REMEDIAL INVESTIGATION REPORT

FORMER BUFFALO CHINA SITE
51 HAYES PLACE
BUFFALO, NEW YORK

BROWNFIELD CLEANUP SITE No. C915209

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) was retained by Hodgson Russ, LLP (Hodgson Russ) on behalf of Buffalo China to complete a Remedial Investigation (RI) under the guidelines of the New York State Department of Environmental Conservation's (NYSDEC) Brownfield Program at the Former Buffalo China Site (Site), located at 51 Hayes Place in Buffalo, New York (Figure 1.1). The property is currently owned by Niagara Ceramics. In March 2004, Buffalo China sold the property to Niagara Ceramics but retained liability for environmental impairment, if any, of the Site and adjacent properties that may have been affected by historical Site operations before the sale. Buffalo China has now entered into a Brownfield Cleanup Agreement (BCA) with the NYSDEC to investigate and remediate, as appropriate, potential areas of environmental concern associated with the Site.

Previous investigations at the Site include a Phase I and II Environmental Site Assessment (ESA) prepared by Environmental Audits, Inc. (EA) in 2004 and a Supplemental Site Investigation (SSI) completed by CRA in 2006. The previous investigations identified the presence of inorganic compounds (i.e., metals), volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs) at the Site at concentrations exceeding 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) for restricted use. In addition, VOCs were detected in groundwater samples near the Harrison Street Warehouse at concentrations exceeding 6 NYCRR Part 703.5 Class GA Groundwater standards.

The initial scope of work for this RI is described in the Site Investigation Work Plan (CRA, June 19, 2007) (2007 SIWP). Field activities began in July 2007. Due to delays in obtaining access agreements from owners of off-Site properties, completion of the investigation activities under the initial scope of work was delayed. An Interim Site Investigation Report (ISIR) was prepared and submitted to the NYSDEC in July 2008. The ISIR summarized the field activities that had been completed under the initial scope of work as of June 2008. Because the investigation was not complete, no conclusions or recommendations were presented in the ISIR. Once the activities in the original 2007 SIWP were completed in September 2008, the scope of the investigation was expanded as described in the Supplemental Site Investigation 2008 Work Plan-Bedrock Well Installation (CRA, November 26, 2008) (2008 SSIWP), the Supplemental Site Investigation Work Plan Addendum letter dated April 29, 2009 (2009 SSIWP Addendum), and the Soil Vapor Intrusion Investigation (SVII) Work Plan dated March 27, 2009 (SVII WP).

To provide a complete and cohesive document, this report discusses all work completed under the initial 2007 SIWP and subsequent work completed under the 2008 SSIWP, the 2009 SSIWP Addendum, and the SVIIWP.

1.1 PURPOSE

The purpose of the RI was to characterize the nature and extent of on-Site and off-Site environmental contamination from historical Site operations and activities.

1.2 REPORT ORGANIZATION

This report presents the findings of the RI activities and is organized as follows:

i) Section 1.0 – Introduction: The introduction presents an overview of the project to date.

ii) Section 2.0 – Site Description and History: Descriptions of the Site location, physical condition, current and historic use, and results of previous investigations are presented in Section 2.0.

iii) Section 3.0 – Prior Environmental Investigations: Prior environmental investigations are presented in Section 3.0.

iv) Section 4.0 –Remedial Investigation: A summary of the work conducted during the Remedial Investigation activities is presented in Section 4.0.

v) Section 5.0 – Geology and Hydrogeology: The characterization of Site geology and hydrogeology is presented in Section 5.0.

vi) Section 6.0 – Analytical Results: The analytical data collected during the RI are presented and presented in Section 6.0.

vii) Section 7.0 – Qualitative Human Health Exposure Assessment: A qualitative assessment of the potential for exposure of humans at and in the vicinity of the Site to Site-related contaminants is presented in Section 7.0.

viii) Section 8.0 – Fish and Wildlife Impact Analysis: The results of a Fish and Wildlife Impact Analysis are presented in Section 8.0.

ix) Section 9.0 - Conclusions: A summary of the conclusions of the investigation is presented in Section 9.0.

x) Section 10.0 – References: A list of references materials utilized in the preparation of this RI/FS is presented in Section 10.0.

2.0 SITE DESCRIPTION AND HISTORY

2.1 SITE DESCRIPTION AND HISTORY

The Former Buffalo China Site is located at 51 Hayes Place in Buffalo, Erie County, New York. The Site layout is shown on Figure 2.1. The Site encompasses approximately 10 acres and is bound on the north by Conrail Railroad tracks, on the east by a warehouse currently leased by Robinson Home Products and other commercial/industrial facilities, and on the south and west by commercial, industrial, and residential properties. Interstate I-190 is located nearby to the south of the Site, while the former City of Buffalo School 26 and adjacent playground is located a few hundred feet to the southwest. The nearest body of water is the Buffalo River, located approximately 1/4- to 1/2-mile south and east of the Site. The primary access to the Site is through the east side of the Site, from either Buffalo China Road or Hayes Place.

The Site includes a manufacturing building, a warehouse, outdoor storage silos, a rail spur, roadways, and parking areas. The manufacturing building is a multi-story structure covering approximately 4 acres. The building is connected to the Robinson Home Products Warehouse to the east. Another smaller building referred to as the Harrison Street Warehouse is located at the northwest end of the Site and covers an area of approximately 0.5 acres. The property has been used for the manufacture of china for the past 100 years. During that period, the manufacturing facility expanded to adjacent industrial properties which historically included the Standard Mirror Company and Atlas Wrecking. The Harrison Street Warehouse was once a part of the Standard Mirror Company facility.

2.2 PHYSICAL SETTING

The Site lies within the City of Buffalo corporation limits on a relatively flat parcel of land. The Site is located in a multi-use neighborhood within the City comprised of industrial, commercial, and residential properties.

2.3 GEOLOGY

According to a Phase I report prepared by EA in February 2004, the soils in the area of the Site were deposited by extensive glaciation forming a glacial till deposit underlain by limestone bedrock. The bedrock in the area of the Site, Onondaga Limestone (Nedrow Member), is generally 5 feet or more below ground surface (bgs). The Nedrow Member

is an intermixed light-grey limestone and dark-grey chert bedrock. Bedrock outcrops were not observed on the Site.

Also according to the Phase I report prepared by EA, the soils beneath the Site are classified as urban land (Ud). Urban land is generally covered by asphalt, pavement, concrete, buildings, and other impervious structures. It includes parking lots, shopping and business centers, and industrial parks. These areas generally range from 3 to 500 acres or more and are mostly level to gently sloping. The former Buffalo China Site and the surrounding neighborhood are consistent with this description of urban land.

According to the Phase I and Phase II ESAs completed by EA and the 2006 SSI completed by CRA, the Site is underlain by fill materials ranging in thickness from zero to 4 feet bgs. Fill materials are underlain by clay deposits which range in depth from 4 feet bgs extending to a depth of at least 16.9 feet bgs (the maximum depth penetrated by boreholes). Underlying the clay deposits is bedrock, which for the Buffalo area typically consists of Onondaga Limestone.

2.4 TOPOGRAPHY AND SURFACE WATER DRAINAGE

The USGS 7.5-minute Topographic Quadrangle Map of Buffalo, SE, New York indicates that the Site's ground surface is generally level. Aside from the hilly nature of the on-Site mound of soil, a visual inspection confirmed that the Site is generally flat with some gentle slopes for runoff to Site storm sewers or ditches. The general direction of on-Site surface water drainage appears to be toward a series of storm drains located throughout the paved portions of the Site. The on-Site storm sewers are connected to the City of Buffalo combined sewer system. Under normal conditions the drainage flows to the Buffalo Sewer Authority Bird Island Treatment Plant. Under overflow conditions, the flow would be discharged through the Hamburg Drain, which discharges near the mouth of the Buffalo River.

The nearest natural body of water is the Buffalo River, which is located approximately 0.4 miles south of the Site. The Buffalo River meanders in a westerly direction toward Lake Erie located approximately 2.8 miles west of the Site. The surface elevation for the Site is approximately 590 feet above mean sea level (AMSL).

2.5 REGIONAL HYDROGEOLOGY

The major regional aquifer in the area of the Site is located in the upper bedrock, which consists of the Onondaga Limestone Formation. The Onondaga Formation is primarily a cherty limestone. Recharge to the aquifer occurs through precipitation-induced infiltration into the bedrock. The numerous open joints and bedding planes of the bedrock provide the primary paths for groundwater flow within the rock. Regionally, the groundwater moving through the Onondaga discharges into other bedrock formations or to surface water bodies directly. Based on the EA Phase I report, it appears that both the shallow and regional (deep) groundwater both flow in a westerly-southwesterly direction toward Lake Erie.

Yields of up to several hundred gallons per minute are possible in the Onondaga Limestone Formation. Groundwater is not used as a source of potable water in the portion of Erie County in which the Site is located.

3.0 PRIOR ENVIRONMENTAL INVESTIGATIONS

As indicated in Section 1.0, previous investigations at the Site include a Phase I and Phase II Environmental Site Assessment (ESA), prepared by Environmental Audits, Inc. (EA) in 2004 and a Supplemental Site Investigation (SSI) completed by CRA in 2006. The previous investigations identified the presence of inorganic compounds (i.e., metals), volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs) in soils at the Site at concentrations exceeding 6 NYCRR Part 375 Restricted Use Soil Cleanup Objectives (RUSCOs). In addition, VOCs were detected in groundwater samples near the Harrison Street Warehouse at concentrations exceeding 6 NYCRR Part 703.5 Class GA Groundwater standards.

A copy of the Focused Phase II Environmental Assessment: Industrial Property, 51 Hayes Place, Buffalo, New York, report dated March 11, 2004, is provided as Appendix A. The report identifies the "primary conditions of concern" for the Site generally as follows:

- Condition of the shallow surface and subsurface soil profile within the following on-Site locations: 1) paved and dirt/gravel parking areas surrounding the factory; and 2) large perimeter berm.
- Condition of subfloor soil profile within the factory (compressor room, chemical storage vaults, glazemaking area) and inside the warehouse at 151 Harrison Street.

The scope of the Phase II assessment included exterior subsurface borings (to maximum 16 feet below grade), nine building interior subsurface borings (to maximum 10 feet below grade), soil sample collection, screening and analysis. No groundwater samples were collected.

Selected soil samples were submitted for laboratory analysis for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, or a subset thereof. The exterior areas that were assessed include “Former Collision Shop Area,” "Waste Storage and Maintenance Area,” and "Harrison Warehouse and Silo Area." The interior areas that were assessed include "Main Factory Area,” and "Harrison Street Warehouse.” The analytical results were compared to the Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046) recommended soil cleanup objectives and a number of exceedances were noted for various organic and inorganic parameters. The data are summarized in Attachment 3 of the Phase II report (see Appendix A). The results of the assessment, as presented by Environmental Audits, Inc., are summarized as follows:

- Field observations and analytical data identified the presence of significant subsurface concentrations of VOCs inside and near the Harrison Street warehouse. [This included xylenes (up to 11 ppm), ethylbenzene (up to 9.6 ppm) and TCE (up to 250 ppm).] It is suspected that the TCE is related to the former mirror manufacturing facility that occupied the Harrison Street warehouse.
- Field observations and analytical data identified the presence of significant subsurface concentrations of petroleum related VOCs, SVOCs, and metals in the Former Collision Shop Area.
- The subfloor soil sample from the Glazemaking room exhibited an elevated lead concentration (10,000 ppm).

The NYSDEC was notified of the presence of petroleum related contamination identified in the Former Collision Shop Area and Spill Number 0375511 was assigned to the area. Hazard Evaluations. Inc. of Orchard Park, New York, on behalf of Buffalo China, conducted remedial activities to address the petroleum contamination with oversight from the NYSDEC. The spill number was closed November 1, 2005.

Based on the findings of the investigations conducted by EA, CRA developed the scope of work for the 2006 SSI. The investigative results for the Phase II investigation conducted by EA were summarized and presented as Appendix B in the 2006 SSI Report dated June 2006. The results of the SSI conducted by CRA are summarized below.

3.1 2006 SUPPLEMENTAL SITE INVESTIGATION ACTIVITIES

Seventeen soil borings were advanced and six groundwater monitoring wells (MW-4 through MW-9) were installed as part of the 2006 SSI. During the investigation, 32 soil samples were collected from 17 boring locations along with groundwater samples from six new monitoring wells and three existing monitoring wells. The soil samples were analyzed for VOCs, SVOCs, and lead. The groundwater samples were analyzed for VOCs, SVOCs, total lead and dissolved lead.

3.1.1 2006 SSI SOIL RESULTS

Table 3.1 and Figure 3.1 summarize 2006 SSI soil results that are above applicable criteria. The detected lead concentrations were greater than the Part 375 RUSCOs for industrial use criterion of 3,900 milligrams per kilogram (mg/kg) in two of 32 samples, specifically borehole BH-7 (4,980 mg/kg) and BH-9 (9,250 mg/kg). These two soil

samples were collected from the top 2 feet of soil. Specifically, BH-7 was collected from 1.4 to 1.8 feet bgs and BH-9 was collected from 0.5 to 1.0 feet bgs. The lead concentrations in deeper sample intervals at BH-1, BH-5, BH-9, BH-15, and BH-16 were below the Part 375 residential use criterion for lead of 400 mg/kg, indicating that the depth of lead impacts in soil are limited to less than 2 feet bgs.

In general, the highest detected concentrations of lead at the Site were in the area between the Former Buffalo China building and the Harrison Street Warehouse, at locations BH-7 (4,980 mg/kg) and BH-9 (9,250 mg/kg). The highest detected concentration of lead in soil from the north side of the Site was found along the Conrail Railroad tracks at location BH-15 (804 mg/kg). This concentration is less than the applicable Soil cleanup Objective (SCO) for industrial use (3,900 mg/kg). At the borehole sample locations along the south side of the Site (BH-3, BH-4, BH-11, BH-12, BH-13, and BH-14), the detected lead concentrations were less than the Part 375 SCO for industrial use of 3,900 mg/kg.

Detected VOC concentrations in on-Site soil samples included cis-1,2-dichloroethene (cis-1,2-DCE), methylene chloride, tetrachloroethene (PCE), and trichloroethene (TCE). The detected concentrations were less than the RUSCOs for industrial use with the exception of BH-5. At this location, the detected concentration of TCE in the shallow sample interval (1.6 to 2.5 feet) was 670 mg/kg, which is greater than the SCO of 400 mg/kg for industrial use. The detected concentration of TCE in the deeper sample interval (5.5 to 6.5 feet) was 88 mg/kg. Therefore, it was concluded that a surface or near-surface source of VOCs existed in the area of borehole BH-5.

Various SVOCs, primarily polynuclear aromatic hydrocarbons (PAHs), were also detected in Site soil. In general, the detected concentrations were below the industrial use RUSCOs, with the exception of BH-13, located along the south side of the Site where benzo(a)pyrene was detected at a concentration of 1.3 mg/kg, which exceeds the industrial use SCO of 1.1 mg/kg. The detected concentrations of SVOCs in Site soil are generally lower in the deeper sample intervals, indicating that the depth of SVOC impact is also limited to shallow soils.

3.1.2 2006 SSI GROUNDWATER RESULTS

The groundwater samples collected during the 2006 SSI were analyzed for Target Compound List (TCL) VOCs. In addition, a groundwater sample from MW-8 was analyzed for total and dissolved lead. Table 3.2 and Figure 3.2 summarize the groundwater analytical results that exceed applicable criteria from the 2006 SSI.

The detected VOCs in groundwater included 4-methyl-2-pentanone, cis-1,2-DCE, methyl tert butyl ether, TCE, and vinyl chloride. The primary VOCs of interest included TCE and its degradation product cis-1,2-DCE. These chemicals were detected in concentrations exceeding their respective NYS groundwater quality standard at groundwater monitoring wells MW-4, MW-5, and MW-6, all of which are located in the area between the Former Buffalo China building and the Harrison Street Warehouse. The highest VOC concentrations were detected at MW-5. Vinyl chloride was also detected at MW-6. The concentrations of VOCs were generally non-detect at MW-9, which is considered an upgradient well located along the northern boundary of the Site, and at MW-7, located to the south of the Former Buffalo China building. TCE and cis-1,2-DCE were also detected at MW-8, located to the north of the Former Buffalo China building, but at much lower concentrations when compared to VOC concentrations detected at MW-5. The presence of VOCs in the groundwater correlated with the soil sample results, indicating a possible VOC source area near the Harrison Street Warehouse.

Lead was detected in the groundwater sample from monitoring well MW-8. The total concentration of lead reported in the groundwater sample from MW-8 was 46 micrograms per liter (µg/L); however, dissolved lead was not detected at this location at or above 3 µg/L. The turbidity of the groundwater sample collected from MW-8 was approximately 200 nephelometric turbidity units (NTU) indicating the presence of suspended sediment in the samples. Based on the laboratory results for dissolved lead, the elevated concentration of total lead is most likely due to the presence of sediment in the sample and not indicative of groundwater quality.

3.2 2006 SUPPLEMENTAL SITE INVESTIGATION CONCLUSIONS

Based on the results of the SSI and the Qualitative Human Health Exposure Assessment completed for the 2006 SSI, the following conclusions were made:

1. The borehole investigation identified the presence of fill material to depths of up to 4 feet bgs, comprising soil, brick, and slag. The fill material is underlain by fine-grained soil, i.e., clay with silt. Borehole refusal occurred within the fine-grained soils, at depths of up to approximately 17 feet bgs or less.
2. Analytical data for soil samples identified the presence of lead, VOCs, and SVOCs. The chemical impacts are primarily found in the shallow soil/fill material. The chemical concentrations are considerably less in the underlying sample intervals.
3. Groundwater was found within monitoring wells screened within the fill/clay material. The depth to groundwater varied from approximately 1 foot

to 7.5 feet bgs. Water level data indicated that the groundwater hydraulic gradient was southerly.

4. Analytical data for groundwater samples identified the presence of VOCs at on-Site monitoring wells. The most frequently detected VOCs were TCE and cis-1,2-DCE. The greatest VOC concentrations were detected at MW-5, located in the area between the former Buffalo China building and the Harrison Street Warehouse, and at MW-6, located to the south of MW-5 near the property boundary. At MW-8, lead was detected in the unfiltered sample (total lead analysis), but was not detected in the filtered sample (dissolved lead analysis).
5. A qualitative exposure assessment was completed based on the 2006 SSI and 2004 EA Phase II investigation data. The assessment identified media and potential human exposure for on-Site soil (through dermal contact, incidental ingestion, and inhalation of particulate and volatile vapors), and on-Site groundwater (through dermal contact, incidental ingestion, and inhalation of volatile vapors). The potentially exposed receptors included Site workers (industrial workers and construction/utility workers) and persons that may trespass onto the Site. Potential human exposure can be addressed using remedial or other methods to eliminate exposure pathways and/or provide worker protection.
6. Chemicals of potential concern (COPC) were identified by comparison of maximum detected concentrations to conservative screening criteria for soil and groundwater. The identified COPCs for soil included TCE, benzo(a)pyrene, dibenz(a,h)anthracene, arsenic, and lead. Additional volatile compounds are flagged as COPCs for the soil-to-indoor air pathway. The identified COPCs for groundwater included cis-1,2-DCE, TCE, vinyl chloride, and lead.

4.0 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION

The scope of the RI was initially developed based on the findings of the 2006 SSI and expanded after each successive investigation completed by CRA in 2007, 2008, and 2009. The primary objective of this RI was to gather the data necessary to complete the characterization of chemical presence in on-Site and off-Site soil, groundwater, and other potentially affected media in order to identify and evaluate necessary and appropriate remedial alternatives.

4.1 APPLICABLE REGULATORY STANDARDS

The current regulatory standards applicable to evaluating and characterizing the soil and groundwater quality at the Site are:

i) 6 NYCRR Part 375 Environmental Remediation Programs Restricted Use Soil Cleanup Objectives for Protection of Public Health – Industrial Use for the evaluation of on-Site soils.

ii) 6 NYCRR Part 375 Environmental Remediation Programs Restricted Use Soil Cleanup Objectives for Protection of Public Health – Residential Use for evaluation of off-Site soils.

iii) Water Quality Standards for Toxic and Other Deleterious Substances, 6 NYCRR, Part 703.5 for the evaluation of overburden and bedrock groundwater.

iv) Technical and Operation Guidance Standards (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values dated October 22, 1993 (reissued June 1998).

The current criteria for evaluating soil vapor are the decision matrices in the New York State Department of Health's (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006.

4.2 SCOPE OF WORK

The initial scope of work for RI is described in the 2007 SIWP. Field activities were completed between July 2007 and September 2008. An ISIR was prepared and submitted to the NYSDEC in July 2008. The ISIR summarized the field activities that had been completed under the initial scope of work as of June 2008. Because the investigation was not complete, no conclusions or recommendations were presented in

the ISIR. Once the activities in the original 2007 SIWP were completed in September 2008, the scope of the investigation was expanded as described in the 2008 SSIWP, the 2009 SSIWP Addendum, and the SVIIWP. The following sections discuss the investigation activities completed under each of the work plans.

4.2.1 SI WORK PLAN

Investigation activities completed under the 2007 SIWP included surface soil sampling, soil boring advancement, collection of subsurface soil samples, monitoring well installation, and collection of groundwater samples.

4.2.1.1 2007 SIWP SURFACE SOIL SAMPLING

Surface soil sampling was completed under the scope of the 2007 SI WP in May and August 2008 to evaluate lead concentrations in the on-Site and off-Site surface soils based on the results of the 2006 SSI. Surface soil samples were collected from designated locations using single-use disposable plastic trowels. At each location, a representative soil sample set was collected. Each sample set consisted of one sample from zero to two inches bgs and one sample from two inches to four inches bgs. The samples were placed in pre-cleaned sample containers. Twenty-five locations were sampled (locations SS-1 through SS-25). One sample set was collected from each location for a total of 50 surface soil samples. In addition, two blind field duplicate samples were collected for quality control purposes. Surface soil sample locations are presented on Figure 4.1 and a summary of the surface soil sample locations and analysis is presented in Table 4.1. The surface soil sample locations are as follows:

i) Three sets of surface soil samples were collected on-Site. One sample set was collected near the northeast corner of the Harrison Street Warehouse (location SS-2) (northeast Harrison Street Warehouse), one on the south side of the Harrison Street Warehouse (location SS-11) (south Harrison Street Warehouse), and one from the top of the Soil Mound (location SS-1).

ii) Twelve sample sets were collected from five properties on Harrison Street; (82 Harrison [locations SS-17 and SS-18], 118 Harrison [locations SS-19 through SS-24], 103 Harrison [location SS-10], 127 Harrison front yard [location SS-8], 127 Harrison back yard [location SS-9], and 138 Harrison [location SS-6]).

iii) One sample set was collected from 148 Milton Street (location SS-7).

iv) Six sample sets were collected from six properties on Lester Street (22 Lester Street [location SS-15], 36 Lester Street [location SS-16], 55 Lester Street North

[location SS-3], 55 Lester Street South [location SS-4], 58 Lester Street [location SS-5]), 66 Lester Street [location SS-25]).

v) Three sample sets were collected from three properties on Hayes Place (20 Hayes Place [location SS-14], 34 Hayes Place North [location SS-12], and 34 Hayes Place South[location SS-13]).

Based on the results of the surface soil sampling completed under the 2007 SIWP, it was concluded that no further surface soil investigation activities were necessary. The surface soil sample results are discussed in detail in Section 6.2.

4.2.1.2 SOIL BORING ADVANCEMENT AND SUBSURFACE SOIL SAMPLING

Subsurface soil sampling was completed under the scope of the 2007 SIWP in July 2007 and May 2008 to evaluate soil conditions in the on-Site and off-Site subsurface soils. A total of 24 subsurface soil samples, including three blind field duplicate samples, were collected from 21 locations both on and off Site. Subsurface sample locations are shown on Figure 4.2. A summary of the subsurface samples, the purpose of each sample, and analytical parameters is presented in Table 4.2. Stratigraphic and monitoring well construction logs are presented in Appendix B.

The locations of the subsurface soil samples collected per the 2007 SIWP are as follows:

i) One sample was collected along the access drive north of the ceramics building and south of the CSX Railroad ROW (location SB-1-07).

ii) Six samples, including two blind field duplicates, were collected from the soil mound (Soil Mound) north of the Harrison Street Warehouse. The boreholes were staggered so that there was one borehole advanced in the west, center, and east sections of the Soil Mound, and one advanced in the dog-leg section of the mound (locations SB-2-07, SB-3-07, SB-4-07, and SB-17-07).

iii) Seven samples, including one blind field duplicate, were collected east of the Harrison Street Warehouse (locations SB-5-07, SB-6-07, SB-7-07, SB-8-07, SB-9-07, SB-10-07).

iv) Six samples were collected from beneath the footprint of the Harrison Street Warehouse (locations SB-11-07, SB-12-07, SB-13-07, SB-14-07, SB-15-07, and SB-16-07).

v) One sample was collected south of the Harrison Street Warehouse (location SB-18-07).

vi) One sample was collected at 20 Hayes Place (location SB-18-08).

vii) One sample was collected at 34 Hayes Place (location MW-17).

viii) One soil sample was collected at 103 Harrison Street (location MW-14).

Borehole advancement for geologic logging and sampling of subsurface soils was performed using either hollow stem auger or direct push technique. At locations where a monitoring well was to be installed, the borehole was advanced using four-inch inside diameter (ID) (eight-inch outside diameter [OD]) hollow-stem augers from ground surface to the desired depth of installation. All other boring locations were sampled using direct push technology.

Soil samples were collected continuously during soil boring and/or monitoring well installation. Each soil boring was advanced until bedrock was encountered. Headspace screening of the collected samples was completed utilizing a photoionization detector (PID). Headspace screening samples were placed in zip-lock bags and left at room temperature for 30 minutes prior to monitoring. Visual observations and field screening results were recorded. Samples were selected for analysis based on the results of the headspace screening and other field observations (i.e., color, odor, etc.). The results of the headspace screening are provided on the stratigraphic logs in Appendix B.

Subsurface soil sampling results are discussed in Section 6.3.

4.2.1.3 OVERBURDEN MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING

Eight new overburden groundwater monitoring wells (MW-10 through MW-17) were installed as part of the scope of the 2007 SIWP to evaluate groundwater conditions both on and off-Site. Monitoring wells were installed in July 2007, May 2008, and August 2008. Monitoring well locations are shown on Figure 4.3. A summary of monitoring well installation and sampling information is provided on Table 4.3. Well diagrams and construction details are provided on the stratigraphic logs presented in Appendix B.

Overburden wells were constructed of two-inch diameter polyvinyl chloride (PVC) riser pipe typically fitted with a five-foot long, 10-slot screen. The annular space between the screen and the borehole wall was backfilled with double ought quartzite sand to approximately one foot above the top of the well screen. The screen and sand pack were

isolated by placing a minimum of two feet of bentonite pellets on top of the sand pack. A cement/bentonite grout was then placed above the bentonite seal to approximately one foot below grade. All wells except MW-12 were completed by installing flush-mount casings for protection. Monitoring well MW-12 was completed as a stick up well with a protective casing.

The following overburden wells were installed per the 2007 SIWP:

- MW-10 (August 2008 – off Site)
- MW-11 (August 2008 – off Site)
- MW-12 (July 2007 – on Site)
- MW-13 (July 2007 – on Site)
- MW-14 (May 2008 – off Site)
- MW-15 (May 2008 – off Site)
- MW-16 (May 2008 – off Site)
- MW-17 (May 2008 – off Site)

Monitoring wells were developed following installation and prior to sampling. Well development logs are presented in Appendix C. Prior to sampling, wells were purged until water quality parameters stabilized. Stabilization was considered achieved when water quality parameters did not deviate more than 10 percent from previous readings. Purging and sample records are provided in Appendix D.

All wells were sampled for TCL VOCs, while a select number of wells were also sampled for TCL SVOCs, total and dissolved TAL Metals, total and dissolved lead, pesticides, herbicides, and PCBs. Table 4.3 provides details of the parameters sampled at each well.

Four overburden monitoring wells (MW-13 through MW-16) were unable to be sampled due to insufficient volume or they were dry during each sample event.

Existing monitoring wells MW-4 through MW-6, MW-8, MW-9, and MW-12 were sampled in August 2007 and May 2008. In May 2008, well MW-17 was added to the sampling program. Monitoring wells MW-10 and MW-11 were installed in August of 2008 and sampled in September 2009.

The results of the groundwater sampling completed under the 2007 SIWP identified the presence of VOCs in the Site overburden groundwater. The highest VOC concentrations were detected in monitoring wells MW-4, MW-5, and MW-12.

Groundwater sampling results are discussed in detail in Section 6.4.

4.2.1.4 SURVEY

All surface soil samples, soil borings, and monitoring wells were surveyed to obtain accurate horizontal location and vertical elevations of ground surface and tops of well casings relative to mean sea level.

Each location was surveyed to the nearest 0.01 foot relative to the Universal Transverse Mercator (UTM) coordinates North American Datum (NAD83). Ground elevations were surveyed at each location to the nearest 0.01 foot relative to the North American Vertical Datum (NAVD88). Survey control points are present throughout the Facility.

4.2.2 2008 SSI WORK PLAN

Based on the findings of the completed 2007 SIWP, the 2008 SSIWP was prepared to evaluate bedrock groundwater conditions and determine if VOCs were present in the bedrock groundwater. Under the 2008 SSIWP, one overburden monitoring well and six bedrock monitoring wells were installed in December 2008. Monitoring well locations are shown on Figure 4.3. The following wells were installed under the 2008 SSIWP:

- MW-18 (on Site overburden well)
- MW-5A (on Site bedrock well)
- MW-7A (on Site bedrock well)
- MW-9A (on Site bedrock well)
- MW-13A (on Site bedrock well)
- MW-14A (off Site bedrock well)
- MW-15A (off Site bedrock well)

Subsurface soil sampling was not included as part of the 2008 SSIWP.

The overburden wells were installed as described in Section 4.2.1. Bedrock monitoring wells were completed as open coreholes. Borings for bedrock wells were advanced to the top of the bedrock using an auger/rollerbit. After bedrock was encountered, a six-inch tri-cone roller bit was used to drill approximately two feet into the bedrock, enabling the placement of a four-inch diameter steel riser sealed into the top of the bedrock unit. The annular space between the borehole and the casing was filled with bentonite grout. The installation of these casings effectively sealed off the overburden

from the bedrock zone, ensuring no transport between the overburden and bedrock units.

The bedrock was cored in five-foot runs. Upon completion of each five feet core run, the water producing characteristics of the open interval were determined by conducting "bail-down" and recovery tests. Coring was terminated when the first interval producing sufficient water recharge for sampling was encountered.

Bedrock cores were logged noting the rock description, the core run, the depth of the run, percent recovery, and the rock quality designation (RQD). Lithologic logs of the cored bedrock are presented in Appendix B.

Wells were surveyed and developed as discussed above in Section 4.2.1. Well development logs are presented in Appendix C. One round of groundwater sampling was completed under the 2008 SSIWP. All wells were purged prior to sampling as discussed in Section 4.2.1. Purging and sample records are provided in Appendix D. Wells MW-4 through MW-7, MW-9 through MW-12, MW-17, MW-18, MW-5A, MW-7A, MW-9A, and MW-13A through MW-15A were sampled in January 2009. Monitoring well MW-8 could not be located due to ice and snow cover in January 2009 and as a result was sampled in March 2009. Groundwater samples collected under the 2008 SSIWP were analyzed for TCL VOCs.

The results of the sampling completed in January 2009 were consistent with the previous sample results and identified the presence of VOCs at concentrations that exceed NYS groundwater standards in the bedrock groundwater both on Site and off Site.

Groundwater sampling results are discussed in detail in Section 6.4.

4.2.2.1 HYDRAULIC CONDUCTIVITY TESTING

The 2008 SSIWP also included hydraulic conductivity testing on all existing monitoring wells. Single well response tests were conducted at all each well. Two rising head and two falling head tests were conducted at each location. The four results for each well were used to calculate give an average hydraulic conductivity for that well. The Site-wide average hydraulic conductivity for the overburden aquifer and the bedrock aquifer were calculated from the individual monitoring well hydraulic conductivity measurements. The slug tests were conducted as follows:

- The water level in the monitoring well was measured.

- A pressure transducer was installed at the monitoring well and set at a one-second recording interval.
- The water level was allowed to equilibrate from the addition of the pressure transducer.
- A slug of a known volume was inserted into the water column of the well.
- Manual water level measurements were collected at 30-second intervals for the first five minutes and then at one-minute intervals for the next 10 minutes. If after 15 minutes the water level had not recovered to within 10 percent of the original water level, manual water levels were recorded at five-minute intervals for one hour or until the water level recovered to within 10 percent of the initial water level.
- After the well recovered to within 10 percent of the initial water level or one hour and 15 minutes had elapsed, the slug was removed from the water column.
- Manual water levels were recorded at the intervals described above.
- After water level recovery to within 10 percent of the initial water level or one hour and 15 minutes had elapsed, the test was completed.
- The pressure transducer data was downloaded.

After the hydraulic conductivity fieldwork was completed, the well response data were analyzed using AQTESOLV™ software to calculate the hydraulic conductivity. The Site average overburden and bedrock hydraulic conductivity were calculated based on the AQTESOLV™ results.

The results of the hydraulic conductivity testing are discussed in Section 5.4.2.

4.2.3 2009 SSI WORK PLAN ADDENDUM

Based on the results of the groundwater sampling completed under the 2008 SSIWP, additional overburden and bedrock monitoring well installation, groundwater sampling, and soil sampling was completed under the 2009 SSIWP Addendum.

Under the 2009 SSIWP Addendum, four overburden and nine bedrock wells were installed at both on Site and off Site locations to delineate further the horizontal extent of VOC presence in the overburden and bedrock groundwater. Subsurface soil samples were also collected during the monitoring well installations to evaluate the presence of VOCs in soils at the monitoring well locations. The monitoring well installation and subsurface soil sampling activities were completed in May and June 2009. Groundwater sampling was completed in July 2009.

The following Monitoring wells were installed under the 2009 SSIWP Addendum:

- MW-6A (on Site bedrock well)
- MW-18A (on Site bedrock well)
- MW-19 (on Site overburden well)
- MW-19A (on Site bedrock well)
- MW-20 (on Site overburden well
- MW-20A (on Site bedrock well)
- MW-21A (on Site bedrock well)
- MW-22 (off Site overburden well)
- MW-22A (off Site bedrock well)
- MW-23A (off Site bedrock well)
- MW-24A (off Site bedrock well)
- MW-25 (off Site overburden well)
- MW-25A (off Site bedrock well)

With the exception of MW-18A, soil samples were collected at each monitoring well location. Soil samples were collected as described in Section 4.2.1 and analyzed for TCL VOCs.

The new monitoring wells were installed, surveyed, and developed as described in Section 4.2.1. Stratigraphic, lithologic, and well construction logs are provided in Appendix B. Development records are provided in Appendix C.

In July 2009, all overburden and bedrock groundwater monitoring wells were sampled for TCL VOC analysis following USEPA Method SW846 8260. Wells were purged and sampled as described in Section 4.2.1. Purging and sample records are provided in Appendix D. A total of 15 overburden monitoring wells (MW-4 through MW-12, MW-17 through MW-20, MW-22, and MW-25) and 15 bedrock monitoring wells (MW-5A through MW-7A, MW-9A, MW-13A through MW-15A, and MW-18A through MW-25A) were sampled under the 2009 SSIWP Addendum.

The results of the sampling completed in July 2009 delineated the limits of the VOC presence in both the overburden and bedrock.

4.2.4 SOIL VAPOR INTRUSION INVESTIGATION

To investigate the potential for contaminants in the subsurface to volatilize from soil and groundwater to soil gas within the unsaturated overburden and then into building

structures at off Site locations, a Soil Vapor Intrusion (SVI) investigation was completed in November 2009. The investigation was completed in accordance with NYSDOH's "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006 (SVI Guidance).

The SVI investigation included the collection of five sub-slab soil vapor samples, five indoor air samples, and two outdoor air samples. A summary of SVI investigation samples collected and analytical parameters is presented on Table 4.4. SVI investigation sample locations are presented on Figure 4.4.

SVI investigation field activities are summarized in the following sections.

4.2.4.1 SUB-SLAB PROBE INSTALLATION

Four semi-permanent, sub-slab gas probes were installed at the four locations identified on Figure 4.4. One sub-slab sample and one indoor air sample was collected from each of these locations. Each sub-slab gas probe consists of one shallow soil gas probe installed in a central location away from foundation footings.

The sub-slab probe was installed by drilling a 3/8-inch-diameter hole through the slab with a drill and spline bit. After drilling though the slab, the slab thickness was measured and recorded. A 1-inch-diameter hole is then drilled within the 3/8-inch hole to a depth of approximately 1.5 inches into the top of the slab. The sub-slab probe consists of a 1.5-inch-long by 3/8-inch OD brass pipe connected to a 3/4-inch brass coupling and topped off with a 3/8-inch by 1/2-inch stainless steel set screw "cap." The annular space between the fittings and the slab was filled with non-shrink cement grout. A typical sub-slab, soil vapor probe installation is depicted on Figure 4.5.

4.2.4.2 SUB-SLAB PROBE SAMPLING

The sub-slab samples were collected using 6-liter capacity Summa™ canisters fitted with a laboratory calibrated critical orifice flow regulation device sized to allow the collection of the soil vapor samples over a 24-hour period. A typical setup for a soil vapor intrusion canister is depicted in Figure 4.6. Summa™ canisters that were laboratory batch certified clean at the 100 percent level were used so data could be evaluated for assessing potential human health risk. The 24-hour sample collection time for a 6-liter capacity Summa™ canister corresponds to a maximum flow rate of approximately 0.0042 liters per minute (L/min). This soil gas sample collection flow rate is well below

the maximum flow rate of 0.2 L/min recommended by NYSDOH (2006). A maximum flow rate of 0.1 L/min is recommended to limit VOC stripping from soil, prevent the short-circuiting of ambient air from ground surface that would dilute the soil gas sample, and increase confidence regarding the location from which the soil gas sample is obtained. The low flow rate of 0.0042 L/min provides the most representative sample of in-situ conditions.

Prior to sample collection, the soil gas probe was purged at a maximum flow rate of 0.1 L/min. A maximum of three soil gas probe "dead volumes" were purged to remove potentially stagnant air from the internal volume of the soil gas probe and ensure that soil gas representative of the conditions beneath the sub-slab was drawn into the Summa™ canister. The soil gas probe "dead volumes" were calculated based on field measurements of probe construction (i.e., tubing length and tubing inner diameter) and aboveground sampling equipment. A helium blanket over the sample probe was used during sampling activities to evaluate short-circuiting of the sampling train from the ambient air.

4.2.4.3 INDOOR AIR SAMPLING

Indoor air samples were collected concurrently with the sub-slab soil vapor samples. The samples were collected from the breathing zone between three and five feet above the ground/floor surface in the same area as the sub-slab sample. Indoor air samples were collected using six-liter capacity Summa™ canisters fitted with a laboratory-calibrated critical orifice flow regulation device sized to allow the collection of the soil gas samples over a 24-hour period.

4.2.4.4 OUTDOOR AIR SAMPLING

Ambient outdoor air vapor samples were collected upwind of the buildings in which the sub-slab and indoor air samples were collected. One ambient outdoor air sample was collected concurrently with the sub-slab soil vapor and indoor air samples. Outdoor air samples were collected from the breathing zone between three feet and five feet above the ground surface over a 24-hour duration. The 24-hour sample collection time for a six-litre capacity Summa™ canister corresponds to a maximum flow rate of approximately 0.0042 L/min.

All SVI investigation samples were analyzed following the USEPA's TO-15 gas GC/MS methodology and were completed by Test America of Knoxville, Tennessee. SVI investigation results are discussed in Section 6.5.

4.2.5 WASTE HANDLING, STORAGE AND DISPOSAL

Investigation derived wastes (IDW) including soil cuttings, and drilling and decontamination water generated during the investigation, were collected and placed directly into 55-gallon drums. These drums were then labeled and stored on-Site pending waste characterization. All IDW were ultimately disposed off Site at a licensed disposal facility in accordance with applicable regulatory requirements.

5.0 GEOLOGY AND HYDROGEOLOGY

5.1 GEOLOGY

Based on the 2007, 2008, and 2009 investigation activities, the fill encountered at the Site ranged in thickness from 0.5 feet to 16 feet, with the thickest fill encountered along the Soil Mound north of the Harrison Street Warehouse. The Soil Mound is approximately 10 feet higher in elevation than the surrounding Site topography. It should be noted that the borings at these locations began at the top of the Soil Mound, resulting in an increased measured thickness for the fill material. The average thickness of the fill considering both on- and off-Site locations, and disregarding the soil mound thicknesses, is 2.62 feet.

The native soils underlying the fill generally consist of dense clay underlying sand and/or silt; however, the soil stratigraphy is highly variable, and silt and clay generally underlies the fill at the Site. The average clay thickness considering both on- and off-Site locations is 7.34 feet. The bedrock was overlain by clay at all investigation locations.

