cleanup Program Site No. C915124, Buffalo, New York, according to generally accepted practices. This report complies with the scope of work provided to the City of Buffalo by Benchmark Environmental Engineering & Science, PLLC.

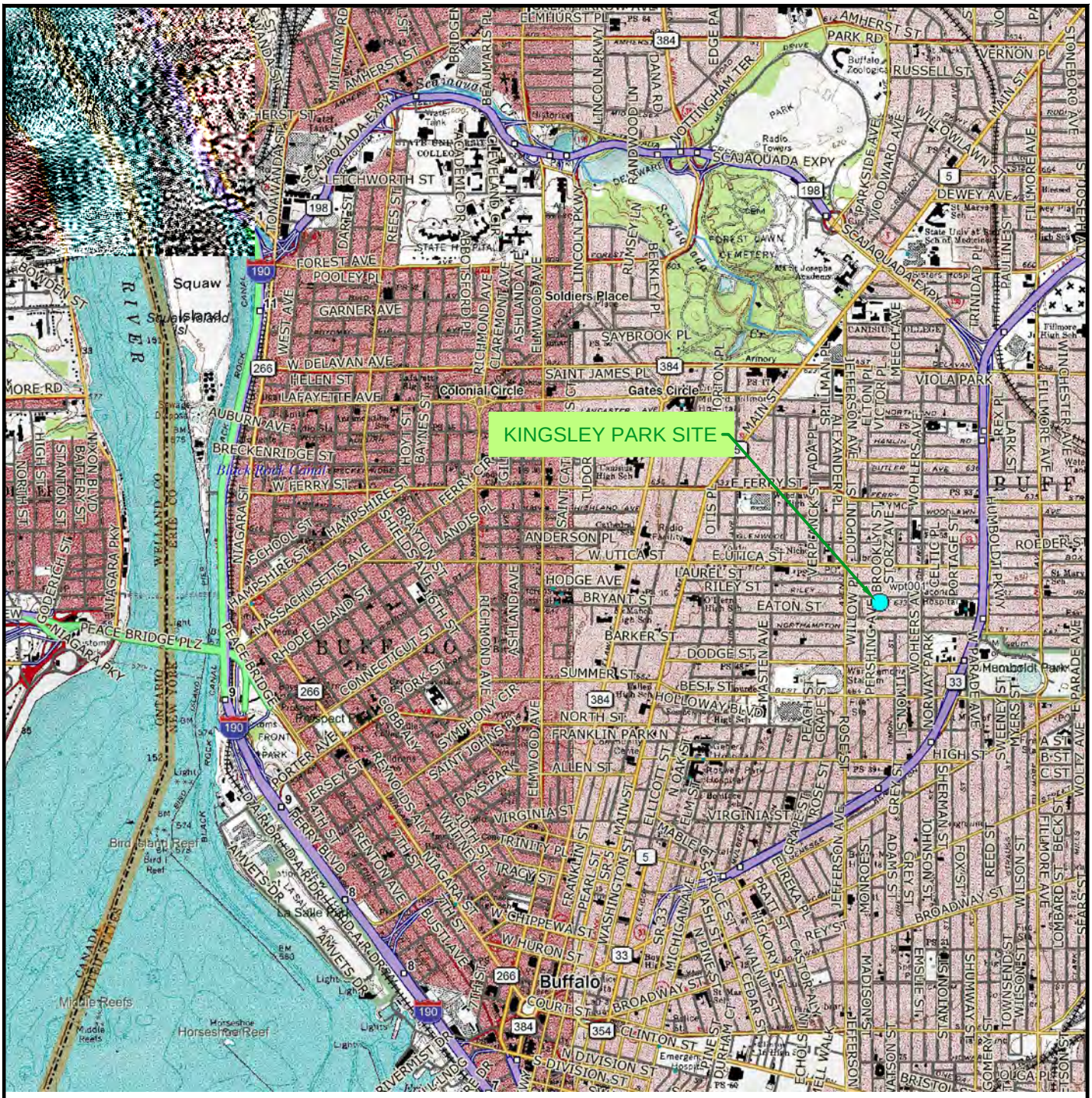
This report has been prepared for the exclusive use of the City of Buffalo. The contents of this report are limited to information available at the time of the site inspection. The findings herein may be relied upon only at the discretion of the City of Buffalo. Use of or reliance upon this report or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

6.0 REFERENCES

1. New York State Department of Environmental Conservation. *DER-10; Technical Guidance for Site Investigation and Remediation.* May 2010.
2. Engineering-Science, Inc. *Site Monitoring and Maintenance Plan for Diarsenol Company, Kingsley Park Site (Site No. 9-15-124), Buffalo, New York*. January 1994.
3. Benchmark Environmental Engineering & Science, PLLC. *Operation and Maintenance Schedule 2004*. Letter submitted to Mr. David Szymanski of NYSDEC. March 18, 2004.

FIGURES

FIGURE 1



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

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

PROJECT NO.: 0009-011-100

DATE: OCTOBER 2011

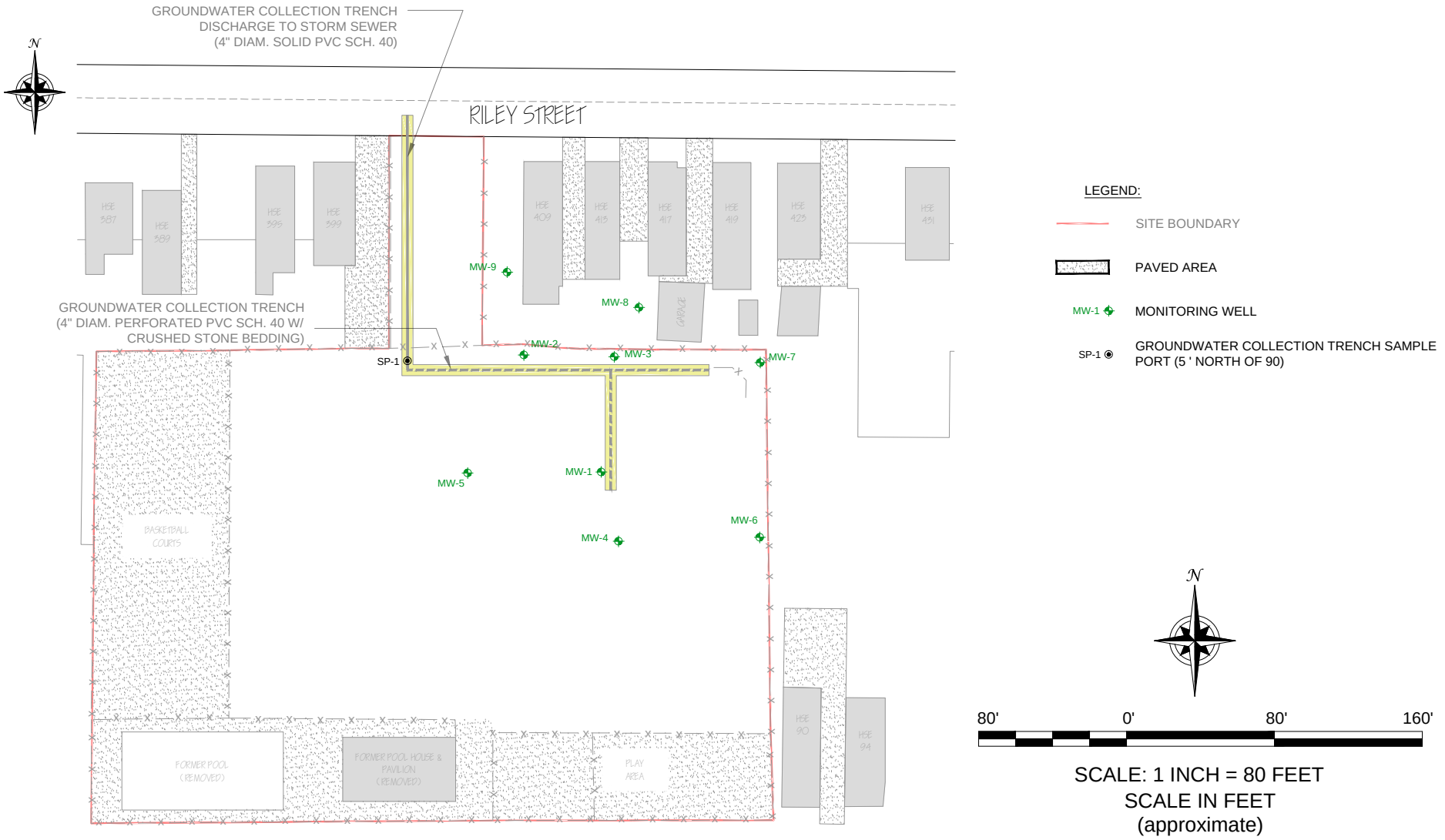
DRAFTED BY: JCT

SITE LOCATION & VICINITY MAP

PERIODIC REVIEW REPORT

KINGSLEY PARK SITE No. C915124
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW



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

PROJECT NO.: 0009-011-100

DATE: OCTOBER 2011

DRAFTED BY: BCH/JCT

SITE PLAN

PERIODIC REVIEW REPORT

KINGSLEY PARK SITE No. C915124
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW

FIGURE 2

APPENDIX A

INSTITUTIONAL & ENGINEERING CONTROLS CERTIFICATION FORM

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. 915124

Site Name Diarsenol Co., Kingsley Park

Site Address: Kingsley Street Zip Code: 14208
City/Town: Buffalo
County: Erie
Site Acreage: 2.0

Reporting Period: November 05, 2009 to August 02, 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? Restricted-Residential, 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

SITE NO. 915124 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
100.50-5-18.1	City of Buffalo	O&M Plan

Box 4

Description of Engineering Controls

Parcel	Engineering Control
100.50-5-18.1	Leachate Collection

Control Description for Site No. 915124

Parcel: 100.50-5-18.1

Site Monitoring and Maintenance Plan (12/1994)

- Maintain groundwater collection trench discharging to municipal sewer sytem and groundwater monitoring wells.
- Groundwater monitoring.

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. 915124

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 Francisco Guzman at 616 City Hall
print name print business address

am certifying as Project Manager / REP (Owner or Remedial Party)

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

Signature of Owner or Remedial Party Rendering Certification — Date: 10/24/11

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

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

I Thomas Forbes at 2558 Hamburg Turnpike, Buffalo, NY 14218
print name print business address

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

STATE OF NEW YORK
THOMAS H. FORBES
No. 70[illegible]
LICENSED PROFESSIONAL ENGINEER
Stamp
(Required for PE)

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification — Date: 10/28/11

APPENDIX B

GROUNDWATER MONITORING REPORTS
(PROVIDED ELECTRONICALLY)

APPENDIX B-1

SEMI-ANNUAL MONITORING REPORT
DECEMBER 2009

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

December 18, 2009

Mr. Dennis Sutton, P.G., C.P.G.
Environmental Project Manager
C. of Buffalo Dept of Community Dev.
Office of Strategic Planning
Room 920, City Hall
65 Niagara Square
Buffalo, New York 14202

Mr. Franciso Guzman
Project Manager – BURA Architect
C. of Buffalo Dept of Community Dev.
Office of Strategic Planning
Room 616, City Hall
65 Niagara Square
Buffalo, New York 14202

Re: City of Buffalo, Kingsley Park Site
Semi-Annual Monitoring Event – December 2009

Gentlemen:

Benchmark Environmental Engineering & Science, PLLC has prepared this semi-annual summary of groundwater elevation data collected on December 2, 2009 at the Kingsley Park Site in the City of Buffalo, NY (Figure 1). The work was performed in accordance with our March 18, 2004 correspondence to the New York State Department of Environmental Conservation (NYSDEC) without deviation.

Groundwater elevations were measured on December 2, 2009 from the 9 on-site monitoring wells shown on Figure 2. Table 1 summarizes the depth to water measurements and calculated groundwater elevation for each monitoring location. Groundwater elevation data for the current monitoring event are generally consistent with historic data. Historic elevation data and elevation versus time plots for each monitoring well are presented in Attachment 1. In general, seasonal fluctuations in groundwater elevation throughout each monitored year are apparent as shown on those plots.

An isopotential map representing the shallow groundwater at the Site was prepared from the December 2, 2008 depth-to-groundwater measurements and is presented as Figure 2. Based on those measurements, the inferred groundwater flow direction indicates shallow groundwater continues to migrate toward the on-site groundwater collection system as designed, which is consistent with historic post-collection system flow patterns at the site.