Bedrock cores were collected and logged at 15 bedrock monitoring well locations. These cores indicate a light to dark gray cherty limestone (the Onondaga Limestone). The limestone is massive and moderately fractured or broken at the top of the formation.

5.3 BEDROCK SURFACE CONTOUR

Based on field observations and the measured depth to the top of bedrock for on-Site and off-Site locations, the average depth to bedrock is 9.72 feet bgs. A top of bedrock surface contour map (Figure 5.1) was prepared based on the field measurements. A review of Figure 5.1 indicates that the top of bedrock surface beneath the Site dips similar to the gentle regional dip, which is to the south with a gradient of approximately 45 feet per mile. The bedrock surface is not flat, but tends to undulate, with localized mounds and depressions. These features could influence local groundwater flow in the overburden and shallow bedrock.

5.4 SITE HYDROGEOLOGY

Groundwater is first encountered at the Site in the low permeability, silty clay. The average depth to groundwater is approximately 6.63 bgs across the Site based on the most comprehensive round of water level measurements obtained in July 2009.

As depicted on Figures 5.2 and 5.3, groundwater flow direction is generally to the west southwest at a gradient of 0.023 foot per foot in the overburden and 0.024 foot per foot in the bedrock. Seasonal variations in groundwater elevations between January 2009 and July 2009 ranged from several tenths of a foot to slightly greater than a foot. From a seasonal perspective, it is anticipated that water levels would rise and fall congruently across the Site. Accordingly, groundwater flow conditions, as depicted on Figures 5.2 and 5.3, would accurately represent groundwater flow at other times of the year.

Results of the in-situ hydraulic conductivity tests performed in the monitoring wells at the Site are shown in Appendix E and are summarized in Table 5.1. The hydraulic conductivity of the overburden ranged from approximately 1.48E-05 cm/sec at monitoring well MW-11 to 5.58E-04 cm/sec at monitoring well MW-7. The geometric mean hydraulic conductivity for the overburden wells is calculated to be 1.95E-04 cm/sec. The hydraulic conductivity of the bedrock ranged from approximately 2.24E-04 cm/sec at monitoring well MW-23A to 1.06E-01 cm/sec at monitoring well MW-25A. The geometric mean hydraulic conductivity for the bedrock wells is calculated to be 2.79E-02 cm/sec.

6.0 ANALYTICAL RESULTS

Samples of environmental media, including surface soil, subsurface soil, groundwater, soil vapor, and indoor air were collected and analyzed during the RI. All samples, with the exception of soil vapor and indoor air, were submitted to Test America in Pittsburgh, Pennsylvania under standard chain of custody (COC) procedures. Soil vapor and indoor air samples were submitted to Test America in Knoxville, Tennessee. The data resulting from the field activities have been reviewed for quality assurance as described in the Quality Assurance Project Plan (QAPP) in Appendix B of the 2007 SIWP.

The following subsections present a discussion of the analytical results for each media sampled. Laboratory analytical reports are contained electronically in Appendix F. Data Validation reports are provided electronically in Appendix G.

6.2 SURFACE SOIL

Fifty-two surface soil samples, including two blind field duplicates, were collected from 25 locations, both on Site and off Site in May and August 2008 as part of this RI. One sample set consisting of one sample from zero inches to two inches bgs and one sample from two inches to four inches bgs was collected at each location. Analytical results are presented in Table 6.1. Refer to Figure 4.1 for sample locations.

Three of the surface soil sampling locations were on Site (locations SS-1, SS-2, and SS-11). The results from those locations were compared to the industrial RUSCO for lead, which is 3,900 mg/kg. Results for the other 22 locations were off-Site and the results from these locations were compared to the RUSCO for residential use for lead, which is 400 mg/kg. Although lead was detected in all 52 surface soil samples, there was one exceedance of the criteria observed. Lead was detected in the surface soil sample collected from the front yard of the residential property located at 127 Harrison Street (location SS-8) from the two-inch to four-inch bgs interval at a concentration of 632 mg/kg, which exceeds the residential RUSCO of 400 mg/kg. Lead was also detected in the zero-inch to two-inch sample from the same location at an estimated concentration of 364 mg/kg, which is below the RUSCO for residential use.

The surface soil samples collected from the residential property located at 103 Harrison Street (location SS-10), the former City of Buffalo School yard located at 82 Harrison Street (locations SS-17 and SS-17), two locations from the adjacent school yard at 118 Harrison Street (SS-20 and SS-24), and a vacant parcel located at 66 Lester Street (SS-25) were analyzed for TAL metals. The results from these locations were compared to the

residential RUSCOs. Although there were detections for every metal, no residential RUSCOs were exceeded.

The results of the surface soil sampling confirm that the two shallow soil sample locations identified in the 2006 SSI (BH-7 and BH-9 on Figure 3.1) are discrete localized areas of elevated concentrations of lead. The two locations are on the Site and public access to the areas where the samples were collected is restricted by the Site's perimeter fence.

6.3 SUBSURFACE SOIL

Thirty-seven subsurface soil samples, including four blind field duplicates, were collected as part of this RI. Table 4.2 presents a summary of the samples and the associated analysis completed for each sample. All subsurface soils were analyzed for TCL VOCs. Twenty-four of the subsurface soil samples were also analyzed for TCL SVOCs. Fifteen samples were analyzed for TCL VOCs and SVOCs as well as lead. Nine of the samples were analyzed for an expanded parameter list which included the TCL VOCs, TCL SVOCs, as well as target analyte list (TAL) metals, cyanide, polychlorinated biphenyls (PCBs), pesticides, and herbicides. Results for samples collected from on-Site locations were compared to the Part 375 industrial RUSCOs. Results for samples collected from off-Site locations were compared to residential RUSCO. Although soil samples were collected from 20 Hayes Place and 34 Hayes Place to identify off-Site impacts, the results were compared to the Part 375 industrial RUSCOs because these two addresses are zoned as industrial, vacant land according to the Erie County Geographic Information Systems (GIS) Land Use database.

The results for the subsurface soil sampling are discussed below. Subsurface soil data are summarized and shown on Figure 6.1.

6.3.1 HERBICIDES AND PESTICIDES AND POLYCHLORINATED BIPHENYLS

Herbicides, pesticides, and PCBs were analyzed in nine of the 21 subsurface soil samples. The results are presented on Table 6.2. With the exception of 2,4,5-TP (Silvex), Part 375 does not have specific criteria to evaluate the detection of herbicides; however, no herbicides were detected in any of the samples.

A review of the pesticides data indicates that 4,4'dichlorodiphenyldichloroethylene (DDE) and 4,4'-dichlorodiphenyltrichloroethane (DDT) were detected in the sample collected from the 0 foot- to 2 foot- interval of the soil boring associated with monitoring well MW-14 located at 103 Harrison Street. The detected concentrations (0.0046 mg/kg DDE and 0.0035 mg/kg DDT) are below the Part 375 residential RUSCOs of 1.8 mg/kg DDE and 1.7 mg/kg DDT. This address is an occupied residential property. The detections of pesticides are most likely the result of a past use of pesticides by the owner/occupant. The same two compounds were also detected in the samples collected from the 0 foot- to 2 foot-interval at soil boring SB-18-08 installed at the vacant property located at 20 Hayes Place (0.0039 mg/kg DDE and 0.0038 mg/kg DDT). Since the property at 20 Hayes Place is zoned industrial, the pesticides results were compared to and found to be less than the Part 375 industrial RUSCOs of 120 mg/kg DDE and 94 mg/kg DDT. This property is currently used as a parking area. Since pesticides were not detected in any of the on-Site soil borings, the detections of pesticides at 20 Hayes Place and 103 Harrison Street are not the result of historic Site use or operations by Buffalo China.

PCBs were detected at SB-1-07 at a concentration of 0.03 mg/kg for Aroclor 1254, which is below the Part 375 industrial RUSCO of one mg/kg for total PCBs. None of the remaining eight subsurface soil samples analyzed for PCBs had detectable concentrations. SB-1-07 is located on the north side of the former Buffalo China facility near monitoring well MW-8. Since PCBs were not detected in any other location and SB-1-07 is adjacent to CSX railroad tracks, the detection of PCBs in the soil at this location was concluded to be a historical artifact associated with past railroad activities.

6.3.2 METALS

Twenty-four subsurface soil samples were analyzed either for lead only or for TAL metals (including lead) and cyanide. Metals were detected in all 24 subsurface soil samples. One exceedance of Part 375 industrial RUSCO for metals was observed for the sample collected from SB-8-07 located east of the Harrison Street Warehouse. Arsenic was detected in the soil sample from SB-8-07 at a concentration of 21.4 mg/kg, which exceeds the Part 375 industrial RUSCO of 16 mg/kg. Lead was detected in all of the samples; however, the lead concentrations were all below the applicable Part 375 RUSCOs. Metals results are presented on Table 6.3.

6.3.3 ORGANIC CHEMICAL COMPOUNDS

Analytical results for VOCs and SVOCs are presented on Tables 6.4 and 6.5, respectively. No VOCs were detected at concentrations exceeding applicable Part 375 RUSCOs in any of the subsurface soil samples. The primary VOC identified in the 2006 investigation was TCE at BH-5/MW-5 located near the northeast corner of the Harrison Street Warehouse. The concentration of TCE in soil at BH-5/MW-5 during the 2006 SSI was 670 mg/kg at 1.6 to 2.5 feet bgs (see Figure 3.1).

During this RI, TCE was detected at 14 soil boring locations, with concentrations ranging from 0.0017 mg/kg (estimated) to 9.7 mg/kg, all of which are all below the Part 375 industrial RUSCO for TCE of 400 mg/kg.

These 14 soil boring locations are all situated within 150 feet of BH-5/MW-5. The depths of these samples ranged from two feet to 10.4 feet bgs. Based on the shallow depth of the 2006 SSI detections, the absence of VOCs at concentrations that exceed the Part 375 industrial RUSCO, and the location of the boreholes relative to BH-5/MW-5, the TCE impacts within the overburden soil are present over a relatively small area surrounding BH-5/MW-5.

Other VOCs detected in the subsurface soil locations discussed above include cis-1,2-DCE, trans-1,2-dichloroethene (trans-1,2-DCE), 1,1-dichloroethene (1,1-DCE), ethylbenzene, toluene, vinyl chloride, and xylenes. There were no exceedances of Part 375 industrial RUSCOs for any of these compounds.

Several SVOCs were also detected in 11 of the 24 soil samples collected. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenze(a,h)anthracene were detected above the Part 375 industrial RUSCO at boring SB-7-07 at concentrations that marginally exceed the Part 375 industrial RUSCOs. In addition, benzo(a)pyrene was also detected above the Part 375 industrial RUSOC at boring location SB-2-07 and in the soil sample collected during installation of MW-17. All other SVOC detections were less than the Part 375 industrial RUSCOs.

6.4 GROUNDWATER

Thirteen overburden monitoring wells and 15 bedrock monitoring wells were installed throughout the investigation. Four rounds of groundwater monitoring were completed. Sixty-nine groundwater samples have been collected and analyzed for the RI. Analytical results were compared to the standards listed in the NYSDEC Division of Technical and

Operational Guidance Series (TOGS) 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (June 1998). The results of the groundwater sampling are discussed in the following sections.

6.4.1 OVERBURDEN GROUNDWATER

6.4.1.1 HERBICIDES AND PESTICIDES AND POLYCHLORINATED BIPHENYLS

As part of the RI, two monitoring wells were recommended for sampling and analysis for herbicides, pesticides, and PCBs. As a result, monitoring wells MW-4 and MW-9 were sampled and analyzed for herbicides, pesticides, and PCBs. The sample results are presented on Table 6.6. No herbicides were detected in either sample. One pesticide, alpha-BHC, was detected at monitoring well MW-4 at a concentration of 0.021 µg/L, which is slightly greater than the NYSDEC Water Quality Standard of 0.01 µg/L. However, this concentration was qualified as an estimated value, and the results for the 2008 sampling round were non-detect.

PCBs were not detected in groundwater samples collected from MW-4 and MW-9.

6.4.1.2 METALS

Analytical results for metals are presented on Table 6.7. For the RI, groundwater samples were collected in 2007 and 2008 from monitoring wells MW-4 and MW-9 and analyzed for total and dissolved TAL metals. Concentrations of total iron, magnesium, manganese, and sodium were detected in both wells at concentrations that exceeded applicable groundwater quality standards or guidance values. Although there were exceedances for these specific metals, the concentrations were considered to be consistent with regional background groundwater concentrations for these parameters.

During the 2007 sampling event, antimony was detected at a concentration exceeding the groundwater quality standard of 3.0 µg/L in both wells. However, these detections were qualified as estimated concentrations. During the 2008 sampling event, antimony was not detected at both wells.

Thallium was also detected in 2007 at a concentration exceeding the groundwater guidance value of 0.5 µg/L for monitoring well MW-4. The concentration was qualified as estimated and, similar to antimony, thallium was not detected at MW-4 in the 2008 sampling round. Thallium was not detected at MW-9 in 2007; however, in 2008 it was

detected at an estimated concentration of 3.7 µg/L, which exceeds the groundwater guidance value of 0.5 µg/L.

Concentrations of dissolved magnesium and dissolved sodium were detected in wells MW-4 and MW-9 that exceeded applicable groundwater quality standards or guidance values for the 2007 and 2008 sampling events.

Dissolved manganese was detected at MW-4 at concentrations exceeding the groundwater quality standard for both rounds of sampling. Dissolved manganese was also detected at MW-9 for both rounds; however, the concentrations were less than the groundwater quality standard.

In addition to sampling monitoring wells MW-4 and MW-9 for TAL metals, seven other overburden wells (MW-5, MW-6, MW-8, MW-10, MW-11, MW-12, and MW-17) were also sampled and analyzed for total and dissolved lead.

During the 2007 sampling event, total lead was detected in groundwater samples collected form monitoring wells MW-4, MW-8, and MW-9 at concentrations exceeding the groundwater quality standard of 25 µg/L . In 2008, total lead was either not detected or was less than the groundwater quality standard at these wells. Between August 2007 and May 2008, the groundwater sampling techniques were improved by changing from purging with a pump and sampling with a bailer to low-flow purging and sampling techniques. The use of low-flow sampling techniques greatly reduces the agitation of groundwater samples and the resuspension of sediments that may be in the bottom of the well. Based on the reduced total lead results in 2008 and dissolved lead results which were non-detect for these three wells, it was concluded that the 2007 total lead groundwater results were biased high due to suspended solids.

The dissolved lead results were non-detect for all wells sampled for both rounds of sampling completed in August 2007 and May 2008.

Cyanide was analyzed in groundwater samples collected from MW-4 and MW-9. The NYSDEC groundwater quality standard for cyanide is 200 µg/L. Cyanide was detected at MW-4 and MW-9 at concentrations ranging from 2.4J µg/L to 6.4J µg/L; however, all detections were qualified as estimated values, and were less than the groundwater quality standard.

6.4.1.3 ORGANIC CHEMICAL COMPOUNDS

Analytical results for VOCs in overburden groundwater are presented on Table 6.8. Figure 6.2 summarizes VOC results that exceed applicable groundwater criteria for overburden groundwater monitoring wells. The most recent and comprehensive data set for VOCs in groundwater is from the July 2009 event. Although VOC results from all rounds are presented on Table 6.8, the results discussion focuses on the July 2009 data.

The results of the RI identified a VOC contaminant plume extending from MW-5 on the south side of the Harrison Street Warehouse south to MW-22 located at 82 Harrison Street. Exceedances of the standards for organic chemical compounds in groundwater were limited to eight VOCs: TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1,2-trichloroethane, 1,2,4-trichlorbenzene, vinyl chloride, PCE, and toluene. The most frequent and consistent VOCs detected are TCE and TCE degradation compounds, most notably cis-1,2-DCE.

The TCE concentrations ranged from non-detect to 410,000 µg/L at MW-5 for the 2009 sampling event. Historically, TCE concentrations have ranged from non-detect to a high of 650,000 µg/L at MW-5. Cis-1,2-DCE concentrations range from non-detect to 310,000 µg/L at MW-5. Historically, cis-1,2-DCE concentrations have ranged from non-detect to 320,000 µg/L. Over the history of the RI, monitoring wells MW-5, MW-4, and MW-19 have exhibited the highest concentrations of these two compounds.

Consistent with the findings of the 2006 SSI groundwater sampling results, monitoring well MW-5 on the south side of the Harrison Street Warehouse had the highest concentrations of TCE and cis-1,2-DCE for all sampling rounds. Monitoring well MW-5 is considered to be within the source area for the groundwater plume. Overburden groundwater flow at the Site is to the west southwest towards and along Harrison Street. VOC concentrations in monitoring wells decrease moving away from MW-5 as shown on Figure 6.2. TCE and associated compounds were detected in wells MW-4, MW-6, MW-11, MW-12, MW-18, MW-19, MW-20, and MW-22. These wells are considered to be within the overburden groundwater plume. Figure 6.3 depicts the overburden groundwater plume based on the July 2009 TCE data.

In 2006, TCE and cis-1,2-DCE were detected at MW-8, which is located cross gradient to the east of the plume, at concentrations (31 µg/L and 8.5 µg/L respectively) above the groundwater quality standards of 5 µg/L. Subsequent sample results for both compounds were either non-detect or less than the groundwater quality criteria. TCE was also detected at MW-17 in May of 2008 at a concentration of 5.1 µg/L, which is

slightly above the groundwater quality standard of 5µg/L. Subsequent TCE results at MW-17 were less than the standard or non-detect.

There were no groundwater quality exceedances for any VOC parameters at monitoring well MW-9, which is upgradient of the plume, MW-10 which is cross gradient to the west of the plume, or MW-7, which is cross gradient to the south of the plume.

There were two SVOCs, specifically benzo(a)anthracene and benzo(b)fluoranthene that were detected in exceedance of the water quality standards. The exceedances occurred in a field duplicate groundwater sample collected from MW-4 during the 2007 sampling event. Benzo(a)anthracene and benzo(b)fluoranthene were both detected at values slightly above the guidance values of 0.002 µg/L; however, both results were qualified as estimated concentrations and the results from the 2007 original sample and the 2008 sample were non-detect. No other exceedances for SVOCs were observed in the groundwater samples. Sample results for SVOCs in overburden groundwater are presented on Table 6.9.

6.4.2 BEDROCK GROUNDWATER

Based on the findings of the overburden groundwater sampling, 15 bedrock monitoring wells were installed between December 2008 and June 2009 and were sampled as part of the July 2009 sampling event. The bedrock wells were sampled for analysis of TCL VOCs. Bedrock groundwater results are presented on Table 6.10 and summarized on Figure 6.4.

6.4.2.1 ORGANIC CHEMICAL COMPOUNDS

Similar to the overburden results, the bedrock sampling results indicate the presence of a contaminant plume. VOC impacts were identified at concentrations exceeding NYS groundwater standards at 8 of the 15 bedrock monitoring wells. These wells include MW-5A, MW-6A, MW-13A, MW-14A, MW-18A, MW-19A, MW-20A, and MW-21A. Eight VOCs: TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, 1,2-dichloroethane, vinyl chloride, PCE, and toluene were detected at concentrations exceeding NYS groundwater standards. The most frequent and consistent VOCs detected are TCE and TCE degradation compounds, most notably cis-1,2-DCE.

TCE was detected at monitoring wells MW-5A, MW-13A, MW-14A and MW-18A through MW-21A at concentrations ranging from 190 µg/L at MW-14A to 39,000 µg/L

at MW-13A during the July 2009 monitoring event. Cis-1,2-DCE was detected at the same wells and monitoring well MW-6A at concentrations ranging from 30 µg/L at MW-6A to 42,000 µg/L at MW-13A. Figure 6.5 depicts the bedrock groundwater plume based on the July 2009 TCE data.

6.5 SOIL VAPOR INTRUSION INVESTIGATION EVALUATION

The purpose of the soil vapor intrusion investigation was to evaluate the potential for risks to human health due to the presence of chlorinated VOCs in groundwater at the Site, which have the potential to impact indoor air and sub-slab soil vapor at the adjacent and downgradient properties. The sample locations were chosen based on groundwater concentrations and groundwater flow direction.

Analytical data collected during the SVI investigation were validated to demonstrate the usability of the data to support the conclusions of the RI. The sub-slab soil vapor, indoor air, and outdoor air data are presented on Table 6.11.

The NYSDOH SVI Guidance document provides general guidelines for the collection of vapor samples and for the evaluation of the resulting laboratory data. The NYSDOH guidelines focus on seven primary chemicals when evaluating the laboratory data and the application of the laboratory results of those chemicals to two decision matrices provided in the guideline. Of the seven primary chemicals, six were detected in the subsurface soils at the Site and are presented in the table below along with the corresponding NYSDOH decision matrix.

Chemical	*Soil Vapor & Indoor Air Matrix*
• Trichloroethene	• Matrix 1
• 1,1,1-Trichloroethane	• Matrix 2
• Tetrachloroethene	• Matrix 2
• cis-1,2-Dichloroethene	• Matrix 2
• Carbon tetrachloride	• Matrix 1
• Vinyl Chloride	• Matrix 1
• 1,1-Dichloroethene	• Matrix 2

The concentrations of the above chemicals in both sub-slab soil vapor and indoor air are applied to the matrix to determine the appropriate response action. The possible response scenarios are: 1) No further action; 2) Take reasonable and practical actions to

identify sources(s) and reduce exposures; 3) Monitor; 4) Mitigate; and 5) Monitor/mitigate.

SVI investigation samples were analyzed for a wide range of parameters, which included the seven chemicals listed above. The laboratory results for these chemicals were applied to the decision matrices to determine the appropriate action.

The results of the comparisons to the NYSDOH matrices are presented in the following table:

	Address Along Harrison Street			
	82	***103***	***127***	***138***
Trichloroethene	●	●	**x**	●
1,1,1-Trichloroethane	○	○	○	○
Tetrachloroethene	○	○	**x**	○
cis-1,2-Dichloroethene	○	○	**x**	○
Carbon tetrachloride	●	●	●	●
Vinyl Chloride	○	○	○	○
1,1-Dichloroethene	○	○	□	○

Notes:

○: No further action

●: Take reasonable and practical actions to identify source(s) and reduce exposures

□: Monitor

■: Monitor/mitigate

x: Mitigate

Based on the evaluation of the data against the NYSDOH decision matrices, it was concluded that no further action such as monitoring or mitigation is warranted at 82, 103, and 138 Harrison Street.

However, an evaluation of the soil vapor data collected from 127 Harrison Street against the NYSDOH decision matrices indicated that mitigation is necessary to address the presence of elevated VOC vapors beneath the building's basement sub-slab.

7.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

7.1 GENERAL

A qualitative human health exposure assessment for the former Buffalo China Site has been prepared in accordance with the requirements of Draft DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 3B, December 2002, and U.S. EPA risk assessment guidance, and is presented in the following subsections.

7.2 SITE CHARACTERIZATION

7.2.1 SITE DESCRIPTION

A description of the Site and history is presented in Section 2.1 and Figures 1.2 and 2.1 present the Site location and layout, respectively.

Briefly, the Site is located at 51 Hayes Place in Buffalo, New York. The Site comprises approximately 10 acres and is bounded on the north by Conrail railroad tracks, on the east by the adjoining Robinson Home Products Warehouse and other commercial/industrial facilities, and on the south and west by commercial, industrial, and residential properties. Interstate Highway I-190 is located nearby to the south of the Site, while the former City of Buffalo School 26 and adjacent playground is located a few hundred feet to the southwest. The nearest water body is the Buffalo River, located approximately 1/4 to 1/2 mile south and east of the Site.

7.2.2 GENERAL SITE USE

The Site includes a manufacturing building, a warehouse, outdoor storage silos, a rail spur, roadways, and parking areas. The manufacturing building is a multi-story structure covering approximately 4 acres. This building is connected to the Robinson Home Products Warehouse to the east. Another smaller building referred to as the Harrison Street warehouse is located on the northwest end of the Site, and covers an area of approximately 0.5 acres. The property has been used for the manufacture of china for the past 100 plus years.

7.2.3 PREVIOUS INVESTIGATIONS

Previous environmental investigations conducted at the Site are discussed in Section 3.0. A brief summary of the Supplemental Site Investigation (SSI) (CRA, 2006), which is discussed in Sections 3.1 and 3.2, follows.

Seventeen soil borings were advanced and six groundwater monitoring wells (MW-4 through MW-9) were installed as part of the SSI. During the investigation, a total of 32 soil samples were collected from the 17 boring locations along with groundwater samples from three existing and six new monitoring wells. The soil samples were analyzed for VOCs, SVOCs, and lead. The groundwater samples were analyzed for VOCs, SVOCs, total lead and dissolved lead. In the 2006 SSI, analytical test results for soils were compared to the proposed Soil Cleanup Objectives (SCO) in the draft 6 NYCRR Part 375 dated November 2005. Groundwater concentrations were compared to drinking water standards and guidance values.

The SSI report documented that surface and subsurface soils contained concentrations of lead, VOCs, and SVOCs at certain sample locations greater than the unrestricted Site use criteria presented as part of the proposed Soil Cleanup Objectives (SCO) in the draft 6 NYCRR Part 375 dated November 2005.

The SSI report also documented that groundwater contained TCE, cis-1,2-DCE, and vinyl chloride at concentrations exceeding groundwater standards in the area between the former Buffalo China manufacturing building and the Harrison Street warehouse. These groundwater impacts appeared to extend from the vicinity of MW-5, toward the Site boundary at MW-6. Based on the direction of groundwater flow, the impacted groundwater at MW-6 was thought to extend off-Site in a southerly direction. Groundwater sampling results at MW-8, located on the northern side of the former Buffalo China manufacturing building indicated the presence of TCE and cis-1,2-DCE at concentrations exceeding groundwater standards. Lead (total) was detected at MW-8, but was not detected in the dissolved sample analysis.

7.2.4 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION

As described in Sections 4.0 and 6.0, additional environmental investigation activities were conducted at the Site to future characterize chemical impacts attributable to former Buffalo China operations in on-Site and off-Site soil, groundwater, and other potentially affected media. The investigation focused on areas identified in the 2006 SSI with chemical concentrations that exceeded applicable criteria. Besides additional

characterization of potential impacts, the intent of the investigations was also to identify and evaluate necessary and appropriate remedial alternatives. A discussion of the investigation and results is presented in Sections 4.0 through 6.0. A summary is included in the following sections.

7.2.4.1 SURFACE SOIL SAMPLING

Fifty-two surface soil samples were collected at 25 locations in May 2008 and August 2008 as part of the RI to evaluate lead concentrations in on-Site and off-Site surface soils. Samples were collected at two sampling depths, 0 to 2-inches bgs and 2 to 4-inches bgs. All samples were tested for lead while samples from locations SS-10, SS-17, SS-18, SS-20, SS-24, and SS-25 were also analyzed for TAL metals. Sample results were compared to the Part 375 RUSCOs. On-Site samples were compared to RUSCOs for industrial use and off-Site samples were compared to RUSCOs for residential use unless otherwise noted. Surface soil sample locations are presented in Figure 4.1.

The maximum detected concentration of lead in on-Site samples from either the 0-2 inch or 2-4 inch depths was 2,090 mg/kg. This concentration, which was detected in the 2-4 inch samples at location SS-1, is below the industrial RUSCO for lead of 3,900 mg/kg. In addition, surface soil samples collected off-Site at 20 Hayes Place (location SS-14) and 34 Hayes Place (locations SS-12 and SS-13) were also compared to RUSCOs for industrial use because these two addresses are zoned as industrial vacant land according to the Erie County GIS Land Use database. The maximum concentration of lead detected in surface soil samples from either 20 or 34 Hayes Place was 148 mg/kg, which is below the RUSCO for industrial use of 3,900 mg/kg.

The maximum detected concentration of lead at off-Site residential or recreational locations from either the 0-2 inch or 2-4 inch depths was 632 mg/kg. This concentration was detected in the front yard at a residential property located at location SS-8 from 2 to 4 inches bgs, and it exceeds the residential RUSCO for lead of 400 mg/kg. However, the lead concentration in three of the four surface soil samples collected from the property was below the residential RUSCO for lead. The concentration of lead from either 0-2 in or 2-4 in depths in the remaining off-Site samples were all below the residential RUSCO for lead of 400 mg/kg. With the concurrence of the NYSDOH and NYSDEC, the property owners were notified of the results, and no further action is warranted or proposed with regards to off-Site surface soils.

Concentrations of remaining analytes were all below available restricted use residential RUSCOs.

7.2.4.2 SUBSURFACE SOIL SAMPLING

A total of 37 subsurface soil samples, including four blind field duplicates, were collected from 33 locations both on-Site and off-Site to further characterize subsurface impacts identified during the 2006 SSI. Soil borings and subsurface soil sample collection activities were completed between July 2007 and June 2009. Subsurface sample locations are shown on Figure 4.2.

All samples were analyzed for TCL VOCs, 24 samples were analyzed for TCL SVOCs and lead, and nine samples were also analyzed for an expanded parameter list including TAL metals and cyanide, PCBs, pesticides and herbicides. Results for subsurface soil samples collected on-Site were compared to RUSCOs for industrial use as were results for samples collected from 20 Hayes Place and 34 Hayes Place. As noted previously, these latter two addresses are zoned as industrial vacant land according to the Erie County GIS Land Use database. Results for subsurface soil samples collected from 82 Harrison Street, 103 Harrison Street and 141 Milton Street were compared to RUSCOs for restricted residential use.

The maximum detected concentration of arsenic and four PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene) in on-Site subsurface soils exceeded their respective industrial RUSCO. These concentrations and locations were as follows:

Constituent	*6 NYCRR Part 375-6.8(b): Industrial RSCO (mg/kg)*	*Max. Detected Conc. (mg/kg)*	*Sample*	*Location*
Benzo(a)anthracene	11	15	*SB-7-07*	East of Harrison St. Warehouse
Benzo(a)pyrene	1.1	14	*SB-7-07*	East of Harrison St. Warehouse
Benzo(b)fluoranthene	11	17	*SB-7-07*	East of Harrison St. Warehouse
Dibenz(a,h)anthracene	1.1	2.4	*SB-7-07*	East of Harrison St. Warehouse
Arsenic	16	21.4	*SB-8-07*	East of Harrison St. Warehouse

In addition, as noted above, a subsurface soil sample was also collected from the core of MW-17, which was installed at 34 Hayes Place. Analytical test results for this sample were also compared to RUSCOs for industrial use. The maximum concentration of benzo(a)pyrene from the core of MW-17 (2.8 mg/kg) slightly exceeded the SCO for restricted industrial use of 1.1 mg/kg. However, it should be noted that 34 Hayes Place is a vacant parcel partially covered by grass and partially covered by gravel. Portions of 34 Hayes Place and the adjoining property are used as parking areas. As such, it is

likely that the exceedance is due to impacts from automobiles rather than historical plant operations. No other exceedances were noted.

With respect to off-Site subsurface soil samples collected at 82 Harrison Street, 103 Harrison Street, and 141 Milton Street, maximum detected concentrations of VOCs, SVOCs, PCBs, pesticides, herbicides and metals were all below their respective restricted use residential RUSCOs.

7.2.4.3 GROUNDWATER SAMPLING

A total of 13 new overburden and 15 bedrock groundwater monitoring wells were installed as part of the RI to evaluate groundwater conditions both on- and off-Site. Monitoring wells were installed between July 2007 and June 2009. Monitoring well locations are shown on Figure 4.3.

Analytical results were compared to the New York State groundwater standards.

With respect to on-Site monitoring wells, maximum concentrations for 12 VOCs, two SVOCs, one pesticide, and seven metals exceeded NYS groundwater standards or guidance values in either overburden wells, bedrock wells or both. The following table presents these constituents.

Constituent	*NYS Water Quality Standard or Guidance Value (µg/L)*	*Max. Detected Concentration (µg/L)*	*Monitoring Well*
Volatile Organic Compounds			
1,1,2-Trichloroethane	1	9800	***MW-5***
1,1-Dichloroethene	5	40	***MW-5A***
1,2,4-Trichlorobenzene	5	15	***MW-6***
1,2-Dichloroethane	1	320	***MW-5A***
Acetone	50	280	***MW-5A***
cis-1,2-Dichloroethene	5	320000	***MW-5***
Methylene chloride	5	240	***MW-5A***
Tetrachloroethene	5	710	***MW-12***
Toluene	5	96000	***MW-5***
trans-1,2-Dichloroethene	5	350	***MW-13A***
Trichloroethene	5	560000	***MW-5***
Vinyl chloride	2	910	***MW-12***
Semivolatile Organic Compounds			
Benzo(a)anthracene	0.002	0.84	***MW-4***
Benzo(b)fluoranthene	0.002	0.81	***MW-4***
Pesticides			
alpha-BHC	0.01	0.021	***MW-4***
Metals			
Antimony	3	7.50	***MW-9***
Iron	300	14300	***MW-9***
Lead	25	57	***MW-4***
Magnesium	35000	58500	***MW-9***
Manganese	300	915	***MW-4***
Sodium	20000	173000	***MW-4***
Thallium	0.5	5.0	***MW-4***
Metals (Dissolved)			
Antimony (Dissolved)	3	3.3	***MW-9***
Iron (Dissolved)	300	620	***MW-9***
Magnesium (Dissolved)	35000	44700	***MW-9***
Manganese (Dissolved)	300	799	***MW-4***
Sodium (Dissolved)	20000	193000	***MW-4***

It should be noted, however, that a number of these concentrations reflect estimated values, and results in subsequent sampling rounds were non-detect. These include benzo(a)anthracene, benzo(b)fluoranthene, alpha-BHC, antimony, and antimony (dissolved). As such, these analytes were not considered further in this assessment.

A total of 14 monitoring wells, eight overburden, and six bedrock were installed at off-Site locations to determine if VOC impacts were migrating off-Site. Monitoring well locations are shown on Figure 4.3. Maximum detected concentrations of cis-1,2-dichloroethene and TCE exceeded the groundwater standard of 5 µg/L for each constituent at MW-11, MW-14A, and MW-22. Maximum concentrations of both analytes were observed in MW-11 (3,500 µg/L for cis-1,2-dichloroethene and 1,700 µg/L for TCE). The concentration of TCE in MW-17 (5.1 µg/L) and MW-22 (30 µg/L) also exceeded the groundwater standard of 5.0 µg/L

7.2.4.4 SOIL VAPOR INTRUSION INVESTIGATION

To investigate the potential for intrusion of vapors from subsurface sources into building structures at off-Site locations, a Soil Vapor Intrusion (SVI) investigation was completed in November 2009. The investigation was conducted in accordance with NYSDOH's SVI Guidance.

The SVI investigation included the collection of five sub-slab soil vapor samples, five indoor air samples, and two outdoor air samples. SVI investigation sample locations are presented in Figure 4.4.

Indoor air concentrations were compared to ambient (upwind) concentrations and exceedances were compared to the soil vapor/indoor air decision matrices presented in NSDOH (2006). Currently, matrices are available for the following constituents:

Volatile Chemical	*Matrix*
Carbon tetrachloride	Matrix 1
1,1-Dichloroethene	Matrix 2
cis-1,2-Dichloroethene	Matrix 2
Tetrachloroethene	Matrix 2
1,1,1-Trichloroethane	Matrix 2
Trichloroethene	Matrix 1
Vinyl chloride	Matrix 1

In addition to indoor air samples, sub-slab air samples were also collected. Sub-slab samples are used to determine whether subsurface impacts are the potential source of indoor air concentrations.

Test results at one location, specifically 127 Harrison Street, identified elevated concentrations of VOCs in the sub-slab soil vapor sample and the indoor air sample. The NYSDOH decision matrices dictate that mitigation measures are necessary to address the measured VOC concentrations at 127 Harrison Street.

While the indoor air concentration of TCE exceeds the NYSDOH indoor air concentration at 103 Harrison Street, the subslab concentration is approximately two orders of magnitude lower, indicating that the subsurface is not the source of the indoor air impact. Although methylene chloride is not included in the NYSDOH decision matrices, the NYSDOH has developed an indoor air guideline concentration of 60 $\mu g/m^3$. The indoor air concentration for methylene chloride (150 $\mu g/m^3$) at 103 Harrison Street exceeds this guideline. However, the subslab concentration was only 0.69 $\mu g/m^3$ indicating the subsurface was not the source of the indoor air impact. A review of the building inventory records indicates that the owner stores paint and paint-related products in the basement area which were present during the collection of indoor air sample. Therefore, although elevated VOCs were identified in the indoor air sample, but not in the sub-slab sample, it was concluded that the results were related to household items within the building and that no further action was warranted at the location.

The test results for 82 and 138 Harrison Street indicated non-detect to low-level detections of VOCs beneath the sub-slab and indoor air. The results were consistent with the VOCs detected in the ambient upwind sample. A comparison of the data for 82 and 138 Harrison Street to the NYSDOH decision matrices indicated that no further actions were warranted.

7.3 CONCEPTUAL SITE MODEL

In order to evaluate the significance of the impacted media at the Site, the potential pathways by which individuals may come in contact with these media must be determined. The combination of factors (chemical source, media of concern, release mechanisms, and potential receptors) that could produce a complete exposure pathway and lead to human uptake of chemicals is assessed in what is defined as the Conceptual Site Model (CSM).

Based on the current land use and the anticipated future land use of the Site the following potential receptors, as summarized in the CSM presented in Table 7.1, may be exposed to on-Site media:

- Trespasser (current/future)
- Industrial Worker (current/future)
- Construction Worker (future)

Impacted media at the Site include surface soil, subsurface soil, and groundwater. Air is also considered an impacted medium due to the potential release of vapors from soil and groundwater to ambient and/or indoor air. Groundwater beneath the Site is not currently used as potable drinking water source. The potable water for the Site and the surrounding area is currently supplied by a municipal source and this is expected to continue. However, groundwater may be encountered by a construction/utility worker during ground intrusive activities. Ingestion, dermal contact, and inhalation are the potential routes of exposure. All of these factors are evaluated in the CSM.

In addition, off-Site receptors may be exposed to contaminants that have migrated. Potential receptors, which are summarized in the CSM presented in Table 7.2, include the following:

- Adult resident (current/future)
- Child resident (current/future)
- Trespasser (current/future)
- Industrial Worker (current/future)
- Construction Worker (future)

Impacted media at specific off-Site locations, i.e., 127 Harrison Street includes indoor air. Groundwater at MW-11 and MW-14A is impacted with cis-1,2-dichloroethene and TCE. Although groundwater immediately off-Site is not currently used as potable drinking water source, groundwater may be encountered by a construction/utility worker during ground intrusive activities. Ingestion, dermal contact, and inhalation are the potential routes of exposure. All of these factors are evaluated in the CSM.

7.3.1 SELECTION OF CHEMICAL OF POTENTIAL CONCERN (COPC)

This section presents the process for establishing chemicals of potential concern (COPCs) for the Site. COPCs are chemicals related to the Site, which pose the potential for public health risk. In general, detected chemicals are identified as COPCs based upon their concentrations and known toxicity characteristics.

The selection of COPCs for each medium was completed using a screening process involving a comparison of the maximum detected concentration of each contaminant in a specific medium to a risk-based concentration associated with target risks and conservative default exposure assumptions.

Soil Cleanup Objectives (SCO) for restricted residential use and industrial use presented in the 6 NYCRR Part 375, effective December 14, 2006, were used to identify COPCs in soil. As stated in Part 375-1.1, the RUSCOs are intended to be applicable to all remedial programs for inactive hazardous waste disposal sites, remedial programs for brownfield sites, and/or remedial programs for environmental restoration projects.

COPCs in groundwater were identified based on a comparison to Ambient Water Quality Standards and Groundwater Effluent Limitations from NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1.

In addition, COPCs in indoor air were identified based on a comparison to NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006.

On-Site Surface Soil

The on-Site surface soil screening criteria were RUSCOs for restricted industrial use from the 6 NYCRR Part 375, effective December 14, 2006 (based on the ingestion, dermal contact, and inhalation exposure pathways). There were no exceedances of RUSCOs for industrial use involving samples collected from 2007 through 2009.

On-Site Subsurface Soil

The on-Site subsurface soil screening criteria were RUSCOs for industrial use from 6 NYCRR Part 375 (based on the ingestion, dermal contact, and inhalation exposure pathways). As indicated in Section 7.2.4.2, maximum detected concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene dibenz(a,h)anthracene, and arsenic exceeded RUSCOs for restricted industrial use. Samples from a total of 18 on-Site locations were analyzed for SVOCs. These maximum detections were at one location. Benzo(a)pyrene was also detected at one location on the Soil Mound and at 34 Hayes Place. All other SVOC results were below applicable criteria.

On-Site Soil-to-Indoor Air

Currently, no NYSDOH screening criteria are available for migration of vapors from soil-to-indoor air. However, few VOCs were detected in surface or subsurface soils. Moreover, detected concentrations were all quite low, i.e., below restricted residential use RUSCOs. Nevertheless, all detected VOCs in the vicinity of the Harrison Street Warehouse were identified as COPCs for the on-Site soil-to-indoor air pathway. These

VOCs were acetone, cis-and trans-1,2-dichloroethene, methyl ethyl ketone, tetrachloroethene, toluene, trichloroethene and vinyl chloride.

On-Site Groundwater

The on-Site groundwater screening criteria were the NYSDOH maximum contaminant levels (MCLs) for public water systems (based on the ingestion exposure pathway); Ambient Water Quality Standards and Groundwater Effluent Limitations from NYSDEC Division of Water Technical and Operational Guidance Series. As presented in Section 7.2.4.3, the maximum detected concentration of 27 constituents exceeded screening criteria including 12 VOCs, 2 SVOCs, one pesticide, and seven metals. As noted previously, a number of these concentrations were estimated values, and results in subsequent sampling rounds were non-detect. Included were benzo(a)anthracene, benzo(b)fluoranthene, alpha-BHC, antimony, and antimony (dissolved). As such, these analytes were not considered COPCs. The remaining 12 VOCs and six metals discussed in section 7.2.4.3 are identified as on-Site groundwater COPCs. However, since the Site groundwater is not used for potable supply this comparison to drinking water criteria is very conservative.

On-Site Groundwater –to-Indoor Air

Currently, no NYSDOH screening criteria are available for migration of vapors from groundwater-to-indoor air. Therefore, overburden groundwater VOCs with maximum detected concentrations that exceeded groundwater screening criteria were identified as on-Site groundwater –to-indoor air COPCs because these maximum concentrations were located in the vicinity of the Harrison Street Warehouse. These COPCs were cis- and trans-1,2-dichloroethene, tetrachloroethene, toluene, 1,2,4-trichlorobenzene, 1,1,2-trichloroethane, trichloroethene and vinyl chloride.

Off-Site Surface Soil

No COPCs in off-Site subsurface soils were identified because the maximum detected concentrations of VOCs, SVOCs, PCBs, pesticides, herbicides and metals were all below their respective restricted use residential RUSCOs except for lead. The maximum detected concentration of lead at off-Site residential or recreational surface soils of 632 mg/kg in one sample from 127 Harrison Street exceeded the restricted use residential SCO for lead of 400 mg/kg. However, the lead concentration in three other surface soil samples collected from 127 Harrison Street was below the restricted use residential SCO for lead. The concentration of lead from either 0-2 in or 2-4 in depths in the remaining off-Site samples were all below the restricted use residential SCO for lead of 400 mg/kg.

With the concurrence of the NYSDOH and NYSDEC, no further action is contemplated with regards to off-Site surface soils.

Thus, lead in off-Site surface soils was not identified as a COPC.

Off-Site Subsurface Soil

No COPCs in off-Site subsurface soils were identified because the maximum detected concentrations of VOCs, SVOCs, PCBs, pesticides, herbicides and metals were all below their respective restricted use residential RUSCOs.

Off-Site Groundwater

The off-Site groundwater screening criteria were the NYSDOH maximum contaminant levels (MCLs) for public water systems (based on the ingestion exposure pathway); Ambient Water Quality Standards and Groundwater Effluent Limitations from NYSDEC Division of Water Technical and Operational Guidance Series.

The maximum detected concentrations of cis-1,2-dichloroethene and TCE in off-Site monitoring wells exceeded the residential groundwater screening value of 5 µg/L for each constituent. Maximum concentrations of both analytes were observed in MW-14A and were 140 µg/L for cis-1,2-dichloroethene and 190 µg/L for TCE. The concentration of TCE in MW-17 (5.1 µg/L) and MW-22 (30 µg/L) also exceeded the groundwater standard of 5.0 µg/L. Therefore, cis-1,2-dichloroethene and TCE are considered off-Site groundwater COPCs.

Off-Site Indoor Air

Indoor air and subslab vapor concentrations collected at off-Site locations were evaluated according to matrices included in the NYSDOH (2006).

Test results at one location (127 Harrison Street) identified elevated concentrations of VOCs in the subslab soil vapor sample and the indoor air sample. The matrices dictate that mitigation measures are necessary to address the measured VOC concentrations at 127 Harrison Street.

7.3.2 EXPOSURE ASSESSMENT

Exposure is defined as the contact of a receptor (i.e., person) with a chemical or physical agent. The exposure assessment is an estimate of the magnitude, frequency, and duration of exposure for each potential exposure route. An exposure assessment provides a systematic analysis of the potential exposure mechanisms by which a receptor may be exposed to chemical or physical agents at or originating from a study area. The objectives of an exposure assessment are as follows:

1. Characterization of exposure setting
2. Identification of potential exposure pathways
3. Quantification of exposure

The qualitative human health exposure assessment addresses the first two objectives. The quantification of exposure is addressed in subsequent stages of the Human Health Risk Assessment (HHRA), as required.

7.3.3 CHARACTERIZATION OF EXPOSURE SETTING

As part of the assessment process, potential exposure pathways are determined through an evaluation of the physical setting of the Site and the potentially exposed populations. A brief description of the physical setting of the Site is presented in Section 7.2.1. The consideration of Site-specific factors related to land usage is important in the development of realistic exposure scenarios and quantification of risks and hazards. The current and future potential land uses that are reasonably expected for the Site determine which populations may potentially be exposed. The Site land uses are discussed below.

Current Land Use

The Site is currently occupied by Niagara Ceramics and is used for manufacture of ceramic products. The current potentially exposed population includes Site (industrial) workers, and persons who may trespass onto the Site.

The Site is bounded on the south and west by commercial, industrial, residential and recreational properties, on the north by Conrail railroad tracks, and on the east by the adjoining Robinson Home Products Warehouse and other commercial/industrial facilities. The current potentially exposed populations include residents, industrial workers, and persons who may trespass onto off-Site commercial/industrial properties.

Future Land Use

It is reasonable to assume that the Site will remain under the current land use for the foreseeable future. Future maintenance or construction activities on the Site may necessitate some below-grade excavation. The future potentially exposed populations include Site (industrial) workers, construction/utility workers, and persons who may trespass onto the Site.

It is also reasonable to assume that properties adjoining the Site will remain under the current land use for the foreseeable future. Future off-Site maintenance or construction activities may necessitate some below-grade excavation. The future potentially exposed populations include residents, industrial workers, construction/utility workers, and persons who may trespass onto off-Site commercial/industrial properties.

7.3.4 IDENTIFICATION OF POTENTIAL EXPOSURE PATHWAYS

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site[1]. An exposure pathway is complete (i.e., it could result in a receptor contacting a COPC) if the following elements are present:

1. A source or a release from a source (e.g., COPCs released to soil due to historical releases during plant operations).
2. A probable environmental migration route of a Site-related COPC (e.g., leaching or partitioning from one medium to another).
3. An exposure point where a receptor may come in contact with a Site-related COPC (e.g., surface and subsurface soil).
4. A route by which a Site-related COPC may enter a potential receptor's body (e.g., ingestion, dermal contact, or inhalation).
5. A receptor population which is potentially exposed.

If any of these elements are not present, the exposure pathway is considered incomplete and does not contribute to the total exposure from the Site.

[1] As described in Draft DER-10, Appendix 3B, an exposure pathway has five elements: (1) a contaminant source; (2) contaminant release and transport mechanisms; (3) a point of exposure; (4) a route of exposure; and (5) a receptor population.

The first element, a source or release from a source, is satisfied at the Site, as previously indicated in Section 7.2. The remaining elements are described in the following subsections.

7.3.4.1 FATE AND TRANSPORT IN RECEIVING MEDIA

Many complex factors control the partitioning of a COPC in the environment, thus measured concentrations only represent Site conditions at a discrete point in time. An understanding of the general fate and transport characteristics of the COPCs is important when predicting future exposure, linking sources with currently contaminated media, and identifying potentially complete exposure pathways to Site media. Therefore, the fate and transport analysis conducted at this stage of the exposure assessment is not intended to provide a quantitative evaluation of media-specific COPC concentrations; it is meant to identify media that are likely to receive Site-related COPCs.

The concentration and distribution of COPCs in the environment are constantly subject to change due to dispersal by wind and water, and chemical and biological degradation by microorganisms. Once released to the environment, COPCs can partition between air, water, sediment, soil, and biota, and be subsequently subjected to one or more of the following processes:

1. Transportation (e.g., convection by wind or water).
2. Physical transformation (e.g., volatilization, precipitation).
3. Chemical transformation (e.g., photolysis, hydrolysis, oxidation, reduction).
4. Biological transformation (e.g., biodegradation, metabolization by plants or animals).
5. Accumulation in one or more media.

Several transport mechanisms, such as advection and dispersion, are controlled primarily by the physical characteristics of the Site, and thus are essentially the same for all COPCs. However, other transport and transformation processes, such as volatilization, sorption, and biodegradation, depend on certain physical and chemical properties and, therefore, vary for each COPC.

The following section provides a fate and transport evaluation to determine the relative significance of the release sources and mechanisms.

7.3.4.1.1 POTENTIAL MIGRATION OF SOIL OR GROUNDWATER COPCs TO AIR

During ground intrusive activity, such as excavating soil for utility trenching or general construction, volatile COPCs could volatilize into ambient air and be inhaled by a construction/utility worker. Also, COPCs that adhere to soil particles, such as metals, may become suspended in the air column and could also be inhaled by the construction/utility worker. During potential future excavation activities, groundwater may accumulate or pool in the bottom of the excavation, therefore direct contact with groundwater by a construction/utility worker would be considered to be a complete exposure pathway both on-Site and off-Site.

COPCs present in surface soil can volatilize or adhere to soil particles and could be inhaled. Potential on-Site receptors would include a trespasser and an industrial worker, and potential off-Site receptors would include adult and child residents, a trespasser and an industrial worker.

Volatile COPCs in soil and groundwater may volatilize and migrate into the indoor air of a building constructed over impacted soil and groundwater. Thus, exposure to indoor air concentrations resulting from soil and groundwater impacts is a potentially complete on-Site exposure pathway for the industrial worker, and off-Site for adult and child residents and industrial workers.

7.3.4.2 POTENTIAL EXPOSURE POINTS

After contaminated or potentially contaminated media have been identified, the exposure points are determined by identifying whether or not the potentially exposed population can contact these media.

Exposure pathways for COPCs present in undisturbed soils are potentially complete, where soils are not under pavement. For construction workers, exposure pathways to COPCs in both soils and groundwater are potentially complete.

The indoor air exposure pathway for COPCs present in groundwater and soils are potentially complete where these impacts occur in close proximity to existing buildings.

The exposure pathway for ambient air inhalation of volatile chemicals from impacted groundwater is potentially complete. However, groundwater-to-ambient air exposures

are generally considered *de minimis* as volatile chemicals are significantly diluted upon release to ambient air.

7.3.4.3 POTENTIAL EXPOSURE ROUTES

Potential exposure routes are identified by: i) determining the COPC sources and receiving media, ii) analyzing the movement of the COPCs from the source, and iii) determining the possible exposure points.

Humans can be exposed to a variety of contaminated media, including soil, groundwater, surface water, sediment, air, and biota that has contact with other contaminated media. Based on the physical conditions of the Site and off-Site locations, potential exposure routes associated with soil include incidental ingestion, direct dermal contact, and inhalation (airborne particulate and/or vapors). Potential exposure routes associated with groundwater include incidental ingestion, direct dermal contact, and inhalation (vapors).

7.3.4.4 EXPOSURE SCENARIOS AND COMPLETED EXPOSURE PATHWAYS

Based on an understanding of the components of an exposure pathway and the current/future conditions of the Site, potential human exposure pathways were identified in the assessment. The potential human populations considered relevant to the assessment include the following:

On-Site: industrial workers, workers involved in general construction activities or utility excavations, and trespassers, and

Off-Site: child and adult residents, industrial workers, workers involved in general construction activities or utility excavations, and trespassers.

Based on these assumptions and the results of the media-specific screening presented in Section 7.2, the identified exposure scenarios and pathways are summarized in the Conceptual Site Model (CSM) shown in Tables 7.1 and 7.2. The CSM presents a summary of the exposure media, exposure pathways, exposure routes, and exposed receptors considered in this assessment. The following media and potential human exposures (i.e., complete pathways) have been identified:

On-Site Exposure Pathways:

1. On-Site Surface Soil – Current/Future Condition:
    - Dermal contact with surface soil by trespassers and industrial workers
    - Incidental ingestion of surface soil by trespassers and industrial workers
    - Inhalation of airborne particulate and vapors originating from surface soil by trespassers and industrial worker
2. On-Site Soil – Current/Future Condition:
    - Inhalation of vapors in indoor air originating from soil by industrial workers
3. On-Site Soil – Future Condition:
    - Dermal contact with soil by construction/utility workers
    - Incidental ingestion of soil by construction/utility workers
    - Inhalation of airborne particulate and vapors originating from soil by construction/utility workers
4. On-Site Groundwater – Current/Future Condition:
    - Inhalation of vapors in indoor air originating from groundwater by industrial workers
5. On-Site Groundwater – Future Condition:
    - Dermal contact with groundwater by construction/utility workers
    - Incidental ingestion of groundwater by construction/utility workers
    - Inhalation of volatile vapors by construction/utility workers

Off-Site Exposure Pathways:

1. Off-Site Surface Soil – Current/Future Condition:
    - Dermal contact with surface soil by adult and child residents, trespassers and industrial workers
    - Incidental ingestion of surface soil by adult and child residents, trespassers and industrial workers
    - Inhalation of airborne particulate originating from surface soil by adult and child residents, trespassers and industrial workers
2. Off-Site Sub-Surface Soil – Future Condition:
    - Dermal contact with soil by construction/utility workers
    - Incidental ingestion of soil by construction/utility workers

- Inhalation of airborne particulate and vapors originating from soil by construction/utility workers

3. Off-Site Groundwater – Current/Future Condition:
   - Inhalation of vapors in indoor air originating from groundwater by adult and child residents, and industrial workers
4. Off-Site Groundwater – Future Condition:
   - Dermal contact with groundwater by construction/utility workers
   - Incidental ingestion of groundwater by construction/utility workers
   - Inhalation of volatile vapors by construction/utility workers

7.4 SUMMARY

As discussed in the preceding sections, the qualitative exposure assessment identified media and potential human exposure to soil (through dermal contact, incidental ingestion, and inhalation of particulate and vapors), and groundwater (through dermal contact, incidental ingestion, and inhalation of vapors). The potentially exposed on-Site receptors include workers (industrial workers and construction/utility workers) and persons that may trespass onto the Site. The potentially exposed off-Site receptors include adult and child residents, workers (industrial workers and construction/utility workers) and persons that may trespass onto off-Site commercial/industrial properties.

As discussed in Section 7.2, COPCs were identified by comparison of maximum detected concentrations to 6 NYCRR Part 375 restricted use criteria for soil and NYS groundwater standards for groundwater. The COPCs identified in on-Site groundwater include a number of VOCs and metals. Additional volatile compounds were flagged as COPCs for the soil-to-indoor air pathway.

No COPCs were identified in off-Site soils. The COPCs identified in off-Site groundwater include cis-1,2-dichloroethene and TCE. These two analytes were also identified as COPCs in off-Site indoor air at one location.

8.0 FISH AND WILDLIFE IMPACT ANALYSIS

As part of the RI, CRA completed a Fish and Wild Life Impact Analysis (FWIA). The FWIA was completed in accordance with the NYSDEC guidance document entitled "Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA)" dated October 1994. A copy of the FWIA was presented as Appendix E to the Interim Site Investigation Report prepared by CRA dated July 8, 2008.

The objectives of the FWIA were to identify fish and wildlife resources that presently exist and that existed before contamination introduction at the Site, and to provide information for the design of a remedial investigation. The July 2008 FWIA was re-evaluated to include the data generated in late 2008 and 2009. The results of the re-evaluation are presented as an addendum to the FWIA and are provided as Appendix H to this report. To summarize, the FWIA concluded there is no impact to fish and wildlife on or near the Site due to dense urbanization and lack of natural habitats surrounding the Site. However, to be conservative CRA completed the additional relevant steps of the FWIA. Based on the results of the FWIA, it was also concluded that future remedial actions will not harm fish or wildlife and will result in the removal or isolation of Site-related contaminants, thus preventing future off-Site migration of Site-related contaminants and impacts to natural resources.

9.0 CONCLUSIONS AND RECOMMENDATIONS

9.1 NATURE AND EXTENT OF CONTAMINATION

Based on the results of the investigation and the Qualitative Human Health Exposure Assessment, the following conclusions were made:

1. Fill material ranges in thickness across the Site from less than one foot bgs to 10 feet bgs at both on and off Site locations. Not considering the artificial fill thickness measured at the soil mound locations, the fill thickness increased moving from northwest to southeast. The fill materials typically were comprised of soil, brick, and slag. The fill material is underlain by fine-grained soil, specifically, clay with silt. Borehole refusal occurred within the fine-grained soils at depths of up to approximately 19 feet bgs or less.
2. Analyte concentrations for surface soil (i.e. 0 to 2 inches bgs) samples collected from both on and off Site locations were below applicable RUSCOs.
3. Analyte concentrations for subsruface soil samples collected by EA in March 2004 identified the presence of lead at one location beneath the manufacturing facility at a concentration exceeding the industrial RUSCO.
4. Analyte concentrations for subsurface soil samples collected in 2006 identified the presence of lead, VOCs, and SVOCs at concentrations above industrial RUSCOs. These constituents were primarily found in the shallow (i.e. less than 2 feet bgs) soil/fill material. The concentrations of these constituents were considerably less in the underlying sample intervals.
5. Analyte concentrations for subsurface soil samples collected from July 2007 to June 2009 identified the presence of SVOCs and arsenic at two on-Site locations at concentrations that exceed the industrial RUSCOs.
6. Groundwater was present within monitoring wells that were installed within the fill/clay unit and in the upper bedrock unit. The depth to groundwater varied from approximately 1.77 feet to 10 feet bgs in overburden wells and from approximately 2.86 feet to 15.12 feet bgs in the bedrock wells. Water level data indicates that the groundwater hydraulic gradient in both the overburden and bedrock groundwater zones is to the west-southwest. The fine-grained soil conditions present an impediment to overburden groundwater flow horizontally.
7. Analytical data for groundwater samples identified the presence of VOCs at both on-Site and off-Site monitoring wells. The most frequently detected VOCs were TCE and cis-1,2-DCE. The greatest VOC concentrations were detected in the presumed source area at on Site monitoring wells MW-5 and MW-5A.

8. VOCs were either not detected at or were detected at concentrations below the NYS groundwater standards at up gradient wells MW-9 and MW-9A, cross gradient wells MW-7 and MW-7A, MW-10 and MW-25A and down gradient wells, MW-15A, MW-22A, and MW-23A. These locations are considered the limits of the VOC groundwater plume.
9. The qualitative exposure assessment identified media and potential human exposure to soil through dermal contact, incidental ingestion, and inhalation of particulate and vapors, and groundwater through dermal contact, incidental ingestion, and inhalation of vapors. The potentially exposed on-Site receptors include workers (industrial workers and construction/utility workers) and persons that may trespass onto the Site. The potentially exposed off-Site receptors include adult and child residents, workers (industrial workers and construction/utility workers) and persons that may trespass onto off-Site commercial/industrial properties. Potential human exposure can be addressed using remedial or other methods to eliminate exposure pathways and/or provide worker protection. COPCs were identified by comparison of maximum detected concentrations to 6 NYCRR Part 375 restricted use criteria for soil and NYS groundwater standards for groundwater. The COPCs identified in on-Site groundwater include a number of VOCs and metals. However, since the Site groundwater is not used for potable supply, this comparison to drinking water criteria is very conservative.
10. Additional volatile compounds were flagged as COPCs for the soil-to-indoor air pathway.
11. No COPCs were identified in off-Site soils. The COPCs identified in off-Site groundwater include cis-1,2-DCE and TCE. These two analytes were also identified as COPCs in on-Site groundwater and in off-Site indoor air at one location.

9.2 INTERIM REMEDIAL MEASURES

The results of the RI identified the presence of VOCs in the on-Site and off-Site overburden and bedrock groundwater at concentrations that exceed the NYS Groundwater Standards. VOCs were also detected in off-Site soil vapor samples at levels that, based on the NYSDOH Soil Vapor Intrusion Guidance, require mitigation.

Based on these findings, it is recommended that an Interim Remedial Measure (IRM) be implemented to address the soil vapor intrusion at the affected off-Site property. Based on a comparison of the results of the soil vapor sampling at 127 Harrison Street to the decision matrices in the NYSDOH Guidance document, mitigation is required to address potential exposures to VOCs in indoor air resulting from soil vapor intrusion. Buffalo China has contacted the property owner/resident to request permission and access to

conduct an IRM at this residence. As of the date of this report, the owner/resident had denied access.

Once access is granted, the building structure will be accessed and an appropriate mitigation plan will be developed. The mitigation plan will be submitted to NYSDEC and NYSDOH for approval. Once the approved mitigation plan is implemented it is expected to be the final remedy to address soil vapor intrusion at this off-Site property.

9.3 ALTERNATIVES ANALYSIS REPORT

An Alternatives Analysis Report (AAR) is being prepared to scope and formulate remedial alternatives to address the presence of lead, arsenic, SVOCs, and VOCs in on-Site soils and the presence of VOCs in both on and off Site groundwater. The AAR will evaluate applicable remedial alternatives in order to select the most appropriate remedial alternatives.

10.0 REFERENCES

Environmental Audits, Inc., Phase I Environmental Site Assessment, Industrial Property, Hayes Place, Buffalo, New York, February 2004.

Environmental Audits, Inc., Focused Phase II Environmental Assessment: Industrial Property, 51 Hayes Place Buffalo, New York, March 2004.

Conestoga-Rovers & Associates, Inc., Supplemental Site Investigation Report and Qualitative Human Health Exposure Assessment, Niagara Ceramics 51 Hayes Place, Buffalo, New York, June 2006.

Conestoga-Rovers & Associates, Inc., Fish and Wildlife Impact Assessment for the Former Buffalo China Site, April, 2008.

6 NYCRR Part 701, "Classifications-Surface Waters and Groundwaters."

New York State Department of Environmental Conservation Division of Environmental Remediation Draft Technical Guidance for Site Investigation and Remediation, December 2002.

New York State Department of Health, "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006.

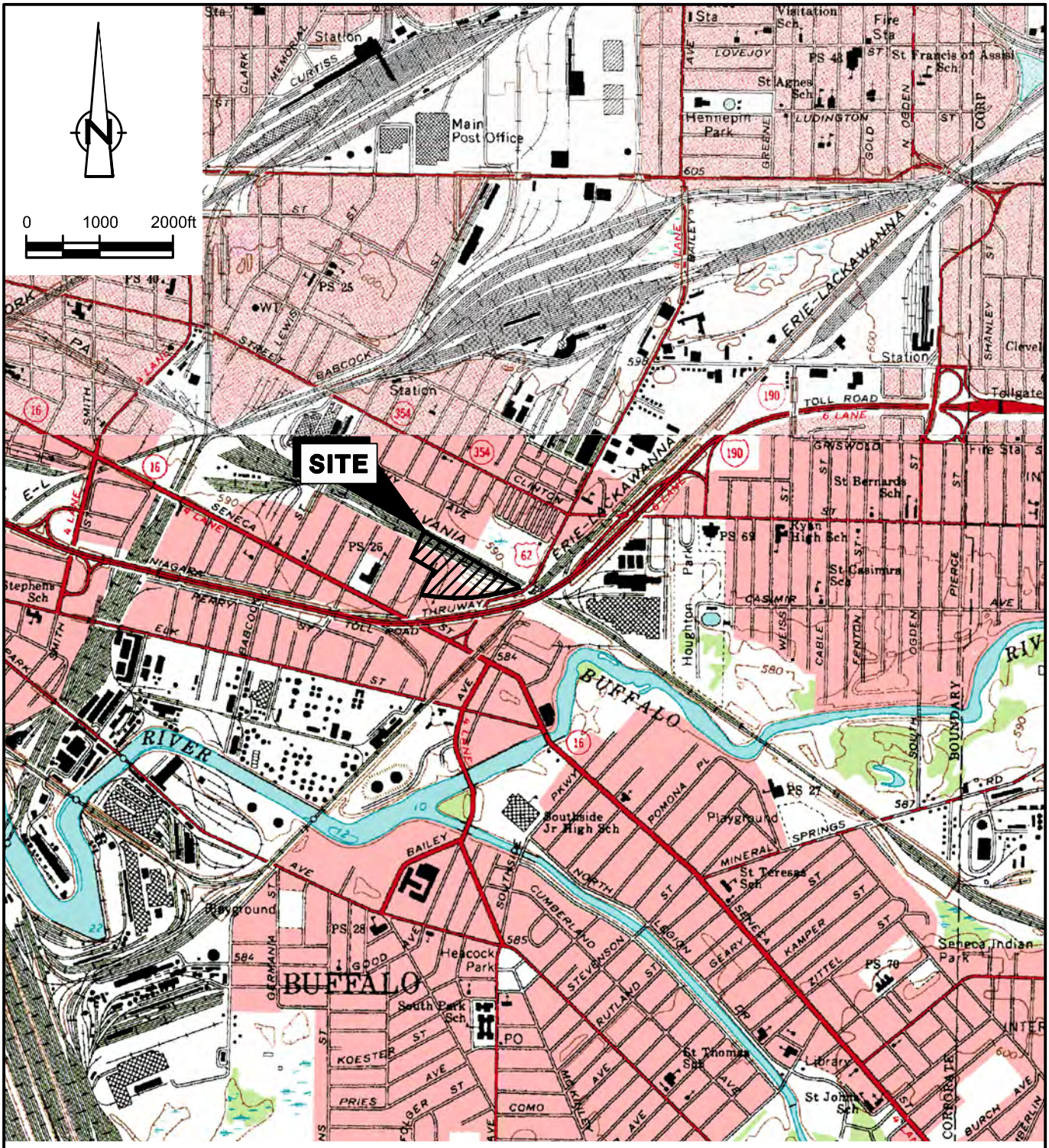
6 NYCRR Part 375 Environmental Remediation Programs, Effective December 14, 2006.

Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Reissued June 1998 [TOGS 1.1.1].

USEPA, 2008. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. EPA-600-R-02-016. Office of Research and Development. Washington, DC 20460.

LaSala, A.M., 1968. “Groundwater Resources of the Erie-Niagara Basin, New York,” State of New York Conservation Department Water Resources Commission Basin Planning Report ENB-3.

FIGURES



REFERENCE:

UNITED STATES GEOLOGIC SURVEY BUFFALO NE, BUFFALO SE QUADRANGLE, NY
TOPOGRAPHIC, 7.5 MINUTES SERIES 1965
SCALE: 1:24,000

figure 1.1

SITE LOCATION MAP
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

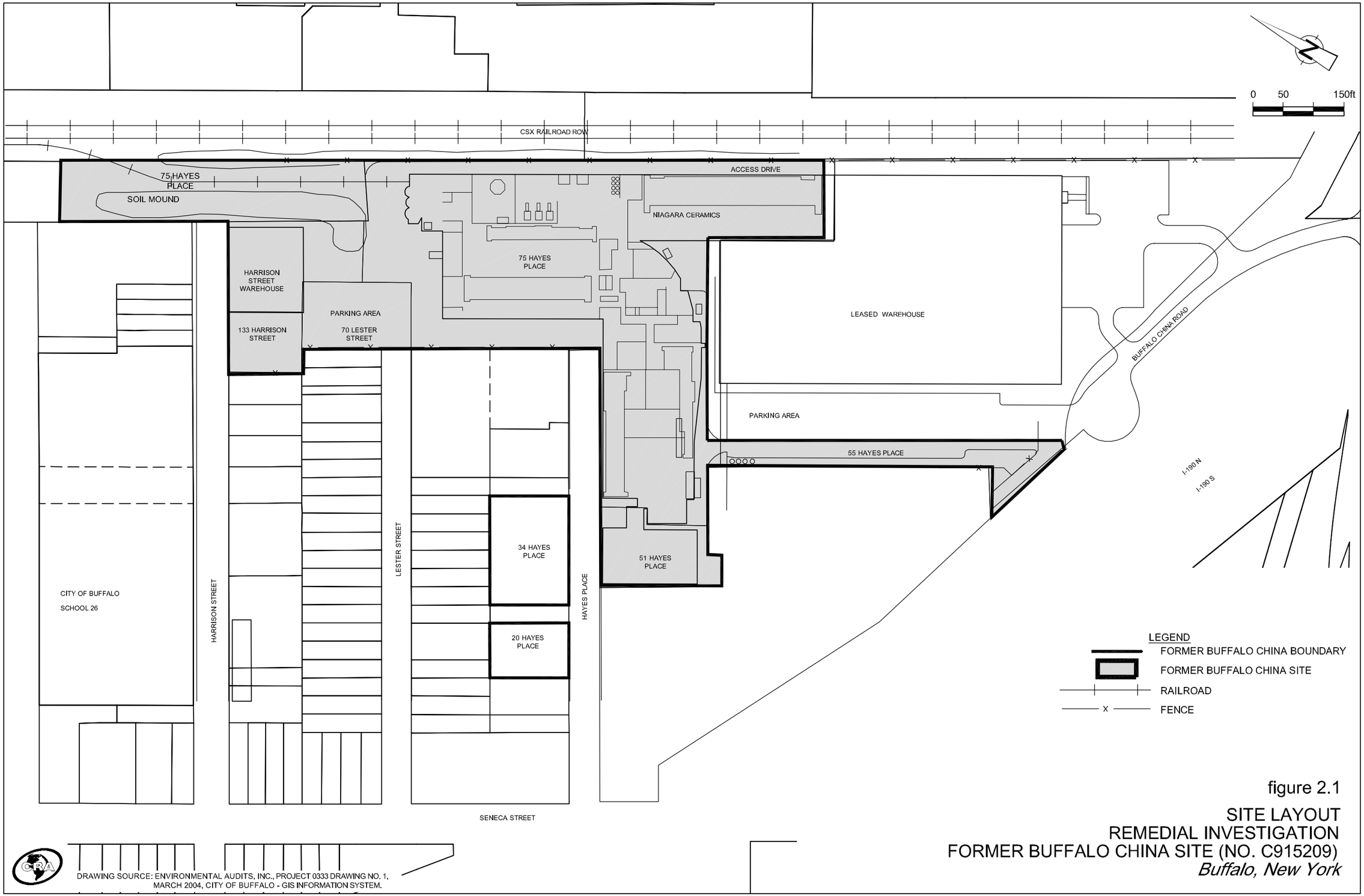


figure 2.1

SITE LAYOUT
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

DRAWING SOURCE: ENVIRONMENTAL AUDITS, INC., PROJECT 0333 DRAWING NO. 1, MARCH 2004, CITY OF BUFFALO - GIS INFORMATION SYSTEM.

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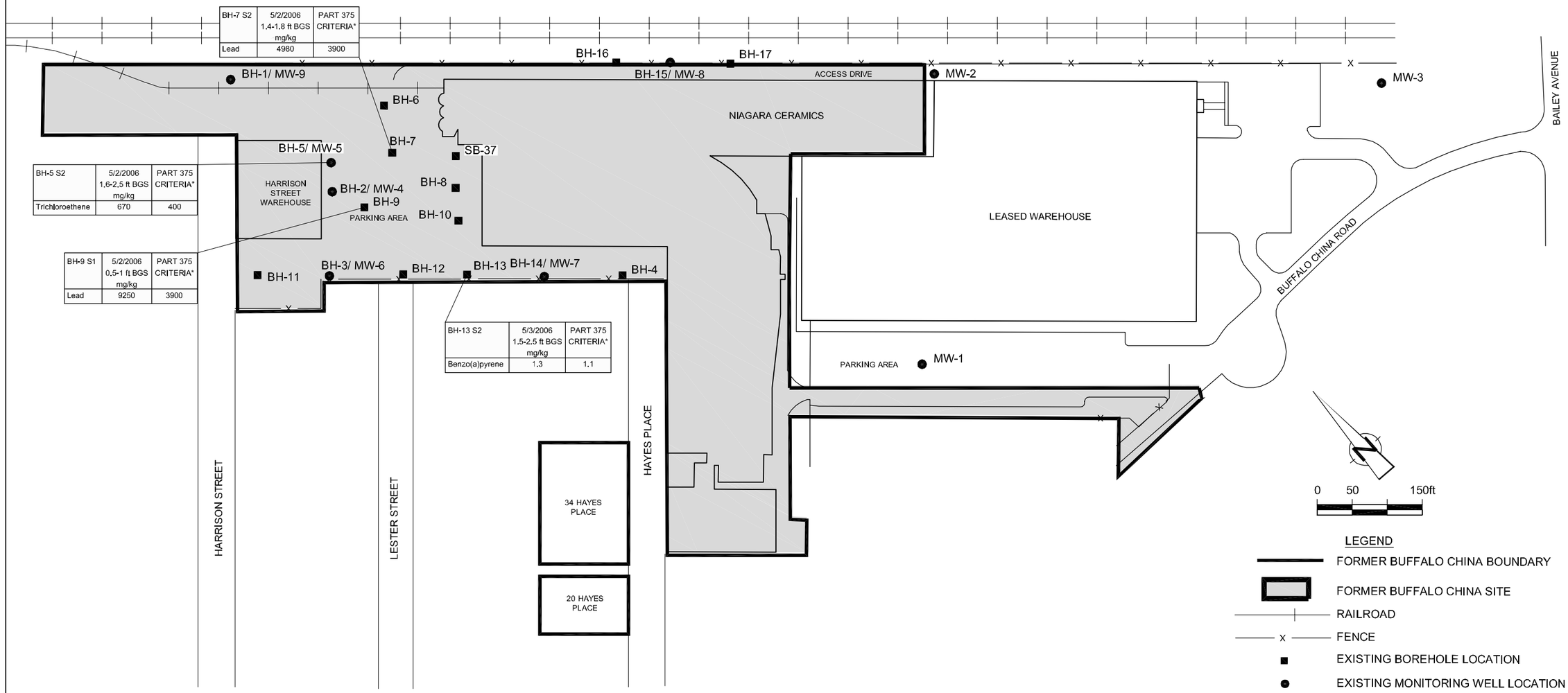

figure 3.1

2006 SUPPLEMENTAL SITE INVESTIGATION SOIL EXCEEDANCES REMEDIAL INVESTIGATION FORMER BUFFALO CHINA SITE (NO. C915209)

Buffalo, New York

*CRITERIA USED TO EVALUATE ANALYTICAL RESULTS: RESTRICTED USE SOIL CLEAN UP OBJECTIVES 6 NYCRR PART 375, EFFECTIVE DECEMBER 14,2006.

DRAWING SOURCE: ENVIRONMENTAL AUDITS, INC., PROJECT 0333 DRAWING NO. 1, MARCH 2004.

MW-8	5/11/2006 ug/L	NYS GROUNDWATER CRITERIA*
cis-1,2-Dichloroethene	8.5	5
Lead	46.0	25
Trichloroethene	31	5

MW-5	5/11/2006 ug/L	NYS GROUNDWATER CRITERIA*
cis-1,2-Dichloroethene	130000	5
Trichloroethene	540000	5

MW-4	5/11/2006 ug/L	NYS GROUNDWATER CRITERIA*
cis-1,2-Dichloroethene	960	5
Trichloroethene	1600	5

MW-6	5/11/2006 ug/L	NYS GROUNDWATER CRITERIA*
cis-1,2-Dichloroethene	24000	5
Trichloroethene	12000	5
Vinyl chloride	570 J	5

BH-16
BH-17
BH-1/ MW-9
BH-15/ MW-8
ACCESS DRIVE
MW-2
MW-3
BH-6
NIAGARA CERAMICS
BH-7
BH-5/ MW-5
SB-37
HARRISON STREET WAREHOUSE
BH-2/ MW-4
BH-8
BH-9
PARKING AREA
BH-10
LEASED WAREHOUSE
BAILEY AVENUE
BUFFALO CHINA ROAD
BH-11
BH-3/ MW-6
BH-12
BH-13
BH-14/ MW-7
BH-4
PARKING AREA
MW-1
HARRISON STREET
LESTER STREET
HAYES PLACE
34 HAYES PLACE
20 HAYES PLACE

0 50 150ft

LEGEND

- FORMER BUFFALO CHINA BOUNDARY
- FORMER BUFFALO CHINA SITE
- RAILROAD
- FENCE
- EXISTING BOREHOLE LOCATION
- EXISTING MONITORING WELL LOCATION

figure 3.2

2006 SUPPLEMENTAL SITE INVESTIGATION GROUNDWATER EXCEEDANCES REMEDIAL INVESTIGATION FORMER BUFFALO CHINA SITE (NO. C915209)

Buffalo, New York

* CRITERIA USED FOR EVALUATION OF ANAYTICAL RESULTS - NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE SERIES (TOGs) 1.1.1 DATED JUNE 1998.

DRAWING SOURCE: ENVIRONMENTAL AUDITS, INC., PROJECT 0333 DRAWING NO. 1, MARCH 2004.

0 50 150ft

SS-7
SS-1
SS-2
SS-11
SS-6
SS-22
SS-23
SS-24
BACK STOP
SS-8
SS-9
SS-25
SS-3
SS-4
SS-5
SS-19
SS-21
SS-20
PLAYGROUND
TENNIS COURT
SS-18
SS-10
SS-16
SS-15
SS-17
SS-12
SS-13
SS-14
CITY OF BUFFALO
SCHOOL 26
HARRISON STREET
LESTER STREET
HAYES PLACE
SENECA STREET
75 HAYES PLACE
NIAGARA CERAMICS
LEASED WAREHOUSE
PARKING AREA
55 HAYES PLACE
51 HAYES PLACE
34 HAYES PLACE
20 HAYES PLACE
BUFFALO CHINA ROAD

LEGEND

SS-11 SURFACE SOIL SAMPLE

figure 4.1

SURFACE SOIL SAMPLE LOCATIONS
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

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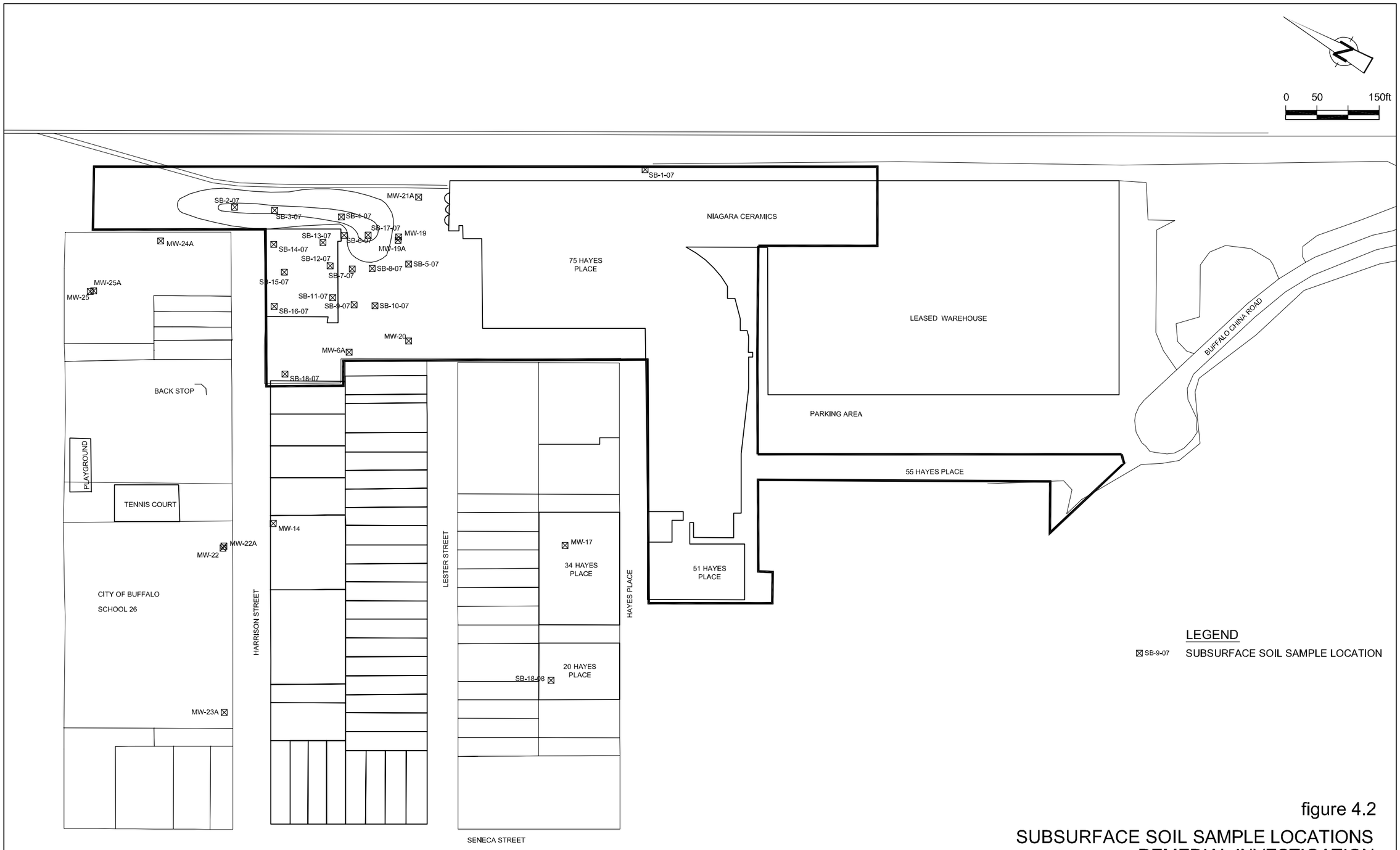


figure 4.2

SUBSURFACE SOIL SAMPLE LOCATIONS
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

SOIL CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - 6 NYCRR PART 375 RESTRICTED USE SOIL CLEANUP OBJECTIVES - PROTECTION OF PUBLIC HEALTH. INDUSTRIAL CRITERIA USED FOR ON-SITE LOCATIONS. RESIDENTIAL CRITERIA USED FOR OFF-SITE LOCATIONS.