Please contact us if you have any questions or require additional information.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Bryan C. Hann
Project Manager

cc: D. Szymanski (NYSDEC – Region 9) – ecopy

file: 0009-048-100

TABLES

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
DECEMBER 2009 MONITORING EVENT

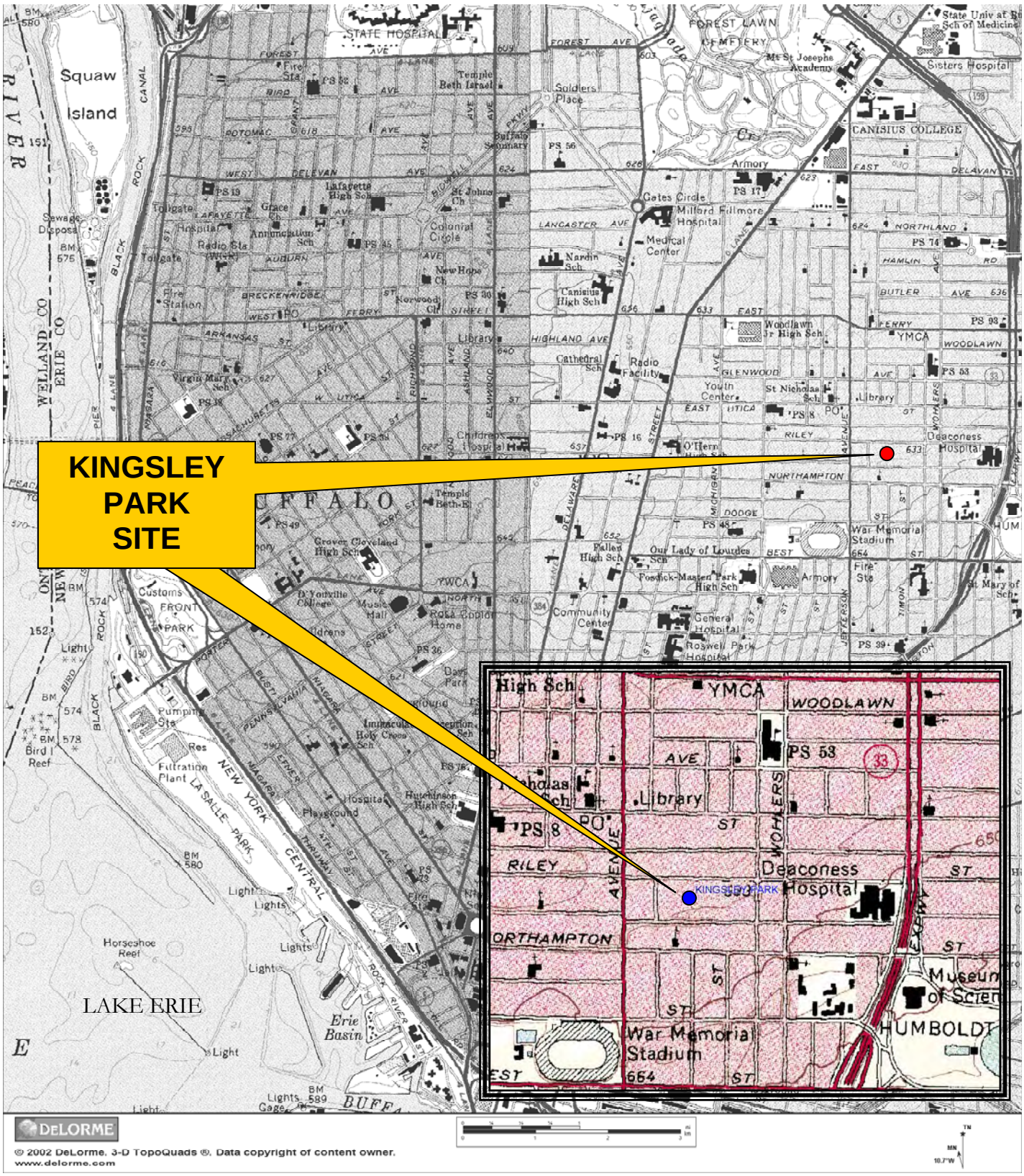
Kingsley Park Site
City of Buffalo, New York

Location	TOR Elevation [1] (fmsl)	12/02/09 DTW (fbTOR)	Groundwater Elevation [1] (fmsl)
MW-1	640.71	5.77	634.94
MW-2	640.71	5.11	635.60
MW-3	640.97	2.11	638.86
MW-4	639.87	2.60	637.27
MW-5	640.49	1.40	639.09
MW-6	640.37	0.20	640.17
MW-7	641.06	1.23	639.83
MW-8	639.60	1.06	638.54
MW-9	639.45	2.64	636.81

Notes:
1. Elevation measured in feet; distance above mean sea level (fmsl).
2. DTW = field measured Depth To Water
3. fbTOR = feet below Top of Riser
4. TOR = top of riser

FIGURES

FIGURE 1



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

PROJECT NO.: 0009-048-100

DATE: JULY 2009

DRAFTED BY: BCH

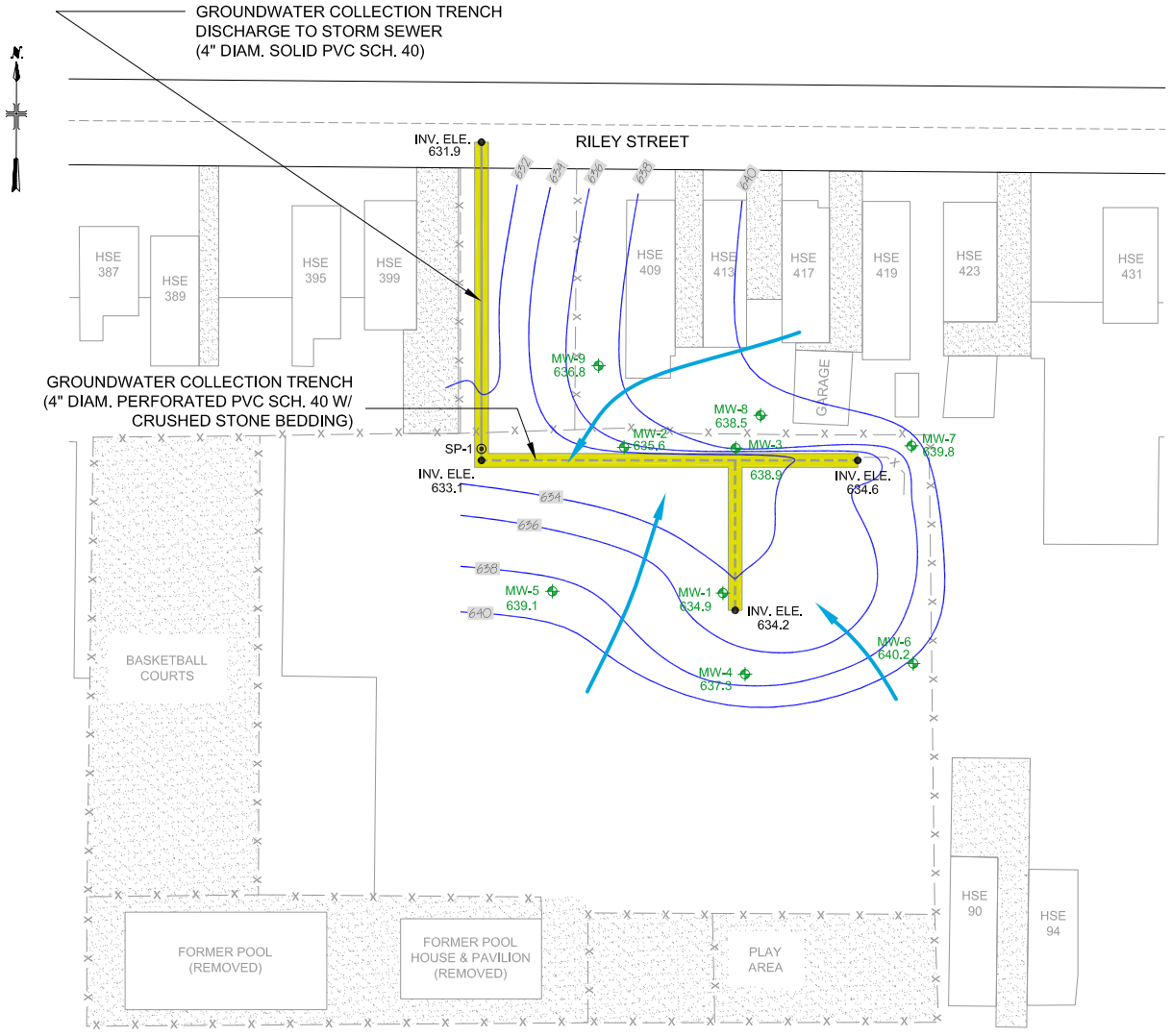
SITE LOCATION AND VICINITY MAP

SEMI-ANNUAL GROUNDWATER MONITORING EVENT

KINGSLEY PARK SITE
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW

F:\CAD\Benchmark\City of Buffalo\KINGSLEY PARK\2009\2 - December\Figure 2; Isopotential Map for December 2, 2009.dwg



LEGEND:

- MW-1 636.3 — MONITORING WELL LOCATION W/ WATER LEVEL ELEVATION MEASURED ON 07-17-09
- SP-1 — GROUNDWATER COLLECTION TRENCH SAMPLE PORT (5 ' NORTH OF 90)
- INV. ELE. 634.6 — INVERT ELEVATION OF GROUNDWATER COLLECTION TRENCH PIPE
- 634 — GROUNDWATER CONTOUR W/ ELEVATION
- GROUNDWATER FLOW DIRECTION

80' 0' 80' 160'

SCALE: 1 INCH = 80 FEET
SCALE IN FEET
(approximate)

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

PROJECT NO.: 0009-048-100

DATE: DECEMBER 2009

DRAFTED BY: BCH

ISOPOTENTIAL MAP FOR DECEMBER 2, 2009

SEMI-ANNUAL GROUNDWATER MONITORING EVENT

KINGSLEY PARK SITE
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW

FIGURE 2

ATTACHMENT 1

HISTORIC GROUNDWATER ELEVATION DATA EVALUATION

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

ATTACHMENT 1

SUMMARY OF HISTORICAL GROUNDWATER ELEVATIONS
2004 TO PRESENT

Kingsley Park Site
City of Buffalo, New York

Monitoring Location	Date of Measurement & Groundwater Elevation											
	06/22/04	12/01/04	06/29/05	11/30/05	06/27/06	11/29/06	06/26/07	12/14/07	06/13/08	12/19/08	07/17/09	12/02/09
MW-1	634.85	636.29	635.29	636.01	634.23	632.90	633.84	636.74	632.35	636.69	634.04	634.94
MW-2	635.50	636.71	634.96	636.16	634.43	636.20	635.69	636.43	634.65	636.32	633.33	635.60
MW-3	634.96	637.72	634.17	638.02	634.37	635.89	633.97	637.46	633.36	637.66	633.76	638.86
MW-4	635.56	636.29	636.12	636.65	636.62	634.76	635.40	635.76	635.55	635.85	636.18	637.27
MW-5	635.98		635.01		634.92	636.10	634.56	637.08	634.94	637.44	634.31	639.09
MW-6	635.76	636.83	633.23	640.17	633.27	635.84	633.33	638.10	634.41	639.27	631.67	640.17
MW-7	637.22	639.55	636.01	639.91	636.31	637.52	635.49	639.72	636.48	639.22	635.85	639.83
MW-8	635.15	637.22	634.24	637.69	634.82	635.26	633.92	638.30	633.60	637.80	633.91	638.54
MW-9	633.71	636.90	632.80	636.65	633.44	633.81	632.60	636.05	634.84	635.48	632.68	636.81

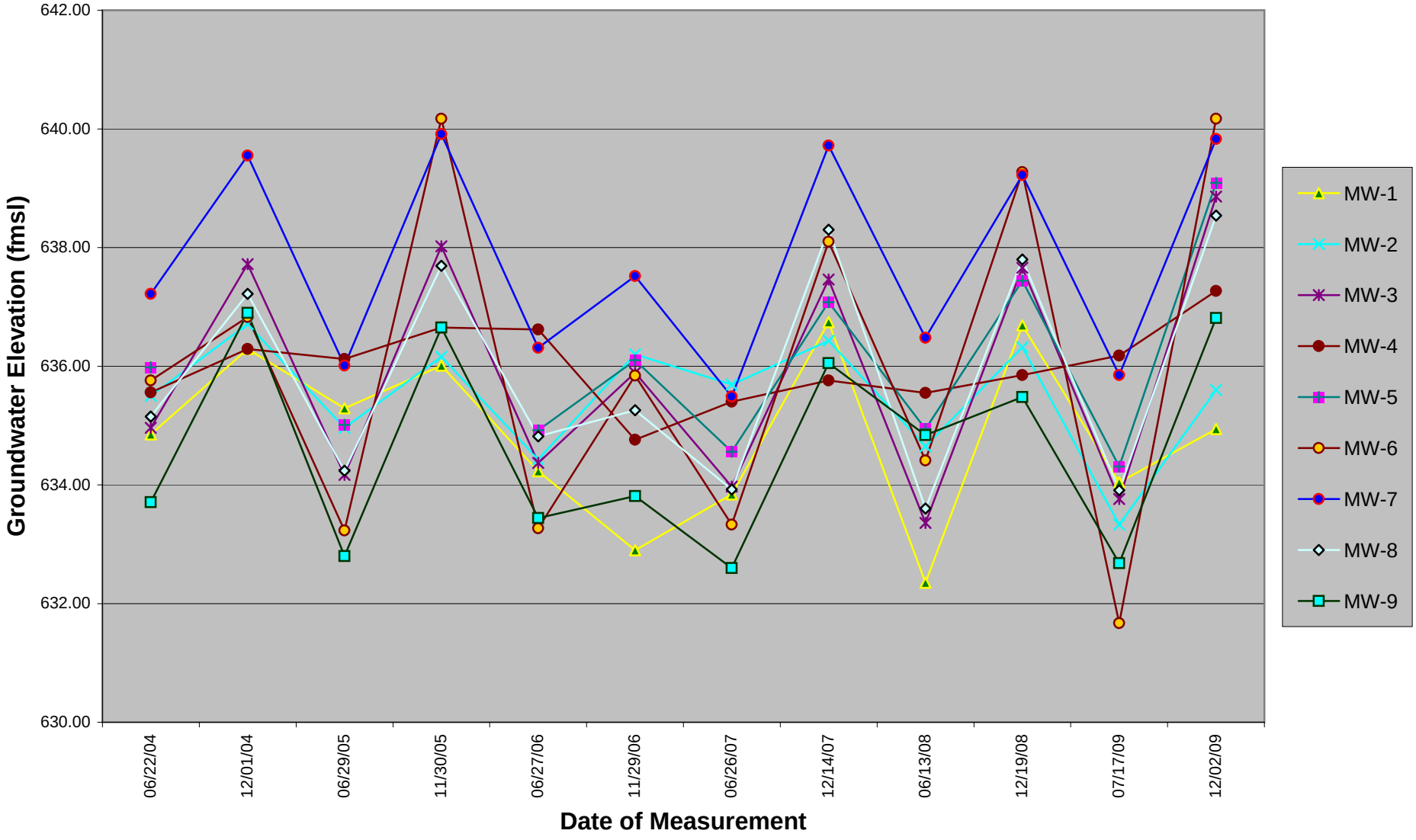
Notes:
= Large area of standing surface water submerging MW-5 flush mount well; water level could not be obtained.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

ATTACHMENT 1

HISTORICAL GROUNDWATER ELEVATIONS

Kingsley Park Site
Buffalo, New York



APPENDIX B-2

SEMI-ANNUAL MONITORING REPORT
AUGUST 2010

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

September 23, 2010

Mr. Dennis Sutton, P.G., C.P.G.
Environmental Project Manager
C. of Buffalo Dept of Community Dev.
Office of Strategic Planning
Room 920, City Hall
65 Niagara Square
Buffalo, New York 14202

Mr. Franciso Guzman
Project Manager – BURA Architect
C. of Buffalo Dept of Community Dev.
Office of Strategic Planning
Room 616, City Hall
65 Niagara Square
Buffalo, New York 14202

Re: City of Buffalo, Kingsley Park Site
Semi-Annual Monitoring Event – August 2010

Gentlemen:

Benchmark Environmental Engineering & Science, PLLC has prepared this report to present the results of groundwater monitoring activities performed on August 24, 2010 at the Kingsley Park Site in the City of Buffalo, NY (Figure 1). The work was performed in accordance with our March 18, 2004 correspondence to the New York State Department of Environmental Conservation (NYSDEC) without deviation.

MONITORING PROCEDURE

Groundwater monitoring included a round of static water level measurements from the nine on-site wells (see Table 1). Subsequent to collecting water levels, monitoring wells MW-1 and MW-2 were sampled using standard low-flow sampling techniques. Collection of samples was performed immediately following stabilization of field parameters. Field parameters recorded for each well included: pH, specific conductance, Eh, temperature, and turbidity. Sample collection logs are presented in Attachment 1. Samples were containerized in laboratory supplied, pre-preserved sample bottles, cooled to 4°C, and transmitted under chain-of-custody command to TestAmerica Laboratories in Amherst, New York.

ANALYTICAL RESULTS

Each sample was submitted for analysis of total arsenic and total cadmium via USEPA SW-846 methodology. A summary of analytical results and field measurements is presented in Table 2. Attachment 2 contains the analytical laboratory report. Analytical results indicate that total arsenic concentrations exceeded the Class "GA" Ground Water Quality Standards (GWQSs) at both monitoring wells MW-1 and MW-2. These results are consistent with prior (2004 through 2009) sampling events and show no signs of improvement. Similarly, cadmium concentrations in MW-1 have exceeded the GWQS since 2006, including the current monitoring event.

2558 Hamburg Turnpike, Suite 300 | Buffalo, NY 14218
phone: (716) 856-0599 | fax: (716) 856-0583

GROUNDWATER ELEVATION DATA

Based on water level measurements presented in Table 1, overburden groundwater elevation data indicate a hydraulic gradient towards the groundwater collection system as designed. An isopotential map illustrating shallow groundwater flow is presented as Figure 2.

SITE INSPECTION RESULTS

During the current monitoring event, all monitoring wells were observed to be structurally sound, with two exceptions; the concrete surface seal of well MW-2 was loose and the concrete surface seal of well MW-9 was cracked. Both concrete surface seals will require replacement.

Based on a visual inspection of the soil cover, no repairs to the cover system are necessary at this time.

BSA ANALYTICAL DATA FROM COLLECTION SYSTEM

At the request of the NYSDEC, Attachment 3 includes the analytical results obtained from the Buffalo Sewer Authority (BSA) for the collection system water sample collected on August 30, 2010. Only barium (0.02 mg/L) was detected above method detection limits. Total arsenic and total cadmium were both reported as non-detect.

Please contact us if you have any questions or require additional information.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Bryan C. Hann
Project Manager

ec: D. Szymanski (NYSDEC – Region 9)

File: 0009-048-600

BENCHMARK

TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
AUGUST 2010 MONITORING EVENT

Kingsley Park Site
City of Buffalo, New York

Location	TOR Elevation [1] (fmsl)	08/24/10 DTW (fbTOR)	Groundwater Elevation [1] (fmsl)
MW-1	640.71	4.81	635.90
MW-2	640.71	7.15	633.56
MW-3	640.97	7.02	633.95
MW-4	639.87	3.04	636.83
MW-5	640.49	6.41	634.08
MW-6	640.37	11.03	629.34
MW-7	641.06	6.45	634.61
MW-8	639.60	5.50	634.10
MW-9	639.45	6.16	633.29

Notes:
1. Elevation measured in feet; distance above mean sea level (fmsl).
2. DTW = field measured depth to water
3. fbTOR = feet below Top of Riser
4. TOR = top of riser

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
AUGUST 2010 MONITORING EVENT

Kingsley Park Site
City of Buffalo, New York

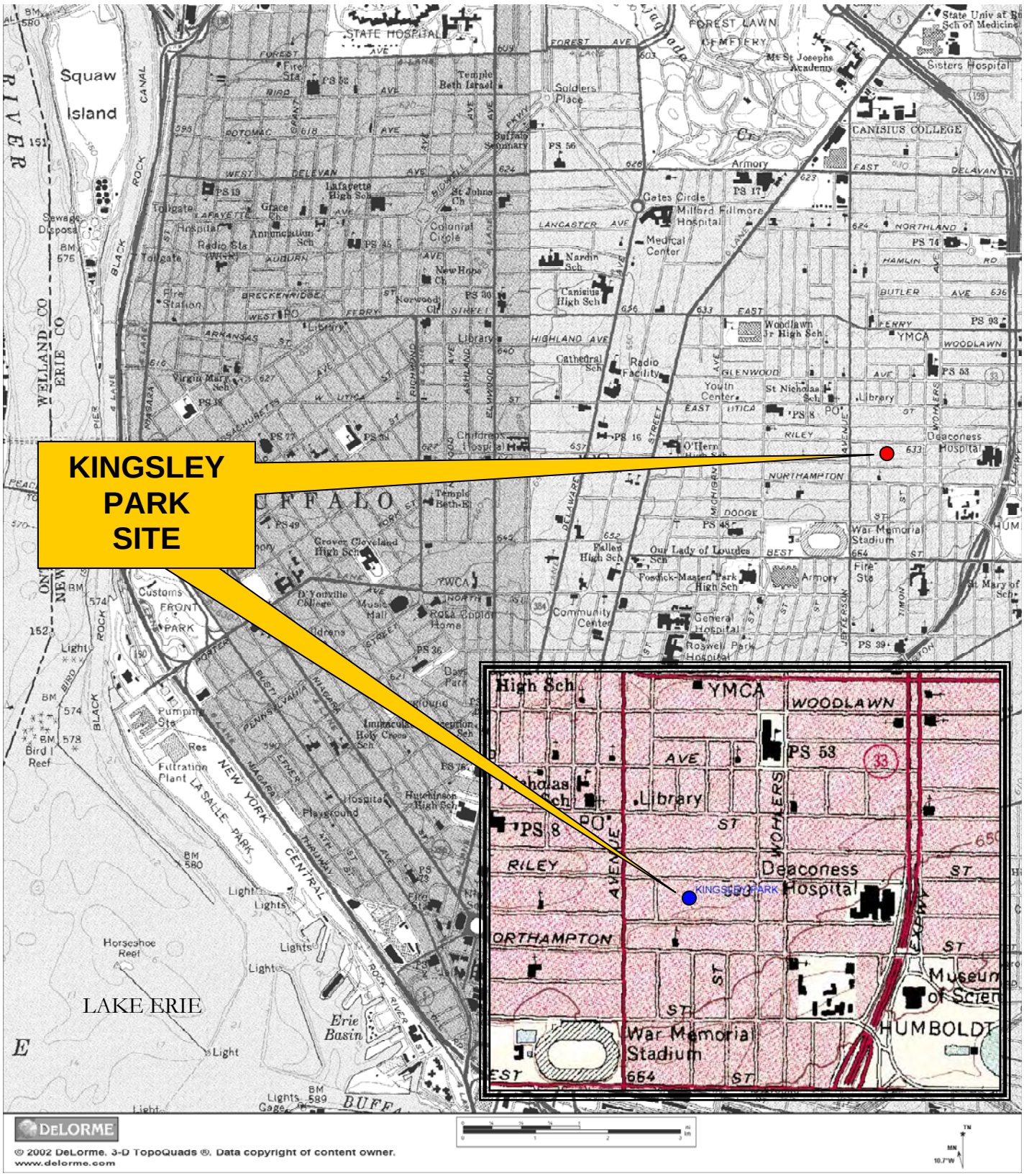
PARAMETER	Monitoring Location		Class "GA" GWQS [1]
	MW-1	MW-2	
Field Measurements			
pH (units)	6.62	6.73	6.5 - 8.5
Temperature (^{o}C)	16.4	16.1	NA
Sp. Conductance (mS)	816	2583	NA
Turbidity (NTU)	11.5	34	NA
Eh (mV)	+ 25	-13	NA
Appearance (visual)	Clear	Clear	NA
Odor (olfactory)	None	None	NA
Inorganic Compounds (mg/L):			
Total Arsenic	**0.0622**	**0.741**	0.025
Total Cadmium	**0.0067**	0.0013	0.005

Notes:

1. NYSDEC Class "GA" Groundwater Quality Standards/GuIdance Values (GWQS/GV) as per 6 NYCRR Part 703.
2. Shaded values represent exceedances of the GWQS. ##
3. " NA " = Not Applicable; a GWQS has not been established for this parameter.

FIGURES

FIGURE 1



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

PROJECT NO.: 0009-048-100

DATE: JULY 2009

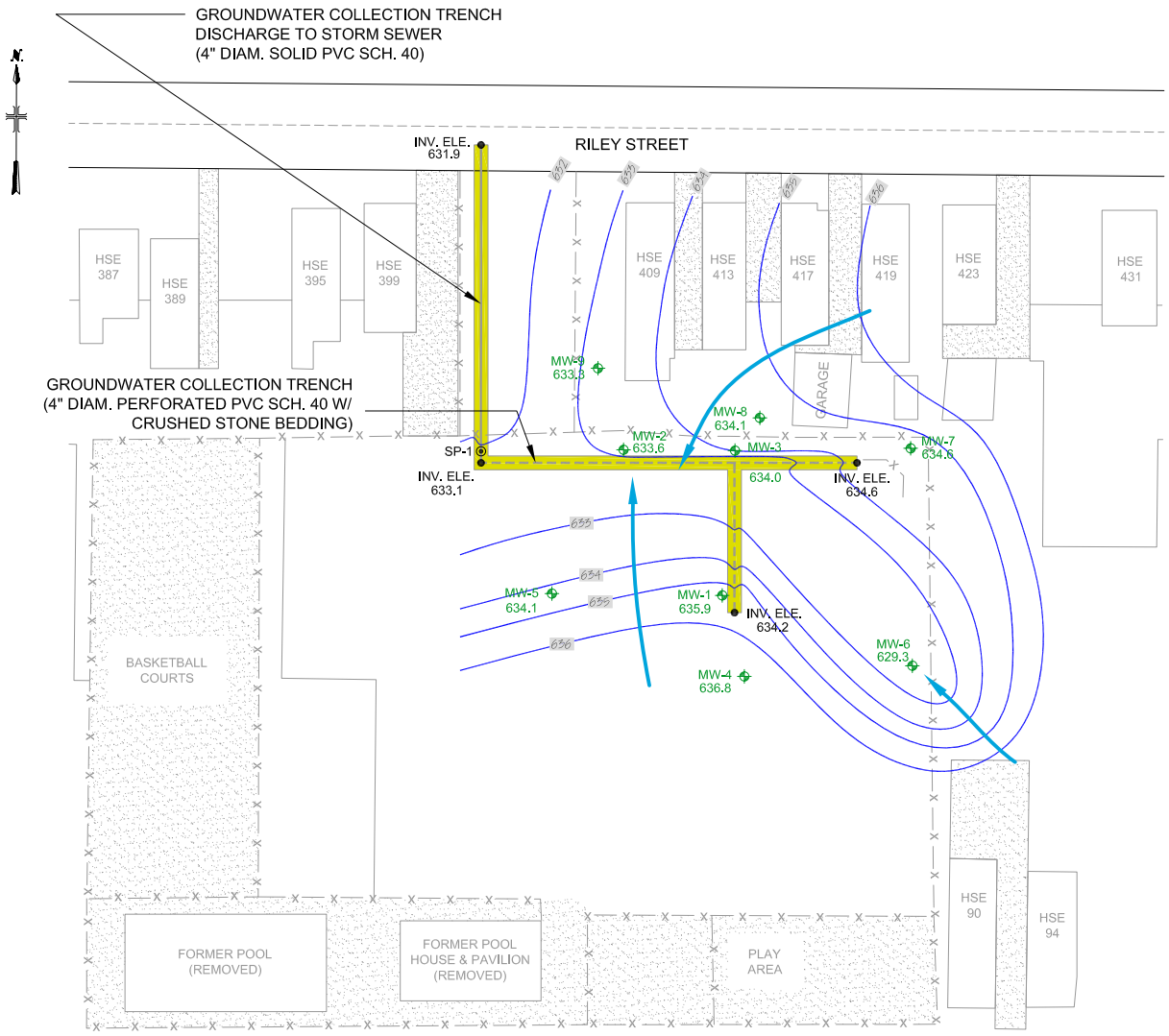
DRAFTED BY: BCH

SITE LOCATION AND VICINITY MAP

SEMI-ANNUAL GROUNDWATER MONITORING EVENT

KINGSLEY PARK SITE
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW



LEGEND:

- MW-1 636.3 — MONITORING WELL LOCATION W/ WATER LEVEL ELEVATION MEASURED ON 08-24-10
- SP-1 — GROUNDWATER COLLECTION TRENCH SAMPLE PORT (5 ' NORTH OF 90)
- INV. ELE. 634.6 — INVERT ELEVATION OF GROUNDWATER COLLECTION TRENCH PIPE
- 634 — GROUNDWATER CONTOUR W/ ELEVATION
- GROUNDWATER FLOW DIRECTION

80' 0' 80' 160'

SCALE: 1 INCH = 80 FEET
SCALE IN FEET
(approximate)

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

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

PROJECT NO.: 0009-048-600

DATE: SEPTEMBER 2010

DRAFTED BY: BCH

ISOPOTENTIAL MAP FOR AUGUST 24, 2010

SEMI-ANNUAL GROUNDWATER MONITORING EVENT

KINGSLEY PARK SITE
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW

FIGURE 2

ATTACHMENT 1

LOW-FLOW METHOD GROUNDWATER PURGE & SAMPLE COLLECTION LOGS

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
August 24, 2010

Kingsley Park Site
City of Buffalo, New York

Location	TOR Elevation [1] (fmsl)	DTGW (fbTOR)	Groundwater Elevation [1] (fmsl)
MW-1	640.71	4.81	640.71
MW-2	640.71	7.15	640.71
MW-3	640.97	7.02	640.97
MW-4	639.87	3.04	639.87
MW-5	640.49	6.41	640.49
MW-6	640.37	11.03	640.37
MW-7	641.06	6.45	641.06
MW-8	639.60	5.50	639.60
MW-9	639.45	6.16	639.45

Notes:
1. Elevation measured in feet; distance above mean sea level (fmsl).
2. DTGW = field measured Depth To Ground Water
3. fbTOR = feet below Top of Riser
4. TOR = top of riser

Clean out is open but not flowing ~~7.63~~
bottom ~~is~~ is @ 7.63

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name:

Project No.:

Client:

Date: 8/24/18

Instrument Source: ☐ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
☒ pH meter	units		Myron L Company Ultra Meter 6P	606987 ☒ 6212375 ☐		4.00 7.00 10.01	4.00 7.00 9.59	4.0 7.0 10.01
☒ Turbidity meter	NTU		Hach 2100P Turbidimeter	06120C020523 ☒ 07110C026405 ☐		< 0.1 20 100 800	0.13 20.5 99.5 758	0.1 20 100 800
☒ Sp. Cond. meter	uS mS		Myron L Company Ultra Meter 6P	606987 ☒ 6212375 ☐		1413 mS @ 25 °C	1414	1413
☐ PID	ppm		MinRAE 2000			open air zero ____ ppm Iso. Gas		MIBK response factor = 1.0
☐ Dissolved Oxygen	ppm		HACH Model HQ30d			100% Satuartion		
☐ Particulate meter	mg/m^3					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/H					background area		
☐								

ADDITIONAL REMARKS:

PREPARED BY: TAJ **DATE:** 8/24/18

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Kingsley Park Semi-Annual GWM | Date: **8/24/2010**

Location: Kingsley Park | Project No.: 0009-025-100 | Field Team: PWW/TAB

Well No. MW-1	Diameter (inches): 2"	Sample Date / Time: 8/24/2010 926
Product Depth (fbTOR):	Water Column (ft): 7.42	DTW when sampled: 6.71
DTW (static) (fbTOR): 4.81	One Well Volume (gal): 1.20	Purpose: ☐ Development ☐ Sample ☑ Purge & Sample
Total Depth (fbTOR): 12.23	Total Volume Purged (gal): 0.75	Purge Method: peristaltic

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
920	0	Initial	>.25	5.70	17.6	961.9	81.6	–	44	clear No odor
922	1	6.16	.25	6.42	15.8	849.2	17.3	–	17	"
923	2	6.51	>.50	6.52	16.1	824.1	14.1	–	20	"
924	3	6.61	.50	6.54	16.3	815.2	12.4	–	21	"
	4									
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
926	S1	6.71	>.75	6.62	16.4	816.0	11.5	–	25	"
	S2									

Well No. MW-2	Diameter (inches): 2"	Sample Date / Time: 8/24/2010 953
Product Depth (fbTOR):	Water Column (ft): 5.67	DTW when sampled: 7.70
DTW (static) (fbTOR): 7.15	One Well Volume (gal): 0.92	Purpose: ☐ Development ☐ Sample ☑ Purge & Sample
Total Depth (fbTOR): 12.82	Total Volume Purged (gal): 0.75	Purge Method: Peristaltic

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
943	0	Initial	>.25	6.67	17.3	2620	603	–	-42	Turbid No odor
944	1	7.31	.25	6.68	15.8	2604	257	–	-44	"
946	2	7.41	>.50	6.69	15.9	2584	106	–	-31	Slt Turbid
947	3	7.51	.50	6.74	15.5	2577	61.8	–	-27	"
949	4	7.60	>.75	6.68	15.5	2575	41.4	–	-17	"
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
953	S1	7.70	0.75	6.73	16.1	2583	34.0	–	-13	clear No odor
	S2									

REMARKS: MW-2 Bolts missing
Cement seal loose

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

Volume Calculation

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

Stabilization Criteria

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

PREPARED BY: AAB

ATTACHMENT 2

TESTAMERICA LABORATORIES, INC.
SAMPLE DATA SUMMARY PACKAGE

Analytical Report

Work Order: RTH1240

Project Description

Benchmark - Kingsley Park site

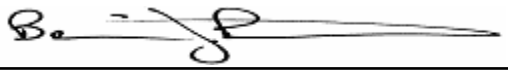
For:

Bryan Hann

Benchmark Environmental & Engineering Science

2558 Hamburg Turnpike, Suite 300

Lackawanna, NY 14218



Brian Fischer

Project Manager

Brian.Fischer@testamericainc.com

Wednesday, September 8, 2010

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

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.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

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.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

DATA QUALIFIERS AND DEFINITIONS

NR Any inclusion of NR indicates that the project specific requirements do not require reporting estimated values below the laboratory reporting limit.

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

Executive Summary - Detections

Analyte	Sample Result	Data Qualifiers	RL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTH1240-01 (MW-1 - Water)					**Sampled: 08/24/10 09:26**			**Recvd: 08/24/10 13:10**	
Total Metals by SW 846 Series Methods									
Arsenic	**0.0622**		0.0100	mg/L	1.00	09/04/10 03:12	DAN	10H1794	6010B
Cadmium	**0.0067**		0.0010	mg/L	1.00	09/04/10 03:12	DAN	10H1794	6010B
Sample ID: RTH1240-02 (MW-2 - Water)					**Sampled: 08/24/10 09:53**			**Recvd: 08/24/10 13:10**	
Total Metals by SW 846 Series Methods									
Arsenic	**0.741**		0.0100	mg/L	1.00	09/04/10 03:17	DAN	10H1794	6010B
Cadmium	**0.0013**		0.0010	mg/L	1.00	09/04/10 03:17	DAN	10H1794	6010B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

Sample Summary

Sample Identification	Lab Number	Client Matrix	Date/Time Sampled	Date/Time Received	Sample Qualifiers
MW-1	RTH1240-01	Water	08/24/10 09:26	08/24/10 13:10	
MW-2	RTH1240-02	Water	08/24/10 09:53	08/24/10 13:10	

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTH1240-01 (MW-1 - Water)					**Sampled: 08/24/10 09:26**		**Recvd: 08/24/10 13:10**		
Total Metals by SW 846 Series Methods									
Arsenic	**0.0622**		0.0100	mg/L	1.00	09/04/10 03:12	DAN	10H1794	6010B
Cadmium	**0.0067**		0.0010	mg/L	1.00	09/04/10 03:12	DAN	10H1794	6010B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

Analytical Report

Analyte	Sample Result	Data Qualifiers	RL	Units	Dil Fac	Date Analyzed	Lab Tech	Batch	Method
Sample ID: RTH1240-02 (MW-2 - Water)					**Sampled: 08/24/10 09:53**			**Recvd: 08/24/10 13:10**	
Total Metals by SW 846 Series Methods									
Arsenic	**0.741**		0.0100	mg/L	1.00	09/04/10 03:17	DAN	10H1794	6010B
Cadmium	**0.0013**		0.0010	mg/L	1.00	09/04/10 03:17	DAN	10H1794	6010B

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracte	Units	Extract Volume	Units	Date Prepared	Lab Tech	Extraction Method
Total Metals by SW 846 Series Methods									
6010B	10H1794	RTH1240-01	50.00	mL	50.00	mL	08/26/10 10:25	JRK	3005A
6010B	10H1794	RTH1240-02	50.00	mL	50.00	mL	08/26/10 10:25	JRK	3005A

Benchmark Environmental & Engineering Science
2558 Hamburg Turnpike, Suite 300
Lackawanna, NY 14218

Work Order: RTH1240

Project: Benchmark - Kingsley Park site
Project Number: TURN

Received: 08/24/10
Reported: 09/08/10 13:34

LABORATORY QC DATA

Analyte	Source Result	Spike Level	RL	Units	Result	% REC	% REC Limits	% RPD	RPD Limit	Data Qualifiers
Total Metals by SW 846 Series Methods										
Blank Analyzed: 09/04/10 (Lab Number:10H1794-BLK1, Batch: 10H1794)										
Arsenic			0.0100	mg/L	ND					
Cadmium			0.0010	mg/L	ND					
LCS Analyzed: 09/04/10 (Lab Number:10H1794-BS1, Batch: 10H1794)										
Arsenic		0.200	0.0100	mg/L	0.207	103	80-120			
Cadmium		0.200	0.0010	mg/L	0.195	97	80-120			

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Benchmark	Project Manager: Bryan Haas	Date: 8/24/10	Chain of Custody Number: 178202
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 Wurthmann	Lab Contact: B Fischer
Project Name and Location (State): Kingsley Park	Carrier/Waybill Number	Analysis (Attach list if more space is needed)	
Contract/Purchase Order/Quote No.: 0009-025-100			

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	Test for arsenic: Cadmium	Special Instructions/ Conditions of Receipt
MW-1	8-24-10	9:26		X					1				X	
MW-2	"	9:53		X					1				X	

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 Wurthmann	8/24/10	12:00	1. Received By	8-24-10	11:45
2. Relinquished By	8-24-10	13:10	2. Received By	8.24.10	1350
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

5.7°C

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

ATTACHMENT 3

BUFFALO SEWER AUTHORITY
ANALYTICAL DATA

BENCHMARK

BUFFALO SEWER AUTHORITY
INDUSTRIAL WASTE SECTION

Ft. of W. Ferry Street
90 West Ferry Street
Buffalo, NY 14213-1799
phone: 716-883-1820
fax: 716-883-3789

Fax

To: BRIAN HANN Date: 9-23-10

Fax: 856-0583 Pages: 2

Phone: (Including Cover Sheet)

Re:

☐ Urgent ☒ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

INFO YOU REQUESTED.

THANKS,

Jim O.

FROM THE DESK OF
James Overho
Investigator
phone: 716-883-1820 ext. 255

Buffalo Sewer Authority
Discharge Parameter Listing
ALL MONITORING RESULTS

IW Sample	Date	Pt	Parameter	Total Flow	Units	Results
For Discharger:	**BU216**	**BUFFALO - KINGSLEY**		**Permit: 10-03-BU216**		
11-00059	08/30/2010	001	F36 - BIS(2-ETHYLHEXYL)PHTHALAT	0.0	MicroGram	0
11-00059	08/30/2010	001	M02 - ARSENIC	0.0	MilliGram	0
11-00059	08/30/2010	001	M04 - CADMIUM	0.0	MilliGram	0
11-00059	08/30/2010	001	M81 - BARIUM	0.0	MilliGram	0.020
11-00059	08/30/2010	001	N06 - pH	0.0	Standard	7.0

APPENDIX B-3

SEMI-ANNUAL MONITORING REPORT
DECEMBER 2010

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

January 24, 2011

Mr. Dennis Sutton, P.G., C.P.G.
Environmental Project Manager
C. of Buffalo Dept of Community Dev.
Office of Strategic Planning
Room 920, City Hall
65 Niagara Square
Buffalo, New York 14202

Mr. Franciso Guzman
Project Manager – BURA Architect
C. of Buffalo Dept. of Community Dev.
Office of Strategic Planning
Room 616, City Hall
65 Niagara Square
Buffalo, New York 14202

Re: City of Buffalo, Kingsley Park Site
Semi-Annual Monitoring Event – December 2010

Gentlemen:

Benchmark Environmental Engineering & Science, PLLC has prepared this semi-annual summary of groundwater elevation data collected on December 13, 2010 at the Kingsley Park Site in the City of Buffalo, NY (Figure 1). The work was performed in accordance with our March 18, 2004 correspondence to the New York State Department of Environmental Conservation (NYSDEC) without deviation.

Groundwater elevations were measured on December 13, 2010 from the 9 on-site monitoring wells shown on Figure 2. Table 1 summarizes the depth to water measurements and calculated groundwater elevation for each monitoring location. Groundwater elevation data for the current monitoring event are generally consistent with historic data. Historic elevation data and elevation versus time plots for each monitoring well are presented in Attachment 1. In general, seasonal fluctuations in groundwater elevation throughout each monitored year are apparent as shown on those plots.

An isopotential map representing the shallow groundwater at the Site was prepared from the current depth-to-groundwater measurements and is presented as Figure 2. Based on those measurements, the inferred groundwater flow direction indicates shallow groundwater continues to migrate toward the on-site groundwater collection system as designed, which is consistent with historic post-collection system flow patterns at the site.