37191-00(008)GN-BU019 FEB 26/2010

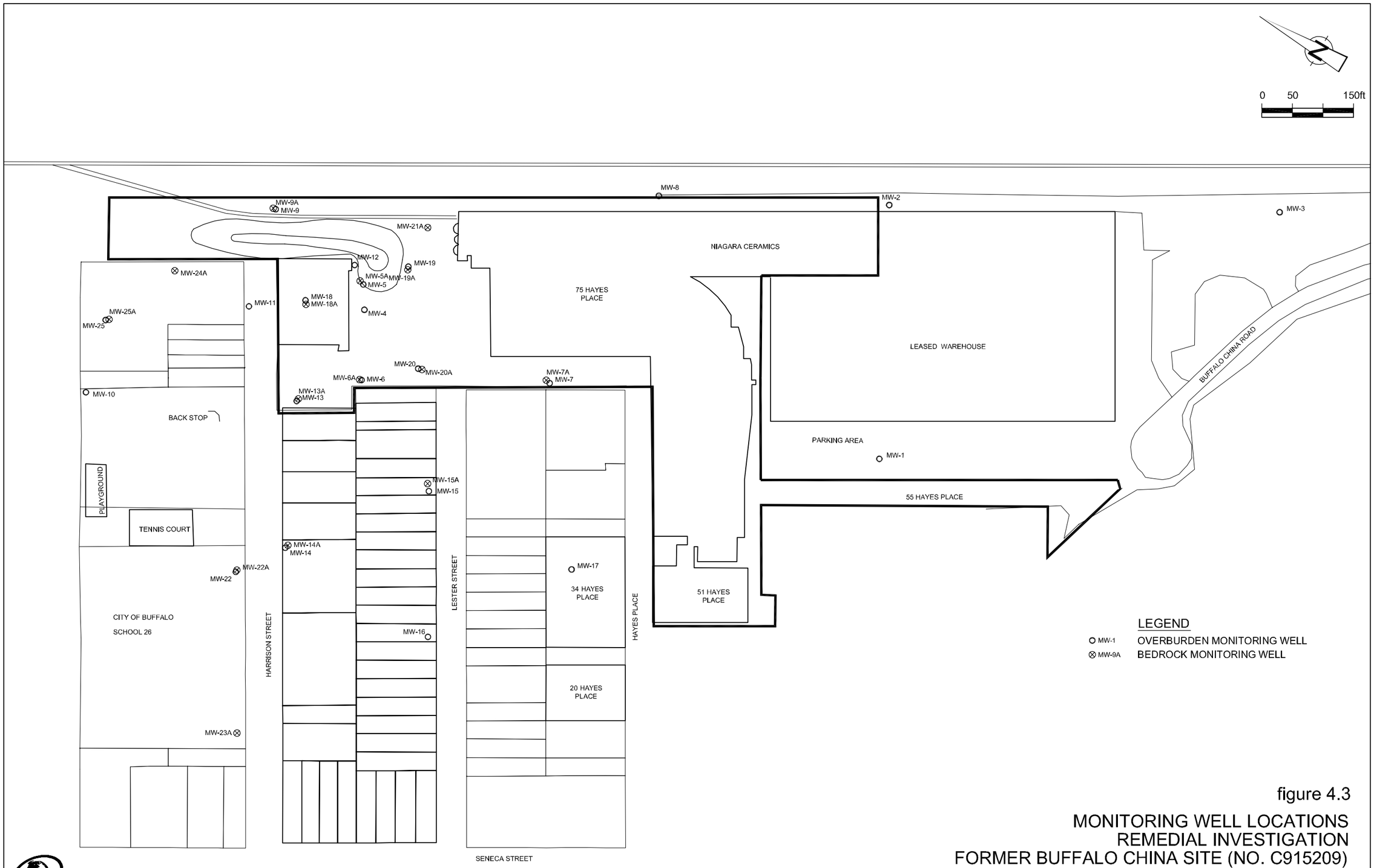


figure 4.3

MONITORING WELL LOCATIONS
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

37191-00(008)GN-BU011 FEB 26/2010

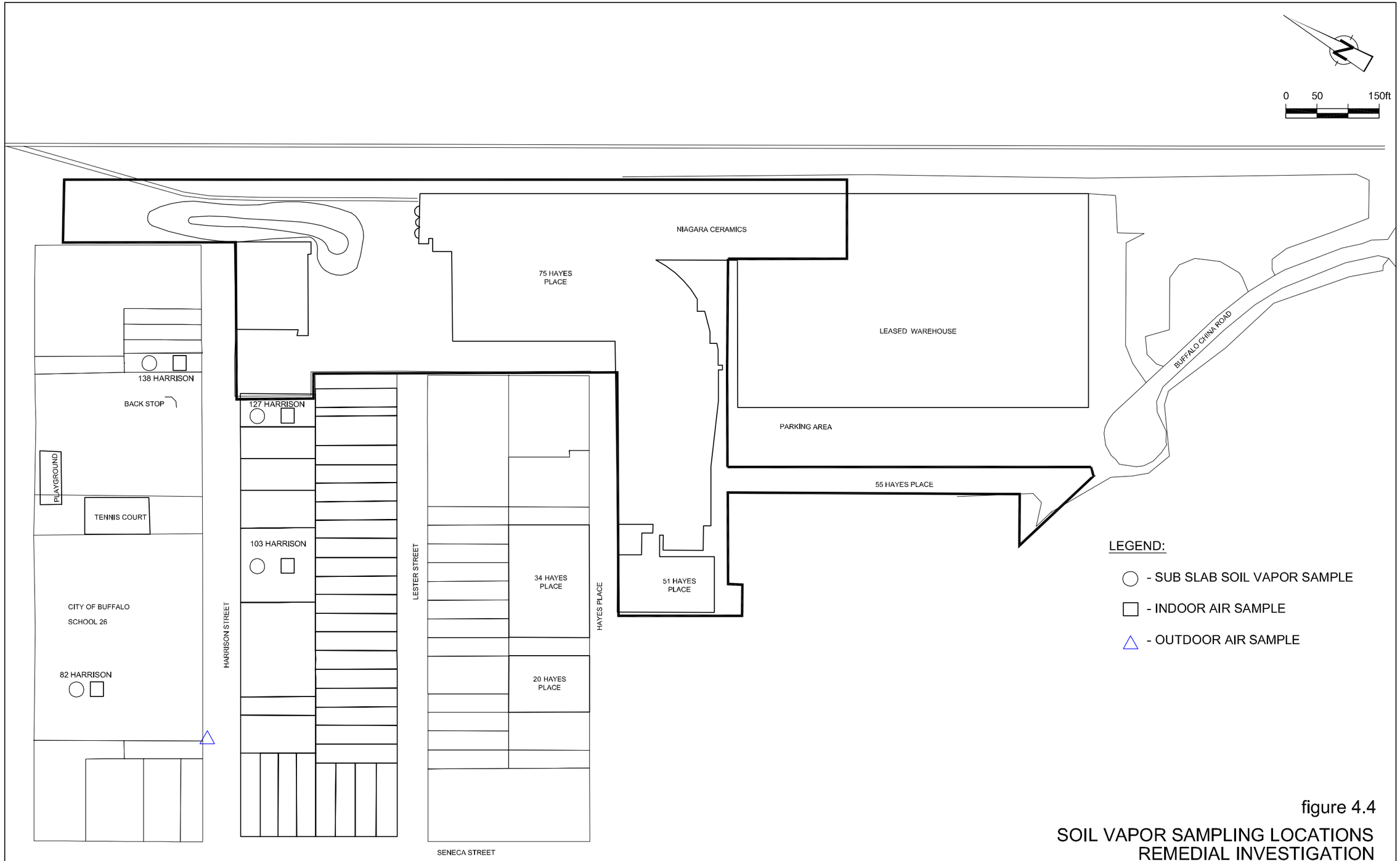


figure 4.4

SOIL VAPOR SAMPLING LOCATIONS
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

37191-00(008)GN-BU018 FEB 26/2010

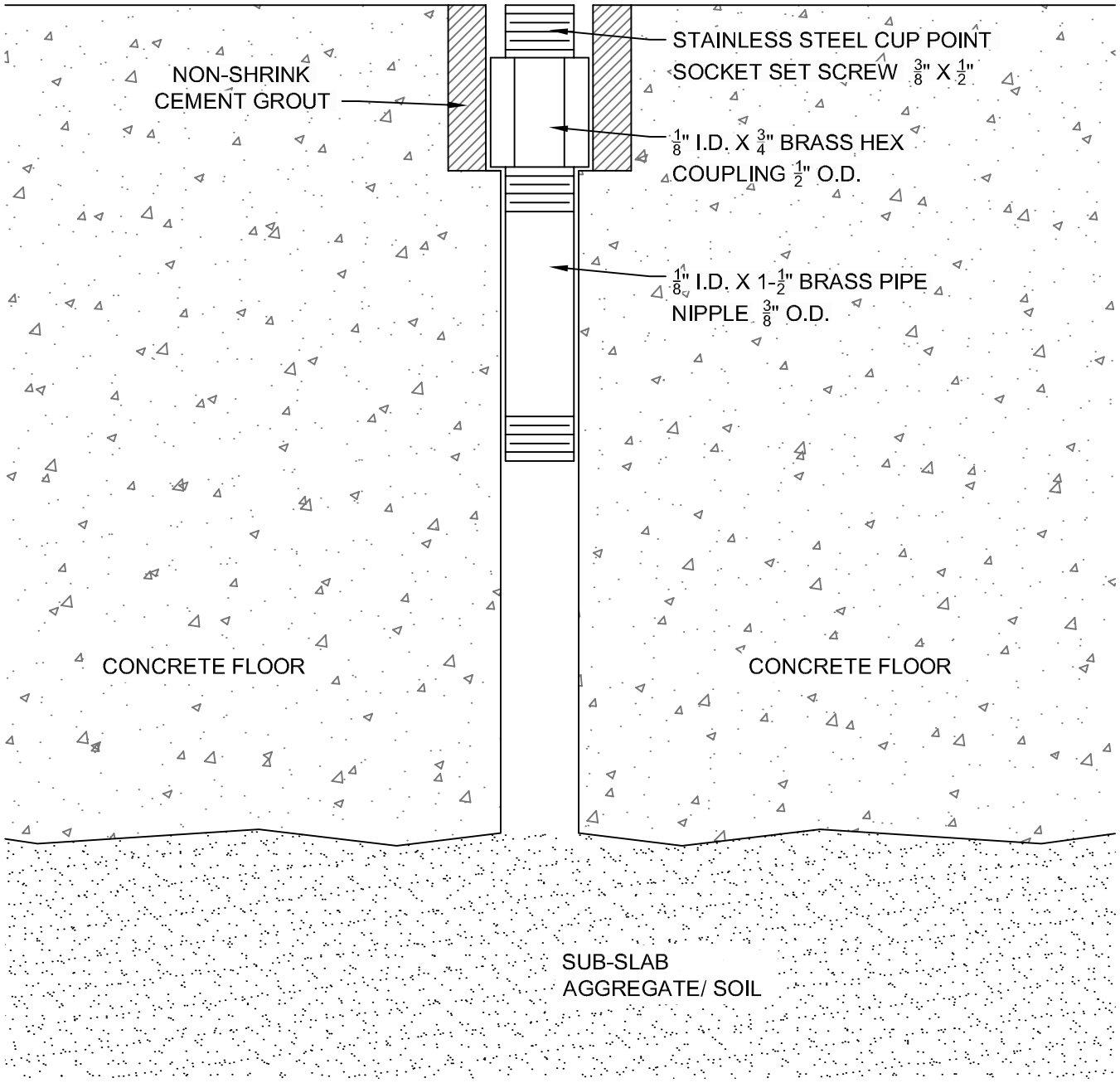


figure 4.5

TYPICAL SUB-SLAB SOIL VAPOR PROBE INSTALLATION
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

NOT TO SCALE

37191-00(008)GN-BU016 FEB 26/2010

figure 4.6

SOIL VAPOR INTRUSION CANISTER SET-UP
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

0 50 150ft

MW-9A 587.78
MW-9 587.16
MW-21A 586.88
MW-8 577.59
MW-2 580.39
MW-3 584.92
MW-12 587.00
MW-19 586.32
MW-5A 586.33
MW-19A 586.2
MW-5 586.68
MW-24A 590.73
MW-18 586.12
MW-18A 586.52
MW-11 586.01
MW-25A 590.97
MW-25 590.92
MW-10 586.95
MW-20 584.79
MW-20A 585.31
MW-6A 584.3
MW-6 584.61
MW-13A 586.91
MW-13 587.69
MW-7A 583.44
MW-7 583.78
MW-15A 584.92
MW-15 584.93
MW-14A 585.05
MW-14 584.31
MW-22A 580.73
MW-22 580.58
MW-17 581.10
MW-16 581.00
MW-23A 577.40
MW-1 579.73

NIAGARA CERAMICS
75 HAYES PLACE
LEASED WAREHOUSE
PARKING AREA
55 HAYES PLACE
51 HAYES PLACE
34 HAYES PLACE
20 HAYES PLACE
BACK STOP
PLAYGROUND
TENNIS COURT
CITY OF BUFFALO SCHOOL 26
HARRISON STREET
LESTER STREET
HAYES PLACE
SENECA STREET
BUFFALO CHINA ROAD

590.00 589.00 588.00 587.00 586.00 585.00 584.00 583.00 582.00 581.00 580.00 579.00 578.00

LEGEND

MW-1 OVERBURDEN MONITORING WELL
MW-9A BEDROCK MONITORING WELL

figure 5.1

BEDROCK SURFACE ELEVATION CONTOURS
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

37191-00(008)GN-BU001 FEB 26/2010

0 50 150ft

592.00 591.00 590.00 589.00 588.00 587.00 586.00 585.00 584.00 583.00

MW-9 592.77
MW-8 592.16
MW-2 590.35
MW-3 588.17
MW-12 590.76
MW-19 591.14
MW-5 593.08
MW-18 589.40
MW-11 589.06
MW-4 590.8
MW-25 DRY (590.92)
MW-20 590.32
MW-6 587.18
MW-7 590.28
MW-10 586.82
MW-13 588.25
MW-1 588.63
MW-25 DRY (584.93)
MW-14 584.89
MW-22 588.04
MW-17 582.49
MW-16 DRY (581.00)

NIAGARA CERAMICS
75 HAYES PLACE
LEASED WAREHOUSE
PARKING AREA
55 HAYES PLACE
51 HAYES PLACE
34 HAYES PLACE
20 HAYES PLACE
BACK STOP
PLAYGROUND
TENNIS COURT
CITY OF BUFFALO SCHOOL 26
HARRISON STREET
LESTER STREET
HAYES PLACE
SENECA STREET
BUFFALO CHINA ROAD

LEGEND
MW-1 OVERBURDEN MONITORING WELL
INDICATES GROUNDWATER GRADIENT DIRECTION

NOTE: (581.00) - INDICATES ELEVATION CORRESPONDING TO THE BOTTOM OF THE WELL.

figure 5.2

OVERBURDEN GROUNDWATER SURFACE ELEVATION CONTOURS - JULY, 2009
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

37191-00(008)GN-BU004 FEB 26/2010

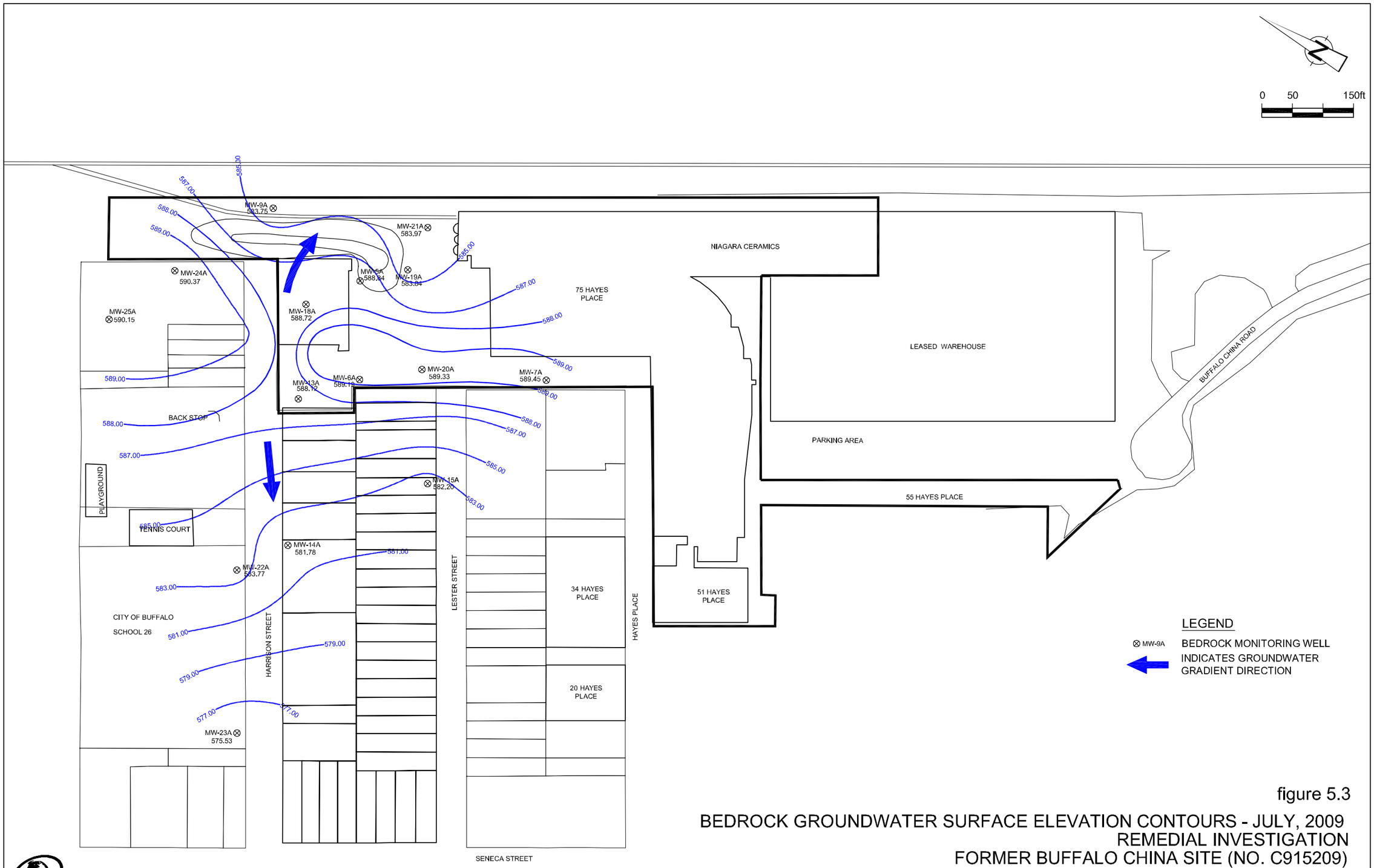


figure 5.3

BEDROCK GROUNDWATER SURFACE ELEVATION CONTOURS - JULY, 2009
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

SB-2-07	7/27/2007 6.5-8 ft BGS mg/kg	7/27/2007 6.5-8 ft BGS mg/kg	NYS SOIL CRITERIA
SVOCs			
Benzo(a)pyrene	1.4	2.7	1.1

SB-7-07	7/25/2007 3-6 ft BGS mg/kg	NYS SOIL CRITERIA
SVOCs		
Benzo(a)anthracene	15	11
Benzo(a)pyrene	14	1.1
Benzo(b)fluoranthene	17	11
Dibenz(a,h)anthracene	2.4	1.1

SB-8-07	7/25/2007 3,5-8 ft BGS mg/kg	NYS SOIL CRITERIA
Metals		
Arsenic	21.4	16

MW-17	5/9/2008 0-2 ft BGS mg/kg	NYS SOIL CRITERIA
SVOCs		
Benzo(a)pyrene	2.8	1.1

0 50 150ft

MW-8
SB-1-07
MW-2
MW-3
MW-9A
MW-9
SB-2-07
MW-21A
SB-3-07
SB-4-07
MW-12
SB-17-07
MW-19
SB-13-07
SB-6-07
MW-5A
MW-19A
SB-14-07
MW-5
SB-12-07
MW-18
SB-8-07
SB-5-07
MW-11
SB-15-07
MW-18A
SB-7-07
MW-4
MW-24A
MW-25A
MW-25
SB-11-07
SB-9-07
SB-10-07
SB-16-07
MW-20
MW-20A
MW-6A
MW-6
MW-7A
MW-7
MW-10
MW-13A
MW-13
SB-18-07
BACK STOP
PLAYGROUND
TENNIS COURT
MW-15A
MW-15
MW-14A
MW-14
MW-22A
MW-22
CITY OF BUFFALO
SCHOOL 26
HARRISON STREET
LESTER STREET
MW-16
MW-17
34 HAYES PLACE
20 HAYES PLACE
SB-18-08
MW-23A
SENECA STREET
HAYES PLACE
NIAGARA CERAMICS
LEASED WAREHOUSE
PARKING AREA
MW-1
55 HAYES PLACE
51 HAYES PLACE
BUFFALO CHINA ROAD
75 HAYES

LEGEND

- MW-1 OVERBURDEN MONITORING WELL
- MW-9A BEDROCK MONITORING WELL
- SB-9-07 SOIL BORING

figure 6.1

CONTAMINANT CONCENTRATIONS EXCEEDING CRITERIA IN SOIL
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

SOIL CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - 6 NYCRR PART 375 RESTRICTED USE SOIL CLEANUP OBJECTIVES - PROTECTION OF PUBLIC HEALTH. INDUSTRIAL CRITERIA USED FOR ON-SITE LOCATIONS. RESIDENTIAL CRITERIA USED FOR OFF-SITE LOCATIONS.

MW-18	1/13/2009 ug/L	1/13/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs				
cis-1,2-Dichloroethene	42	40 J	45 J	5
Tetrachloroethene	6.0 J	-	-	5
Trichloroethene	680	540	680	5

MW-12	8/21/2007 ug/L	8/21/2007 ug/L	5/28/2008 ug/L	5/28/2008 ug/L	1/13/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs							
cis-1,2-Dichloroethene	65000 J	25000 J	15000	16000	340	1100	5
Tetrachloroethene	-	-	640 J	710 J	-	63 J	5
Toluene	-	-	-	-	10 J	-	5
Trichloroethene	190000 J	26000 J	81000	88000	570	4400	5
Vinyl chloride	-	760 J	760 J	910 J	-	-	2

MW-19	7/20/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	410 J	5
Trichloroethene	15000	5

0 50 150ft

MW-8	5/11/2006 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	8.5	5
Trichloroethene	31	5

MW-5	5/11/2006 ug/L	5/11/2006 ug/L	8/21/2007 ug/L	5/28/2008 ug/L	1/20/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs							
1,1,2-Trichloroethane	-	-	9800 J	-	-	-	1
cis-1,2-Dichloroethene	130000	140000	240000	150000	320000	310000	5
Toluene	-	-	-	-	-	96000	5
Trichloroethene	540000	600000	550000	310000	560000	410000	5

MW-4	5/11/2006 ug/L	8/21/2007 ug/L	8/21/2007 ug/L	5/28/2008 ug/L	5/28/2008 ug/L	1/13/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs								
cis-1,2-Dichloroethene	960	2200 J	1100 J	1200	1300	1300	1600	5
trans-1,2-Dichloroethene	-	87 J	34 J	27 J	29 J	22 J	29 J	5
Trichloroethene	1600	2000 J	1000 J	2200	2200	1500	2200	5
Vinyl chloride	-	31 J	-	17 J	-	-	-	2

MW-11	9/19/2008 ug/L	1/22/2009 ug/L	1/22/2009 ug/L	7/20/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs					
cis-1,2-Dichloroethene	3500	610	620	350	5
trans-1,2-Dichloroethene	-	-	-	5.6	5
Trichloroethene	1700	280	280	120	5

MW-20	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	89	5
Trichloroethene	19	5
Vinyl chloride	5.5	2

MW-22	7/20/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
Trichloroethene	30	5

MW-6	5/11/2006 ug/L	5/28/2008 ug/L	1/20/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs					
1,2,4-Trichlorobenzene	-	15 J	-	-	5
cis-1,2-Dichloroethene	24000	1600	1300	740	5
Tetrachloroethene	-	13 J	-	-	5
trans-1,2-Dichloroethene	-	11 J	8.3 J	-	5
Trichloroethene	12000	630	450 J	290	5
Vinyl chloride	570 J	24 J	15 J	-	2

MW-17	5/28/2008 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
Trichloroethene	5.1	5

MW-8
MW-9
MW-12
MW-19
MW-5
MW-18
MW-11
MW-4
MW-25 DRY
MW-20
MW-6
MW-7
MW-10
MW-13 DRY
MW-15 DRY
MW-14 DRY
MW-22
MW-16 DRY
MW-17
MW-3
NIAGARA CERAMICS
75 HAYES PLACE
55 HAYES PLACE
51 HAYES PLACE
34 HAYES PLACE
20 HAYES PLACE
HAYES PLACE
LESTER STREET
BUFFALO CHINA ROAD
BACK STOP
PLAYGR
TENNIS COURT
CITY OF BUFFALO SCHOOL 26
STREET
SENECA STREET

LEGEND

MW-1 OVERBURDEN MONITORING WELL

GROUNDWATER CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - NYSDEC TOGS 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES AND GROUNDWATER EFFLUENT LIMITATIONS JUNE 1998, JANUARY 1999 ERRATA SHEET, APRIL 2000 ADDENDUM, JUNE 2004 ADDENDUM.

figure 6.2

CONTAMINANT CONCENTRATIONS EXCEEDING CRITERIA IN OVERBURDEN GROUNDWATER
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

37191-00(008)GN-BU007 FEB 26/2010

0 50 150ft

MW-8
MW-2
MW-3
MW-9
NIAGARA CERAMICS
MW-12
MW-19
MW-5
MW-18
MW-11
MW-4
75 HAYES PLACE
MW-25
LEASED WAREHOUSE
MW-20
MW-6
MW-7
MW-10
MW-13
BACK STOP
BUFFALO CHINA ROAD
PARKING AREA
MW-1
55 HAYES PLACE
PLAYGROUND
TENNIS COURT
MW-15
MW-14
MW-22
MW-17
34 HAYES PLACE
51 HAYES PLACE
CITY OF BUFFALO
SCHOOL 26
HARRISON STREET
LESTER STREET
HAYES PLACE
MW-16
20 HAYES PLACE
SENECA STREET

LEGEND

MW-1 OVERBURDEN MONITORING WELL

TRICHLOROETHENE CONCENTRATIONS IN ug/L

- > 100,000
- 50,000 - 100,000
- 10,000 - 50,000
- 1,000 - 10,000
- 100 - 1,000
- 5 - 100

figure 6.3

TRICHLOROETHENE CONTAMINANT PLUME BASED ON OVERBURDEN GROUNDWATER DATA ONLY- JUNE 2009 REMEDIAL INVESTIGATION FORMER BUFFALO CHINA SITE (NO. C915209)

Buffalo, New York

37191-00(008)GN-BU024 MAY 10/2010

MW-5A	1/20/2009 ug/L	7/22/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs				
1,1-Dichloroethene	-	40 J	-	5
1,2-Dichloroethane	-	-	320 J	0.6
Acetone	-	280 J	-	50
cis-1,2-Dichloroethene	71000	18000	27000	5
Methylene chloride	-	80 J	240 J	5
Tetrachloroethene	-	45 J	-	5
Toluene	-	24 J	-	5
trans-1,2-Dichloroethene	-	66 J	-	5
Trichloroethene	290000	24000	35000	5
Vinyl chloride	-	83 J	-	2

MW-18A	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	4600	5
Trichloroethene	26000	5

MW-21A	7/21/2009 ug/L	7/21/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs			
Acetone	110 J	-	50
cis-1,2-Dichloroethene	890	710 J	5
trans-1,2-Dichloroethene	11 J	7.2	5
Trichloroethene	2400	1900 J	5
Vinyl chloride	26 J	42	2

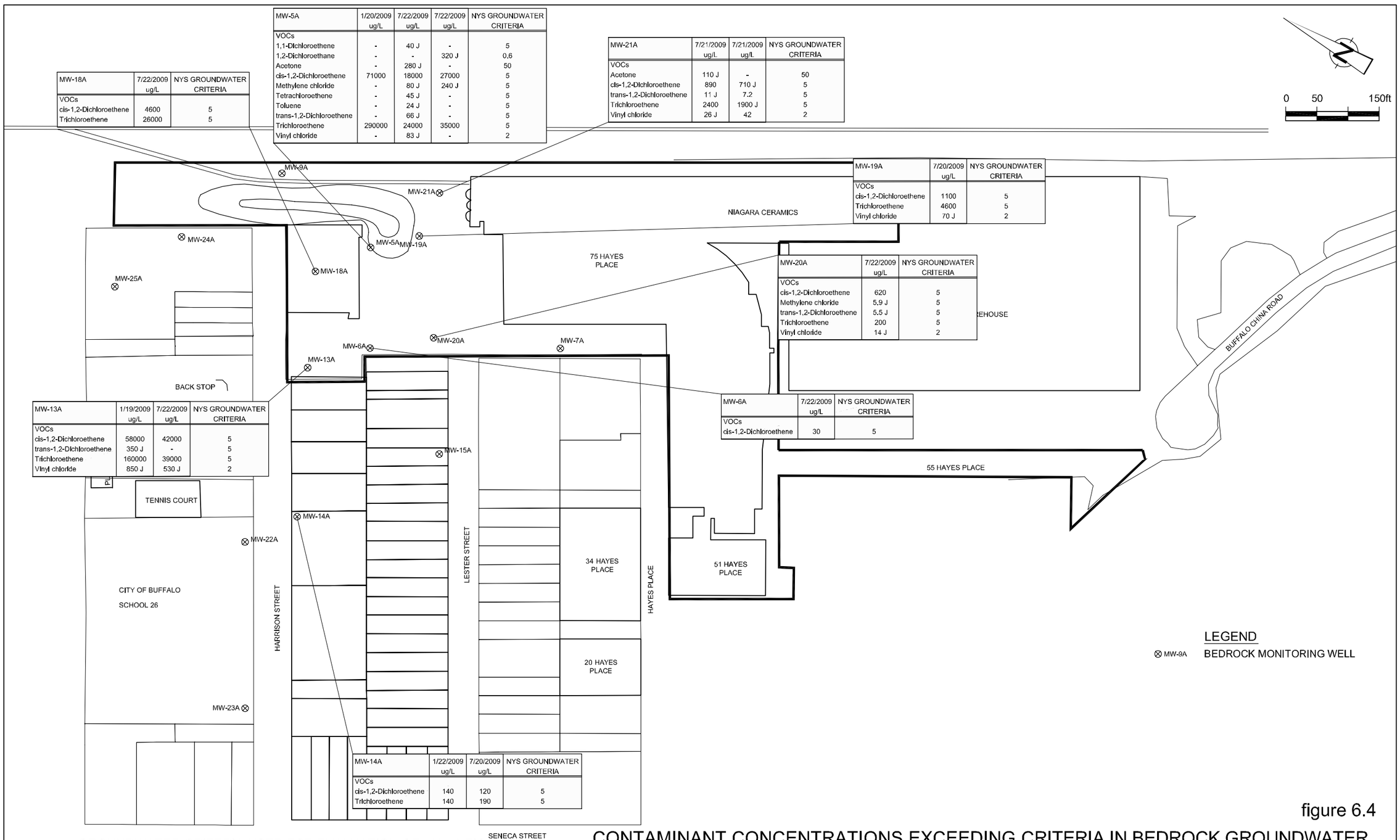
MW-19A	7/20/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	1100	5
Trichloroethene	4600	5
Vinyl chloride	70 J	2

MW-20A	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	620	5
Methylene chloride	5.9 J	5
trans-1,2-Dichloroethene	5.5 J	5
Trichloroethene	200	5
Vinyl chloride	14 J	2

MW-13A	1/19/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs			
cis-1,2-Dichloroethene	58000	42000	5
trans-1,2-Dichloroethene	350 J	-	5
Trichloroethene	160000	39000	5
Vinyl chloride	850 J	530 J	2

MW-6A	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	30	5

MW-14A	1/22/2009 ug/L	7/20/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs			
cis-1,2-Dichloroethene	140	120	5
Trichloroethene	140	190	5



LEGEND

⊗ MW-9A BEDROCK MONITORING WELL

figure 6.4

CONTAMINANT CONCENTRATIONS EXCEEDING CRITERIA IN BEDROCK GROUNDWATER
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

GROUNDWATER CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - NYSDEC TOGS 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES AND GROUNDWATER EFFLUENT LIMITATIONS JUNE 1998, JANUARY 1999 ERRATA SHEET, APRIL 2000 ADDENDUM, JUNE 2004 ADDENDUM.

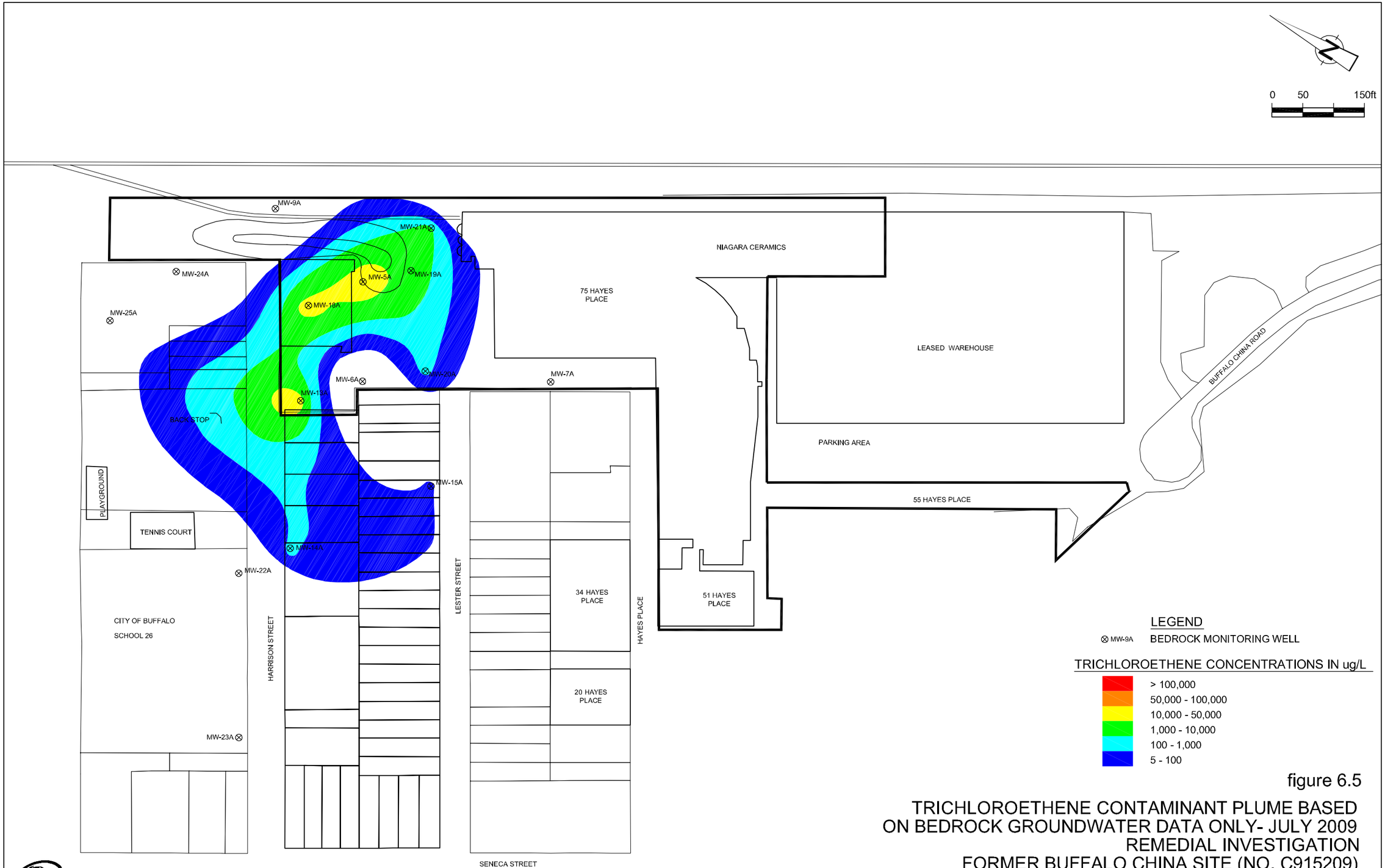


figure 6.5

TRICHLOROETHENE CONTAMINANT PLUME BASED ON BEDROCK GROUNDWATER DATA ONLY- JULY 2009
REMEDIAL INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
Buffalo, New York

37191-00(008)GN-BU023 MAY 10/2010

TABLES

TABLE 3.1

2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

		Location ID:	*BH-1 S1*	*BH-1 S2*	*BH-2 S1*	*BH-2 S3*	*BH-3 S1*	*BH-3 S2*	*BH-3 S3*	*BH-4 S1*
		Sample Name:	*S-37191-050206-PK-023*	*S-37191-050206-PK-024*	*S-37191-050106-JRR-001*	*S-37191-050106-JRR-002*	*S-37191-050206-PK-027*	*S-37191-050206-PK-028*	*S-37191-050206-PK-029*	*S-37191-050306-PK-038*
		Sample Date:	*5/2/2006*	*5/2/2006*	*5/1/2006*	*5/1/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/3/2006*
		Depth:	*0.5 - 1 ft*	*2 - 2.4 ft*	*0 - 1 ft*	*8 - 10 ft*	*0.5 - 1 ft*	*2 - 3 ft*	*4 - 5 ft*	*0.3 - 1.2 ft*
Parameters	*Units*	*6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial*								
Volatile Organic Compounds										
Acetone	mg/kg	1000	--	--	--	R	--	R	R	--
Carbon disulfide	mg/kg	NC	--	--	--	0.0055 U	--	0.0062 U	0.0061 U	--
cis-1,2-Dichloroethene	mg/kg	1000	--	--	--	0.0064	--	0.0062 U	0.0061 U	--
Methylene chloride	mg/kg	1000	--	--	--	0.0055 U	--	0.0062 U	0.0061 U	--
Tetrachloroethene	mg/kg	300	--	--	--	0.0055 U	--	0.0062 U	0.0061 U	--
Toluene	mg/kg	1000	--	--	--	0.0055 U	--	0.0062 U	0.0061 U	--
Trichloroethene	mg/kg	400	--	--	--	0.018	--	0.0062 U	0.0061 U	--
Semi-volatile Organic Compounds										
2-Methylnaphthalene	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	--
2-Methylphenol	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	--
4-Methylphenol	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	--
4-Nitroaniline	mg/kg	NC	--	--	--	1.9 U	--	2 U	2 U	--
Acenaphthene	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	--
Acenaphthylene	mg/kg	1000	--	--	--	0.014 J	--	0.41 U	0.41 U	--
Anthracene	mg/kg	1000	--	--	--	0.029 J	--	0.41 U	0.41 U	--
Benzo(a)anthracene	mg/kg	11	--	--	--	0.08 J	--	0.023 J	0.41 U	--
Benzo(a)pyrene	mg/kg	1.1	--	--	--	0.098 J	--	0.022 J	0.41 U	--
Benzo(b)fluoranthene	mg/kg	11	--	--	--	0.11 J	--	0.033 J	0.41 U	--
Benzo(g,h,i)perylene	mg/kg	1000	--	--	--	0.094 J	--	0.023 J	0.41 U	--
Benzo(k)fluoranthene	mg/kg	110	--	--	--	0.044 J	--	0.011 J	0.41 U	--
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	--
Butyl benzylphthalate	mg/kg	NC	--	--	--	0.018 J	--	0.024 J	0.022 J	--
Carbazole	mg/kg	NC	--	--	--	0.011 J	--	0.41 U	0.41 U	--
Chrysene	mg/kg	110	--	--	--	0.087 J	--	0.031 J	0.41 U	--
Dibenz(a,h)anthracene	mg/kg	1.1	--	--	--	0.021 J	--	0.41 U	0.41 U	--
Dibenzofuran	mg/kg	1000	--	--	--	0.011 J	--	0.41 U	0.41 U	--
Diethyl phthalate	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	--
Di-n-butylphthalate	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	--
Fluoranthene	mg/kg	1000	--	--	--	0.14 J	--	0.042 J	0.41 U	--
Fluorene	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	--
Hexachlorobenzene	mg/kg	12	--	--	--	0.39 U	--	0.41 U	0.41 U	--
Hexachlorobutadiene	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	--
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	--	--	0.097 J	--	0.025 J	0.41 U	--
Naphthalene	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	--
Phenanthrene	mg/kg	1000	--	--	--	0.076 J	--	0.035 J	0.41 U	--
Phenol	mg/kg	1000	--	--	--	0.0094 J	--	0.41 U	0.41 U	--
Pyrene	mg/kg	1000	--	--	--	0.13 J	--	0.037 J	0.41 U	--
Metals										
Lead	mg/kg	3900	545	144	816	--	2500 J	18.3 J	--	46.2

Notes:

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.1

2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

		Location ID:	*BH-4 S2*	*BH-5 S1*	*BH-5 S2*	*BH-5 S3*	*BH-6 S1*	*BH-6 S3*	*BH-7 S1*	*BH-7 S2*
		Sample Name:	*S-37191-050306-PK-039*	*S-37191-050206-PK-020*	*S-37191-050206-PK-021*	*S-37191-050206-PK-022*	*S-37191-050206-PK-011*	*S-37191-050206-PK-012*	*S-37191-050206-PK-013*	*S-37191-050206-PK-014*
		Sample Date:	*5/3/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
		Depth:	*2.3 - 3 ft*	*0.5 - 1.2 ft*	*1.6 - 2.5 ft*	*5.5 - 6.5 ft*	*0 - 0.5 ft*	*1.5 - 2 ft*	*0.5 - 1 ft*	*1.4 - 1.8 ft*
Parameters	*Units*	*6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial*								
Volatile Organic Compounds										
Acetone	mg/kg	1000	--	--	120 U	11 U	--	R	--	--
Carbon disulfide	mg/kg	NC	--	--	29 U	2.9 U	--	0.0056 U	--	--
cis-1,2-Dichloroethene	mg/kg	1000	--	--	15 J	1.2 J	--	0.0025 J	--	--
Methylene chloride	mg/kg	1000	--	--	29 U	0.85 J	--	0.0056 U	--	--
Tetrachloroethene	mg/kg	300	--	--	29 U	1.3 J	--	0.0056 U	--	--
Toluene	mg/kg	1000	--	--	29 U	2.9 U	--	0.0056 U	--	--
Trichloroethene	mg/kg	400	--	--	**670**	88	--	0.006	--	--
Semi-volatile Organic Compounds										
2-Methylnaphthalene	mg/kg	NC	--	--	0.17 J	0.27 J	--	0.38 U	--	--
2-Methylphenol	mg/kg	1000	--	--	0.0087 J	0.38 U	--	0.38 U	--	--
4-Methylphenol	mg/kg	1000	--	--	0.38 U	0.38 U	--	0.38 U	--	--
4-Nitroaniline	mg/kg	NC	--	--	1.8 U	1.8 U	--	1.8 U	--	--
Acenaphthene	mg/kg	1000	--	--	0.38 U	0.014 J	--	0.38 U	--	--
Acenaphthylene	mg/kg	1000	--	--	0.38 U	0.38 U	--	0.38 U	--	--
Anthracene	mg/kg	1000	--	--	0.38 U	0.38 U	--	0.38 U	--	--
Benzo(a)anthracene	mg/kg	11	--	--	0.26 J	0.38 U	--	0.38 U	--	--
Benzo(a)pyrene	mg/kg	1.1	--	--	0.11 J	0.04 J	--	0.38 U	--	--
Benzo(b)fluoranthene	mg/kg	11	--	--	0.24 J	0.065 J	--	0.38 U	--	--
Benzo(g,h,i)perylene	mg/kg	1000	--	--	0.059 J	0.025 J	--	0.38 U	--	--
Benzo(k)fluoranthene	mg/kg	110	--	--	0.38 U	0.028 J	--	0.38 U	--	--
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	--	1	0.9	--	0.38 U	--	--
Butyl benzylphthalate	mg/kg	NC	--	--	0.38 U	0.38 U	--	0.02 J	--	--
Carbazole	mg/kg	NC	--	--	0.38 U	0.38 U	--	0.38 U	--	--
Chrysene	mg/kg	110	--	--	0.38 U	0.38 U	--	0.38 U	--	--
Dibenz(a,h)anthracene	mg/kg	1.1	--	--	0.38 U	0.38 U	--	0.38 U	--	--
Dibenzofuran	mg/kg	1000	--	--	0.026 J	0.016 J	--	0.38 U	--	--
Diethyl phthalate	mg/kg	NC	--	--	0.38 U	0.38 U	--	0.38 U	--	--
Di-n-butylphthalate	mg/kg	NC	--	--	0.46	0.38 U	--	0.38 U	--	--
Fluoranthene	mg/kg	1000	--	--	0.24 J	0.17 J	--	0.38 U	--	--
Fluorene	mg/kg	1000	--	--	0.38 U	0.02 J	--	0.38 U	--	--
Hexachlorobenzene	mg/kg	12	--	--	0.38 U	0.11 J	--	0.38 U	--	--
Hexachlorobutadiene	mg/kg	NC	--	--	0.09 J	0.067 J	--	0.38 U	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	--	0.091 J	0.03 J	--	0.38 U	--	--
Naphthalene	mg/kg	1000	--	--	0.18 J	0.19 J	--	0.38 U	--	--
Phenanthrene	mg/kg	1000	--	--	0.23 J	0.22 J	--	0.38 U	--	--
Phenol	mg/kg	1000	--	--	0.016 J	0.38 U	--	0.38 U	--	--
Pyrene	mg/kg	1000	--	--	0.13 J	0.079 J	--	0.38 U	--	--
Metals										
Lead	mg/kg	3900	33.9	1470	16.7	--	23.7	--	1.3	**4980**

Notes:

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.1

2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

		Location ID:	*BH-8 S1*	*BH-8 S2*	*BH-8 S3*	*BH-9 S1*	*BH-9 S2*	*BH-10 S1*	*BH-10 S2*	*BH-11 S1*
		Sample Name:	*S-37191-050206-PK-015*	*S-37191-050206-PK-016*	*S-37191-050206-PK-017*	*S-37191-050206-PK-018*	*S-37191-050206-PK-019*	*S-37191-050206-PK-025*	*S-37191-050206-PK-026*	*S-37191-050106-JRR-003*
		Sample Date:	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/1/2006*
		Depth:	*0.5 - 1 ft*	*1.4 - 2.1 ft*	*2.9 - 3.3 ft*	*0.5 - 1 ft*	*2 - 2.5 ft*	*0.5 - 1 ft*	*1.3 - 1.8 ft*	*0 - 0.5 ft*
Parameters	*Units*	*6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial*								
Volatile Organic Compounds										
Acetone	mg/kg	1000	--	R	R	--	--	--	--	--
Carbon disulfide	mg/kg	NC	--	0.0063 U	0.0061 U	--	--	--	--	--
cis-1,2-Dichloroethene	mg/kg	1000	--	0.0023 J	0.0043 J	--	--	--	--	--
Methylene chloride	mg/kg	1000	--	0.0022 J	0.0061 U	--	--	--	--	--
Tetrachloroethene	mg/kg	300	--	0.0063 U	0.0061 U	--	--	--	--	--
Toluene	mg/kg	1000	--	0.0063 U	0.0061 U	--	--	--	--	--
Trichloroethene	mg/kg	400	--	0.028	0.015	--	--	--	--	--
Semi-volatile Organic Compounds										
2-Methylnaphthalene	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	--
2-Methylphenol	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
4-Methylphenol	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
4-Nitroaniline	mg/kg	NC	--	2 U	2 U	--	--	--	--	--
Acenaphthene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
Acenaphthylene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
Anthracene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
Benzo(a)anthracene	mg/kg	11	--	0.4 U	0.41 U	--	--	--	--	--
Benzo(a)pyrene	mg/kg	1.1	--	0.015 J	0.41 U	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	11	--	0.026 J	0.41 U	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	1000	--	0.019 J	0.41 U	--	--	--	--	--
Benzo(k)fluoranthene	mg/kg	110	--	0.0092 J	0.41 U	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	--
Butyl benzylphthalate	mg/kg	NC	--	0.021 J	0.024 J	--	--	--	--	--
Carbazole	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	--
Chrysene	mg/kg	110	--	0.4 U	0.41 U	--	--	--	--	--
Dibenz(a,h)anthracene	mg/kg	1.1	--	0.4 U	0.41 U	--	--	--	--	--
Dibenzofuran	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
Diethyl phthalate	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	--
Di-n-butylphthalate	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	--
Fluoranthene	mg/kg	1000	--	0.013 J	0.41 U	--	--	--	--	--
Fluorene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
Hexachlorobenzene	mg/kg	12	--	0.4 U	0.41 U	--	--	--	--	--
Hexachlorobutadiene	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	0.02 J	0.41 U	--	--	--	--	--
Naphthalene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
Phenanthrene	mg/kg	1000	--	0.011 J	0.41 U	--	--	--	--	--
Phenol	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	--
Pyrene	mg/kg	1000	--	0.013 J	0.41 U	--	--	--	--	--
Metals										
Lead	mg/kg	3900	0.47	11.1	--	**9250**	241	4.1 J	12.4 J	354

Notes:

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.1

2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

		Location ID:	*BH-11 S2*	*BH-12 S1*	*BH-12 S2*	*BH-12 S3*	*BH-13 S1*	*BH-13 S2*	*BH-13 S3*	*BH-14 S1*
		Sample Name:	*S-37191-050106-JRR-004*	*S-37191-050306-PK-032*	*S-37191-050306-PK-033*	*S-37191-050306-PK-034*	*S-37191-050306-PK-035*	*S-37191-050306-PK-036*	*S-37191-050306-PK-037*	*S-37191-050206-PK-030*
		Sample Date:	*5/1/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*	*5/2/2006*
		Depth:	*0.5 - 3 ft*	*0.3 - 1 ft*	*1.2 - 2.5 ft*	*4 - 5 ft*	*0.5 - 1.1 ft*	*1.5 - 2.5 ft*	*4 - 5 ft*	*0.5 - 1.5 ft*
Parameters	***Units***	***6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial***								
Volatile Organic Compounds										
Acetone	mg/kg	1000	--	--	R	R	--	R	R	--
Carbon disulfide	mg/kg	NC	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	--
cis-1,2-Dichloroethene	mg/kg	1000	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	--
Methylene chloride	mg/kg	1000	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	--
Tetrachloroethene	mg/kg	300	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	--
Toluene	mg/kg	1000	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	--
Trichloroethene	mg/kg	400	--	--	0.0061 U	0.0061 U	--	0.0014 J	0.0064 U	--
Semi-volatile Organic Compounds										
2-Methylnaphthalene	mg/kg	NC	--	--	0.059 J	0.41 U	--	0.065 J	0.41 U	--
2-Methylphenol	mg/kg	1000	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	--
4-Methylphenol	mg/kg	1000	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	--
4-Nitroaniline	mg/kg	NC	--	--	3.7 U	2 U	--	3.9 U	2 U	--
Acenaphthene	mg/kg	1000	--	--	0.089 J	0.41 U	--	0.022 J	0.41 U	--
Acenaphthylene	mg/kg	1000	--	--	0.081 J	0.41 U	--	0.81 U	0.41 U	--
Anthracene	mg/kg	1000	--	--	0.22 J	0.41 U	--	0.052 J	0.41 U	--
Benzo(a)anthracene	mg/kg	11	--	--	0.7 J	0.01 J	--	1.3	0.013 J	--
Benzo(a)pyrene	mg/kg	1.1	--	--	0.68 J	0.41 U	--	**1.3**	0.012 J	--
Benzo(b)fluoranthene	mg/kg	11	--	--	0.85	0.011 J	--	2.7	0.024 J	--
Benzo(g,h,i)perylene	mg/kg	1000	--	--	0.52 J	0.41 U	--	1.3	0.013 J	--
Benzo(k)fluoranthene	mg/kg	110	--	--	0.34 J	0.41 U	--	0.97	0.0097 J	--
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	--	0.049 J	0.41 U	--	0.81 U	0.41 U	--
Butyl benzylphthalate	mg/kg	NC	--	--	0.052 J	0.021 J	--	0.81 U	0.026 J	--
Carbazole	mg/kg	NC	--	--	0.13 J	0.41 U	--	0.064 J	0.41 U	--
Chrysene	mg/kg	110	--	--	0.78	0.0092 J	--	2.1	0.016 J	--
Dibenz(a,h)anthracene	mg/kg	1.1	--	--	0.13 J	0.41 U	--	0.5 J	0.41 U	--
Dibenzofuran	mg/kg	1000	--	--	0.057 J	0.41 U	--	0.035 J	0.41 U	--
Diethyl phthalate	mg/kg	NC	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	--
Di-n-butylphthalate	mg/kg	NC	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	--
Fluoranthene	mg/kg	1000	--	--	1.5	0.017 J	--	1.4	0.013 J	--
Fluorene	mg/kg	1000	--	--	0.087 J	0.41 U	--	0.81 U	0.41 U	--
Hexachlorobenzene	mg/kg	12	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	--
Hexachlorobutadiene	mg/kg	NC	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	--
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	--	0.56 J	0.41 U	--	1.4	0.014 J	--
Naphthalene	mg/kg	1000	--	--	0.068 J	0.41 U	--	0.064 J	0.41 U	--
Phenanthrene	mg/kg	1000	--	--	0.87	0.015 J	--	0.35 J	0.41 U	--
Phenol	mg/kg	1000	--	--	0.77 U	0.41 U	--	0.018 J	0.41 U	--
Pyrene	mg/kg	1000	--	--	1.1	0.012 J	--	1.1	0.41 U	--
Metals										
Lead	mg/kg	3900	106	96.8	54.9	--	2.8	53.2	--	86.5 J

Notes:

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.1

2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

		Location ID:	*BH-14 S2*	*BH-15 S1*	*BH-15 S2*	*BH-16 S1*	*BH-16 S2*	*BH-17 S1*	*BH-17 S2*
		Sample Name:	*S-37191-050206-PK-031*	*S-37191-050206-PK-007*	*S-37191-050206-PK-008*	*S-37191-050206-PK-009*	*S-37191-050206-PK-010*	*S-37191-050206-PK-005*	*S-37191-050206-PK-006*
		Sample Date:	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
		Depth:	*2.5 - 3 ft*	*1.5 - 2 ft*	*3 - 3.5 ft*	*0.75 - 1.2 ft*	*2.5 - 3.2 ft*	*0 - 0.5 ft*	*1 - 1.5 ft*
Parameters	***Units***	***6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial***							
Volatile Organic Compounds									
Acetone	mg/kg	1000	--	--	--	--	--	--	--
Carbon disulfide	mg/kg	NC	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	mg/kg	1000	--	--	--	--	--	--	--
Methylene chloride	mg/kg	1000	--	--	--	--	--	--	--
Tetrachloroethene	mg/kg	300	--	--	--	--	--	--	--
Toluene	mg/kg	1000	--	--	--	--	--	--	--
Trichloroethene	mg/kg	400	--	--	--	--	--	--	--
Semi-volatile Organic Compounds									
2-Methylnaphthalene	mg/kg	NC	--	--	--	--	--	--	--
2-Methylphenol	mg/kg	1000	--	--	--	--	--	--	--
4-Methylphenol	mg/kg	1000	--	--	--	--	--	--	--
4-Nitroaniline	mg/kg	NC	--	--	--	--	--	--	--
Acenaphthene	mg/kg	1000	--	--	--	--	--	--	--
Acenaphthylene	mg/kg	1000	--	--	--	--	--	--	--
Anthracene	mg/kg	1000	--	--	--	--	--	--	--
Benzo(a)anthracene	mg/kg	11	--	--	--	--	--	--	--
Benzo(a)pyrene	mg/kg	1.1	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	11	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	1000	--	--	--	--	--	--	--
Benzo(k)fluoranthene	mg/kg	110	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	--	--	--	--	--	--
Butyl benzylphthalate	mg/kg	NC	--	--	--	--	--	--	--
Carbazole	mg/kg	NC	--	--	--	--	--	--	--
Chrysene	mg/kg	110	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	mg/kg	1.1	--	--	--	--	--	--	--
Dibenzofuran	mg/kg	1000	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	NC	--	--	--	--	--	--	--
Di-n-butylphthalate	mg/kg	NC	--	--	--	--	--	--	--
Fluoranthene	mg/kg	1000	--	--	--	--	--	--	--
Fluorene	mg/kg	1000	--	--	--	--	--	--	--
Hexachlorobenzene	mg/kg	12	--	--	--	--	--	--	--
Hexachlorobutadiene	mg/kg	NC	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	--	--	--	--	--	--
Naphthalene	mg/kg	1000	--	--	--	--	--	--	--
Phenanthrene	mg/kg	1000	--	--	--	--	--	--	--
Phenol	mg/kg	1000	--	--	--	--	--	--	--
Pyrene	mg/kg	1000	--	--	--	--	--	--	--
Metals									
Lead	mg/kg	3900	45.9 J	804	9.8	422	19.4	282	270

Notes:

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.2

2006 SSI ANALYTICAL RESULTS SUMMARY - GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

			Location ID:	*MW-4*	*MW-5*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9*
			Sample Name:	*GW-37191-051106-JRR-003*	*GW-37191-051106-JRR-006*	*GW-37191-051106-JRR-007*	*GW-37191-051106-JRR-002*	*GW-37191-051106-JRR-001*	*GW-37191-051106-JRR-004*	*GW-37191-051106-JRR-005*
			Sample Date:	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*
						Duplicate				
		New York State Water Quality								
Parameters	*Units*	*Standards*	*Guidance Values*							
Volatile Organic Compounds										
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	100 U	30000 U	30000 U	1200 U	5.0 U	3.0 J	5.0 U
Acetone	ug/L	NC	50	400 U	120000 U	120000 U	5000 U	20 U	20 U	20 U
cis-1,2-Dichloroethene	ug/L	5	NC	960	130000	140000	24000	5.0 U	8.5	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	100 U	30000 U	30000 U	1200 U	1.1 J	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	1600	540000	600000	12000	5.0 U	31	5.0 U
Vinyl chloride	ug/L	2	NC	100 U	30000 U	30000 U	570 J	5.0 U	5.0 U	5.0 U
Semi-volatile Organic Compounds										
2-Methylnaphthalene	ug/L	NC	NC	--	--	--	--	--	--	--
Caprolactam	ug/L	NC	NC	--	--	--	--	--	--	--
Dibenzofuran	ug/L	NC	NC	--	--	--	--	--	--	--
Fluoranthene	ug/L	NC	50	--	--	--	--	--	--	--
Naphthalene	ug/L	10	10	--	--	--	--	--	--	--
Metals										
Lead	ug/L	25	NC	--	--	--	--	--	46.0	--
Lead (Dissolved)	ug/L	25	NC	--	--	--	--	--	3.0 U	--

Notes:

1.0 - Exceeds Criteria.
- - Not analyzed
U - Not present at the associated value.
J - Estimated concentration.
B - Compound detected in an associated blank.
D - Reported from a diluted analysis.
E - Exceeds the linear range of the instrument.
N - Tentatively identified.
P - Greater than 25% difference between concentrations detected on the two GC columns.
NC - No criteria.

TABLE 4.1

SUMMARY OF SURFACE SOIL SAMPLE COLLECTION AND ANALYSIS DETAILS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

						Analysis/Parameters								
Sample ID	*Location*	*Sample Date*	*Sample Depth*	*Sample Type*	*Parent Sample ID*	*TCL VOCs*	*TCL SVOCs*	*Lead*	*TAL Metals + CN*	*Pesticides*	*Herbicides*	*PCBs*	*% Solids*	*Purpose*
Surface Soil														
SS-37191-050708-CMB-001	148 Milton Street (SS-7)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-002	148 Milton Street (SS-7)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-003	138 Harrison Street (SS-6)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-004	138 Harrison Street (SS-6)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-005	103 Harrison Street (SS-10)	05/07/08	0-2"	N	-				X					To identify off-Site Impacts
SS-37191-050708-CMB-006	103 Harrison Street (SS-10)	05/07/08	2-4"	N	-				X					To identify off-Site Impacts
SS-37191-050708-CMB-007	36 Lester Street (SS-16)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-008	36 Lester Street (SS-16)	05/07/08	0-2"	FD	SS-37191-050708-CMB-007			X						Duplicate Sample
SS-37191-050708-CMB-009	36 Lester Street (SS-16)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-010	22 Lester Street (SS-15)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-011	22 Lester Street (SS-15)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-012	20 Hayes Place (SS-14)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-013	20 Hayes Place (SS-14)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-014	34 Hayes Place (SS-13)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-015	34 Hayes Place (SS-13)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-016	34 Hayes Place (SS-12)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-017	34 Hayes Place (SS-12)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-018	Soil Mound (SS-1)	05/07/08	0-2"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-019	Soil Mound (SS-1)	05/07/08	2-4"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-020	NE Corner Harrison St. Warehouse (SS-2)	05/07/08	0-2"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-021	NE Corner Harrison St. Warehouse (SS-2)	05/07/08	2-4"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-022	West End Harrison St. Warehouse (SS-11)	05/07/08	0-2"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-023	West End Harrison St. Warehouse (SS-11)	05/07/08	2-4"	N	-			X						Comparison of off-Site Results
SS-37191-050808-CMB-001	55 Lester Street North (SS-3)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-002	55 Lester Street North (SS-3)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-003	55 Lester Street South (SS-4)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-004	55 Lester Street South (SS-4)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-005	58 Lester Street (SS-5)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-006	58 Lester Street (SS-5)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-007	127 Harrison Street Backyard (SS-9)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-008	127 Harrison Street Backyard (SS-9)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-009	127 Harrison Street Front Yard (SS-8)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-010	127 Harrison Street Front Yard (SS-8)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-001	82 Harrison Street (SS-17)	08/13/08	0-2"	N	-				X					To identify off-Site Impacts

TABLE 4.1

SUMMARY OF SURFACE SOIL SAMPLE COLLECTION AND ANALYSIS DETAILS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

						Analysis/Parameters								
Sample ID	*Location*	*Sample Date*	*Sample Depth*	*Sample Type*	*Parent Sample ID*	*TCL VOCs*	*TCL SVOCs*	*Lead*	*TAL Metals + CN*	*Pesticides*	*Herbicides*	*PCBs*	*% Solids*	*Purpose*
Surface Soil														
SS-37191-081308-CB-002	82 Harrison Street (SS-17)	08/13/08	2-4"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-003	82 Harrison Street (SS-18)	08/13/08	0-2"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-004	82 Harrison Street (SS-18)	08/13/08	2-4"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-005	118 Harrison Street (SS-19)	08/13/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-006	118 Harrison Street (SS-19)	08/13/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-007	118 Harrison Street (SS-20)	08/13/08	0-2"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-008	118 Harrison Street (SS-20)	08/13/08	2-4"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-009	118 Harrison Street (SS-21)	08/13/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-010	118 Harrison Street (SS-21)	08/13/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-011	118 Harrison Street (SS-22)	08/13/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-012	118 Harrison Street (SS-22)	08/13/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-013	118 Harrison Street (SS-23)	08/13/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-014	118 Harrison Street (SS-23)	08/13/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-015	118 Harrison Street (SS-24)	08/13/08	0-2"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-016	118 Harrison Street (SS-24)	08/13/08	2-4"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-017	66 Lester Street (SS-25)	08/13/08	0-2"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-018	66 Lester Street (SS-25)	08/13/08	2-4"	N	-				X					To identify off-Site Impacts
SS-37191-081308-CB-019	66 Lester Street (SS-25)	08/13/08	2-4"	FD	SS-37191-081308-CB-019				X					To identify off-Site Impacts

Notes:

'	Feet.
"	Inches.
CN	Cyanide.
SVOCs	Semi-volatile Organic Compounds.
TCL	Target Compound List.
VOCs	Volatile Organic Compounds.
N	Normal Sample
FD	Duplicate Sample

TABLE 4.2

SUMMARY OF SUBSURFACE SOIL SAMPLE COLLECTION AND ANALYSIS DETAILS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Sample ID	*Location*	*Sample Date*	*Sample Depth*	*Sample Type*	*Parent Sample ID*	*TCL VOCs*	*TCL SVOCs*	*Lead*	*TAL Metals + CN*	*Pesticides*	*Herbicides*	*PCBs*	*% Solids*	*Purpose*
SO-37191-072507-RN-SB-1	SB-1-07	07/25/07	2.0'-4.0'	N	-	X	X		X	X	X	X	X	Further characterize soil on north side of building
SO-37191-072707-RN-SB-2	SB-2-07	07/27/07	6.5'-8.0'	N	-	X	X	X						Characterize soil mound
SO-37191-072707-RN-SB-20	SB-2-07	07/27/07	6.5'-8.0'	FD	SO-37191-072707-RN-SB-2	X	X	X						Duplicate Sample
SO-37191-072707-RN-SB-3	SB-3-07	07/27/07	10.0'-13.0'	N	-	X	X		X	X	X	X	X	Characterize soil mound
SO-37191-072707-RN-SB-4	SB-4-07	07/27/07	2.0'-4.0'	N	-	X	X	X						Characterize soil mound
SO-37191-072507-RN-SB-5	SB-5-07	07/25/07	4.0'-8.0'	N	-	X	X		X	X	X	X	X	Further characterize soil in Parking Area
SO-37191-073007-CB-SB19	SB-6-07	07/30/07	6.0'-10.4'	N	-	X	X	X						Characterize soil east of Harrison St. Warehouse
SO-37191-073007-CB-SB-6	SB-6-07	07/30/07	6.0'-10.4'	FD	SO-37191-073007-CB-SB19	X	X	X						Duplicate Sample
SO-37191-072507-RN-SB-7	SB-7-07	07/25/07	3.0'-6.0'	N	-	X	X	X						Characterize soil east of Harrison St. Warehouse
SO-37191-072507-RN-SB-8	SB-8-07	07/25/07	3.5'-8.0'	N	-	X	X		X	X	X	X	X	Characterize soil east of Harrison St. Warehouse
SO-37191-072507-RN-SB-9	SB-9-07	07/25/07	3.0'-6.0'	N	-	X	X	X						Characterize soil east of Harrison St. Warehouse
SO-37191-072507-RN-SB-10	SB-10-07	07/25/07	3.0'-8.0'	N	-	X	X	X						Characterize soil east of Harrison St. Warehouse
SO-37191-072607-RN-SB-11	SB-11-07	07/26/07	2.0-'6.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-12	SB-12-07	07/26/07	3.5'-6.0'	N	-	X	X		X	X	X	X	X	Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-13	SB-13-07	07/26/07	6.0'-8.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-14	SB-14-07	07/26/07	4.0'-8.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-15	SB-15-07	07/26/07	4.0'-8.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-16	SB-16-07	07/26/07	4.0'-8.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072707-RN-SB-17	SB-17-07	07/27/07	6.0'-10.0'	N	-	X	X	X						Characterize soil mound
SO-37191-072707-RN-SB-27	SB-17-07	07/27/07	6.0'-10.0'	FD	SO-37191-072707-RN-SB-17	X	X	X						Duplicate Sample
SO-37191-073007-CB-SB-18	SB-18-07	07/30/07	4.0'-7.2'	N	-	X	X		X	X	X	X	X	Characterize soil near southern Site boundary
SB-37191-050908-JP-001	SB-18-08	05/09/08	0'-2.0'	N	-	X	X		X	X	X	X	X	To identify off-Site Impacts
SB-37191-050808-JP-011	MW-14	05/08/08	0'-2.0'	N	-	X	X		X	X	X	X	X	To identify off-Site Impacts
SB-37191-050908-JP-002	MW-17	05/09/08	0'-2.0'	N	-	X	X		X	X	X	X	X	To identify off-Site Impacts
SO-37191-052709-JJW-001	MW-6A	05/27/09	6'-8'	N	-	X								Further characterize on-Site soils
SO-37191-052709-JJW-002	MW-19A	05/27/09	6'-8'	N	-	X								Further characterize on-Site soils
SO-37191-060109-JJW-003	MW-20A	06/01/09	6'-8'	N	-	X								Further characterize on-Site soils
SO-37191-060109-JJW-004	MW-21A	06/01/09	2'-4'	N	-	X								Further characterize on-Site soils
SO-37191-060109-JJW-005	MW-22A	06/01/09	10'-12'	N	-	X								Identify off-Site impacts
SO-37191-060209-JJW-006	MW-23A	06/02/09	12'-14'	N	-	X								Identify off-Site impacts
SO-37191-060409-JJW-007	MW-20	06/04/09	2'-4'	N	-	X								Further characterize on-Site soils

TABLE 4.2

SUMMARY OF SUBSURFACE SOIL SAMPLE COLLECTION AND ANALYSIS DETAILS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Sample ID	*Location*	*Sample Date*	*Sample Depth*	*Sample Type*	*Parent Sample ID*	*TCL VOCs*	*TCL SVOCs*	*Lead*	*TAL Metals + CN*	*Pesticides*	*Herbicides*	*PCBs*	*% Solids*	*Purpose*
SO-37191-060409-JJW-008	MW-19	06/04/09	6'-8'	N	-	X								Further characterize on-Site soils
SO-37191-060409-JJW-009	MW-19	06/04/09	6'-8'	FD	SO-37191-060409-JJW-008	X								Duplicate Sample
SO-37191-060809-JJW-010	MW-22	06/08/09	10'-12'	N	-	X								Further characterize on-Site soils
SO-37191-062209-JJW-011	MW-24A	06/22/09	0'-2'	N	-	X								Identify off-Site impacts
SO-37191-062209-JJW-012	MW-25A	06/22/09	4'-6'	N	-	X								Identify off-Site impacts
SO-37191-062209-JJW-013	MW-25A	06/22/09	6'-8'	N	-	X								Identify off-Site impacts

Notes:

'	Feet.
"	Inches.
CN	Cyanide.
SVOCs	Semi-volatile Organic Compounds.
TCL	Target Compound List.
VOCs	Volatile Organic Compounds.
N	Normal Sample
FD	Duplicate Sample

TABLE 4.3

SUMMARY OF MONITORING WELL INFORMATION AND GROUNDWATER SAMPLE COLLECTION AND ANALYSIS DETAILS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

											Analysis/Parameters								
Well ID	*Date of Installation*	*Sample / Measurment Date* [2]	*Top of Riser Elevation (ft above AMSL)*	*Bottom of Well Elevation (ft above AMSL)*	*Depth to Water (ft below top of riser)*	*Water Elevation (ft above AMSL)*	*Sampling Method*	*Sample ID*	*Sample Type*	*Parent Sample ID* (Sample ID of original sample for duplicates, etc.)	*TCL VOCs*	*TCL SVOCs*	*Total TAL Metals +CN*	*Dissolved TAL Metals*	*Total Lead*	*Dissolved Lead*	*Pesticides*	*Herbicides*	*PCBs*
MW-4	May-06	08/21/07	596.13	587.4	6.94	589.19	Bailer	WG-37191-082107-RN-001	N	-	X	X	X	X			X	X	X
		08/21/07			-	-	Bailer	WG-37191-082107-RN-002	FD	WG-37191-082107-RN-001	X	X	X	X			X	X	X
		05/28/08			5.00	591.13	Low Flow	WG-37191-052808-003	N	-	X	X	X	X			X	X	X
		05/28/08			-	-	Low Flow	WG-37191-052808-004	FD	WG-37191-052808-003	X								
		01/13/09			5.39	590.74	Low Flow	GW-37191-011309-JJW-002	N	-	X								
		07/22/09			5.84	590.29	Low Flow	WG-37191-072209-037	N	-	X								
MW-5	May-06	08/21/07	596.58	587.71	7.56	589.02	Bailer	WG-37191-082107-RN-003	N	-	X				X	X			
		05/28/08			4.42	592.16	Low Flow	WG-37191-052808-008	N	-	X				X	X			
		01/20/09			3.67	592.91	Low Flow	GW-37191-012009-JJW-011	N	-	X								
		07/22/09			5.47	591.11	Low Flow	WG-37191-072209-040	N	-	X								
MW-5A	Dec-08	01/20/09	596.29	579.33	NM	NM	Low Flow	GW-37191-012009-JJW-012	N	-	X								
		07/22/09			NM	NM	Low Flow	WG-37191-072209-038	N	-	X								
		07/22/09			-	-	Low Flow	WG-37191-072209-039	FD	WG-37191-072209-038	X								
MW-6	May-06	08/20/07	594.15	585.64	9.00	585.15	Bailer	NS	-	-									
		05/28/08			6.87	587.28	Low Flow	WG-37191-052808-002	N	-	X				X	X			
		01/20/09			6.52	587.63	Low Flow	GW-37191-012009-JJW-009	N	-	X								
		07/22/09			7.82	586.33	Low Flow	WG-37191-072209-035	N	-	X								
MW-6A	Jun-09	07/22/09	594.15	573.04	5.40	588.75	Low Flow	WG-37191-072209-033	N	-	X								
MW-7	May-06	01/21/09	592.03	583.78	1.88	590.15	Low Flow	GW-37191-012109-JJW-013	N	-	X								
		07/22/09			2.12	589.91	Low Flow	WG-37191-072209-030	N	-	X								
MW-7A	Dec-08	01/21/09	592.31	576.44	3.05	589.26	Low Flow	GW-37191-012109-JJW-014	N	-	X								
		07/22/09			3.14	589.17	Low Flow	WG-37191-072209-029	N	-	X								
MW-8	May-06	08/21/07	594.00	586.93	4.51	589.49	Bailer	WG-37191-082107-RN-006	N	-	X				X	X			
		05/28/08			2.52	591.48	Low Flow	WG-37191-052808-005	N	-	X				X	X			
		03/05/09			4.86	589.14	Low Flow	WG-37191-030509-001	N	-	X								
		07/21/09			3.54	590.46	Low Flow	WG-37191-072109-018	N	-	X								
MW-9	May-06	08/21/07	594.81	588.79	5.06	589.75	Bailer	WG-37191-082107-RN-007	N	-	X	X	X	X			X	X	X
		05/28/08			1.71	593.10	Low Flow	WG-37191-052808-001	N	-	X	X	X	X			X	X	X
		01/19/09			1.57	593.24	Low Flow	GW-37191-011909-JJW-006	N	-	X								
		07/21/09			2.75	592.06	Low Flow	WG-37191-072109-015	N	-	X								
MW-9A	Dec-08	01/19/09	594.94	567.98	11.02	583.92	Low Flow	GW-37191-011909-JJW-007	N	-	X								
		07/21/09			11.18	583.76	Low Flow	WG-37191-072109-014	N	-	X								
MW-10	Aug-08	09/19/08	596.45	587.25	7.61	588.84	Low Flow	WG-37191-091908-002	N	-	X				X	X			
		01/22/09			7.78	588.67	Low Flow	GW-37191-012209-JJW-015	N	-	X								
		07/20/09			7.82	588.63	Low Flow	WG-37191-072009-011	N	-	X								
MW-11	Aug-08	09/19/08	595.04	586.01	5.22	589.82	Low Flow	WG-37191-091908-001	N	-	X				X	X			
		01/22/09			5.61	589.43	Low Flow	GW-37191-012209-JJW-016	N	-	X								
		01/22/09			-	-	Low Flow	GW-37191-012209-JJW-017	FD	GW-37191-012209-JJW-016	X								
		07/20/09			6.41	588.63	Low Flow	WG-37191-072009-006	N	-	X								
MW-12 [1]	Jul-07	08/21/07	599.83	587.14	10.71	589.12	Bailer	WG-37191-082107-RN-004	N	-	X				X	X			
		08/21/07			-	-	Bailer	WG-37191-082107-RN-005	FD	WG-37191-082107-RN-004	X				X	X			
		05/28/08			9.15	590.68	Low Flow	WG-37191-052808-006	N	-	X				X	X			
		05/28/08			-	-	Low Flow	WG-37191-052808-007	FD	WG-37191-052808-006	X				X	X			
		01/13/09			8.82	591.01	Low Flow	GW-37191-011309-JJW-005	N	-	X								
		07/22/09			9.38	590.45	Low Flow	WG-37191-072209-036	N	-	X								
MW-13	Jul-07	08/20/07	594.83	587.67	DRY	DRY	NS	NS	-	-									
		05/28/08			DRY	DRY	NS	NS	-	-									
		01/19/09			DRY	DRY	NS	NS	-	-									
		07/22/09			DRY	DRY	NS	NS	-	-									

TABLE 4.3

SUMMARY OF MONITORING WELL INFORMATION AND GROUNDWATER SAMPLE COLLECTION AND ANALYSIS DETAILS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

										Analysis/Parameters								
Well ID	*Date of Installation*	*Sample / Measurment Date* [2]	*Top of Riser Elevation (ft above AMSL)*	*Bottom of Well Elevation (ft above AMSL)*	*Depth to Water (ft below top of riser)*	*Water Elevation (ft above AMSL)*	*Sampling Method*	*Sample ID*	*Sample Type*	*Parent Sample ID* (Sample ID of original sample for duplicates, etc.)	*TCL VOCs*	*TCL SVOCs*	*Total TAL Metals +CN*	*Dissolved TAL Metals*	*Total Lead*	*Dissolved Lead*	*Pesticides*	*Herbicides*	*PCBs*
MW-13A	Dec-08	01/19/09	594.75	580.41	6.16	588.59	Low Flow	GW-37191-011909-JJW-008	N		X								
		07/22/09			6.71	588.04	Low Flow	WG-37191-072209-034	N		X								
MW-14	May-08	05/28/08	593.15	584.56	DRY	DRY	NS	NS	-	-									
		01/22/09			DRY	DRY	NS	NS	-	-									
		07/20/09			DRY	DRY	NS	NS	-	-									
MW-14A	Dec-08	01/22/09	593.37	578.45	11.40	581.97	Low Flow	GW-37191-012209-JJW-018	N	-	X								
		07/20/09			11.61	581.76	Low Flow	WG-37191-072009-005	N	-	X								
MW-15	May-08	05/28/08	592.49	585.31	DRY	DRY	NS	NS	N	-									
		01/23/09			DRY	DRY	NS	NS	N	-									
		07/20/09			DRY	DRY	NS	NS	N	-									
MW-15A	Dec-08	01/23/09	593.37	578.42	10.52	582.85	Low Flow	GW-37191-012309-JJW-019	N	-	X								
		07/20/09			10.75	582.62	Low Flow	WG-37191-072009-012	N	-	X								
MW-16	May-08	05/28/08	591.74	581.25	DRY	DRY	NS	NS	N	-									
		07/20/09			DRY	DRY	NS	NS	N	-									
MW-17	May-08	05/28/08	592.58	581.35	7.61	584.97	Low Flow	WG-37191-052808-009	N	-	X				X	X			
		01/20/09			4.48	588.10	Low Flow	GW-37191-012009-JJW-010	N	-	X								
		07/20/09			10.34	582.24	Low Flow	WG-37191-072009-013	N	-	X								
MW-18	Dec-08	01/13/09	596.13	586.42	6.01	590.12	Low Flow	GW-37191-011309-JJW-003	N	-	X								
		01/13/09			-	-	Low Flow	GW-37191-011309-JJW-004	FD	GW-37191-011309-JJW-003	X								
		07/22/09			6.77	589.58	Low Flow	WG-37191-072209-042	N	-	X								
MW-18A	May-09	07/22/09	596.35	580.62	8.00	588.35	Low Flow	WG-37191-072209-041	N	-	X								
MW-19	Jun-09	07/20/09	593.68	586.32	3.29	590.39	Low Flow	WG-37191-072009-002	N	-	X								
MW-19A	Jun-09	07/20/09	593.82	596.1	10.00	583.82	Low Flow	WG-37191-072009-001	N	-	X								
MW-20	Jun-09	07/22/09	593.32	584.79	3.98	589.34	Low Flow	WG-37191-072209-032	N	-	X								
MW-20A	Jun-09	07/22/09	593.06	574.41	3.95	589.11	Low Flow	WG-37191-072209-031	N	-	X								
MW-21A	Jun-09	07/21/09	590.98	569.78	7.17	583.81	Low Flow	WG-37191-072109-016	N	-	X								
		07/21/09			-	-	Low Flow	WG-37191-072109-017	FD	WG-37191-072109-016	X								
MW-22	Jun-09	07/20/09	592.34	580.58	6.12	586.22	Low Flow	WG-37191-072009-004	N	-	X								
MW-22A	Jun-09	07/20/09	592.23	557.93	8.49	583.74	Low Flow	WG-37191-072009-003	N	-	X								
MW-23A	Jun-09	07/20/09	590.65	556.5	15.66	574.99	Low Flow	WG-37191-072009-007	N	-	X								
		07/20/09			-	-	Low Flow	WG-37191-072009-008	FD	WG-37191-072009-007	X								
MW-24A	Jun-09	07/20/09	580.08	582.63	7.90	572.18	Low Flow	WG-37191-072009-010	N	-	X								
MW-25	Jun-09	07/20/09	598.13	590.92	DRY	DRY	NS	NS	-	-	X								
MW-25A	Jun-09	07/20/09	598.13	583.97	7.94	590.19	Low Flow	WG-37191-072009-009	N	-	X								

Notes:

[1] MW-12 is a stick up well.

[2] Wells were purged dry on 8/20/07. Analytical samples were collected on 8/21/07.