Please contact us if you have any questions or require additional information.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Bryan C. Hann
Project Manager

ec: D. Szymanski (NYSDEC – Region 9)

file: 0009-048-600

2558 Hamburg Turnpike, Suite 300 | Buffalo, NY 14218
phone: (716) 856-0599 | fax: (716) 856-0583

TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
December 2010 MONITORING EVENT

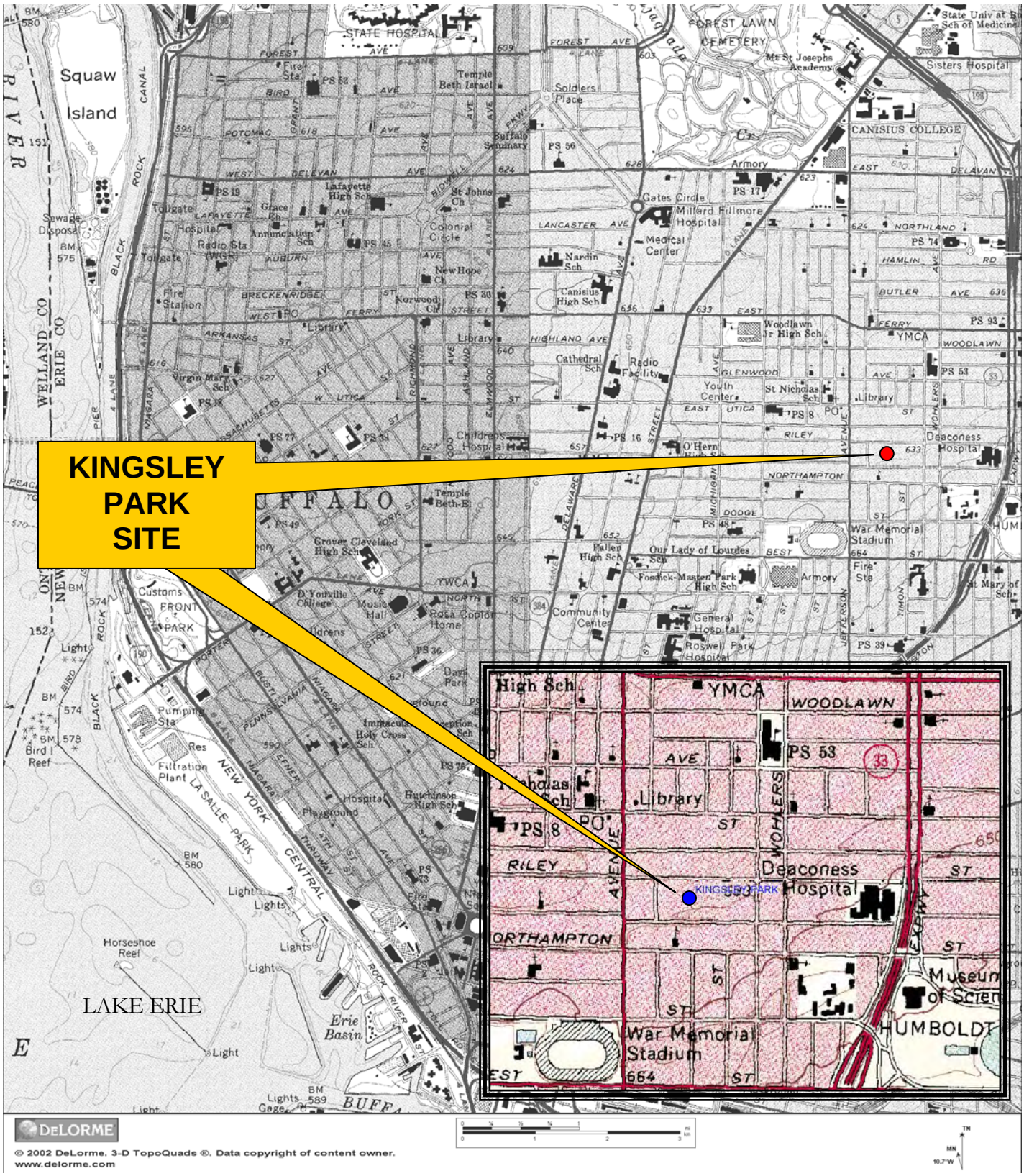
Kingsley Park Site
City of Buffalo, New York

Location	TOR Elevation [1] (fmsl)	012/13/10 DTW (fbTOR)	Groundwater Elevation [1] (fmsl)
MW-1	640.71	4.24	636.47
MW-2	640.71	4.40	636.31
MW-3	640.97	1.92	639.05
MW-4	639.87	6.31	633.56
MW-5	640.49	4.05	636.44
MW-6	640.37	3.34	637.03
MW-7	641.06	1.03	640.03
MW-8	639.60	0.83	638.77
MW-9	639.45	3.26	636.19

Notes:
1. Elevation measured in feet; distance above mean sea level (fmsl).
2. DTW = field measured depth to water
3. fbTOR = feet below Top of Riser
4. TOR = top of riser

FIGURES

FIGURE 1



BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

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

PROJECT NO.: 0009-048-100

DATE: JULY 2009

DRAFTED BY: BCH

SITE LOCATION AND VICINITY MAP

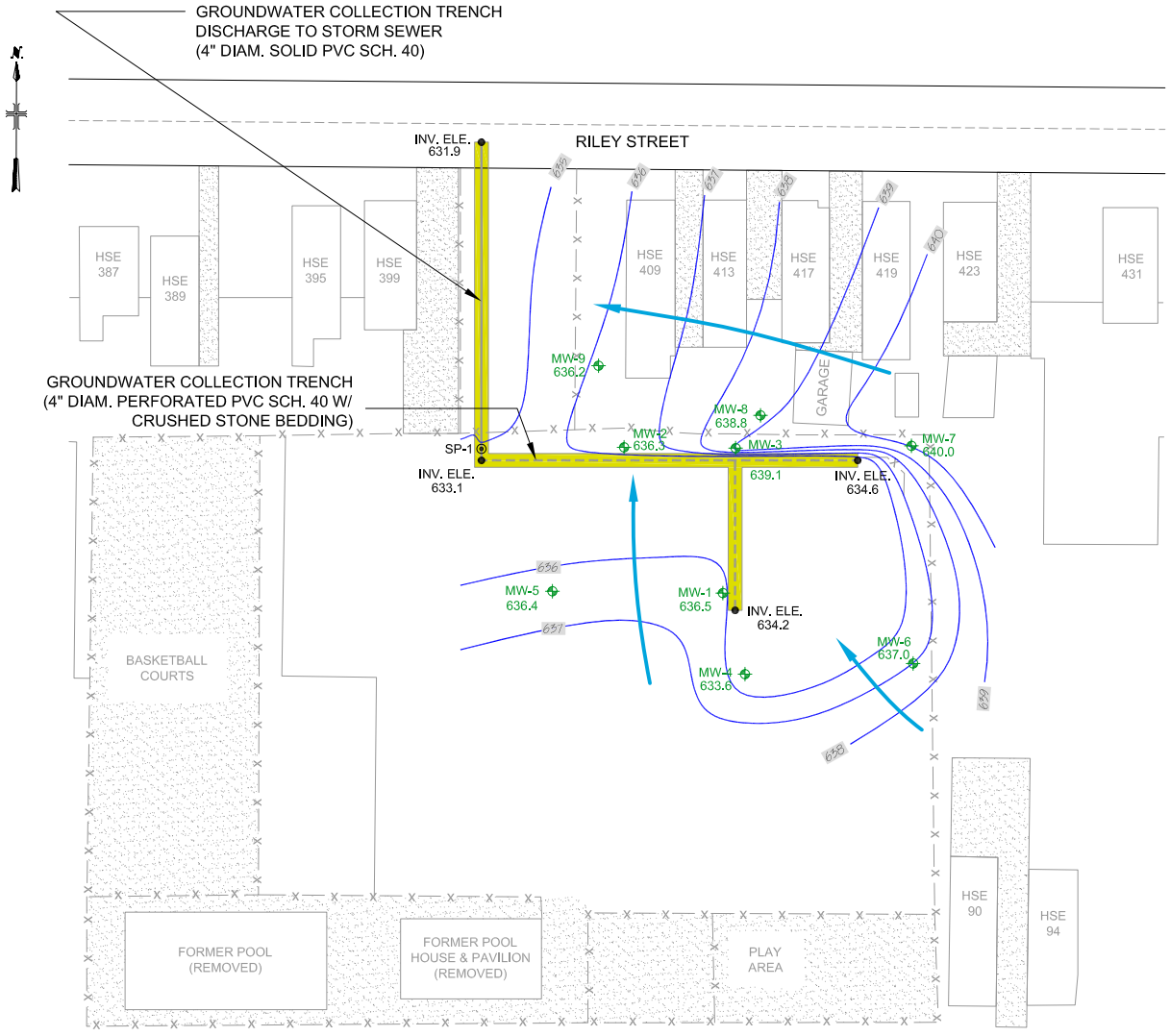
SEMI-ANNUAL GROUNDWATER MONITORING EVENT

KINGSLEY PARK SITE
BUFFALO, NEW YORK

PREPARED FOR

CITY OF BUFFALO DPW

F:\CAD\Benchmark\City of Buffalo\KINGSLEY PARK\20102 - December 2010\Figure 2; Isopotential Map for December 13, 2010.dwg



LEGEND:

- MW-1 636.3 — MONITORING WELL LOCATION W/ WATER LEVEL ELEVATION MEASURED ON 08-24-10
- SP-1 — GROUNDWATER COLLECTION TRENCH SAMPLE PORT (5 ' NORTH OF 90)
- INV. ELE. 634.6 — INVERT ELEVATION OF GROUNDWATER COLLECTION TRENCH PIPE
- 634 — GROUNDWATER CONTOUR W/ ELEVATION
- GROUNDWATER FLOW DIRECTION

80' 0' 80' 160'

SCALE: 1 INCH = 80 FEET
SCALE IN FEET
(approximate)

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

PROJECT NO.: 0009-048-600

DATE: DECEMBER 2010

DRAFTED BY: BCH

ISOPOTENTIAL MAP FOR DECEMBER 13, 2010

SEMI-ANNUAL GROUNDWATER MONITORING EVENT

KINGSLEY PARK SITE
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW

FIGURE 2

ATTACHMENT 1

HISTORIC GROUNDWATER ELEVATION DATA EVALUATION

BENCHMARK

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

ATTACHMENT 1

SUMMARY OF HISTORICAL GROUNDWATER ELEVATIONS
2004 TO PRESENT

Kingsley Park Site
City of Buffalo, New York

Monitoring Location	Date of Measurement & Groundwater Elevation													
	06/22/04	12/01/04	06/29/05	11/30/05	06/27/06	11/29/06	06/26/07	12/14/07	06/13/08	12/19/08	07/17/09	12/02/09	08/24/10	12/13/10
MW-1	634.85	636.29	635.29	636.01	634.23	632.90	633.84	636.74	632.35	636.69	634.04	634.94	635.90	636.47
MW-2	635.50	636.71	634.96	636.16	634.43	636.20	635.69	636.43	634.65	636.32	633.33	635.60	633.56	636.31
MW-3	634.96	637.72	634.17	638.02	634.37	635.89	633.97	637.46	633.36	637.66	633.76	638.86	633.95	639.05
MW-4	635.56	636.29	636.12	636.65	636.62	634.76	635.40	635.76	635.55	635.85	636.18	637.27	636.83	633.56
MW-5	635.98		635.01		634.92	636.10	634.56	637.08	634.94	637.44	634.31	639.09	634.08	636.44
MW-6	635.76	636.83	633.23	640.17	633.27	635.84	633.33	638.10	634.41	639.27	631.67	640.17	629.34	637.03
MW-7	637.22	639.55	636.01	639.91	636.31	637.52	635.49	639.72	636.48	639.22	635.85	639.83	634.61	640.03
MW-8	635.15	637.22	634.24	637.69	634.82	635.26	633.92	638.30	633.60	637.80	633.91	638.54	634.10	638.77
MW-9	633.71	636.90	632.80	636.65	633.44	633.81	632.60	636.05	634.84	635.48	632.68	636.81	633.29	636.19

Notes:

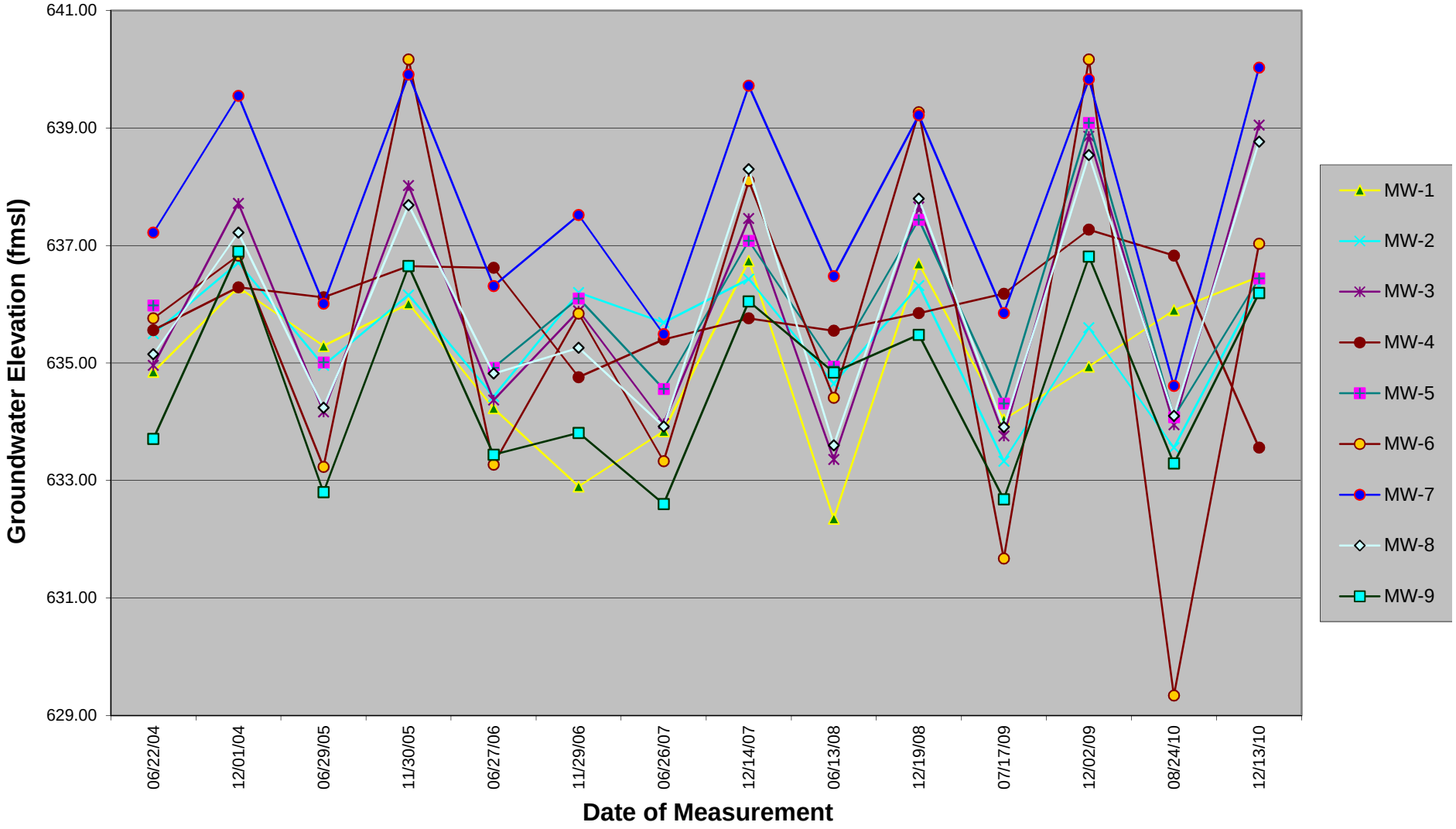
= Large area of standing surface water submerging MW-5 flush mount well; water level could not be obtained.

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

ATTACHMENT 1

HISTORICAL GROUNDWATER ELEVATIONS

Kingsley Park Site
Buffalo, New York



APPENDIX B-4

SEMI-ANNUAL MONITORING REPORT
JUNE 2011

BENCHMARK

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

September 8, 2011

Mr. Dennis Sutton, P.G., C.P.G.
Environmental Project Manager
C. of Buffalo Dept. of Community Dev.
Office of Strategic Planning
Room 920, City Hall
65 Niagara Square
Buffalo, New York 14202

Mr. Franciso Guzman
Project Manager – BURA Architect
C. of Buffalo Dept. of Community Dev.
Office of Strategic Planning
Room 616, City Hall
65 Niagara Square
Buffalo, New York 14202

Re: City of Buffalo, Kingsley Park Site
Former Diarsenol Company Site (Facility Code: 915124)
Semi-Annual Monitoring Event – June 2011

Gentlemen:

Benchmark Environmental Engineering & Science, PLLC has prepared this report to present the results of groundwater monitoring activities performed on June 16, 2011 at the Kingsley Park Site in the City of Buffalo, NY (Figure 1). The work was performed in accordance with our March 18, 2004 correspondence to the New York State Department of Environmental Conservation (NYSDEC) without deviation.

GROUNDWATER FLOW & COLLECTION SYSTEM EVALUATION

Depth to water measurements and calculated groundwater elevations measured from the 9 on-site wells are summarized in Table 1. An isopotential map, presented as Figure 2, was prepared from the June 2011 groundwater elevations. Based on those measurements, the isopotential map indicates an overburden groundwater hydraulic gradient towards the groundwater collection system as designed.

FIELD ACTIVITIES AND FINDINGS

Table 2 summarizes the field-measured parameters and analytical results for the current sampling event. Analytical results for each compound 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 highlighted. Sample collection logs are presented in Attachment 1 and the analytical laboratory report in Attachment 2.

HISTORICAL ASSESSMENT

Arsenic and cadmium concentration-time plots along with their respective four-year moving averages were prepared from historical data for wells MW-1 and MW-2. The plots and

moving averages are presented in Attachment 3. A review of the plots indicates the following:

- Arsenic concentrations are consistently above the Class "GA" Ground Water Quality Standards (GWQSs) for both wells.
- The arsenic four-year moving average indicates a neutral trend (neither increasing nor decreasing) consistently below the GWQS for well MW-1 and a decreasing trend above the GWQS for well MW-2.
- Cadmium concentrations were reported below the GWQS for the first time since 2005 at well MW-1 with a neutral four-year moving average trend (neither increasing nor decreasing) above the GWQS.
- Cadmium concentrations continue to be reported below the GWQS at well MW-2 with a neutral four-year moving average trend (neither increasing nor decreasing) also below the GWQS.

In general, current reported analytical results are consistent with prior (2004 through 2010) sampling events and show little to no signs of improvement.

NYSDEC EQuIS Deliverables

EQuIS is an environmental data management system recently selected by the NYSDEC to manage all of their environmental, geotechnical, and limnological data. As of April 2011, all investigation and post-cleanup monitoring data submitted to the Division of Environmental Remediation (DER) under a remedial program (i.e., State Superfund, Brownfield Cleanup Program, Environmental Restoration Program, Petroleum Spills, Voluntary Cleanup Program, or Consent Order) must be concurrently entered into New York State's designated EQuIS Database in Electronic Data Deliverable (EDD) format. This necessitates upload of the laboratory analytical results as well as the geographic location (survey coordinates) of the sampling points. It is a rather tedious process which, unfortunately, adds significant burden to the reporting effort and requires that we obtain coordinates for any sample locations that have not already been surveyed. All nine site wells were surveyed on July 20, 2011. The USEPA has initiated a similar program for NY State sites under its purview. On July 20, 2011, Benchmark submitted the Kingsley Park data for the current monitoring event to the NYSDEC on behalf of the City of Buffalo to satisfy this requirement.

Site Inspection Results

During the current monitoring event, all wells were observed to be structurally sound, with the following exceptions:

- the concrete surface seal of well MW-2 was loose and the road box cover broken, both should be replaced;
- standing water was observed within the road box at wells MW-4 and MW-8, no action is necessary;

- the concrete surface seal of well MW-9 was cracked and should be replaced; and
- the bolts to the road box cover are stripped at well MW-7, the road box should be replaced.

Based on a visual inspection of the soil cover, no repairs to the cover system are necessary at this time.

BSA Analytical Data From Collection System

At the request of the NYSDEC, Attachment 4 includes the analytical results obtained from the Buffalo Sewer Authority (BSA) for the collection system water sample (permit #10-03-BU216) collected on August 16, 2011. Only barium (0.02 mg/L) was detected above method detection limits. Total arsenic and total cadmium were both reported as non-detect.

Planned Activities

The next planned semi-annual monitoring event is tentatively scheduled for December 2011.

Please contact us if you have any questions or require additional information.

Sincerely,
Benchmark Environmental Engineering & Science, PLLC

Bryan C. Hann
Project Manager

ec: D. Szymanski (NYSDEC – Region 9)
T. Forbes (Benchmark)

File: 0009-051-600

TABLES

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
JUNE 2011 MONITORING EVENT

Kingsley Park Site
City of Buffalo, New York

Location	TOR Elevation [1] (fmsl)	6/16/11 DTW (fbTOR)	Groundwater Elevation [1] (fmsl)
MW-1	640.71	6.38	634.33
MW-2	640.71	6.31	634.40
MW-3	640.97	6.23	634.74
MW-4	639.87	6.00	633.87
MW-5	640.49	4.41	636.08
MW-6	640.37	4.03	636.34
MW-7	641.06	3.94	637.12
MW-8	639.60	4.66	634.94
MW-9	639.45	5.73	633.72

Notes:
1. Elevation measured in feet; distance above mean sea level (fmsl).
2. DTW = field measured depth to water
3. fbTOR = feet below Top of Riser
4. TOR = top of riser

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
JUNE 2011 MONITORING EVENT

Kingsley Park Site
City of Buffalo, New York

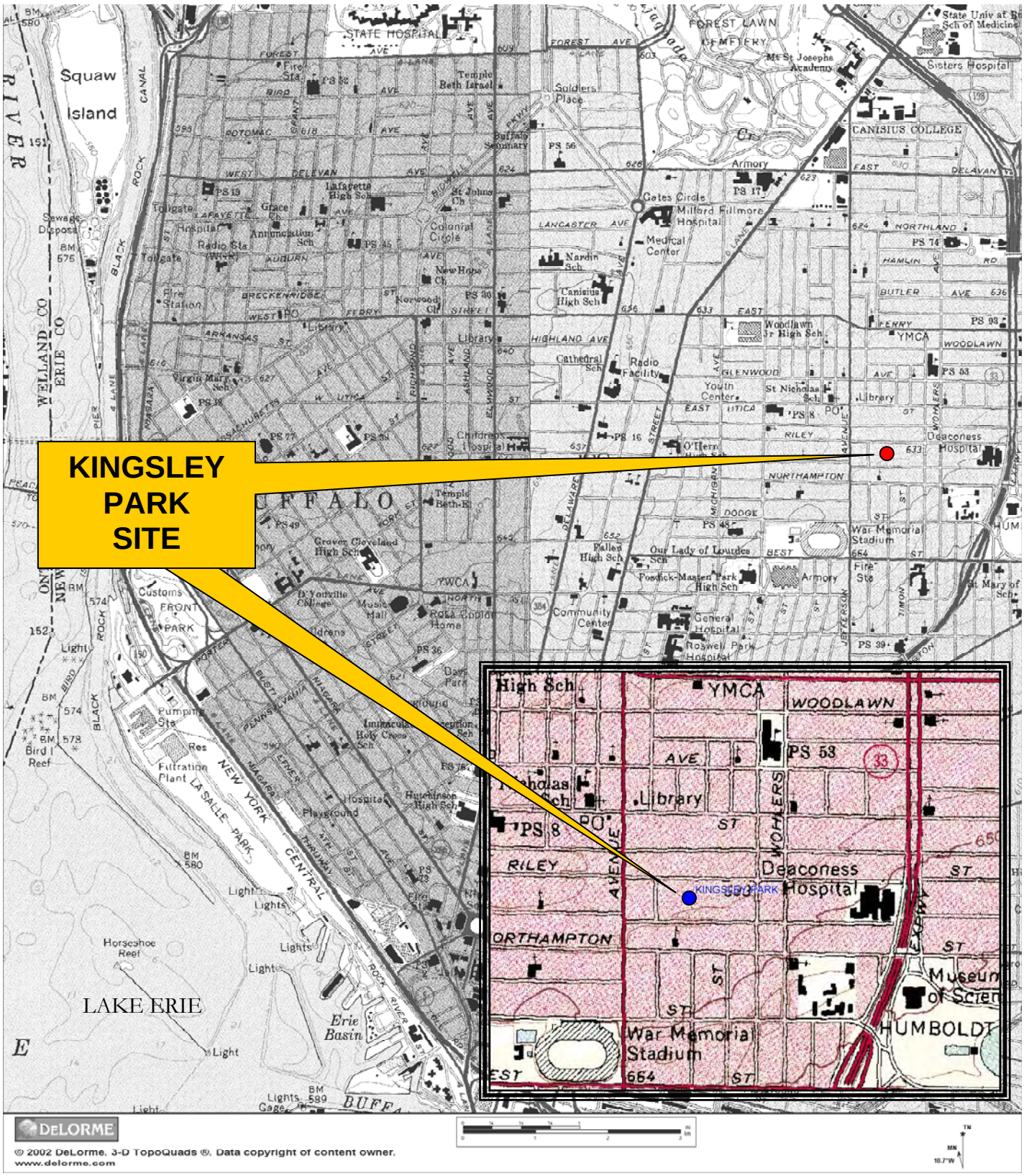
PARAMETER	Monitoring Location		Class "GA" GWQS [1]
	MW-1	MW-2	
Field Measurements			
pH (units)	7.13	6.77	6.5 - 8.5
Temperature (^{o}C)	14.2	13.9	NA
Sp. Conductance (mS)	872	2458	NA
Turbidity (NTU)	6.45	4.83	NA
Eh (mV)	+ 77	+ 101	NA
Appearance (visual)	clear	clear	NA
Odor (olfactory)	none	none	NA
Inorganic Compounds (mg/L):			
Total Arsenic	**0.055**	**0.39**	0.025
Total Cadmium	0.0041	0.0021	0.005

Notes:

1. NYSDEC Class "GA" Groundwater Quality Standards/GuIdance Values (GWQS/GV) as per 6 NYCRR Part 703.
2. Shaded values represent exceedances of the GWQS. ##
3. " NA " = Not Applicable; a GWQS has not been established for this parameter.