CN Cyanide.
SVOCs Semi-volatile Organic Compounds.
TCL Target Compound List.
VOCs Volatile Organic Compounds.
N Normal Sample
FD Duplicate Sample
NS Not Sampled

TABLE 4.4

SUMMARY OF SOIL VAPOR INTRUSION SAMPLE COLLECTION AND ANALYSIS DETAILS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

							Analysis/Parameters		
Sample ID	***Location***	***Sample Date***	***Sample Type***	***Parent Sample ID***	***Start Time***	***End Time***	*VOCs TO-15 (Full List)*	*Helium*	***Purpose***
SS-37191-111809-JDW-001	103 Harrison	11/18/2009	N		10:49	10:49	X	X	To identify potential soil vapor intrusion issues
IA-37191-111809-JDW-001	103 Harrison	11/18/2009	N		10:50	10:50	X		To identify potential soil vapor intrusion issues
SS-37191-111809-JDW-002	82 Harrison	11/18/2009	N		12:32	12:32	X	X	To identify potential soil vapor intrusion issues
SS-37191-111809-JDW-003	82 Harrison	11/18/2009	FD	SS-37191-111809-JDW-002	12:32	12:32	X	X	Duplicate Sample
IA-37191-111809-JDW-002	82 Harrison	11/18/2009	N		12:33	12:33	X		To identify potential soil vapor intrusion issues
OA-37191-111809-JDW-001	Up Wind	11/18/2009	N		13:06	13:06	X		To identify potential soil vapor intrusion issues
OA-37191-111809-JDW-002	Up Wind	11/18/2009	FD	OA-37191-111809-JDW-001	13:06	13:06	X		Duplicate Sample
SS-37191-111809-JDW-004	138 Harrison	11/18/2009	N		14:39	14:39	X	X	To identify potential soil vapor intrusion issues
IA-37191-111809-JDW-003	138 Harrison	11/18/2009	N		14:39	14:39	X		To identify potential soil vapor intrusion issues
SS-37191-111809-JDW-005	127 Harrison	11/18/2009	N		16:12	16:12	X	X	To identify potential soil vapor intrusion issues
IA-37191-111809-JDW-004	127 Harrison	11/18/2009	N		16:13	16:13	X		To identify potential soil vapor intrusion issues
IA-37191-111809-JDW-005	127 Harrison	11/18/2009	FD	IA-37191-111809-JDW-004	16:13	16:13	X		Duplicate Sample

Notes:
SS - Sub slab
IA - Indoor Air
OA - Outdoor Air

TABLE 5.1

SUMMARY OF HYDRAULIC CONDUCTIVITY VALUES
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Well ID	*Year Installed*	*Year Established*	*Falling Head (cm/sec)*	*Rising Head (cm/sec)*	*Geometric Mean (cm/sec)*
MW-4	2006	2009	2.81E-05	3.68E-05	2.97E-05
			2.54E-05	--	
MW-5	2006	2009	2.05E-05	2.05E-05	2.04E-05
			2.10E-05	1.96E-05	
MW-5A	2008	--	Not Tested - NAPL		
MW-6	2006	--	Not Tested - Insufficient Water		
MW-6A	2009	2009	8.29E-04	7.87E-04	7.27E-04
			6.95E-04	6.15E-04	
MW-7	2006	2009	5.50E-04	5.01E-04	5.58E-04
			5.67E-04	5.51E-04	
			6.29E-04	--	
MW-7A	2009	2009	1.29E-03	1.36E-03	1.33E-03
			1.33E-03	1.35E-03	
MW-8	2006	2009	7.36E-05	3.75E-05	4.73E-05
			3.28E-05	5.53E-05	
MW-9	2006	2009	4.72E-04	4.64E-04	4.61E-04
			4.56E-04	4.51E-04	
MW-9A	2008	2009	3.67E-02	4.09E-02	4.44E-02
			4.93E-02	4.25E-02	
			5.47E-02	4.44E-02	
MW-10	2008	2009	4.36E-04	3.37E-04	2.18E-04
			1.28E-04	1.19E-04	
MW-11	2008	2009	1.52E-05	1.43E-05	1.48E-05
MW-12	2007	--	Tested, however, had irregular response		
MW-13	2007	--	Not tested - Insufficient water, dry		
MW-13A	2008	2009	6.39E-04	6.62E-04	6.40E-04
			6.39E-04	6.20E-04	
MW-14	2008	--	Not tested - Insufficient water, dry		
MW-14A	2008	2009	2.18E-02	1.54E-02	1.78E-02
			1.81E-02	1.66E-02	
MW-15	2008	--	Not tested - Insufficient water, dry		
MW-15A	2008	2009	7.94E-02	3.53E-02	6.01E-02
			6.06E-02	7.67E-02	
MW-16	2008	--	Not tested - Insufficient water, dry		

TABLE 5.1

SUMMARY OF HYDRAULIC CONDUCTIVITY VALUES
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Well ID	*Year Installed*	*Year Established*	*Falling Head (cm/sec)*	*Rising Head (cm/sec)*	*Geometric Mean (cm/sec)*
MW-17	2008	--	Not tested - Insufficient water		
MW-18	2008	2009	1.47E-05 1.41E-05	1.74E-05 1.89E-05	1.61E-05
MW-18A	2009	2009	9.10E-04 8.54E-04	7.44E-04 8.31E-04	8.32E-04
MW-19	2009	2009	3.21E-05 --	-- --	3.21E-05
MW-19A	2009	2009	2.71E-02 2.55E-02	2.43E-02 2.65E-02	2.58E-02
MW-20	2009	2009	1.56E-05	--	1.56E-05
MW-20A	2009	2009	6.61E-04 5.92E-04	7.62E-04 5.65E-04	6.41E-04
MW-21A	2009	2009	5.88E-02 5.54E-02	7.77E-02 7.21E-02	6.53E-02
MW-22A	2009	2009	2.81E-03 3.04E-03	2.87E-03 3.00E-03	2.93E-03
MW-23A	2009	2009	2.89E-04 4.01E-04	1.31E-04 1.66E-04	2.24E-04
MW-24A	2009	2009	2.13E-03 1.85E-03	2.28E-03 2.15E-03	2.10E-03
MW-25	--	--	Not tested - Insufficient water, dry		
MW-25A	2009	2009	8.35E-02 1.50E-01	1.01E-01 1.01E-01	1.06E-01

TABLE 6.1

ANALYTICAL RESULTS SUMMARY - SURFACE SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

			On/Off-Site:	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*
			Location ID:	*103 Harrison (SS-10)*	*103 Harrison (SS-10)*	*127 Harrison Back (SS-9)*	*127 Harrison Back (SS-9)*	*127 Harrison Front (SS-8)*	*127 Harrison Front (SS-8)*	*138 Harrison (SS-6)*	*138 Harrison (SS-6)*	*148 Milton (SS-7)*
			Sample Name:	*SS-37191-050708-CMB-005*	*SS-37191-050708-CMB-006*	*SS-37191-050808-CMB-007*	*SS-37191-050808-CMB-008*	*SS-37191-050808-CMB-009*	*SS-37191-050808-CMB-010*	*SS-37191-050708-CMB-003*	*SS-37191-050708-CMB-004*	*SS-37191-050708-CMB-001*
			Sample Date:	*5/7/2008*	*5/7/2008*	*5/8/2008*	*5/8/2008*	*5/8/2008*	*5/8/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*
			Depth:	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*
		6 NYCRR Part 375-6.8(b): RUSCO - Protection of Public Health [2]										
Parameters	*Units* [1]	*Residential*	*Industrial*									
Metals												
Aluminum	mg/kg	NC	NC	10600	10200	--	--	--	--	--	--	--
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	--	--	--
Arsenic	mg/kg	16	16	14.2	13.6	--	--	--	--	--	--	--
Barium	mg/kg	350	10000	81.4	75.5	--	--	--	--	--	--	--
Beryllium	mg/kg	14	2700	0.63	0.62	--	--	--	--	--	--	--
Cadmium	mg/kg	2.5	60	1.2 J	1.1 J	--	--	--	--	--	--	--
Calcium	mg/kg	NC	NC	3550	3590	--	--	--	--	--	--	--
Chromium Total [3]	mg/kg	22	800	16.9 J	16.4 J	--	--	--	--	--	--	--
Cobalt	mg/kg	NC	NC	4.1 J	4.0 J	--	--	--	--	--	--	--
Copper	mg/kg	270	10000	28.8 J	27.7 J	--	--	--	--	--	--	--
Iron	mg/kg	NC	NC	20800	19600	--	--	--	--	--	--	--
Lead	mg/kg	400	3900	128	125	211 J	148 J	364 J	**632 J**	295	320	66.7 J
Magnesium	mg/kg	NC	NC	1940	1890	--	--	--	--	--	--	--
Manganese	mg/kg	2000	10000	219	211	--	--	--	--	--	--	--
Mercury	mg/kg	0.81	5.7	0.21	0.20	--	--	--	--	--	--	--
Nickel	mg/kg	140	10000	13.5 J	12.8 J	--	--	--	--	--	--	--
Potassium	mg/kg	NC	NC	946	933	--	--	--	--	--	--	--
Selenium	mg/kg	36	6800	1.2	1.5	--	--	--	--	--	--	--
Silver	mg/kg	36	6800	0.29 J	0.34 J	--	--	--	--	--	--	--
Sodium	mg/kg	NC	NC	74.9 J	61.5 J	--	--	--	--	--	--	--
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	--	--	--
Vanadium	mg/kg	NC	NC	26.0	25.1	--	--	--	--	--	--	--
Zinc	mg/kg	2200	10000	152 J	146 J	--	--	--	--	--	--	--
Wet Chemistry												
Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	--	--	--
Total Solids	%	NC	NC	--	--	--	--	--	--	--	--	--

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

ANALYTICAL RESULTS SUMMARY - SURFACE SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

	On/Off-Site:	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*On-Site*
	Location ID:	*148 Milton (SS-7)*	*20 Hayes Place (SS-14)*	*20 Hayes Place (SS-14)*	*22 Lester (SS-15)*	*22 Lester (SS-15)*	*34 Hayes North (SS-12)*	*34 Hayes North (SS-12)*	*34 Hayes South (SS-13)*
	Sample Name:	*SS-37191-050708-CMB-002*	*SS-37191-050708-CMB-012*	*SS-37191-050708-CMB-013*	*SS-37191-050708-CMB-010*	*SS-37191-050708-CMB-011*	*SS-37191-050708-CMB-016*	*SS-37191-050708-CMB-017*	*SS-37191-050708-CMB-014*
	Sample Date:	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*
	Depth:	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*
Parameters	*Units* [1]	6 NYCRR Part 375-6.8(b): RUSCO - Protection of Public Health [2] *Residential*	*Industrial*							
Metals										
Aluminum	mg/kg	NC	NC	--	--	--	--	--	--	--
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	--
Arsenic	mg/kg	16	16	--	--	--	--	--	--	--
Barium	mg/kg	350	10000	--	--	--	--	--	--	--
Beryllium	mg/kg	14	2700	--	--	--	--	--	--	--
Cadmium	mg/kg	2.5	60	--	--	--	--	--	--	--
Calcium	mg/kg	NC	NC	--	--	--	--	--	--	--
Chromium Total [3]	mg/kg	22	800	--	--	--	--	--	--	--
Cobalt	mg/kg	NC	NC	--	--	--	--	--	--	--
Copper	mg/kg	270	10000	--	--	--	--	--	--	--
Iron	mg/kg	NC	NC	--	--	--	--	--	--	--
Lead	mg/kg	400	3900	182	44.0	82.9 J	347	336	23.0	59.0 J	144
Magnesium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Manganese	mg/kg	2000	10000	--	--	--	--	--	--	--	--
Mercury	mg/kg	0.81	5.7	--	--	--	--	--	--	--	--
Nickel	mg/kg	140	10000	--	--	--	--	--	--	--	--
Potassium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Selenium	mg/kg	36	6800	--	--	--	--	--	--	--	--
Silver	mg/kg	36	6800	--	--	--	--	--	--	--	--
Sodium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Vanadium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Zinc	mg/kg	2200	10000	--	--	--	--	--	--	--	--
Wet Chemistry										
Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	--	--
Total Solids	%	NC	NC	--	--	--	--	--	--	--	--

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

ANALYTICAL RESULTS SUMMARY - SURFACE SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

	On/Off-Site:		*On-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*
	Location ID:		*34 Hayes South (SS-13)*	*36 Lester (SS-16)*	*36 Lester (SS-16)*	*36 Lester (SS-16)*	*55 Lester North (SS-3)*	*55 Lester North (SS-3)*	*55 Lester South (SS-4)*	*55 Lester South (SS-4)*
	Sample Name:		*SS-37191-050708-CMB-015*	*SS-37191-050708-CMB-007*	*SS-37191-050708-CMB-008*	*SS-37191-050708-CMB-009*	*SS-37191-050808-CMB-001*	*SS-37191-050808-CMB-002*	*SS-37191-050808-CMB-003*	*SS-37191-050808-CMB-004*
	Sample Date:		*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/8/2008*	*5/8/2008*	*5/8/2008*	*5/8/2008*
	Depth:		*2 - 4 inches bgs*	*0 - 2 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*
					Duplicate					
		6 NYCRR Part 375-6.8(b): RUSCO - Protection of Public Health [2]								
Parameters	***Units*** [1]	***Residential***	***Industrial***							
Metals										
Aluminum	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Arsenic	mg/kg	16	16	--	--	--	--	--	--	--	--
Barium	mg/kg	350	10000	--	--	--	--	--	--	--	--
Beryllium	mg/kg	14	2700	--	--	--	--	--	--	--	--
Cadmium	mg/kg	2.5	60	--	--	--	--	--	--	--	--
Calcium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Chromium Total [3]	mg/kg	22	800	--	--	--	--	--	--	--	--
Cobalt	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Copper	mg/kg	270	10000	--	--	--	--	--	--	--	--
Iron	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Lead	mg/kg	400	3900	148	74.3	64.8	52.2	66.9 J	30.6 J	46.3 J	92.1 J
Magnesium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Manganese	mg/kg	2000	10000	--	--	--	--	--	--	--	--
Mercury	mg/kg	0.81	5.7	--	--	--	--	--	--	--	--
Nickel	mg/kg	140	10000	--	--	--	--	--	--	--	--
Potassium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Selenium	mg/kg	36	6800	--	--	--	--	--	--	--	--
Silver	mg/kg	36	6800	--	--	--	--	--	--	--	--
Sodium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Vanadium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Zinc	mg/kg	2200	10000	--	--	--	--	--	--	--	--
Wet Chemistry											
Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	--	--
Total Solids	%	NC	NC	--	--	--	--	--	--	--	--

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

ANALYTICAL RESULTS SUMMARY - SURFACE SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

	On/Off-Site:	*Off-Site*	*Off-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
	Location ID:	*58 Lester (SS-5)*	*58 Lester (SS-5)*	*NE Harrison St WH (SS-2)*	*NE Harrison St WH (SS-2)*	*S Harrison St WH (SS-11)*	*S Harrison St WH (SS-11)*	*Soil Mound (SS-1)*	*Soil Mound (SS-1)*
	Sample Name:	*SS-37191-050808-CMB-005*	*SS-37191-050808-CMB-006*	*SS-37191-050708-CMB-020*	*SS-37191-050708-CMB-021*	*SS-37191-050708-CMB-022*	*SS-37191-050708-CMB-023*	*SS-37191-050708-CMB-018*	*SS-37191-050708-CMB-019*
	Sample Date:	*5/8/2008*	*5/8/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*	*5/7/2008*
	Depth:	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*
		6 NYCRR Part 375-6.8(b): RUSCO - Protection of Public Health [2]							
Parameters	***Units*** [1]	***Residential***	***Industrial***						
Metals									
Aluminum	mg/kg	NC	NC	--	--	--	--	--	--	--
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	--
Arsenic	mg/kg	16	16	--	--	--	--	--	--	--
Barium	mg/kg	350	10000	--	--	--	--	--	--	--
Beryllium	mg/kg	14	2700	--	--	--	--	--	--	--
Cadmium	mg/kg	2.5	60	--	--	--	--	--	--	--
Calcium	mg/kg	NC	NC	--	--	--	--	--	--	--
Chromium Total [3]	mg/kg	22	800	--	--	--	--	--	--	--
Cobalt	mg/kg	NC	NC	--	--	--	--	--	--	--
Copper	mg/kg	270	10000	--	--	--	--	--	--	--
Iron	mg/kg	NC	NC	--	--	--	--	--	--	--
Lead	mg/kg	400	3900	348 J	385 J	15.2	33.7	738 J	742 J	30.8	2090 J
Magnesium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Manganese	mg/kg	2000	10000	--	--	--	--	--	--	--	--
Mercury	mg/kg	0.81	5.7	--	--	--	--	--	--	--	--
Nickel	mg/kg	140	10000	--	--	--	--	--	--	--	--
Potassium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Selenium	mg/kg	36	6800	--	--	--	--	--	--	--	--
Silver	mg/kg	36	6800	--	--	--	--	--	--	--	--
Sodium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Vanadium	mg/kg	NC	NC	--	--	--	--	--	--	--	--
Zinc	mg/kg	2200	10000	--	--	--	--	--	--	--	--
Wet Chemistry										
Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	--	--
Total Solids	%	NC	NC	--	--	--	--	--	--	--	--

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

ANALYTICAL RESULTS SUMMARY - SURFACE SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

	On/Off-Site:			*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*
	Location ID:			*82 Harrison Street (SS-17)*	*82 Harrison Street (SS-17)*	*82 Harrison Street (SS-18)*	*82 Harrison Street (SS-18)*	*118 Harrison Street (SS-19)*	*118 Harrison Street (SS-19)*	*118 Harrison Street (SS-20)*	*118 Harrison Street (SS-20)*
	Sample Name:			*SS-37191-081308-CB-001*	*SS-37191-081308-CB-002*	*SS-37191-081308-CB-003*	*SS-37191-081308-CB-004*	*SS-37191-081308-CB-005*	*SS-37191-081308-CB-006*	*SS-37191-081308-CB-007*	*SS-37191-081308-CB-008*
	Sample Date:			*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*
	Depth:			*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*
Parameters	*Units* [1]	6 NYCRR Part 375-6.8(b): RUSCO - Protection of Public Health [2] *Residential*	*Industrial*								
Metals											
Aluminum	mg/kg	NC	NC	10600	10200	8810	9080	--	--	6280	6160
Antimony	mg/kg	NC	NC	0.68 J	1.0 J	0.63 J	0.75 J	--	--	0.81 J	0.88 J
Arsenic	mg/kg	16	16	11.8	11.4	11.4	11.7	--	--	11.0	10.4
Barium	mg/kg	350	10000	115	112	85.0	82.8	--	--	89.3	88.3
Beryllium	mg/kg	14	2700	0.67	0.63	0.65	0.66	--	--	0.54	0.51 J
Cadmium	mg/kg	2.5	60	1.1	1.1	0.84	0.85	--	--	1.3	1.3
Calcium	mg/kg	NC	NC	5130	4510	4930	4570	--	--	36200	51800
Chromium Total [3]	mg/kg	22	800	22.5	21.7	20.1	18.9	--	--	20.1	19.8
Cobalt	mg/kg	NC	NC	8.4	8.0	6.9	7.0	--	--	5.2 J	5.1 J
Copper	mg/kg	270	10000	45.5	44.6	35.2	34.6	--	--	37.6	35.7
Iron	mg/kg	NC	NC	26700	25800	23600	23900	--	--	22800	21700
Lead	mg/kg	400	3900	251	244	122	122	356	335	163	159
Magnesium	mg/kg	NC	NC	3320	3130	3040	3030	--	--	6110	6630
Manganese	mg/kg	2000	10000	433	393	394	395	--	--	385	391
Mercury	mg/kg	0.81	5.7	0.22	0.26	0.12	0.15	--	--	0.16	0.17
Nickel	mg/kg	140	10000	24.8	23.9	21.5	21.5	--	--	18.2	17.7
Potassium	mg/kg	NC	NC	1420	1230	975	908	--	--	1020	919
Selenium	mg/kg	36	6800	1.2	1.0	0.94	1.1	--	--	0.70	0.72
Silver	mg/kg	36	6800	0.76 U	0.67 U	0.66 U	0.64 U	--	--	0.67 U	0.66 U
Sodium	mg/kg	NC	NC	757 U	673 U	41.9 J	203 J	--	--	668 U	660 U
Thallium	mg/kg	NC	NC	1.5 U	1.3 U	1.3 U	1.3 U	--	--	1.3 U	1.3 U
Vanadium	mg/kg	NC	NC	23.5	23.0	20.9	21.1	--	--	19.9	19.9
Zinc	mg/kg	2200	10000	313	306	222	216	--	--	277	263
Wet Chemistry											
Cyanide (total)	mg/kg	27	10000	0.76 U	0.67 U	0.66 U	0.64 U	--	--	0.67 U	0.66 U
Total Solids	%	NC	NC	66.1	74.3	75.2	77.9	63.7	66.4	74.9	75.8

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

ANALYTICAL RESULTS SUMMARY - SURFACE SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

	On/Off-Site:			*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*
	Location ID:			*118 Harrison Street (SS-21)*	*118 Harrison Street (SS-21)*	*118 Harrison Street (SS-22)*	*118 Harrison Street (SS-22)*	*118 Harrison Street (SS-23)*	*118 Harrison Street (SS-23)*	*118 Harrison Street (SS-24)*	*118 Harrison Street (SS-24)*
	Sample Name:			*SS-37191-081308-CB-009*	*SS-37191-081308-CB-010*	*SS-37191-081308-CB-011*	*SS-37191-081308-CB-012*	*SS-37191-081308-CB-013*	*SS-37191-081308-CB-014*	*SS-37191-081308-CB-015*	*SS-37191-081308-CB-016*
	Sample Date:			*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*	*8/13/2008*
	Depth:			*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*	*0 - 2 inches bgs*	*2 - 4 inches bgs*
Parameters	*Units* [1]	6 NYCRR Part 375-6.8(b): RUSCO - Protection of Public Health [2] *Residential*	*Industrial*								
Metals											
Aluminum	mg/kg	NC	NC	--	--	--	--	--	--	6390	6240
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	0.75 J	0.77 J
Arsenic	mg/kg	16	16	--	--	--	--	--	--	7.6	7.7
Barium	mg/kg	350	10000	--	--	--	--	--	--	58.6	54.5
Beryllium	mg/kg	14	2700	--	--	--	--	--	--	0.45 J	0.44 J
Cadmium	mg/kg	2.5	60	--	--	--	--	--	--	0.70	0.81
Calcium	mg/kg	NC	NC	--	--	--	--	--	--	28400	43000
Chromium Total [3]	mg/kg	22	800	--	--	--	--	--	--	12.5	12.1
Cobalt	mg/kg	NC	NC	--	--	--	--	--	--	5.9 J	5.9 J
Copper	mg/kg	270	10000	--	--	--	--	--	--	29.9	29.5
Iron	mg/kg	NC	NC	--	--	--	--	--	--	17800	17600
Lead	mg/kg	400	3900	17.5	16.6	160	158	163	151	116	123
Magnesium	mg/kg	NC	NC	--	--	--	--	--	--	10600	10800
Manganese	mg/kg	2000	10000	--	--	--	--	--	--	356	348
Mercury	mg/kg	0.81	5.7	--	--	--	--	--	--	0.085	0.083
Nickel	mg/kg	140	10000	--	--	--	--	--	--	17.0	16.8
Potassium	mg/kg	NC	NC	--	--	--	--	--	--	982	832
Selenium	mg/kg	36	6800	--	--	--	--	--	--	0.65 U	0.62 U
Silver	mg/kg	36	6800	--	--	--	--	--	--	0.65 U	0.62 U
Sodium	mg/kg	NC	NC	--	--	--	--	--	--	646 U	37.3 J
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	1.3 U	1.2 U
Vanadium	mg/kg	NC	NC	--	--	--	--	--	--	16.5	16.1
Zinc	mg/kg	2200	10000	--	--	--	--	--	--	222	217
Wet Chemistry											
Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	0.65 U	0.62 U
Total Solids	%	NC	NC	76.5	81.7	70.3	73.6	78.1	82.9	77.4	81.3

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

ANALYTICAL RESULTS SUMMARY - SURFACE SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

	On/Off-Site:		*Off-Site*	*Off-Site*	*Off-Site*
	Location ID:		*66 Lester Street (SS-25)*	*66 Lester Street (SS-25)*	*66 Lester Street (SS-25)*
	Sample Name:		*SS-37191-081308-CB-017*	*SS-37191-081308-CB-018*	*SS-37191-081308-CB-019*
	Sample Date:		*8/13/2008*	*8/13/2008*	*8/13/2008*
	Depth:		*0 - 2 inches bgs*	*2 - 4 inches bgs*	*2 - 4 inches bgs*
					Duplicate
		6 NYCRR Part 375-6.8(b): RUSCO - Protection of Public Health [2]			
Parameters	***Units*** [1]	***Residential***	***Industrial***			
Metals						
Aluminum	mg/kg	NC	NC	8570	9590	7760
Antimony	mg/kg	NC	NC	0.88 J	1.4 J	0.58 J
Arsenic	mg/kg	16	16	10.5	12.4	9.8
Barium	mg/kg	350	10000	111	124	99.5
Beryllium	mg/kg	14	2700	0.58 J	0.66 J	0.52
Cadmium	mg/kg	2.5	60	1.1	1.2	0.95
Calcium	mg/kg	NC	NC	10600	14000	11100
Chromium Total [3]	mg/kg	22	800	19.5	22.2	17.8
Cobalt	mg/kg	NC	NC	6.6 J	7.5 J	6.0
Copper	mg/kg	270	10000	54.1	58.5	45.4
Iron	mg/kg	NC	NC	24600	26800	21100
Lead	mg/kg	400	3900	283	309	242
Magnesium	mg/kg	NC	NC	4710	6050	4470
Manganese	mg/kg	2000	10000	354	473	349
Mercury	mg/kg	0.81	5.7	0.22	0.28	0.22
Nickel	mg/kg	140	10000	20.1	22.2	17.8
Potassium	mg/kg	NC	NC	1510	1670	1210
Selenium	mg/kg	36	6800	0.83	1.1	0.67
Silver	mg/kg	36	6800	0.75 U	0.89 U	0.58 U
Sodium	mg/kg	NC	NC	29.2 J	40.8 J	18.1 J
Thallium	mg/kg	NC	NC	1.5 U	1.8 U	1.2 U
Vanadium	mg/kg	NC	NC	21.9	24.4	19.1
Zinc	mg/kg	2200	10000	276	305	224
Wet Chemistry						
Cyanide (total)	mg/kg	27	10000	0.75 U	0.89 U	0.58 U
Total Solids	%	NC	NC	66.4	56.5	86.0

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.2

HERBICIDE, PCB, AND PESTICIDE ANALYTICAL RESULTS SUMMARY- SUBSURFACE SOIL
BCP REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-14*	*MW-17*	*SB-1-07*	*SB-12-07*	*SB-18-07*	*SB-18-08*	*SB-3-07*	*SB-5-07*	*SB-8-07*
Sample Name:				*SB-37191-050808-JP-011*	*SB-37191-050908-JP-002*	*SO-37191-072507-RN-SB-1*	*SO-37191-072607-RN-SB-12*	*SO-37191-073007-CB-SB18*	*SB-37191-050908-JP-001*	*SO-37191-072707-RN-SB-3*	*SO-37191-072507-RN-SB-05*	*SO-37191-072507-RN-SB-8*
Sample Date:				*5/8/2008*	*5/9/2008*	*7/25/2007*	*7/26/2007*	*7/30/2007*	*5/9/2008*	*7/27/2007*	*7/25/2007*	*7/25/2007*
Depth:				*0-2 ft BGS*	*0-2 ft BGS*	*2-4 ft BGS*	*3.5-6 ft BGS*	*4-7.2 ft BGS*	*0-2 ft BGS*	*10-13 ft BGS*	*4-8 ft BGS*	*3.5-8 ft BGS*
On/Off - Site				*Off-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*Off-Site*	*On-Site*	*On-Site*	*On-Site*
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health [2]										
Parameters	*Units* [1]	*Residential*	*Industrial*									
Herbicides												
2,4,5-T	mg/kg	NC	NC	0.024 U	0.023 U	0.028 U	0.025 U	0.021 U	0.024 U	0.024 U	0.024 U	0.025 U
2,4,5-TP (Silvex)	mg/kg	58	1000	0.024 U	0.023 U	0.028 U	0.025 U	0.021 U	0.024 U	0.024 U	0.024 U	0.025 U
2,4-DB	mg/kg	NC	NC	0.098 U	0.092 U	0.11 U	0.099 U	0.083 U	0.097 U	0.095 U	0.097 U	0.098 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	NC	NC	0.098 U	0.092 U	0.11 U	0.099 U	0.083 U	0.097 U	0.095 U	0.097 U	0.098 U
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg	NC	NC	9.8 U	9.2 U	11 U	9.9 U	8.3 U	9.7 U	9.5 U	9.7 U	9.8 U
Dalapon	mg/kg	NC	NC	0.11 U	0.1 U	0.12 U	0.11 U	0.093 U	0.11 U	0.11 U	0.11 U	0.11 U
Dicamba	mg/kg	NC	NC	0.049 U	0.046 U	0.055 U	0.05 U	0.042 U	0.049 U	0.048 U	0.048 U	0.049 U
Dichlorprop	mg/kg	NC	NC	0.098 U	0.092 U	0.11 U	0.099 U	0.083 U	0.097 U	0.095 U	0.097 U	0.098 U
Dinoseb	mg/kg	NC	NC	0.015 U	0.014 U	0.017 U	0.015 U	0.012 U	0.015 U	0.014 U	0.015 U	0.015 U
Mecoprop (MCPP)	mg/kg	NC	NC	9.8 U	9.2 U	11 U	9.9 U	8.3 U	9.7 U	9.5 U	9.7 U	9.8 U
PCBs												
Aroclor-1016 (PCB-1016)	mg/kg	1 [3]	25 [3]	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1221 (PCB-1221)	mg/kg	1 [3]	25 [3]	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1232 (PCB-1232)	mg/kg	1 [3]	25 [3]	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1242 (PCB-1242)	mg/kg	1 [3]	25 [3]	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1248 (PCB-1248)	mg/kg	1 [3]	25 [3]	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1254 (PCB-1254)	mg/kg	1 [3]	25 [3]	0.02 U	0.019 U	0.03	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1260 (PCB-1260)	mg/kg	1 [3]	25 [3]	0.011 J	0.014 J	0.018 J	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Pesticides												
4,4'-DDD	mg/kg	2.6	180	0.0021 U	0.0015 J	0.00085 J	0.0021 U	0.0018 U	0.0021 U	0.00055 J	0.0021 U	0.0021 U
4,4'-DDE	mg/kg	1.8	120	0.0046	0.002 U	0.002 J	0.0021 U	0.0018 U	0.0039	0.00052 J	0.0021 U	0.0021 U
4,4'-DDT	mg/kg	1.7	94	0.0035	0.002 U	0.0017 J	0.0021 U	0.0018 U	0.0068	0.002 U	0.0021 U	0.0021 U
Aldrin	mg/kg	0.019	1.4	0.0021 U	0.002 U	0.0021 J	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.00028 J	0.0021 U
alpha-BHC	mg/kg	0.097	6.8	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
alpha-Chlordane	mg/kg	0.91	47	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
beta-BHC	mg/kg	0.072	14	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
delta-BHC	mg/kg	100	1000	0.0021 U	0.002 U	0.00054 J	0.0021 U	0.0018 U	0.0021 U	0.00033 J	0.0021 U	0.0021 U
Dieldrin	mg/kg	0.039	2.8	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endosulfan I	mg/kg	4.8	920	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endosulfan II	mg/kg	4.8	920	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endosulfan sulfate	mg/kg	4.8	920	0.0021 U	0.002 U	0.00077 J	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endrin	mg/kg	2.2	410	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endrin aldehyde	mg/kg	NC	NC	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endrin ketone	mg/kg	NC	NC	0.00091 J	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
gamma-BHC (Lindane)	mg/kg	0.28	23	0.0021 U	0.017 J	0.0075	0.0021 U	0.0018 U	0.0021 U	0.00098 J	0.0021 U	0.0021 U
gamma-Chlordane	mg/kg	NC	NC	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Heptachlor	mg/kg	0.42	29	0.0021 U	0.0016 J	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Heptachlor epoxide	mg/kg	NC	NC	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Methoxychlor	mg/kg	NC	NC	0.004 U	0.0038 U	0.0035 J	0.0041 U	0.0034 U	0.004 U	0.0039 U	0.004 U	0.0041 U
Toxaphene	mg/kg	NC	NC	0.081 U	0.077 U	0.093 U	0.083 U	0.07 U	0.082 U	0.079 U	0.081 U	0.082 U

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The soil cleanup objective for total PCBs

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.3

METALS ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-14*	*MW-17*	*SB-10-07*	*SB-1-07*	*SB-11-07*	*SB-12-07*	*SB-13-07*	*SB-14-07*
Sample Name:				*SB-37191-050808-JP-011*	*SB-37191-050908-JP-002*	*SO-37191-072507-RN-SB-10*	*SO-37191-072507-RN-SB-1*	*SO-37191-072607-RN-SB-11*	*SO-37191-072607-RN-SB-12*	*SO-37191-072607-RN-SB-13*	*SO-37191-072607-RN-SB-14*
Sample Date:				*5/8/2008*	*5/9/2008*	*7/25/2007*	*7/25/2007*	*7/26/2007*	*7/26/2007*	*7/26/2007*	*7/26/2007*
Depth:				*0-2 ft BGS*	*0-2 ft BGS*	*3-8 ft BGS*	*2-4 ft BGS*	*2-6 ft BGS*	*3.5-6 ft BGS*	*6-8 ft BGS*	*4-8 ft BGS*
On/Off - Site				*Off-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
Parameters	*Units*[1]	*6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health*[2] *Residential*	*Industrial*								
Metals											
Aluminum	mg/kg	NC	NC	8680	18700	--	9270	--	11300	--	--
Antimony	mg/kg	NC	NC	1.2 U	1.2 U	--	1.4 U	--	1.2 U	--	--
Arsenic	mg/kg	16	16	5.1	5.2	--	11.4	--	4.2	--	--
Barium	mg/kg	350	10000	47.0	200	--	103	--	107	--	--
Beryllium	mg/kg	14	2700	0.49 U	2.9	--	2.0	--	0.79	--	--
Cadmium	mg/kg	2.5	60	0.54 J	1.4 J	--	0.66 J	--	0.36 J	--	--
Calcium	mg/kg	NC	NC	2200	110000	--	103000	--	89800	--	--
Chromium, Total[3]	mg/kg	22	800	11.9	63.9	--	13.0	--	16.5	--	--
Cobalt	mg/kg	NC	NC	3.8 J	2.6 J	--	6.1 J	--	7.8	--	--
Copper	mg/kg	270	10000	11.9	35.3	--	60.8	--	18.5	--	--
Iron	mg/kg	NC	NC	15300	27300	--	32300	--	17500	--	--
Lead	mg/kg	400	3900	48.4 J	87.3 J	196	78.3	2160	8.2	7.3	4.4
Magnesium	mg/kg	NC	NC	1950	15300	--	13700	--	15500	--	--
Manganese	mg/kg	2000	10000	135 J	3240 J	--	712	--	343	--	--
Mercury	mg/kg	0.81	5.7	0.16	0.035 J	--	0.45	--	0.041 U	--	--
Nickel	mg/kg	140	10000	11.4	12.8	--	16.0	--	19.8	--	--
Potassium	mg/kg	NC	NC	892	1350	--	1170	--	2320	--	--
Selenium	mg/kg	36	6800	0.49 J	1.2	--	0.69 U	--	0.62 U	--	--
Silver	mg/kg	36	6800	0.61 U	0.88	--	0.69 U	--	0.62 U	--	--
Sodium	mg/kg	NC	NC	41.7 J	527 J	--	572 J	--	239 J	--	--
Thallium	mg/kg	NC	NC	1.2 U	2.3 U	--	1.4 U	--	1.2 U	--	--
Vanadium	mg/kg	NC	NC	19.3	24.3	--	11.6	--	22.1	--	--
Zinc	mg/kg	2200	10000	71.7	169	--	107	--	46.2	--	--
Wet Chemistry											
Cyanide (total)	mg/kg	27	10000	0.61 U	3.3	--	0.29 J	--	0.62 U	--	--
Total Solids	%	NC	NC	81.8	86.9	85.1	72.4	75.1	80.5	81.6	87.3

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.3

METALS ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*SB-15-07*	*SB-16-07*	*SB-17-07*	*SB-17-07*	*SB-18-07*	*SB-18-08*	*SB-2-07*	*SB-2-07*
Sample Name:				*SO-37191-072607-RN-SB-15*	*SO-37191-072607-RN-SB-16*	*SO-37191-072707-RN-SB-17*	*SO-37191-072707-RN-SB-27*	*SO-37191-073007-CB-SB18*	*SB-37191-050908-JP-001*	*SO-37191-072707-RN-SB-2*	*SO-37191-072707-RN-SB-20*
Sample Date:				*7/26/2007*	*7/26/2007*	*7/27/2007*	*7/27/2007*	*7/30/2007*	*5/9/2008*	*7/27/2007*	*7/27/2007*
Depth:				*4-8 ft BGS*	*4-8 ft BGS*	*6-10 ft BGS*	*6-10 ft BGS*	*4-7.2 ft BGS*	*0-2 ft BGS*	*6.5-8 ft BGS*	*6.5-8 ft BGS*
On/Off - Site				*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*Off-Site*	*On-Site*	*On-Site*
							Dupilcate				*Duplicate*
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]									
Parameters	*Units*[1]	*Residential*	*Industrial*								
Metals											
Aluminum	mg/kg	NC	NC	--	--	--	--	6100	8000	--	--
Antimony	mg/kg	NC	NC	--	--	--	--	1.0 U	1.2 U	--	--
Arsenic	mg/kg	16	16	--	--	--	--	3.5	5.9	--	--
Barium	mg/kg	350	10000	--	--	--	--	56.1	161	--	--
Beryllium	mg/kg	14	2700	--	--	--	--	0.44 U	1.1	--	--
Cadmium	mg/kg	2.5	60	--	--	--	--	0.24 J	1.1 J	--	--
Calcium	mg/kg	NC	NC	--	--	--	--	92600	45000	--	--
Chromium, Total[3]	mg/kg	22	800	--	--	--	--	9.8	23.5	--	--
Cobalt	mg/kg	NC	NC	--	--	--	--	4.5 J	2.3 J	--	--
Copper	mg/kg	270	10000	--	--	--	--	11.6	18.8	--	--
Iron	mg/kg	NC	NC	--	--	--	--	12300	14200	--	--
Lead	mg/kg	400	3900	10.5	94.8	155 J	13.4 J	6.2	104 J	229	567
Magnesium	mg/kg	NC	NC	--	--	--	--	19100	5200	--	--
Manganese	mg/kg	2000	10000	--	--	--	--	405	795 J	--	--
Mercury	mg/kg	0.81	5.7	--	--	--	--	0.011 J	0.18	--	--
Nickel	mg/kg	140	10000	--	--	--	--	10.9	8.4	--	--
Potassium	mg/kg	NC	NC	--	--	--	--	1380	679	--	--
Selenium	mg/kg	36	6800	--	--	--	--	0.52 U	0.51 J	--	--
Silver	mg/kg	36	6800	--	--	--	--	0.061 J	0.26 J	--	--
Sodium	mg/kg	NC	NC	--	--	--	--	192 J	296 J	--	--
Thallium	mg/kg	NC	NC	--	--	--	--	1.0 U	1.2 U	--	--
Vanadium	mg/kg	NC	NC	--	--	--	--	14.1	18.4	--	--
Zinc	mg/kg	2200	10000	--	--	--	--	38.2	166	--	--
Wet Chemistry											
Cyanide (total)	mg/kg	27	10000	--	--	--	--	0.18 J	0.95	--	--
Total Solids	%	NC	NC	82.1	74.6	69.4	87.6	96.3	82.1	80.7	75.2