FIGURES

FIGURE 1



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

PROJECT NO.: 0009-048-100

DATE: JULY 2009

DRAFTED BY: BCH

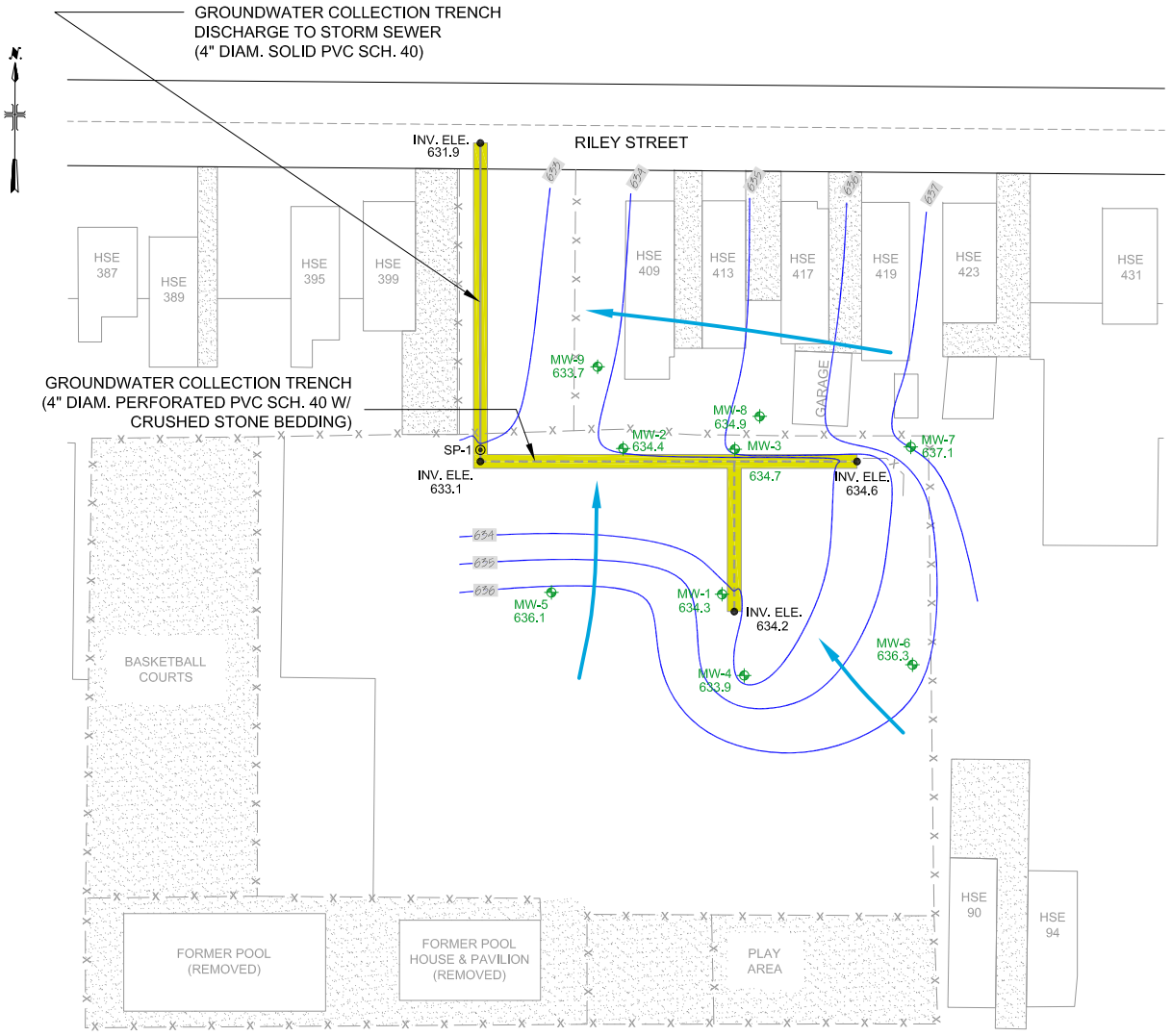
SITE LOCATION AND VICINITY MAP

SEMI-ANNUAL GROUNDWATER MONITORING EVENT

KINGSLEY PARK SITE
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW

F:\CAD\Benchmark\City of Buffalo\KINGSLEY PARK\2011\1 - June 2011\Figure 2; Isopotential Map for June 16, 2011.dwg



LEGEND:

- MW-1 636.3 — MONITORING WELL LOCATION W/ WATER LEVEL ELEVATION MEASURED ON 06-16-11
- SP-1 — GROUNDWATER COLLECTION TRENCH SAMPLE PORT (5 ' NORTH OF 90)
- INV. ELE. 634.6 — INVERT ELEVATION OF GROUNDWATER COLLECTION TRENCH PIPE
- 654 — GROUNDWATER CONTOUR W/ ELEVATION
- GROUNDWATER FLOW DIRECTION

80' 0' 80' 160'

SCALE: 1 INCH = 80 FEET
SCALE IN FEET
(approximate)

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

PROJECT NO.: 0009-051-600

DATE: JULY 2011

DRAFTED BY: BCH

ISOPOTENTIAL MAP FOR JUNE 16, 2011

SEMI-ANNUAL GROUNDWATER MONITORING EVENT

KINGSLEY PARK SITE
BUFFALO, NEW YORK

PREPARED FOR
CITY OF BUFFALO DPW

FIGURE 2

ATTACHMENT 1

LOW-FLOW METHOD GROUNDWATER PURGE & SAMPLE COLLECTION LOGS

BENCHMARK

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

EQUIPMENT CALIBRATION LOG

PROJECT INFORMATION:

Project Name: Kingsley park

Project No.:

Client: City of Buffalo

Date: 6/16/11

Instrument Source: ☒ BM ☐ Rental

METER TYPE	UNITS	TIME	MAKE/MODEL	SERIAL NUMBER	CAL. BY	STANDARD	POST CAL. READING	SETTINGS
☒ pH meter	units	0730	Myron L Company Ultra Meter 6P	606987 ☐ 6212375 ☒		4.00 7.00 10.01	3.99 7.01 10.00	
☒ Turbidity meter	NTU	0730	Hach 2100P Turbidimeter	06120C020523 ☐ 07110C026405 ☑		< 0.4 20 100 800	0.67 22.5 99.1 793	
☒ Sp. Cond. meter	uS mS	6730	Myron L Company Ultra Meter 6P	606987 ☐ 6212375 ☒		1413 mS @ 25 °C	1412	
☐ PID	ppm		MinRAE 2000			open air zero ____ ppm Iso. Gas		MIBK response factor = 1.0
☒ Dissolved Oxygen	ppm	0730	HACH Model HQ30d		JAB	100% Satuartion	✓	
☐ Particulate meter	mg/m³					zero air		
☐ Oxygen	%					open air		
☐ Hydrogen sulfide	ppm					open air		
☐ Carbon monoxide	ppm					open air		
☐ LEL	%					open air		
☐ Radiation Meter	uR/H					background area		
☐								

ADDITIONAL REMARKS:

PREPARED BY: JAB **DATE:** 6/16/11

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC

GROUNDWATER FIELD FORM

Project Name: Kingsley Park Date: 6/16/11

Location: Buffalo Project No.: Field Team: TAB / AK

Well No. MW-1	Diameter (inches): 2"	Sample Date / Time: 6/16/11 ~9:00 AM
Product Depth (fbTOR): —	Water Column (ft): 5.85	DTW when sampled: 6.86
DTW (static) (fbTOR): 6.38	One Well Volume (gal): 0.95	Purpose: ☐ Development ☐ Sample ☒ Purge & Sample
Total Depth (fbTOR): ~~12~~ 12.23	Total Volume Purged (gal):	Purge Method:

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
8:51	0	Initial	0	6.76	15.9	1010	27.1	2.56	139	clear no odor
8:54	1	6.57	0.25	7.01	14.4	945.0	9.87	2.09	97	" "
8:56	2	6.61	0.35	7.10	14.3	922.5	11.1	2.03	85	" "
8:59	3	6.68	0.40	7.11	14.2	885.1	9.01	2.33	80	" "
9:01	4	6.86	0.48	7.13	14.2	878.9	9.60	2.04	78	" "
	5									
	6									
	7									
	8									
	9									
	10									
Sample Information:										
9:03	S1	6.86	0.5	7.13	14.2	872.0	6.45	2.19	77	" "
	S2									

Well No.	Diameter (inches): 2"	Sample Date / Time: 6/16/11 9:30 AM
Product Depth (fbTOR):	Water Column (ft): 6.52	DTW when sampled: 7.31
DTW (static) (fbTOR): 7.31	One Well Volume (gal): 1.06	Purpose: ☐ Development ☐ Sample ☒ Purge & Sample
Total Depth (fbTOR): 13.83	Total Volume Purged (gal):	Purge Method: Peristaltic

Time		Water Level (fbTOR)	Acc. Volume (gallons)	pH (units)	Temp. (deg. C)	SC (uS)	Turbidity (NTU)	DO (mg/L)	ORP (mV)	Appearance & Odor
9:17	0	Initial	0	6.78	14.9	2733	58.1	2.57	102	clear no odor
9.21	1	7.27	0.05	6.83	13.7	2765	49.8	2.09	98	" "
9.22	2	7.27	0.07	6.87	13.4	2658	25.7	2.30	98	" "
9.25	3	7.27	0.09	6.74	13.5	2518	15.9	2.18	100	" "
9.27	4	7.26	0.11	6.78	13.8	2480	12.2	2.08	101	" "
9.29	5	7.27	0.25	6.78	13.9	2435	9.94	2.33	101	" "
	6	~~7~~								
	7									
	8									
	9									
	10									
Sample Information:										
9:31	S1	7.31	0.27	6.77	13.9.	2458	4783	2.15	101	" "
	S2									

REMARKS: MW-2 Roadbox Cap Broken most likely due to lawnmower

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

Volume Calculation

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

Stabilization Criteria

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

PREPARED BY: TAB

ATTACHMENT 2

TESTAMERICA LABORATORIES, INC.
SAMPLE DATA SUMMARY PACKAGE

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-6246-1
Client Project/Site: Benchmark - Kingsley Park site

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

Attn: Mr. Bryan Hann

Authorized for release by:
06/29/2011 02:36:04 PM

Brian Fischer
Project Manager II
brian.fischer@testamericainc.com

Table of Contents

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Job ID: 480-6246-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-6246-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

Detection Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Client Sample ID: MW-1 — Lab Sample ID: 480-6246-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.055		0.010		mg/L	1		6010B	Total/NA
Cadmium	0.0041		0.0010		mg/L	1		6010B	Total/NA

Client Sample ID: MW-2 — Lab Sample ID: 480-6246-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.39		0.010		mg/L	1		6010B	Total/NA
Cadmium	0.0021		0.0010		mg/L	1		6010B	Total/NA

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Client Sample ID: MW-1
Date Collected: 06/16/11 00:00
Date Received: 06/17/11 12:10

Lab Sample ID: 480-6246-1
Matrix: Water

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.055		0.010		mg/L		06/21/11 09:00	06/21/11 16:36	1
Cadmium	0.0041		0.0010		mg/L		06/21/11 09:00	06/21/11 16:36	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Client Sample ID: MW-2
Date Collected: 06/16/11 00:00
Date Received: 06/17/11 12:10

Lab Sample ID: 480-6246-2
Matrix: Water

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.39		0.010		mg/L		06/21/11 09:00	06/21/11 16:43	1
Cadmium	0.0021		0.0010		mg/L		06/21/11 09:00	06/21/11 16:43	1

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-20786/1-A
Matrix: Water
Analysis Batch: 21068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		06/21/11 09:00	06/21/11 16:32	1
Cadmium	ND		0.0010		mg/L		06/21/11 09:00	06/21/11 16:32	1

Lab Sample ID: LCS 480-20786/2-A
Matrix: Water
Analysis Batch: 21068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Arsenic	0.200	0.199		mg/L		100	80 - 120
Cadmium	0.200	0.204		mg/L		102	80 - 120

QC Association Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Metals

Prep Batch: 20786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-20786/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-20786/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-6246-1	MW-1	Total/NA	Water	3005A	
480-6246-2	MW-2	Total/NA	Water	3005A	

Analysis Batch: 21068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-20786/1-A	Method Blank	Total/NA	Water	6010B	20786
LCS 480-20786/2-A	Lab Control Sample	Total/NA	Water	6010B	20786
480-6246-1	MW-1	Total/NA	Water	6010B	20786
480-6246-2	MW-2	Total/NA	Water	6010B	20786

Lab Chronicle

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Client Sample ID: MW-1

Lab Sample ID: 480-6246-1

Date Collected: 06/16/11 00:00

Matrix: Water

Date Received: 06/17/11 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			20786	06/21/11 09:00	MM	TAL BUF
Total/NA	Analysis	6010B		1	21068	06/21/11 16:36	LH	TAL BUF

Client Sample ID: MW-2

Lab Sample ID: 480-6246-2

Date Collected: 06/16/11 00:00

Matrix: Water

Date Received: 06/17/11 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			20786	06/21/11 09:00	MM	TAL BUF
Total/NA	Analysis	6010B		1	21068	06/21/11 16:43	LH	TAL BUF

Laboratory References:

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

Certification Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Buffalo	Arkansas	State Program	6	88-0686
TestAmerica Buffalo	California	NELAC	9	1169CA
TestAmerica Buffalo	Connecticut	State Program	1	PH-0568
TestAmerica Buffalo	Florida	NELAC	4	E87672
TestAmerica Buffalo	Georgia	Georgia EPD	4	N/A
TestAmerica Buffalo	Georgia	State Program	4	956
TestAmerica Buffalo	Illinois	NELAC	5	100325 / 200003
TestAmerica Buffalo	Iowa	State Program	7	374
TestAmerica Buffalo	Kansas	NELAC	7	E-10187
TestAmerica Buffalo	Kentucky	Kentucky UST	4	30
TestAmerica Buffalo	Kentucky	State Program	4	90029
TestAmerica Buffalo	Louisiana	NELAC	6	02031
TestAmerica Buffalo	Maine	State Program	1	NY0044
TestAmerica Buffalo	Maryland	State Program	3	294
TestAmerica Buffalo	Massachusetts	State Program	1	M-NY044
TestAmerica Buffalo	Michigan	State Program	5	9937
TestAmerica Buffalo	Minnesota	NELAC	5	036-999-337
TestAmerica Buffalo	New Hampshire	NELAC	1	68-00281
TestAmerica Buffalo	New Hampshire	NELAC	1	2337
TestAmerica Buffalo	New Jersey	NELAC	2	NY455
TestAmerica Buffalo	New York	NELAC	2	10026
TestAmerica Buffalo	North Dakota	State Program	8	R-176
TestAmerica Buffalo	Oklahoma	State Program	6	9421
TestAmerica Buffalo	Oregon	NELAC	10	NY200003
TestAmerica Buffalo	Pennsylvania	NELAC	3	68-00281
TestAmerica Buffalo	Tennessee	State Program	4	TN02970
TestAmerica Buffalo	Texas	NELAC	6	T104704412-08-TX
TestAmerica Buffalo	USDA	USDA		P330-08-00242
TestAmerica Buffalo	Virginia	State Program	3	278
TestAmerica Buffalo	Washington	State Program	10	C1677
TestAmerica Buffalo	West Virginia	West Virginia DEP	3	252
TestAmerica Buffalo	Wisconsin	State Program	5	998310390

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Benchmark Env. Eng. & Science, PLLC
Project/Site: Benchmark - Kingsley Park site

TestAmerica Job ID: 480-6246-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-6246-1	MW-1	Water	06/16/11 00:00	06/17/11 12:10
480-6246-2	MW-2	Water	06/16/11 00:00	06/17/11 12:10

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

Chain of Custody Record

TestAmerica

Client Information	Sampler: Tom Behrendt	Lab PM: Fischer, Brian	Carrier Tracking No(s):	COC No: 480-14134-2979.1
Client Contact: Mr. Bryan Hann	Phone: (716) 818-8358	E-Mail: brian.fischer@testamericainc.com		Page: Page 1 of 1
Company: Benchmark Env. Eng. & Science, PLLC			Analysis Requested	Job #:
Address: 2558 Hamburg Turnpike Suite 300	Due Date Requested:			Preservation Codes:
City: Lackawanna	TAT Requested (days): 5(D)			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
State, Zip: NY, 14218	PO #: Purchase Order not requir			
Phone: 716-856-0635	WO #:			
Email: bhann@benchmarkturnkey.com	Project #: 48004340			Other:
Project Name: Benchmark - Kingsley Park site	SSOW#:			
Site: Kingsley Park site				

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - (MOD) As/Cd only ICP	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D		
MW-1	6/16/11		G	Water			1		
MW-2	1		G	Water			1		

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 6/16/11 1200	Company:	Received by:	Date/Time: 06-17-11 11:40	Company: BFLO
Relinquished by:	Date/Time: 06-17-11 12:10	Company: BFLO	Received by:	Date/Time: 6-17-11 12:10	Company: BUFF
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.9

Login Sample Receipt Checklist

Client: Benchmark Env. Eng. & Science, PLLC

Job Number: 480-6246-1

Login Number: 6246

List Source: TestAmerica Buffalo

List Number: 1

Creator: Wienke, Robert

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

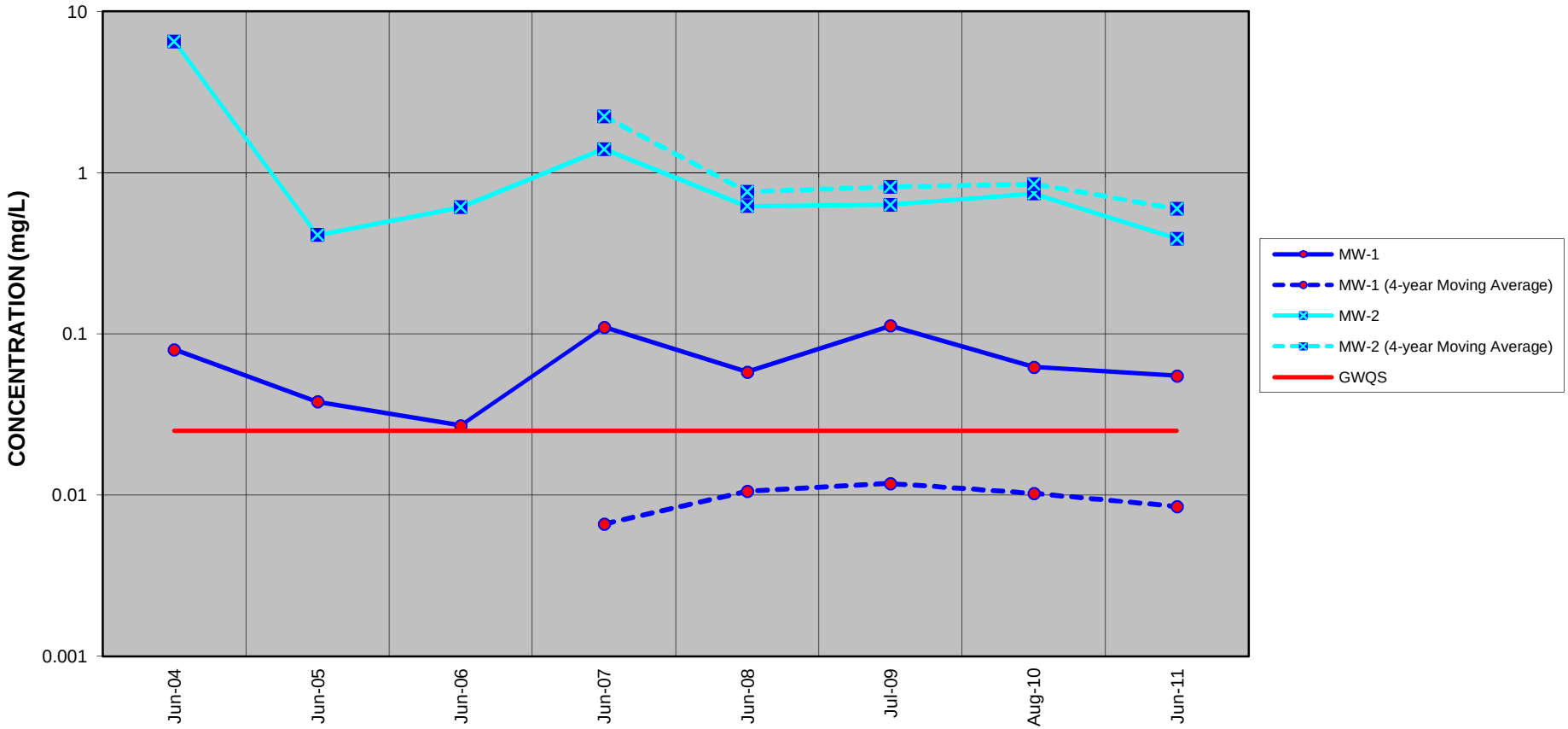
ATTACHMENT 3

HISTORICAL CONCENTRATION-TIME PLOTS

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

TOTAL ARSENIC

KINGSLEY PARK
HISTORICAL ANALYTICAL SUMMARY

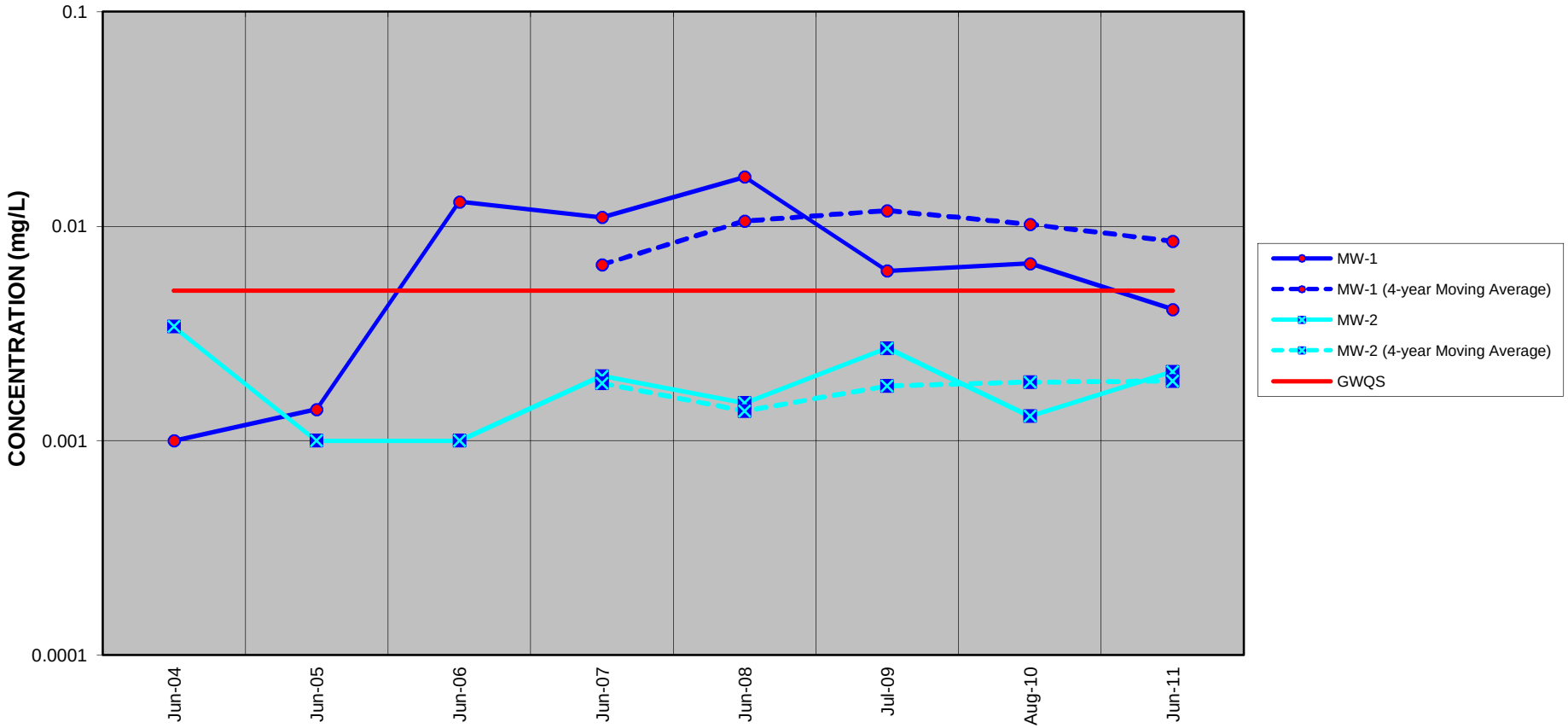


Note:
Sample concentrations reported as non-detect are presented at the reporting limit.
GWQS = Class GA Groundwater Quality Standard

BENCHMARK
ENVIRONMENTAL
ENGINEERING &
SCIENCE, PLLC

TOTAL CADMIUM

KINGSLEY PARK
HISTORICAL ANALYTICAL SUMMARY



Note:
Sample concentrations reported as non-detect are presented at the reporting limit.
GWQS = Class GA Groundwater Quality Standard

ATTACHMENT 4

BUFFALO SEWER AUTHORITY
ANALYTICAL DATA

BENCHMARK

BUFFALO SEWER AUTHORITY
INDUSTRIAL WASTE SECTION

Ft. of W. Fe y Street
90 West Fe y Street
Buffalo, NY 14 13-1799
phone: 716-(3-1820
fax: 716-(3-9016

Fax

To: Bryan Hann **Date:** Sept 8, 2011

Fax: 856-0583 **Pages:** 3, including cover sheet

Phone:

Re:

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recy**

FROM THE DESK F
Leslie Se
Industrial Waste Sect
Email: lsedita@sa.ci.buffalo.ny
phone: 716-883-1820 ext

Buffalo Sewer Authority
Discharge Parameter Listing
ALL MONITORING RESULTS

IW Sample	Date	Pt	Parameter	Total Flow	Units	Results
For Discharger:	**BU216**	**BUFFALO - KINGSLEY**		**Permit: 10-03-BU216**		
12-00055	08/16/2011	001	D25 - 625 SCAN (1625)(8250,8270	0.0	MicroGram	0
12-00055	08/16/2011	001	M02 - ARSENIC	0.0	MilliGram	0
12-00055	08/16/2011	001	M04 - CADMIUM	0.0	MilliGram	0
12-00055	08/16/2011	001	M81 - BARIUM	0.0	MilliGram	0.020
11-00059	08/30/2010	001	F36 - BIS(2-ETHYLHEXYL)PHTHALAT	0.0	MicroGram	0
11-00059	08/30/2010	001	M02 - ARSENIC	0.0	MilliGram	0
11-00059	08/30/2010	001	M04 - CADMIUM	0.0	MilliGram	0
11-00059	08/30/2010	001	M81 - BARIUM	0.0	MilliGram	0.020
11-00059	08/30/2010	001	N06 - pH	0.0	Standard	7.0

08/30/2011 **BUFFALO SEWER AUTHORITY** 14:47:31

SAMPLE COLLECTION FIELD SHEET

Date Submitted: 08/16/2011
IW Sample No.: 12-00055
Investigator: JO

Industry No.: BU216 BUFFALO - KINGSLEY

Address: 2-88 KINGSLEY STREET BUFFALO

Sample Point Number: 001
Type of Sample: GRAB COMP

Sample Point Description:
% of Flow: 100.00

Flow Measuring Method:
Total Flow: 0

Installation Data

Date & Time: 09:00:00
Crew: MS-AA
Sample Interval: BEG-MID-END
Preservation Used: ICE
Type of Bottle: PLASTIC/GLASS

Collection Data

Date & Time: 08/16/2011 09:0(:0
Crew: MS-AA
pH: 7.0
Temperature: 10C
Observation: SLIGHTLY CLOUDY

CHAIN OF CUSTODY

Sampler's Signature: _____

Sample No.	Location	Date	Time	Type	#Containers

Relinquished by: _____ Date: _____ Time: _____
Representing: _____
Received by: _____ Date: _____ Time: _____
Representing: _____

MONITORING REQUEST

Lab No.: 003 Lab Name: ISLECHEM LLC

Sample Date	Pol. Code	Pollutant Description	M/U	Results
08/16/2011	D25	625 SCAN (1625)(8250,8270	MicroGram	0
08/16/2011	M02	ARSENIC	MilliGram	0
08/16/2011	M04	CADMIUM	MilliGram	0
08/16/2011	M81	BARIUM	MilliGram	0.020

APPENDIX C

SITE PHOTOGRAPHIC LOG

SITE PHOTOGRAPHS

Photo 1:

Photo 2:

Photo 3:

Photo 4:

Photo 1: Site Conditions – looking northeast

Photo 2: Site Conditions – looking southwest

Photo 3: Damaged road box cover well MW-2

Photo 4: Damaged surface seal at well MW-9