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.3

METALS ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*SB-3-07*	*SB-4-07*	*SB-5-07*	*SB-6-07*	*SB-6-07*	*SB-7-07*	*SB-8-07*	*SB-9-07*
Sample Name:				*SO-37191-072707-RN-SB-3*	*SO-37191-072707-RN-SB-4*	*SO-37191-072507-RN-SB-05*	*SO-37191-073007-CB-SB6*	*SO-37191-073007-CB-SB19*	*SO-37191-072507-RN-SB-7*	*SO-37191-072507-RN-SB-8*	*SO-37191-072507-RN-SB-9*
Sample Date:				*7/27/2007*	*7/27/2007*	*7/25/2007*	*7/30/2007*	*7/30/2007*	*7/25/2007*	*7/25/2007*	*7/25/2007*
Depth:				*10-13 ft BGS*	*2-4 ft BGS*	*4-8 ft BGS*	*6-10.4 ft BGS*	*6-10.4 ft BGS*	*3-6 ft BGS*	*3.5-8 ft BGS*	*3-6 ft BGS*
On/Off - Site				*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
							Duplicate				
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]									
Parameters	*Units*[1]	*Residential*	*Industrial*								
Metals											
Aluminum	mg/kg	NC	NC	6270	--	15800	--	--	--	9450	--
Antimony	mg/kg	NC	NC	1.2 U	--	1.2 U	--	--	--	3.0	--
Arsenic	mg/kg	16	16	2.0	--	9.7	--	--	--	**21.4**	--
Barium	mg/kg	350	10000	59.1	--	132	--	--	--	2310	--
Beryllium	mg/kg	14	2700	0.57 U	--	1.3	--	--	--	0.85	--
Cadmium	mg/kg	2.5	60	0.20 J	--	0.37 J	--	--	--	1.4	--
Calcium	mg/kg	NC	NC	66900	--	2830	--	--	--	15500	--
Chromium, Total[3]	mg/kg	22	800	10.1	--	23.6	--	--	--	15.8	--
Cobalt	mg/kg	NC	NC	5.2 J	--	15.2	--	--	--	5.7 J	--
Copper	mg/kg	270	10000	13.2	--	31.2	--	--	--	114	--
Iron	mg/kg	NC	NC	11400	--	32500	--	--	--	23200	--
Lead	mg/kg	400	3900	6.3	285	14.5	6.2	5.1	46.0	2230	25.6
Magnesium	mg/kg	NC	NC	21100	--	6000	--	--	--	5730	--
Manganese	mg/kg	2000	10000	330	--	602	--	--	--	392	--
Mercury	mg/kg	0.81	5.7	0.049	--	0.022 J	--	--	--	0.48	--
Nickel	mg/kg	140	10000	10.6	--	35.1	--	--	--	13.8	--
Potassium	mg/kg	NC	NC	1580	--	1650	--	--	--	1060	--
Selenium	mg/kg	36	6800	1.2 U	--	1.2 U	--	--	--	0.86	--
Silver	mg/kg	36	6800	0.60 U	--	0.60 U	--	--	--	189	--
Sodium	mg/kg	NC	NC	220 J	--	275 J	--	--	--	179 J	--
Thallium	mg/kg	NC	NC	1.2 U	--	1.2 U	--	--	--	1.2 U	--
Vanadium	mg/kg	NC	NC	16.8	--	31.4	--	--	--	22.9	--
Zinc	mg/kg	2200	10000	40.2	--	80.4	--	--	--	305	--
Wet Chemistry											
Cyanide (total)	mg/kg	27	10000	0.60 U	--	0.60 U	--	--	--	0.23 J	--
Total Solids	%	NC	NC	83.8	81.0	82.7	89.9	89.1	62.6	81.4	81.8

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

[3] - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.4

VOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-6A*	*MW-14*	*MW-17*	*MW-19*	*MW-19*	*MW-19A*	*MW-20*	*MW-20A*	*MW-21A*	*MW-22*
Sample Name:				*SO-37191-052709-JJW-001*	*SB-37191-050808-JP-011*	*SB-37191-050908-JP-002*	*SO-37191-060409-JJW-008*	*SO-37191-060409-JJW-009*	*SO-37191-052709-JJW-002*	*SO-37191-060409-JJW-007*	*SO-37191-060109-JJW-003*	*SO-37191-060109-JJW-004*	*SO-37191-060809-JJW-010*
Sample Date:				*5/27/2009*	*5/8/2008*	*5/9/2008*	*6/4/2009*	*6/4/2009*	*5/27/2009*	*6/4/2009*	*6/1/2009*	*6/1/2009*	*6/8/2009*
Depth:				*6-8 ft BGS*	*0-2 ft BGS*	*0-2 ft BGS*	*6-8 ft BGS*	*6-8 ft BGS*	*6-8 ft BGS*	*2-4 ft BGS*	*6-8 ft BGS*	*2-4 ft BGS*	*10-12 ft BGS*
On/Off - Site				*On-Site*	*Off-Site*	*On-Site*	*On-Site*	*On-Site* Duplicate	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*Off-Site*
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]											
Parameters	*Units*[1]	*Residential*	*Industrial*										
Volatile Organic Compounds													
1,1,1-Trichloroethane	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	NC	0.0063 UJ	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 UJ	0.0062 U	0.0061 U	0.0063 U	0.0057 UJ
1,1,2-Trichloroethane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,1-Dichloroethane	mg/kg	19	480	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,1-Dichloroethene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2,4-Trichlorobenzene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 UJ	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 UJ	0.0062 UJ	0.0061 UJ	0.0063 UJ	0.0057 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2-Dichlorobenzene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2-Dichloroethane	mg/kg	2.3	60	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2-Dichloropropane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,3-Dichlorobenzene	mg/kg	17	560	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,4-Dichlorobenzene	mg/kg	9.8	250	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	1000	0.0063 UJ	0.0061 U	0.0058 U	0.24 J	0.26 J	0.29 U	0.0062 UJ	0.0061 U	0.0063 U	0.0057 U
2-Hexanone	mg/kg	NC	NC	0.0063 UJ	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 U	0.0062 UJ	0.0061 UJ	0.0063 UJ	0.0057 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	NC	0.0063 UJ	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Acetone	mg/kg	100	1000	0.011 J	0.024 UJ	0.023 UJ	1.1 UJ	1.1 UJ	1.2 UJ	0.025 UJ	0.024 UJ	0.025 UJ	0.023 UJ
Benzene	mg/kg	2.9	89	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Bromodichloromethane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Bromoform	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Bromomethane (Methyl Bromide)	mg/kg	NC	NC	0.0063 U	0.0061 UJ	0.0058 UJ	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Carbon disulfide	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Carbon tetrachloride	mg/kg	1.4	44	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Chlorobenzene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Chloroethane	mg/kg	NC	NC	0.0063 U	0.0061 UJ	0.0058 UJ	0.28 U	0.28 U	0.29 U	0.0062 UJ	0.0061 UJ	0.0063 UJ	0.0057 UJ
Chloroform (Trichloromethane)	mg/kg	10	700	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Chloromethane (Methyl Chloride)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
cis-1,2-Dichloroethene	mg/kg	59	1000	0.029	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.001 J	0.0057 U
cis-1,3-Dichloropropene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 UJ	0.0063 UJ	0.0057 U
Cyclohexane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Dibromochloromethane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 UJ	0.0063 UJ	0.0057 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 UJ
Ethylbenzene	mg/kg	30	780	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Isopropylbenzene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Methyl acetate	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 UJ	0.0062 UJ	0.0061 UJ	0.0063 UJ	0.0057 U
Methyl cyclohexane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Methyl Tert Butyl Ether	mg/kg	62	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Methylene chloride	mg/kg	51	1000	0.0063 U	0.031	0.0097	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Styrene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Tetrachloroethene	mg/kg	5.5	300	0.0063 U	0.0061 U	0.0058 U	0.046 J	0.053 J	0.078 J	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Toluene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0022 J
trans-1,2-Dichloroethene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
trans-1,3-Dichloropropene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Trichloroethene	mg/kg	10	400	0.021	0.0061 U	0.0058 U	1.8	1.3	4.6	0.0062 U	0.0061 U	0.0037 J	0.0057 U
Trichlorofluoromethane (CFC-11)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Vinyl chloride	mg/kg	0.21	27	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Xylene (total)	mg/kg	100	1000	0.019 U	0.018 U	0.017 U	0.83 U	0.83 U	0.88 U	0.019 U	0.018 U	0.019 U	0.017 U

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.4

VOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-22A*	*MW-23A*	*MW-24A*	*MW-25*	*MW-25A*	*SB-10-07*	*SB-1-07*	*SB-11-07*	*SB-12-07*
Sample Name:				*SO-37191-060109-JJW-005*	*SO-37191-060209-JJW-006*	*SO-37191-062209-JJW-011*	*SO-37191-062209-JJW-013*	*SO-37191-062209-JJW-012*	*SO-37191-072507-RN-SB-10*	*SO-37191-072507-RN-SB-1*	*SO-37191-072607-RN-SB-11*	*SO-37191-072607-RN-SB-12*
Sample Date:				*6/1/2009*	*6/2/2009*	*6/22/2009*	*6/22/2009*	*6/22/2009*	*7/25/2007*	*7/25/2007*	*7/26/2007*	*7/26/2007*
Depth:				*10-12 ft BGS*	*12-14 ft BGS*	*0-2 ft BGS*	*6-8 ft BGS*	*4-6 ft BGS*	*3-8 ft BGS*	*2-4 ft BGS*	*2-6 ft BGS*	*3.5-6 ft BGS*
On/Off - Site				*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*Off-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
Parameters	*Units* [1]	*6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health* [2] *Residential*	*Industrial*									
Volatile Organic Compounds												
1,1,1-Trichloroethane	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,1,2-Trichloroethane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,1-Dichloroethane	mg/kg	19	480	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,1-Dichloroethene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2,4-Trichlorobenzene	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 UJ	0.0055 UJ	0.006 UJ	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dichlorobenzene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dichloroethane	mg/kg	2.3	60	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dichloropropane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,3-Dichlorobenzene	mg/kg	17	560	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,4-Dichlorobenzene	mg/kg	9.8	250	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
2-Hexanone	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Acetone	mg/kg	100	1000	0.024 UJ	0.024 UJ	0.026 U	0.022 U	0.024 U	0.012 J	0.028 U	0.027 U	0.0085 J
Benzene	mg/kg	2.9	89	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Bromodichloromethane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Bromoform	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
Carbon disulfide	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Carbon tetrachloride	mg/kg	1.4	44	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Chlorobenzene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Chloroethane	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 U	0.0055 U	0.006 U	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
Chloroform (Trichloromethane)	mg/kg	10	700	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Chloromethane (Methyl Chloride)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
cis-1,2-Dichloroethene	mg/kg	59	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.035	0.031
cis-1,3-Dichloropropene	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Cyclohexane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Dibromochloromethane	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Ethylbenzene	mg/kg	30	780	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Isopropylbenzene	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Methyl acetate	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Methyl cyclohexane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Methyl Tert Butyl Ether	mg/kg	62	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Methylene chloride	mg/kg	51	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Styrene	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Tetrachloroethene	mg/kg	5.5	300	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.037	0.0062 U
Toluene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0011 J	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
trans-1,2-Dichloroethene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
trans-1,3-Dichloropropene	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Trichloroethene	mg/kg	10	400	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0017 J	0.0069 U	0.21	0.035
Trichlorofluoromethane (CFC-11)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Vinyl chloride	mg/kg	0.21	27	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Xylene (total)	mg/kg	100	1000	0.018 U	0.018 U	0.02 U	0.017 U	0.018 U	0.018 U	0.021 U	0.02 U	0.019 U

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.4

VOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*SB-13-07*	*SB-14-07*	*SB-15-07*	*SB-16-07*	*SB-17-07*	*SB-17-07*	*SB-18-07*	*SB-18-08*	*SB-2-07*
Sample Name:				*SO-37191-072607-RN-SB-13*	*SO-37191-072607-RN-SB-14*	*SO-37191-072607-RN-SB-15*	*SO-37191-072607-RN-SB-16*	*SO-37191-072707-RN-SB-17*	*SO-37191-072707-RN-SB-27*	*SO-37191-073007-CB-SB18*	*SO-37191-050908-JP-001*	*SO-37191-072707-RN-SB-2*
Sample Date:				*7/26/2007*	*7/26/2007*	*7/26/2007*	*7/26/2007*	*7/27/2007*	*7/27/2007*	*7/30/2007*	*5/9/2008*	*7/27/2007*
Depth:				*6-8 ft BGS*	*4-8 ft BGS*	*4-8 ft BGS*	*4-8 ft BGS*	*6-10 ft BGS*	*6-10 ft BGS*	*4-7.2 ft BGS*	*0-2 ft BGS*	*6.5-8 ft BGS*
On/Off - Site				*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*Off-Site*	*On-Site*
									Dupilcate			
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]										
Parameters	*Units*[1]	*Residential*	*Industrial*									
Volatile Organic Compounds												
1,1,1-Trichloroethane	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,1,2-Trichloroethane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,1-Dichloroethane	mg/kg	19	480	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,1-Dichloroethene	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0019 J	0.0052 U	0.0061 U	0.0062 U
1,2,4-Trichlorobenzene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dichlorobenzene	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dichloroethane	mg/kg	2.3	60	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dichloropropane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,3-Dichlorobenzene	mg/kg	17	560	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,4-Dichlorobenzene	mg/kg	9.8	250	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
2-Hexanone	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Acetone	mg/kg	100	1000	0.1 J	0.023 UJ	0.024 U	0.027 UJ	0.029 U	0.023 U	0.021 U	0.024 UJ	0.025 UJ
Benzene	mg/kg	2.9	89	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Bromodichloromethane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Bromoform	mg/kg	NC	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ	0.0072 UJ	0.0057 UJ	0.0052 UJ	0.0061 U	0.0062 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ	0.0072 UJ	0.0057 UJ	0.0052 UJ	0.0061 UJ	0.0062 UJ
Carbon disulfide	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Carbon tetrachloride	mg/kg	1.4	44	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Chlorobenzene	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Chloroethane	mg/kg	NC	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ	0.0072 UJ	0.0057 UJ	0.0052 UJ	0.0061 UJ	0.0062 UJ
Chloroform (Trichloromethane)	mg/kg	10	700	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Chloromethane (Methyl Chloride)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
cis-1,2-Dichloroethene	mg/kg	59	1000	0.71	0.0057 U	0.0061 U	0.0067 U	0.19	0.23	0.0052 U	0.0061 U	0.0014 J
cis-1,3-Dichloropropene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Cyclohexane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Dibromochloromethane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	NC	0.31 UJ	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Ethylbenzene	mg/kg	30	780	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0025 J	0.0052 U	0.0061 U	0.0062 U
Isopropylbenzene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Methyl acetate	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Methyl cyclohexane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Methyl Tert Butyl Ether	mg/kg	62	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Methylene chloride	mg/kg	51	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.011	0.0062 U
Styrene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Tetrachloroethene	mg/kg	5.5	300	0.13 J	0.0057 U	0.0061 U	0.0025 J	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Toluene	mg/kg	100	1000	0.15 J	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
trans-1,2-Dichloroethene	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0048 J	0.0048 J	0.0052 U	0.0061 U	0.0062 U
trans-1,3-Dichloropropene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Trichloroethene	mg/kg	10	400	9.7	0.0022 J	0.037	0.008	0.14 J	0.13	0.0052 U	0.0061 U	0.0019 J
Trichlorofluoromethane (CFC-11)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 UJ	0.0067 U	0.0072 UJ	0.0057 UJ	0.0052 U	0.0061 U	0.0062 U
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Vinyl chloride	mg/kg	0.21	27	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0081	0.017	0.0052 U	0.0061 U	0.0062 U
Xylene (total)	mg/kg	100	1000	0.92 U	0.017 U	0.018 U	0.02 U	0.022 U	0.0077 J	0.016 U	0.018 U	0.019 U

Notes:

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.4

VOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*SB-2-07*	*SB-3-07*	*SB-4-07*	*SB-5-07*	*SB-6-07*	*SB-6-07*	*SB-7-07*	*SB-8-07*	*SB-9-07*
Sample Name:				*SO-37191-072707-RN-SB-20*	*SO-37191-072707-RN-SB-3*	*SO-37191-072707-RN-SB-4*	*SO-37191-072507-RN-SB-05*	*SO-37191-073007-CB-SB6*	*SO-37191-073007-CB-SB19*	*SO-37191-072507-RN-SB-7*	*SO-37191-072507-RN-SB-8*	*SO-37191-072507-RN-SB-9*
Sample Date:				*7/27/2007*	*7/27/2007*	*7/27/2007*	*7/25/2007*	*7/30/2007*	*7/30/2007*	*7/25/2007*	*7/25/2007*	*7/25/2007*
Depth:				*6.5-8 ft BGS*	*10-13 ft BGS*	*2-4 ft BGS*	*4-8 ft BGS*	*6-10.4 ft BGS*	*6-10.4 ft BGS*	*3-6 ft BGS*	*3.5-8 ft BGS*	*3-6 ft BGS*
On/Off - Site				*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
				Duplicate				*Duplicate*				
Parameters	*Units* [1]	*6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health* [2] *Residential*	*Industrial*									
Volatile Organic Compounds												
1,1,1-Trichloroethane	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,1,2-Trichloroethane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,1-Dichloroethane	mg/kg	19	480	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,1-Dichloroethene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,2,4-Trichlorobenzene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,2-Dichlorobenzene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,2-Dichloroethane	mg/kg	2.3	60	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,2-Dichloropropane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,3-Dichlorobenzene	mg/kg	17	560	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
1,4-Dichlorobenzene	mg/kg	9.8	250	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.12 J	0.28 U	0.4 U	0.0061 U	0.0061 U
2-Hexanone	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Acetone	mg/kg	100	1000	0.023 J	0.024 UJ	0.025 U	0.024 U	1.1 U	1.1 U	1.6 UJ	0.025 UJ	0.024 U
Benzene	mg/kg	2.9	89	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Bromodichloromethane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Bromoform	mg/kg	NC	NC	0.0067 UJ	0.006 UJ	0.0062 UJ	0.006 UJ	0.28 U	0.28 U	0.4 U	0.0061 UJ	0.0061 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	NC	0.0067 UJ	0.006 UJ	0.0062 UJ	0.006 UJ	0.28 U	0.28 U	0.4 U	0.0061 UJ	0.0061 UJ
Carbon disulfide	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Carbon tetrachloride	mg/kg	1.4	44	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Chlorobenzene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Chloroethane	mg/kg	NC	NC	0.0067 UJ	0.006 UJ	0.0062 UJ	0.006 UJ	0.28 U	0.28 U	0.4 U	0.0061 UJ	0.0061 UJ
Chloroform (Trichloromethane)	mg/kg	10	700	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Chloromethane (Methyl Chloride)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
cis-1,2-Dichloroethene	mg/kg	59	1000	0.0067 U	0.006 U	0.0062 U	0.012	0.091 J	0.066 J	0.3 J	0.0028 J	0.025
cis-1,3-Dichloropropene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Cyclohexane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Dibromochloromethane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 UJ	0.0061 U	0.0061 U
Ethylbenzene	mg/kg	30	780	0.0067 U	0.006 U	0.0062 U	0.006 U	0.2 J	0.28 U	0.4 U	0.0061 U	0.0061 U
Isopropylbenzene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Methyl acetate	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Methyl cyclohexane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Methyl Tert Butyl Ether	mg/kg	62	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Methylene chloride	mg/kg	51	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.38 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Styrene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Tetrachloroethene	mg/kg	5.5	300	0.0067 U	0.0017 J	0.0062 U	0.006 U	0.18 J	0.086 J	0.4 U	0.0061 U	0.0061 U
Toluene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.4	0.079 J	0.4 U	0.0061 U	0.0061 U
trans-1,2-Dichloroethene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
trans-1,3-Dichloropropene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Trichloroethene	mg/kg	10	400	0.0067 U	0.006 U	0.0062 U	0.083	0.51	0.5	6.8	0.058	0.076
Trichlorofluoromethane (CFC-11)	mg/kg	NC	NC	0.0067 UJ	0.006 U	0.0062 UJ	0.006 UJ	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 UJ
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Vinyl chloride	mg/kg	0.21	27	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U
Xylene (total)	mg/kg	100	1000	0.02 U	0.018 U	0.019 U	0.018 U	0.79 J	0.84 U	1.2 U	0.018 U	0.018 U

Notes:

[1] **-** Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-14*	*MW-17*	*SB-10-07*	*SB-1-07*	*SB-11-07*	*SB-12-07*	*SB-13-07*
Sample Name:				*SB-37191-050808-JP-011*	*SB-37191-050908-JP-002*	*SO-37191-072507-RN-SB-10*	*SO-37191-072507-RN-SB-1*	*SO-37191-072607-RN-SB-11*	*SO-37191-072607-RN-SB-12*	*SO-37191-072607-RN-SB-13*
Sample Date:				*5/8/2008*	*5/9/2008*	*7/25/2007*	*7/25/2007*	*7/26/2007*	*7/26/2007*	*7/26/2007*
Depth:				*0-2 ft BGS*	*0-2 ft BGS*	*3-8 ft BGS*	*2-4 ft BGS*	*2-6 ft BGS*	*3.5-6 ft BGS*	*6-8 ft BGS*
On/Off - Site				*Off-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
Parameters	*Units* [1]	*6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health* [2] *Residential*	*Industrial*							
Semivolatile Organic Compounds										
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
2,4,5-Trichlorophenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
2,4,6-Trichlorophenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
2,4-Dichlorophenol	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
2,4-Dimethylphenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
2,4-Dinitrophenol	mg/kg	NC	NC	2 U	1.9 U	2 UJ	2.3 UJ	2.2 UJ	2.1 UJ	2 UJ
2,4-Dinitrotoluene	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
2,6-Dinitrotoluene	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
2-Chloronaphthalene	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
2-Chlorophenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
2-Methylnaphthalene	mg/kg	NC	NC	0.022 J	0.17	0.079 U	0.076 J	0.089 U	0.083 U	0.082 U
2-Methylphenol	mg/kg	100	1000	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
2-Nitroaniline	mg/kg	NC	NC	2 U	1.9 U	2 U	2.3 U	2.2 U	2.1 U	2 U
2-Nitrophenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
3,3'-Dichlorobenzidine	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
3-Nitroaniline	mg/kg	NC	NC	2 U	1.9 U	2 U	2.3 U	2.2 U	2.1 U	2 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	NC	1.9 U	1.8 U	1.8 U	2.2 U	2.1 U	2 U	1.9 U
4-Bromophenyl phenyl ether	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
4-Chloro-3-methylphenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
4-Chloroaniline	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
4-Chlorophenyl phenyl ether	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
4-Methylphenol	mg/kg	34	1000	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
4-Nitroaniline	mg/kg	NC	NC	2 U	1.9 U	2 U	2.3 U	2.2 U	2.1 U	2 U
4-Nitrophenol	mg/kg	NC	NC	2 U	1.9 U	2 U	2.3 U	2.2 U	2.1 U	2 U
Acenaphthene	mg/kg	100	1000	0.082 U	0.11	0.079 U	0.093 U	0.027 J	0.083 U	0.082 U
Acenaphthylene	mg/kg	100	1000	0.047 J	0.96	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
Acetophenone	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Anthracene	mg/kg	100	1000	0.062 J	1.4	0.028 J	0.093 U	0.2	0.083 U	0.082 U
Atrazine	mg/kg	NC	NC	0.4 U	0.38 U	0.39 UJ	0.46 UJ	0.44 UJ	0.41 UJ	0.4 U
Benzaldehyde	mg/kg	NC	NC	0.4 U	0.38 U	0.39 UJ	0.46 UJ	0.44 UJ	0.41 UJ	0.4 UJ
Benzo(a)anthracene	mg/kg	1	11	0.26	3.7	0.09	0.061 J	0.78	0.083 U	0.082 U
Benzo(a)pyrene	mg/kg	1	1.1	0.26	**2.8**	0.085	0.047 J	0.78	0.083 U	0.082 U
Benzo(b)fluoranthene	mg/kg	1	11	0.51	5	0.11	0.044 J	0.93	0.083 U	0.082 U
Benzo(g,h,i)perylene	mg/kg	100	1000	0.15	2.1	0.085	0.081 J	0.68	0.083 U	0.082 U
Benzo(k)fluoranthene	mg/kg	1	110	0.082 U	0.077 U	0.045 J	0.022 J	0.3	0.083 U	0.082 U
Biphenyl (1,1-Biphenyl)	mg/kg	NC	NC	0.4 U	0.057 J	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
bis(2-Chloroethoxy)methane	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
bis(2-Chloroethyl)ether	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	NC	0.4 U	0.72	0.087 J	0.46 U	0.44 U	0.11 J	0.051 J
Butyl benzylphthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Caprolactam	mg/kg	NC	NC	0.085 J	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Carbazole	mg/kg	NC	NC	0.031 J	0.4	0.079 U	0.093 U	0.042 J	0.083 U	0.082 U
Chrysene	mg/kg	1	110	0.31	2.9	0.087	0.1	0.7	0.083 U	0.082 U
Dibenz(a,h)anthracene	mg/kg	0.33	1.1	0.04 J	0.66	0.079 U	0.093 U	0.09	0.083 U	0.082 U
Dibenzofuran	mg/kg	14	1000	0.4 U	0.37 J	0.39 U	0.036 J	0.03 J	0.41 U	0.4 U
Diethyl phthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.54	0.26 J	0.41 U	0.039 J
Dimethyl phthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Di-n-butylphthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Di-n-octyl phthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Fluoranthene	mg/kg	100	1000	0.52	7.1	0.15	0.11	1.3	0.083 U	0.082 U

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-14*	*MW-17*	*SB-10-07*	*SB-1-07*	*SB-11-07*	*SB-12-07*	*SB-13-07*
Sample Name:				*SB-37191-050808-JP-011*	*SB-37191-050908-JP-002*	*SO-37191-072507-RN-SB-10*	*SO-37191-072507-RN-SB-1*	*SO-37191-072607-RN-SB-11*	*SO-37191-072607-RN-SB-12*	*SO-37191-072607-RN-SB-13*
Sample Date:				*5/8/2008*	*5/9/2008*	*7/25/2007*	*7/25/2007*	*7/26/2007*	*7/26/2007*	*7/26/2007*
Depth:				*0-2 ft BGS*	*0-2 ft BGS*	*3-8 ft BGS*	*2-4 ft BGS*	*2-6 ft BGS*	*3.5-6 ft BGS*	*6-8 ft BGS*
On/Off - Site				*Off-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]								
Parameters	*Units*[1]	*Residential*	*Industrial*							
Fluorene	mg/kg	100	1000	0.082 U	0.36	0.079 U	0.093 U	0.034 J	0.083 U	0.082 U
Hexachlorobenzene	mg/kg	0.33	12	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
Hexachlorobutadiene	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
Hexachlorocyclopentadiene	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Hexachloroethane	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	11	0.14	2.1	0.076 J	0.055 J	0.55	0.083 U	0.082 U
Isophorone	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Naphthalene	mg/kg	100	1000	0.023 J	0.15	0.079 U	0.041 J	0.024 J	0.083 U	0.082 U
Nitrobenzene	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
N-Nitrosodi-n-propylamine	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
N-Nitrosodiphenylamine	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Pentachlorophenol	mg/kg	2.4	55	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Phenanthrene	mg/kg	100	1000	0.22	4.4	0.1	0.15	0.6	0.083 U	0.082 U
Phenol	mg/kg	100	1000	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
Pyrene	mg/kg	100	1000	0.37	5.1	0.13	0.12	1.3	0.083 U	0.082 U

Notes:

[1] **-** Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*SB-14-07*	*SB-15-07*	*SB-16-07*	*SB-17-07*	*SB-17-07*	*SB-18-07*	*SB-18-08*
Sample Name:				*SO-37191-072607-RN-SB-14*	*SO-37191-072607-RN-SB-15*	*SO-37191-072607-RN-SB-16*	*SO-37191-072707-RN-SB-17*	*SO-37191-072707-RN-SB-27*	*SO-37191-073007-CB-SB18*	*SB-37191-050908-JP-001*
Sample Date:				*7/26/2007*	*7/26/2007*	*7/26/2007*	*7/27/2007*	*7/27/2007*	*7/30/2007*	*5/9/2008*
Depth:				*4-8 ft BGS*	*4-8 ft BGS*	*4-8 ft BGS*	*6-10 ft BGS*	*6-10 ft BGS*	*4-7.2 ft BGS*	*0-2 ft BGS*
On/Off - Site				*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*Off-Site*	*On-Site*
								Dupilcate		
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]								
Parameters	*Units*[1]	*Residential*	*Industrial*							
Semivolatile Organic Compounds										
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
2,4,5-Trichlorophenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
2,4,6-Trichlorophenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
2,4-Dichlorophenol	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
2,4-Dimethylphenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
2,4-Dinitrophenol	mg/kg	NC	NC	1.9 UJ	2 UJ	2.2 UJ	2.4 UJ	1.9 UJ	1.7 UJ	4 U
2,4-Dinitrotoluene	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
2,6-Dinitrotoluene	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
2-Chloronaphthalene	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
2-Chlorophenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
2-Methylnaphthalene	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
2-Methylphenol	mg/kg	100	1000	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
2-Nitroaniline	mg/kg	NC	NC	1.9 U	2 U	2.2 U	2.4 U	1.9 U	1.7 U	4 U
2-Nitrophenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
3,3'-Dichlorobenzidine	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
3-Nitroaniline	mg/kg	NC	NC	1.9 U	2 U	2.2 U	2.4 U	1.9 U	1.7 U	4 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	NC	1.8 U	1.9 U	2.1 U	2.3 U	1.8 U	1.6 U	3.8 U
4-Bromophenyl phenyl ether	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
4-Chloro-3-methylphenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
4-Chloroaniline	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
4-Chlorophenyl phenyl ether	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
4-Methylphenol	mg/kg	34	1000	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
4-Nitroaniline	mg/kg	NC	NC	1.9 U	2 U	2.2 U	2.4 U	1.9 U	1.7 U	4 U
4-Nitrophenol	mg/kg	NC	NC	1.9 U	2 U	2.2 U	2.4 U	1.9 U	1.7 U	4 U
Acenaphthene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Acenaphthylene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.059 J
Acetophenone	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Anthracene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.065 J
Atrazine	mg/kg	NC	NC	0.38 U	0.4 UJ	0.44 U	0.48 UJ	0.38 UJ	0.34 UJ	0.79 U
Benzaldehyde	mg/kg	NC	NC	0.38 UJ	0.4 UJ	0.44 UJ	0.48 UJ	0.38 UJ	0.34 U	0.79 U
Benzo(a)anthracene	mg/kg	1	11	0.077 U	0.082 U	0.09 U	0.084 J	0.076 U	0.055 J	0.23
Benzo(a)pyrene	mg/kg	1	1.1	0.077 U	0.082 U	0.09 U	0.089 J	0.013 J	0.054 J	0.21
Benzo(b)fluoranthene	mg/kg	1	11	0.077 U	0.082 U	0.09 U	0.1	0.076 U	0.069 J	0.35
Benzo(g,h,i)perylene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.042 J	0.076 U	0.07 U	0.14 J
Benzo(k)fluoranthene	mg/kg	1	110	0.077 U	0.082 U	0.09 U	0.028 J	0.076 U	0.034 J	0.16 U
Biphenyl (1,1-Biphenyl)	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
bis(2-Chloroethoxy)methane	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
bis(2-Chloroethyl)ether	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.23 J	0.38 U	0.34 U	0.2 J
Butyl benzylphthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Caprolactam	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Carbazole	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.059 J
Chrysene	mg/kg	1	110	0.077 U	0.082 U	0.09 U	0.089 J	0.076 U	0.06 J	0.21
Dibenz(a,h)anthracene	mg/kg	0.33	1.1	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Dibenzofuran	mg/kg	14	1000	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Diethyl phthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.058 J	0.11 J	0.38 U	0.34 U	0.79 U
Dimethyl phthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Di-n-butylphthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Di-n-octyl phthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Fluoranthene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.13	0.076 U	0.056 J	0.42

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*SB-14-07*	*SB-15-07*	*SB-16-07*	*SB-17-07*	*SB-17-07*	*SB-18-07*	*SB-18-08*
Sample Name:				*SO-37191-072607-RN-SB-14*	*SO-37191-072607-RN-SB-15*	*SO-37191-072607-RN-SB-16*	*SO-37191-072707-RN-SB-17*	*SO-37191-072707-RN-SB-27*	*SO-37191-073007-CB-SB18*	*SB-37191-050908-JP-001*
Sample Date:				*7/26/2007*	*7/26/2007*	*7/26/2007*	*7/27/2007*	*7/27/2007*	*7/30/2007*	*5/9/2008*
Depth:				*4-8 ft BGS*	*4-8 ft BGS*	*4-8 ft BGS*	*6-10 ft BGS*	*6-10 ft BGS*	*4-7.2 ft BGS*	*0-2 ft BGS*
On/Off - Site				*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*Off-Site*	*On-Site*
								Dupilcate		
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]								
Parameters	*Units*[1]	*Residential*	*Industrial*							
Fluorene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Hexachlorobenzene	mg/kg	0.33	12	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Hexachlorobutadiene	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Hexachlorocyclopentadiene	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Hexachloroethane	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	11	0.077 U	0.082 U	0.09 U	0.042 J	0.076 U	0.07 U	0.13 J
Isophorone	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Naphthalene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Nitrobenzene	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
N-Nitrosodi-n-propylamine	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
N-Nitrosodiphenylamine	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Pentachlorophenol	mg/kg	2.4	55	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Phenanthrene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.081 J	0.076 U	0.07 U	0.23
Phenol	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Pyrene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.12	0.076 U	0.046 J	0.34

Notes:

[1] **-** Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*SB-2-07*	*SB-2-07*	*SB-3-07*	*SB-4-07*	*SB-5-07*	*SB-6-07*	*SB-6-07*
Sample Name:				*SO-37191-072707-RN-SB-2*	*SO-37191-072707-RN-SB-20*	*SO-37191-072707-RN-SB-3*	*SO-37191-072707-RN-SB-4*	*SO-37191-072507-RN-SB-05*	*SO-37191-073007-CB-SB6*	*SO-37191-073007-CB-SB19*
Sample Date:				*7/27/2007*	*7/27/2007*	*7/27/2007*	*7/27/2007*	*7/25/2007*	*7/30/2007*	*7/30/2007*
Depth:				*6.5-8 ft BGS*	*6.5-8 ft BGS*	*10-13 ft BGS*	*2-4 ft BGS*	*4-8 ft BGS*	*6-10.4 ft BGS*	*6-10.4 ft BGS*
On/Off - Site				*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
					Duplicate				*Duplicate*	
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]								
Parameters	*Units*[1]	*Residential*	*Industrial*							
Semivolatile Organic Compounds										
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
2,4,5-Trichlorophenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2,4,6-Trichlorophenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2,4-Dichlorophenol	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
2,4-Dimethylphenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2,4-Dinitrophenol	mg/kg	NC	NC	4.1 UJ	4.4 UJ	2 UJ	2.1 UJ	2 UJ	1.9 UJ	1.9 UJ
2,4-Dinitrotoluene	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2,6-Dinitrotoluene	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2-Chloronaphthalene	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
2-Chlorophenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2-Methylnaphthalene	mg/kg	NC	NC	0.12 J	0.17 J	0.08 U	0.061 J	0.081 U	0.075 U	0.045 J
2-Methylphenol	mg/kg	100	1000	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2-Nitroaniline	mg/kg	NC	NC	4.1 U	4.4 U	2 U	2.1 U	2 U	1.9 U	1.9 U
2-Nitrophenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
3,3'-Dichlorobenzidine	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
3-Nitroaniline	mg/kg	NC	NC	4.1 U	4.4 U	2 U	2.1 U	2 U	1.9 U	1.9 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	NC	3.9 U	4.2 U	1.9 U	1.9 U	1.9 U	1.7 U	1.7 U
4-Bromophenyl phenyl ether	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Chloro-3-methylphenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Chloroaniline	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Chlorophenyl phenyl ether	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Methylphenol	mg/kg	34	1000	0.06 J	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Nitroaniline	mg/kg	NC	NC	4.1 U	4.4 U	2 U	2.1 U	2 U	1.9 U	1.9 U
4-Nitrophenol	mg/kg	NC	NC	4.1 U	4.4 U	2 U	2.1 U	2 U	1.9 U	1.9 U
Acenaphthene	mg/kg	100	1000	0.25	0.47	0.08 U	0.084	0.081 U	0.041 J	0.096
Acenaphthylene	mg/kg	100	1000	0.062 J	0.12 J	0.08 U	0.065 J	0.081 U	0.075 U	0.074 U
Acetophenone	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Anthracene	mg/kg	100	1000	0.53	1.2	0.08 U	0.23	0.081 U	0.089	0.22
Atrazine	mg/kg	NC	NC	0.82 UJ	0.88 UJ	0.39 UJ	0.41 UJ	0.4 UJ	0.37 U	0.37 UJ
Benzaldehyde	mg/kg	NC	NC	0.82 UJ	0.88 UJ	0.39 UJ	0.41 UJ	0.4 UJ	0.37 UJ	0.37 U
Benzo(a)anthracene	mg/kg	1	11	1.5	3	0.08 U	0.66	0.081 U	0.2	0.37
Benzo(a)pyrene	mg/kg	1	1.1	**1.4**	**2.7**	0.08 U	0.66	0.081 U	0.15	0.28
Benzo(b)fluoranthene	mg/kg	1	11	1.6	3.3	0.08 U	0.81	0.081 U	0.2	0.48
Benzo(g,h,i)perylene	mg/kg	100	1000	1	2	0.08 U	0.52	0.081 U	0.095	0.15
Benzo(k)fluoranthene	mg/kg	1	110	0.73	1.3	0.08 U	0.28	0.081 U	0.085	0.074 U
Biphenyl (1,1-Biphenyl)	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
bis(2-Chloroethoxy)methane	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
bis(2-Chloroethyl)ether	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	NC	0.26 J	0.88 U	0.081 J	0.41 U	0.1 J	0.098 J	0.37 U
Butyl benzylphthalate	mg/kg	NC	NC	0.82 U	0.12 J	0.39 U	0.036 J	0.4 U	0.37 U	0.37 U
Caprolactam	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Carbazole	mg/kg	NC	NC	0.23	0.67	0.08 U	0.088	0.081 U	0.044 J	0.12
Chrysene	mg/kg	1	110	1.4	2.7	0.08 U	0.65	0.081 U	0.19	0.33
Dibenz(a,h)anthracene	mg/kg	0.33	1.1	0.23	0.46	0.08 U	0.12	0.081 U	0.075 U	0.074 U
Dibenzofuran	mg/kg	14	1000	0.23 J	0.36 J	0.39 U	0.072 J	0.4 U	0.04 J	0.1 J
Diethyl phthalate	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Dimethyl phthalate	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Di-n-butylphthalate	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Di-n-octyl phthalate	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Fluoranthene	mg/kg	100	1000	2.7	6.2	0.08 U	1.2	0.081 U	0.44	0.96

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*SB-2-07*	*SB-2-07*	*SB-3-07*	*SB-4-07*	*SB-5-07*	*SB-6-07*	*SB-6-07*
Sample Name:				*SO-37191-072707-RN-SB-2*	*SO-37191-072707-RN-SB-20*	*SO-37191-072707-RN-SB-3*	*SO-37191-072707-RN-SB-4*	*SO-37191-072507-RN-SB-05*	*SO-37191-073007-CB-SB6*	*SO-37191-073007-CB-SB19*
Sample Date:				*7/27/2007*	*7/27/2007*	*7/27/2007*	*7/27/2007*	*7/25/2007*	*7/30/2007*	*7/30/2007*
Depth:				*6.5-8 ft BGS*	*6.5-8 ft BGS*	*10-13 ft BGS*	*2-4 ft BGS*	*4-8 ft BGS*	*6-10.4 ft BGS*	*6-10.4 ft BGS*
On/Off - Site				*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*	*On-Site*
					Duplicate				*Duplicate*	
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]								
Parameters	*Units*[1]	*Residential*	*Industrial*							
Fluorene	mg/kg	100	1000	0.24	0.53	0.08 U	0.1	0.081 U	0.053 J	0.12
Hexachlorobenzene	mg/kg	0.33	12	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
Hexachlorobutadiene	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
Hexachlorocyclopentadiene	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Hexachloroethane	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	11	0.94	1.8	0.08 U	0.45	0.081 U	0.079	0.12
Isophorone	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Naphthalene	mg/kg	100	1000	0.16 J	0.29	0.08 U	0.086	0.081 U	0.037 J	0.11
Nitrobenzene	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
N-Nitrosodi-n-propylamine	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
N-Nitrosodiphenylamine	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Pentachlorophenol	mg/kg	2.4	55	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Phenanthrene	mg/kg	100	1000	2.1	5	0.08 U	0.79	0.081 U	0.44	0.97
Phenol	mg/kg	100	1000	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
Pyrene	mg/kg	100	1000	2.9	5.4	0.08 U	1.1	0.081 U	0.4	0.78

Notes:

[1] **-** Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				***SB-7-07***	***SB-8-07***	***SB-9-07***
Sample Name:				***SO-37191-072507-RN-SB-7***	***SO-37191-072507-RN-SB-8***	***SO-37191-072507-RN-SB-9***
Sample Date:				***7/25/2007***	***7/25/2007***	***7/25/2007***
Depth:				***3-6 ft BGS***	***3.5-8 ft BGS***	***3-6 ft BGS***
On/Off - Site				***On-Site***	***On-Site***	***On-Site***
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health[2]				
Parameters	***Units[1]***	***Residential***	***Industrial***			
Semivolatile Organic Compounds						
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
2,4,5-Trichlorophenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2,4,6-Trichlorophenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2,4-Dichlorophenol	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
2,4-Dimethylphenol	mg/kg	NC	NC	0.1 J	0.41 U	0.4 U
2,4-Dinitrophenol	mg/kg	NC	NC	5.3 UJ	2.1 UJ	2 UJ
2,4-Dinitrotoluene	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2,6-Dinitrotoluene	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2-Chloronaphthalene	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
2-Chlorophenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2-Methylnaphthalene	mg/kg	NC	NC	0.9	0.074 J	0.082 U
2-Methylphenol	mg/kg	100	1000	1.1 U	0.41 U	0.4 U
2-Nitroaniline	mg/kg	NC	NC	5.3 U	2.1 U	2 U
2-Nitrophenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
3,3'-Dichlorobenzidine	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
3-Nitroaniline	mg/kg	NC	NC	5.3 U	2.1 U	2 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	NC	5 U	1.9 U	1.9 U
4-Bromophenyl phenyl ether	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
4-Chloro-3-methylphenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
4-Chloroaniline	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
4-Chlorophenyl phenyl ether	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
4-Methylphenol	mg/kg	34	1000	0.19 J	0.41 U	0.4 U
4-Nitroaniline	mg/kg	NC	NC	5.3 U	2.1 U	2 U
4-Nitrophenol	mg/kg	NC	NC	5.3 U	2.1 U	2 U
Acenaphthene	mg/kg	100	1000	0.69	0.032 J	0.082 U
Acenaphthylene	mg/kg	100	1000	4.5	0.029 J	0.082 U
Acetophenone	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Anthracene	mg/kg	100	1000	6	0.29	0.082 U
Atrazine	mg/kg	NC	NC	1.1 UJ	0.41 UJ	0.4 UJ
Benzaldehyde	mg/kg	NC	NC	1.1 UJ	0.41 UJ	0.4 UJ
Benzo(a)anthracene	mg/kg	1	11	**15**	0.82	0.04 J
Benzo(a)pyrene	mg/kg	1	1.1	**14**	0.69	0.053 J
Benzo(b)fluoranthene	mg/kg	1	11	**17**	0.91	0.071 J
Benzo(g,h,i)perylene	mg/kg	100	1000	9.2	0.56	0.059 J
Benzo(k)fluoranthene	mg/kg	1	110	4.5	0.31	0.024 J
Biphenyl (1,1-Biphenyl)	mg/kg	NC	NC	0.22 J	0.41 U	0.4 U
bis(2-Chloroethoxy)methane	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
bis(2-Chloroethyl)ether	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	NC	1.1 U	0.41 U	0.082 J
Butyl benzylphthalate	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Caprolactam	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Carbazole	mg/kg	NC	NC	1.1	0.087	0.082 U
Chrysene	mg/kg	1	110	13	0.79	0.045 J
Dibenz(a,h)anthracene	mg/kg	0.33	1.1	**2.4**	0.14	0.082 U
Dibenzofuran	mg/kg	14	1000	1.6	0.043 J	0.4 U
Diethyl phthalate	mg/kg	NC	NC	0.29 J	0.41 U	0.4 U
Dimethyl phthalate	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Di-n-butylphthalate	mg/kg	NC	NC	0.2 J	1	0.4 U
Di-n-octyl phthalate	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Fluoranthene	mg/kg	100	1000	30	1.4	0.054 J

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE
SOIL
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				***SB-7-07***	***SB-8-07***	***SB-9-07***
Sample Name:				***SO-37191-072507-RN-SB-7***	***SO-37191-072507-RN-SB-8***	***SO-37191-072507-RN-SB-9***
Sample Date:				***7/25/2007***	***7/25/2007***	***7/25/2007***
Depth:				***3-6 ft BGS***	***3.5-8 ft BGS***	***3-6 ft BGS***
On/Off - Site				***On-Site***	***On-Site***	***On-Site***
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health [2]				
Parameters	***Units*** [1]	***Residential***	***Industrial***			
Fluorene	mg/kg	100	1000	2.5	0.06 J	0.082 U
Hexachlorobenzene	mg/kg	0.33	12	0.21 U	0.082 U	0.082 U
Hexachlorobutadiene	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
Hexachlorocyclopentadiene	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Hexachloroethane	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	11	8.5	0.48	0.049 J
Isophorone	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Naphthalene	mg/kg	100	1000	1.4	0.05 J	0.082 U
Nitrobenzene	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
N-Nitrosodi-n-propylamine	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
N-Nitrosodiphenylamine	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Pentachlorophenol	mg/kg	2.4	55	1.1 U	0.41 U	0.4 U
Phenanthrene	mg/kg	100	1000	20	0.93	0.032 J
Phenol	mg/kg	100	1000	0.21 U	0.082 U	0.082 U
Pyrene	mg/kg	100	1000	26	1.2	0.054 J

Notes:

[1] **-** Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

[2] - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.6

HERBICIDE, PCB, AND PESTICIDE ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BCP REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-9*	*MW-9*
Sample Name:				*WG-37191-082107-RN-001*	*WG-37191-082107-RN-002*	*WG-37191-052808-003*	*WG-37191-052808-004*	*WG-37191-082107-RN-007*	*WG-37191-052808-001*
Sample Date:				*8/21/2007*	*8/21/2007*	*5/28/2008*	*5/28/2008*	*8/21/2007*	*5/28/2008*
					Duplicate		*Duplicate*		
	Units	*New York State Water Quality Standards*	*Guidance Values*						
Herbicides									
2,4,5-T	ug/L	35	NC	0.95 U	1.1 U	0.95 U	0.95 U	0.96 U	0.94 U
2,4,5-TP (Silvex)	ug/L	0.26	NC	0.95 U	1.1 U	0.95 U	0.95 U	0.96 U	0.94 U
2,4-DB	ug/L	NC	NC	3.8 U	4.4 U	3.8 U	3.8 U	3.8 U	3.8 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	50	NC	3.8 U	4.4 U	3.8 U	3.8 U	3.8 U	3.8 U
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/L	0.44	NC	380 U	440 U	380 UJ	380 UJ	380 U	380 UJ
Dalapon	ug/L	50	NC	4.8 U	5.6 U	4.8 U	4.8 U	4.8 U	4.7 U
Dicamba	ug/L	0.44	NC	1.9 U	2.2 U	1.9 U	1.9 U	1.9 U	1.9 U
Dichlorprop	ug/L	NC	NC	3.8 U	4.4 U	3.8 U	3.8 U	3.8 U	3.8 U
Dinoseb	ug/L	1	NC	0.86 U	1.0 U	0.86 U	0.86 U	0.86 U	0.85 U
Mecoprop (MCPP)	ug/L	NC	NC	380 U	440 U	380 UJ	380 UJ	380 U	380 UJ
PCBs									
Aroclor-1016 (PCB-1016)	ug/L	0.09[1]	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U
Aroclor-1221 (PCB-1221)	ug/L	0.09[1]	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U
Aroclor-1232 (PCB-1232)	ug/L	0.09[1]	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U
Aroclor-1242 (PCB-1242)	ug/L	0.09[1]	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U
Aroclor-1248 (PCB-1248)	ug/L	0.09[1]	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U
Aroclor-1254 (PCB-1254)	ug/L	0.09[1]	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U
Aroclor-1260 (PCB-1260)	ug/L	0.09[1]	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U
Pesticides									
4,4'-DDD	ug/L	0.3	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
4,4'-DDE	ug/L	0.2	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
4,4'-DDT	ug/L	0.2	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
Aldrin	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
alpha-BHC	ug/L	0.01	NC	**0.021 J**	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
alpha-Chlordane	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
beta-BHC	ug/L	0.04	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
delta-BHC	ug/L	0.04	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.081 U	0.047 U
Dieldrin	ug/L	0.004	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
Endosulfan I	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
Endosulfan II	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
Endosulfan sulfate	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.024 J	0.047 U
Endrin	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.011 J	0.047 U
Endrin aldehyde	ug/L	5	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
Endrin ketone	ug/L	5	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
gamma-BHC (Lindane)	ug/L	0.05	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
gamma-Chlordane	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
Heptachlor	ug/L	0.04	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
Heptachlor epoxide	ug/L	0.03	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U
Methoxychlor	ug/L	35	NC	0.10 U	0.10 U	0.094 U	0.095 U	0.10 U	0.094 U
Toxaphene	ug/L	0.06	NC	2.0 U	2.0 U	1.9 U	1.9 U	2.0 U	1.9 U

[1] - The standard applies to the sum of the substances
1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.7

METALS ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-5*	*MW-5*	*MW-6*	*MW-8*
Sample Name:				*WG-37191-082107-RN-001*	*WG-37191-082107-RN-002*	*WG-37191-052808-003*	*WG-37191-052808-004*	*WG-37191-082107-RN-003*	*WG-37191-052808-008*	*WG-37191-052808-002*	*WG-37191-082107-RN-006*
Sample Date:				*8/21/2007*	*8/21/2007*	*5/28/2008*	*5/28/2008*	*8/21/2007*	*5/28/2008*	*5/28/2008*	*8/21/2007*
					Duplicate		*Duplicate*				
		New York State Water Quality									
	Units	*Standards*	*Guidance Values*								
Metals											
Aluminum	ug/L	NC	NC	5110 J	4190 J	116 J	102 J	--	--	--	--
Antimony	ug/L	3	NC	**3.9 J**	**5.0 J**	10.0 U	10.0 U	--	--	--	--
Arsenic	ug/L	25	NC	4.7 J	4.1 J	10.0 U	10.0 U	--	--	--	--
Barium	ug/L	1000	NC	110 J	86.6 J	39.5 J	38.2 J	--	--	--	--
Beryllium	ug/L	NC	3	4.0 U	4.0 U	4.0 U	4.0 U	--	--	--	--
Cadmium	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
Calcium	ug/L	NC	NC	172000	165000	136000	140000	--	--	--	--
Chromium	ug/L	50	NC	13.6	10.2	5.0 U	5.0 U	--	--	--	--
Cobalt	ug/L	NC	NC	4.4 J	3.3 J	1.1 J	0.93 J	--	--	--	--
Copper	ug/L	200	NC	13.8 J	10.2 J	25.0 U	25.0 U	--	--	--	--
Iron	ug/L	300	NC	**6350**	**4850**	**653 J**	**504 J**	--	--	--	--
Lead	ug/L	25	NC	**56.8 J**	**30.0 J**	2.7 J	2.8 J	13.8	3.2	3.0 U	**33.6**
Magnesium	ug/L	NC	35000	**46300**	**44000**	**37400**	**38100**	--	--	--	--
Manganese	ug/L	300	NC	**915**	**860**	**858**	**864**	--	--	--	--
Mercury	ug/L	0.7	NC	0.097 J	0.20 U	0.20 U	0.20 U	--	--	--	--
Nickel	ug/L	100	NC	10.7 J	8.1 J	2.2 J	2.0 J	--	--	--	--
Potassium	ug/L	NC	NC	2470 J	2260 J	675 J	711 J	--	--	--	--
Selenium	ug/L	10	NC	2.6 J	5.0 U	5.0 U	5.0 U	--	--	--	--
Silver	ug/L	50	NC	2.1 J	1.2 J	5.0 U	5.0 U	--	--	--	--
Sodium	ug/L	20000	NC	**168000**	**173000**	**133000**	**145000**	--	--	--	--
Thallium	ug/L	NC	0.5	**3.2 J**	**5.0 J**	10.0 U	10.0 U	--	--	--	--
Vanadium	ug/L	NC	NC	18.8 J	21.6 J	1.3 J	50.0 U	--	--	--	--
Zinc	ug/L	NC	2000	67.4	40.9 U	20.0 U	20.0 U	--	--	--	--
Metals (Dissolved)											
Aluminum (Dissolved)	ug/L	NC	NC	200 U	200 U	200 U	200 U	--	--	--	--
Antimony (Dissolved)	ug/L	3	NC	10.0 U	10.0 U	10.0 U	10.0 U	--	--	--	--
Arsenic (Dissolved)	ug/L	25	NC	10.0 U	10.0 U	10.0 U	10.0 U	--	--	--	--
Barium (Dissolved)	ug/L	1000	NC	40.4 J	43.1 J	34.5 J	33.4 J	--	--	--	--
Beryllium (Dissolved)	ug/L	NC	3	4.0 U	4.0 U	4.0 U	4.0 U	--	--	--	--
Cadmium (Dissolved)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
Calcium (Dissolved)	ug/L	NC	NC	135000	144000	134000	133000	--	--	--	--
Chromium Total (Dissolved)	ug/L	50	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
Cobalt (Dissolved)	ug/L	NC	NC	50.0 U	50.0 U	1.2 J	0.87 J	--	--	--	--
Copper (Dissolved)	ug/L	200	NC	25.0 U	25.0 U	25.0 U	25.0 U	--	--	--	--
Iron (Dissolved)	ug/L	300	NC	100 U	100 U	218	207	--	--	--	--
Lead (Dissolved)	ug/L	25	NC	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium (Dissolved)	ug/L	NC	35000	**36000**	**38300**	**36700**	**36600**	--	--	--	--
Manganese (Dissolved)	ug/L	300	NC	**714**	**761**	**799**	**786**	--	--	--	--
Mercury (Dissolved)	ug/L	0.7	NC	0.062 J	0.20 U	0.20 U	0.20 U	--	--	--	--
Nickel (Dissolved)	ug/L	100	NC	1.4 J	1.2 J	2.1 J	1.9 J	--	--	--	--
Potassium (Dissolved)	ug/L	NC	NC	1290 J	1390 J	689 J	687 J	--	--	--	--
Selenium (Dissolved)	ug/L	10	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
Silver (Dissolved)	ug/L	50	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--
Sodium (Dissolved)	ug/L	20000	NC	**193000**	**192000**	**138000**	**144000**	--	--	--	--
Thallium (Dissolved)	ug/L	NC	0.5	10.0 U	10.0 U	10.0 U	10.0 U	--	--	--	--
Vanadium (Dissolved)	ug/L	NC	NC	11.8 J	10.7 J	1.6 J	2.2 J	--	--	--	--
Zinc (Dissolved)	ug/L	NC	2000	20.0 U	20.0 U	20.0 U	20.0 U	--	--	--	--
Wet Chemistry											
Cyanide (total)	ug/L	200	NC	10.0 U	6.4 J	3.4 J	2.9 J	--	--	--	--

Notes:
1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.7

METALS ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-8*	*MW-9*	*MW-9*	*MW-10*	*MW-11*	*MW-12*	*MW-12*	*MW-12*
Sample Name:				*WG-37191-052808-005*	*WG-37191-082107-RN-007*	*WG-37191-052808-001*	*WG-37191-091908-002*	*WG-37191-091908-001*	*WG-37191-082107-RN-004*	*WG-37191-082107-RN-005*	*WG-37191-052808-006*
Sample Date:				*5/28/2008*	*8/21/2007*	*5/28/2008*	*9/19/2008*	*9/19/2008*	*8/21/2007*	*8/21/2007*	*5/28/2008*
										Duplicate	
		New York State Water Quality									
	Units	*Standards*	*Guidance Values*								
Metals											
Aluminum	ug/L	NC	NC	--	8250 J	200 U	--	--	--	--	--
Antimony	ug/L	3	NC	--	**7.5 J**	10.0 U	--	--	--	--	--
Arsenic	ug/L	25	NC	--	9.4 J	10.0 U	--	--	--	--	--
Barium	ug/L	1000	NC	--	90.2 J	29.1 J	--	--	--	--	--
Beryllium	ug/L	NC	3	--	4.0 U	4.0 U	--	--	--	--	--
Cadmium	ug/L	5	NC	--	5.0 U	5.0 U	--	--	--	--	--
Calcium	ug/L	NC	NC	--	301000	217000	--	--	--	--	--
Chromium	ug/L	50	NC	--	14.5	5.0 U	--	--	--	--	--
Cobalt	ug/L	NC	NC	--	6.5 J	3.4 J	--	--	--	--	--
Copper	ug/L	200	NC	--	24.6 J	25.0 U	--	--	--	--	--
Iron	ug/L	300	NC	--	**14300**	**1620 J**	--	--	--	--	--
Lead	ug/L	25	NC	3.0 U	**28.7**	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	ug/L	NC	35000	--	**58500**	**36400**	--	--	--	--	--
Manganese	ug/L	300	NC	--	**472**	**317**	--	--	--	--	--
Mercury	ug/L	0.7	NC	--	0.088 J	0.20 U	--	--	--	--	--
Nickel	ug/L	100	NC	--	18.5 J	5.4 J	--	--	--	--	--
Potassium	ug/L	NC	NC	--	10600	7090	--	--	--	--	--
Selenium	ug/L	10	NC	--	5.0 U	5.0 U	--	--	--	--	--
Silver	ug/L	50	NC	--	1.3 J	5.0 U	--	--	--	--	--
Sodium	ug/L	20000	NC	--	**44700**	**32700**	--	--	--	--	--
Thallium	ug/L	NC	0.5	--	10.0 U	**3.7 J**	--	--	--	--	--
Vanadium	ug/L	NC	NC	--	17.9 J	1.1 J	--	--	--	--	--
Zinc	ug/L	NC	2000	--	93.3	20.0 U	--	--	--	--	--
Metals (Dissolved)											
Aluminum (Dissolved)	ug/L	NC	NC	--	200 U	200 U	--	--	--	--	--
Antimony (Dissolved)	ug/L	3	NC	--	**3.3 J**	10.0 U	--	--	--	--	--
Arsenic (Dissolved)	ug/L	25	NC	--	10.0 U	10.0 U	--	--	--	--	--
Barium (Dissolved)	ug/L	1000	NC	--	35.8 J	28.3 J	--	--	--	--	--
Beryllium (Dissolved)	ug/L	NC	3	--	4.0 U	4.0 U	--	--	--	--	--
Cadmium (Dissolved)	ug/L	5	NC	--	5.0 U	5.0 U	--	--	--	--	--
Calcium (Dissolved)	ug/L	NC	NC	--	249000	224000	--	--	--	--	--
Chromium Total (Dissolved)	ug/L	50	NC	--	5.0 U	5.0 U	--	--	--	--	--
Cobalt (Dissolved)	ug/L	NC	NC	--	50.0 U	3.2 J	--	--	--	--	--
Copper (Dissolved)	ug/L	200	NC	--	25.0 U	25.0 U	--	--	--	--	--
Iron (Dissolved)	ug/L	300	NC	--	100 U	**620**	--	--	--	--	--
Lead (Dissolved)	ug/L	25	NC	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium (Dissolved)	ug/L	NC	35000	--	**44700**	**38000**	--	--	--	--	--
Manganese (Dissolved)	ug/L	300	NC	--	221	296	--	--	--	--	--
Mercury (Dissolved)	ug/L	0.7	NC	--	0.067 J	0.20 U	--	--	--	--	--
Nickel (Dissolved)	ug/L	100	NC	--	4.5 J	5.6 J	--	--	--	--	--
Potassium (Dissolved)	ug/L	NC	NC	--	7610	7150	--	--	--	--	--
Selenium (Dissolved)	ug/L	10	NC	--	5.0 U	5.0 U	--	--	--	--	--
Silver (Dissolved)	ug/L	50	NC	--	5.0 U	5.0 U	--	--	--	--	--
Sodium (Dissolved)	ug/L	20000	NC	--	**43200**	**34300**	--	--	--	--	--
Thallium (Dissolved)	ug/L	NC	0.5	--	10.0 U	10.0 U	--	--	--	--	--
Vanadium (Dissolved)	ug/L	NC	NC	--	1.3 J	2.6 J	--	--	--	--	--
Zinc (Dissolved)	ug/L	NC	2000	--	20.0 U	20.0 U	--	--	--	--	--
Wet Chemistry											
Cyanide (total)	ug/L	200	NC	--	2.4 J	2.6 J	--	--	--	--	--

Notes:
1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.7

METALS ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-12*	*MW-17*
Sample Name:				*WG-37191-052808-007*	*WG-37191-052808-009*
Sample Date:				*5/28/2008*	*5/28/2008*
				Duplicate	
		New York State Water Quality			
	Units	*Standards*	*Guidance Values*		
Metals					
Aluminum	ug/L	NC	NC	--	--
Antimony	ug/L	3	NC	--	--
Arsenic	ug/L	25	NC	--	--
Barium	ug/L	1000	NC	--	--
Beryllium	ug/L	NC	3	--	--
Cadmium	ug/L	5	NC	--	--
Calcium	ug/L	NC	NC	--	--
Chromium	ug/L	50	NC	--	--
Cobalt	ug/L	NC	NC	--	--
Copper	ug/L	200	NC	--	--
Iron	ug/L	300	NC	--	--
Lead	ug/L	25	NC	3.0 U	3.0 U
Magnesium	ug/L	NC	35000	--	--
Manganese	ug/L	300	NC	--	--
Mercury	ug/L	0.7	NC	--	--
Nickel	ug/L	100	NC	--	--
Potassium	ug/L	NC	NC	--	--
Selenium	ug/L	10	NC	--	--
Silver	ug/L	50	NC	--	--
Sodium	ug/L	20000	NC	--	--
Thallium	ug/L	NC	0.5	--	--
Vanadium	ug/L	NC	NC	--	--
Zinc	ug/L	NC	2000	--	--
Metals (Dissolved)					
Aluminum (Dissolved)	ug/L	NC	NC	--	--
Antimony (Dissolved)	ug/L	3	NC	--	--
Arsenic (Dissolved)	ug/L	25	NC	--	--
Barium (Dissolved)	ug/L	1000	NC	--	--
Beryllium (Dissolved)	ug/L	NC	3	--	--
Cadmium (Dissolved)	ug/L	5	NC	--	--
Calcium (Dissolved)	ug/L	NC	NC	--	--
Chromium Total (Dissolved)	ug/L	50	NC	--	--
Cobalt (Dissolved)	ug/L	NC	NC	--	--
Copper (Dissolved)	ug/L	200	NC	--	--
Iron (Dissolved)	ug/L	300	NC	--	--
Lead (Dissolved)	ug/L	25	NC	3.0 U	3.0 U
Magnesium (Dissolved)	ug/L	NC	35000	--	--
Manganese (Dissolved)	ug/L	300	NC	--	--
Mercury (Dissolved)	ug/L	0.7	NC	--	--
Nickel (Dissolved)	ug/L	100	NC	--	--
Potassium (Dissolved)	ug/L	NC	NC	--	--
Selenium (Dissolved)	ug/L	10	NC	--	--
Silver (Dissolved)	ug/L	50	NC	--	--
Sodium (Dissolved)	ug/L	20000	NC	--	--
Thallium (Dissolved)	ug/L	NC	0.5	--	--
Vanadium (Dissolved)	ug/L	NC	NC	--	--
Zinc (Dissolved)	ug/L	NC	2000	--	--
Wet Chemistry					
Cyanide (total)	ug/L	200	NC	--	--

Notes:
1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*
Sample Name:				*WG-37191-082107-RN-001*	*WG-37191-082107-RN-002*	*WG-37191-052808-003*	*WG-37191-052808-004*	*GW-37191-011309-JJW-002*	*WG-37191-072209-037*
Sample Date:				*8/21/2007*	*8/21/2007*	*5/28/2008*	*5/28/2008*	*1/13/2009*	*7/22/2009*
					Duplicate		*Duplicate*		
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 UJ
1,1,2-Trichloroethane	ug/L	1	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,1-Dichloroethane	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,1-Dichloroethene	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,2,4-Trichlorobenzene	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	150 U	100 U	71 U	71 U	100 UJ	120 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,2-Dichlorobenzene	ug/L	3	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,2-Dichloroethane	ug/L	0.6	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,2-Dichloropropane	ug/L	1	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,3-Dichlorobenzene	ug/L	3	NC	150 U	100 U	71 U	71 U	100 U	120 U
1,4-Dichlorobenzene	ug/L	3	NC	150 U	100 U	71 U	71 U	100 U	120 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	150 U	100 U	71 U	71 U	100 UJ	120 U
2-Hexanone	ug/L	NC	50	150 U	100 U	71 U	71 U	100 UJ	120 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	150 U	100 U	71 U	71 U	100 UJ	120 U
Acetone	ug/L	NC	50	600 UJ	400 U	290 U	290 U	400 U	500 U
Benzene	ug/L	1	NC	150 U	100 U	71 U	71 U	100 U	120 U
Bromodichloromethane	ug/L	NC	50	150 U	100 U	71 U	71 U	100 U	120 U
Bromoform	ug/L	NC	50	150 U	100 U	71 U	71 U	100 U	120 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	150 U	100 U	71 U	71 U	100 UJ	120 U
Carbon disulfide	ug/L	60	60	150 U	100 U	71 U	71 U	100 U	120 U
Carbon tetrachloride	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
Chlorobenzene	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
Chloroethane	ug/L	5	NC	150 U	100 UJ	71 U	71 U	100 U	120 U
Chloroform (Trichloromethane)	ug/L	7	NC	150 U	100 U	71 U	71 U	100 U	120 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
cis-1,2-Dichloroethene	ug/L	5	NC	**2200 J**	**1100 J**	**1200**	**1300**	**1300**	**1600**
cis-1,3-Dichloropropene	ug/L	NC	NC	150 U	100 U	71 U	71 U	100 U	120 U
Cyclohexane	ug/L	NC	NC	150 U	100 U	71 U	71 U	100 U	120 U
Dibromochloromethane	ug/L	NC	50	150 U	100 U	71 U	71 U	100 U	120 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	150 UJ	100 U	71 U	71 U	100 U	120 U
Ethylbenzene	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
Isopropylbenzene	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
Methyl acetate	ug/L	NC	NC	150 U	100 U	71 U	71 U	100 U	120 UJ
Methyl cyclohexane	ug/L	NC	NC	150 U	100 U	71 U	71 U	100 U	120 U
Methyl Tert Butyl Ether	ug/L	NC	10	150 U	100 U	71 U	71 U	100 U	120 U
Methylene chloride	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
Styrene	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
Tetrachloroethene	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
Toluene	ug/L	5	NC	150 U	100 U	71 U	71 U	100 U	120 U
trans-1,2-Dichloroethene	ug/L	5	NC	**87 J**	**34 J**	**27 J**	**29 J**	**22 J**	**29 J**
trans-1,3-Dichloropropene	ug/L	NC	NC	150 U	100 U	71 U	71 U	100 U	120 U
Trichloroethene	ug/L	5	NC	**2000 J**	**1000 J**	**2200**	**2200**	**1500**	**2200**
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	150 U	100 U	71 U	71 U	100 UJ	120 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	150 UJ	100 UJ	71 U	71 U	100 U	120 U
Vinyl chloride	ug/L	2	NC	**31 J**	100 U	**17 J**	71 U	100 U	120 U
Xylene (total)	ug/L	NC	NC	450 U	300 U	210 U	210 U	300 U	380 U

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-4*
Sample Name:				*WG-37191-082107-RN-001*	*WG-37191-082107-RN-002*	*WG-37191-052808-003*	*WG-37191-052808-004*	*GW-37191-011309-JJW-002*	*WG-37191-072209-037*
Sample Date:				*8/21/2007*	*8/21/2007*	*5/28/2008*	*5/28/2008*	*1/13/2009*	*7/22/2009*
					Duplicate		*Duplicate*		
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Field Parameters									
Conductivity	mS/cm	NC	NC	4.23	--	54.4	--	0.354	1.495
Dissolved Oxygen	ug/L	NC	NC	--	--	4320	--	810	1450
Oxidation reduction potential	millivolts	NC	NC	--	--	8	--	--	-64
Temperature, Field	Deg C	NC	NC	14.8	--	--	--	8	18.35
Turbidity	NTU	5	NC	**736**	--	**218**	--	**14.7**	**20.9**
pH	pH units	6.5-8.5	NC	7.07	--	**6.48**	--	6.9	6.87

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-5*	*MW-5*	*MW-5*	*MW-5*	*MW-6*	*MW-6*
Sample Name:				*WG-37191-082107-RN-003*	*WG-37191-052808-008*	*GW-37191-012009-JJW-011*	*WG-37191-072209-040*	*WG-37191-052808-002*	*GW-37191-012009-JJW-009*
Sample Date:				*8/21/2007*	*5/28/2008*	*1/20/2009*	*7/22/2009*	*5/28/2008*	*1/20/2009*
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,1,2-Trichloroethane	ug/L	1	NC	**9800 J**	12000 U	25000 U	20000 U	59 U	50 U
1,1-Dichloroethane	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,1-Dichloroethene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,2,4-Trichlorobenzene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	**15 J**	50 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,2-Dichlorobenzene	ug/L	3	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,2-Dichloroethane	ug/L	0.6	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,2-Dichloropropane	ug/L	1	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,3-Dichlorobenzene	ug/L	3	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,4-Dichlorobenzene	ug/L	3	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 UJ
2-Hexanone	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 UJ
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 UJ
Acetone	ug/L	NC	50	50000 U	50000 U	100000 U	80000 U	240 U	200 U
Benzene	ug/L	1	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Bromodichloromethane	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Bromoform	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	12000 U	12000 U	25000 UJ	20000 U	59 U	50 UJ
Carbon disulfide	ug/L	60	60	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Carbon tetrachloride	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Chlorobenzene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Chloroethane	ug/L	5	NC	12000 UJ	12000 U	25000 UJ	20000 U	59 U	50 UJ
Chloroform (Trichloromethane)	ug/L	7	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
cis-1,2-Dichloroethene	ug/L	5	NC	**240000**	**150000**	**320000**	**310000**	**1600**	**1300**
cis-1,3-Dichloropropene	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Cyclohexane	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Dibromochloromethane	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Ethylbenzene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Isopropylbenzene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Methyl acetate	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Methyl cyclohexane	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Methyl Tert Butyl Ether	ug/L	NC	10	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Methylene chloride	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Styrene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Tetrachloroethene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	**13 J**	50 U
Toluene	ug/L	5	NC	12000 U	12000 U	25000 U	**96000**	59 U	50 U
trans-1,2-Dichloroethene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	**11 J**	**8.3 J**
trans-1,3-Dichloropropene	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Trichloroethene	ug/L	5	NC	**550000**	**310000**	**560000**	**410000**	**630**	**450 J**
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	12000 UJ	12000 U	25000 U	20000 U	59 U	50 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Vinyl chloride	ug/L	2	NC	12000 U	12000 U	25000 U	20000 U	**24 J**	**15 J**
Xylene (total)	ug/L	NC	NC	38000 U	38000 U	75000 U	17000 J	180 U	150 U

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-5*	*MW-5*	*MW-5*	*MW-5*	*MW-6*	*MW-6*
Sample Name:				*WG-37191-082107-RN-003*	*WG-37191-052808-008*	*GW-37191-012009-JJW-011*	*WG-37191-072209-040*	*WG-37191-052808-002*	*GW-37191-012009-JJW-009*
Sample Date:				*8/21/2007*	*5/28/2008*	*1/20/2009*	*7/22/2009*	*5/28/2008*	*1/20/2009*
	Units	*New York State Water Quality Standards*	*Guidance Values*						
Field Parameters									
Conductivity	mS/cm	NC	NC	2.53	1.7	1.08	1.9	31.2	0.87
Dissolved Oxygen	ug/L	NC	NC	--	2700	480	560	4500	4000
Oxidation reduction potential	millivolts	NC	NC	--	195	--	-43	22	--
Temperature, Field	Deg C	NC	NC	14.7	14	6.3	18.82	--	6
Turbidity	NTU	5	NC	**1000 >**	**61.3**	**28**	2.83	1.4	**23.2**
pH	pH units	6.5-8.5	NC	7.14	6.57	6.7	7.39	**6.43**	7.06

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-6*	*MW-7*	*MW-7*	*MW-8*	*MW-8*	*MW-8*
Sample Name:				*WG-37191-072209-035*	*GW-37191-012109-JJW-013*	*WG-37191-072209-030*	*WG-37191-082107-RN-006*	*WG-37191-052808-005*	*WG-37191-030509-001*
Sample Date:				*7/22/2009*	*1/21/2009*	*7/22/2009*	*8/21/2007*	*5/28/2008*	*3/5/2009*
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	50 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	50 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	50 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	50 U	2.8 J	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	ug/L	NC	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	NC	50	200 U	20 U	20 U	20 UJ	20 U	20 UJ
Benzene	ug/L	1	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	60	60	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	**740**	5.0 U	5.0 U	1.0 J	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	NC	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Ethylbenzene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	50 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	**290**	5.0 U	5.0 U	3.2 J	5.0 U	0.97 J
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	50 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylene (total)	ug/L	NC	NC	150 U	15 U	15 U	15 U	15 U	15 U

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-6*	*MW-7*	*MW-7*	*MW-8*	*MW-8*	*MW-8*
Sample Name:				*WG-37191-072209-035*	*GW-37191-012109-JJW-013*	*WG-37191-072209-030*	*WG-37191-082107-RN-006*	*WG-37191-052808-005*	*WG-37191-030509-001*
Sample Date:				*7/22/2009*	*1/21/2009*	*7/22/2009*	*8/21/2007*	*5/28/2008*	*3/5/2009*
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Field Parameters									
Conductivity	mS/cm	NC	NC	0.639	1.45	1.369	3.17	0.887	--
Dissolved Oxygen	ug/L	NC	NC	1900	0	510	--	540	--
Oxidation reduction potential	millivolts	NC	NC	-12	--	-22	--	45	--
Temperature, Field	Deg C	NC	NC	16.14	8.5	16.52	173	14	--
Turbidity	NTU	5	NC	2.16	**11.1**	**5.02**	**1000 >**	0	--
pH	pH units	6.5-8.5	NC	6.96	6.66	6.92	7.05	6.96	--

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-8*	*MW-9*	*MW-9*	*MW-9*	*MW-9*	*MW-10*
Sample Name:				*WG-37191-072109-018*	*WG-37191-082107-RN-007*	*WG-37191-052808-001*	*GW-37191-011909-JJW-006*	*WG-37191-072109-015*	*WG-37191-091908-002*
Sample Date:				*7/21/2009*	*8/21/2007*	*5/28/2008*	*1/19/2009*	*7/21/2009*	*9/19/2008*
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
1,2-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2-Hexanone	ug/L	NC	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	NC	50	20 UJ	20 UJ	20 U	20 U	20 UJ	20 U
Benzene	ug/L	1	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Carbon disulfide	ug/L	60	60	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.6 J
Dibromochloromethane	ug/L	NC	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
Methyl cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.7 J
Methyl Tert Butyl Ether	ug/L	NC	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	1.1 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylene (total)	ug/L	NC	NC	15 U	15 U	15 U	15 U	15 U	2.5 J

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-8*	*MW-9*	*MW-9*	*MW-9*	*MW-9*	*MW-10*
Sample Name:				*WG-37191-072109-018*	*WG-37191-082107-RN-007*	*WG-37191-052808-001*	*GW-37191-011909-JJW-006*	*WG-37191-072109-015*	*WG-37191-091908-002*
Sample Date:				*7/21/2009*	*8/21/2007*	*5/28/2008*	*1/19/2009*	*7/21/2009*	*9/19/2008*
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Field Parameters									
Conductivity	mS/cm	NC	NC	1.81	1.69	1.47	0.667	1.76	--
Dissolved Oxygen	ug/L	NC	NC	630	--	170	2100	1410	--
Oxidation reduction potential	millivolts	NC	NC	-121	--	56	--	38	--
Temperature, Field	Deg C	NC	NC	18.4	15.7	13.2	5.1	16.5	--
Turbidity	NTU	5	NC	**15.9**	**1000 >**	**8.2**	**6**	**13.4**	--
pH	pH units	6.5-8.5	NC	7.13	7.3	**6.34**	7.01	6.66	--

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-10*	*MW-10*	*MW-11*	*MW-11*	*MW-11*	*MW-11*
Sample Name:				*GW-37191-012209-JJW-015*	*WG-37191-072009-011*	*WG-37191-091908-001*	*GW-37191-012209-JJW-016*	*GW-37191-012209-JJW-017*	*WG-37191-072009-006*
Sample Date:				*1/22/2009*	*7/20/2009*	*9/19/2008*	*1/22/2009*	*1/22/2009*	*7/20/2009*
								Duplicate	
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	1.5 J
1,2,4-Trichlorobenzene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	5.0 UJ	5.0 U	250 U	25 U	25 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	5.0 U	5.0 U	250 UJ	25 U	25 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	3.6 J	5.0 U	250 U	25 U	25 U	5.0 U
2-Hexanone	ug/L	NC	50	5.0 UJ	5.0 U	250 U	25 U	25 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	5.0 UJ	5.0 U	250 U	25 U	25 U	5.0 U
Acetone	ug/L	NC	50	20 UJ	20 UJ	1000 U	100 U	100 U	12 J
Benzene	ug/L	1	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Bromodichloromethane	ug/L	NC	50	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Bromoform	ug/L	NC	50	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Carbon disulfide	ug/L	60	60	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Chlorobenzene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Chloroethane	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	**3500**	**610**	**620**	**350**
cis-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Dibromochloromethane	ug/L	NC	50	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	5.0 UJ	5.0 U	250 U	25 U	25 U	5.0 U
Ethylbenzene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Isopropylbenzene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Methyl acetate	ug/L	NC	NC	5.0 UJ	5.0 U	250 UJ	25 U	25 U	5.0 U
Methyl cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Methylene chloride	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Styrene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Tetrachloroethene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Toluene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	**5.6**
trans-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Trichloroethene	ug/L	5	NC	5.0 U	0.86 J	**1700**	**280**	**280**	**120**
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	5.0 U	5.0 U	250 U	25 UJ	25 UJ	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Vinyl chloride	ug/L	2	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Xylene (total)	ug/L	NC	NC	15 U	15 U	750 U	75 U	75 U	15 U

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-10*	*MW-10*	*MW-11*	*MW-11*	*MW-11*	*MW-11*
Sample Name:				*GW-37191-012209-JJW-015*	*WG-37191-072009-011*	*WG-37191-091908-001*	*GW-37191-012209-JJW-016*	*GW-37191-012209-JJW-017*	*WG-37191-072009-006*
Sample Date:				*1/22/2009*	*7/20/2009*	*9/19/2008*	*1/22/2009*	*1/22/2009*	*7/20/2009*
								Duplicate	
	Units	*New York State Water Quality Standards*	*Guidance Values*						
Field Parameters									
Conductivity	mS/cm	NC	NC	0.001	1.147	--	0.002	0.002	1.351
Dissolved Oxygen	ug/L	NC	NC	11500	1390	--	10100	10100	1280
Oxidation reduction potential	millivolts	NC	NC	--	133	--	--	--	71
Temperature, Field	Deg C	NC	NC	7.3	17.82	--	8.2	8.2	20.82
Turbidity	NTU	5	NC	**241**	0.53	--	**235**	**235**	**20.2**
pH	pH units	6.5-8.5	NC	7.39	7.96	--	7.65	7.65	7.65

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*
Sample Name:				*WG-37191-082107-RN-004*	*WG-37191-082107-RN-005*	*WG-37191-052808-006*	*WG-37191-052808-007*	*GW-37191-011309-JJW-005*	*WG-37191-072209-036*
Sample Date:				*8/21/2007*	*8/21/2007*	*5/28/2008*	*5/28/2008*	*1/13/2009*	*7/22/2009*
					Duplicate		*Duplicate*		
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 UJ
1,1,2-Trichloroethane	ug/L	1	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,1-Dichloroethane	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,1-Dichloroethene	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,2,4-Trichlorobenzene	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	15000 U	1200 U	2500 U	2500 U	50 UJ	120 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,2-Dichlorobenzene	ug/L	3	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,2-Dichloroethane	ug/L	0.6	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,2-Dichloropropane	ug/L	1	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,3-Dichlorobenzene	ug/L	3	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
1,4-Dichlorobenzene	ug/L	3	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	15000 U	1200 U	2500 U	2500 U	50 UJ	120 U
2-Hexanone	ug/L	NC	50	15000 U	1200 U	2500 U	2500 U	50 UJ	120 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	15000 U	1200 U	2500 U	2500 U	50 UJ	120 U
Acetone	ug/L	NC	50	60000 UJ	5000 U	10000 U	10000 U	200 U	500 U
Benzene	ug/L	1	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Bromodichloromethane	ug/L	NC	50	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Bromoform	ug/L	NC	50	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 UJ	120 U
Carbon disulfide	ug/L	60	60	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Carbon tetrachloride	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Chlorobenzene	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Chloroethane	ug/L	5	NC	15000 U	1200 UJ	2500 U	2500 U	50 U	120 U
Chloroform (Trichloromethane)	ug/L	7	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
cis-1,2-Dichloroethene	ug/L	5	NC	**65000 J**	**25000 J**	**15000**	**16000**	**340**	**1100**
cis-1,3-Dichloropropene	ug/L	NC	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Cyclohexane	ug/L	NC	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Dibromochloromethane	ug/L	NC	50	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	15000 UJ	1200 U	2500 U	2500 U	50 U	120 U
Ethylbenzene	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Isopropylbenzene	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Methyl acetate	ug/L	NC	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 UJ
Methyl cyclohexane	ug/L	NC	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Methyl Tert Butyl Ether	ug/L	NC	10	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Methylene chloride	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Styrene	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Tetrachloroethene	ug/L	5	NC	15000 U	1200 U	**640 J**	**710 J**	50 U	**63 J**
Toluene	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	**10 J**	120 U
trans-1,2-Dichloroethene	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
trans-1,3-Dichloropropene	ug/L	NC	NC	15000 U	1200 U	2500 U	2500 U	50 U	120 U
Trichloroethene	ug/L	5	NC	**190000 J**	**26000 J**	**81000**	**88000**	**570**	**4400**
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	15000 U	1200 U	2500 U	2500 U	50 UJ	120 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	15000 UJ	1200 UJ	2500 U	2500 U	50 U	120 U
Vinyl chloride	ug/L	2	NC	15000 U	**760 J**	**760 J**	**910 J**	50 U	120 U
Xylene (total)	ug/L	NC	NC	45000 U	3800 U	7500 U	7500 U	150 U	380 U

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*	*MW-12*
Sample Name:				*WG-37191-082107-RN-004*	*WG-37191-082107-RN-005*	*WG-37191-052808-006*	*WG-37191-052808-007*	*GW-37191-011309-JJW-005*	*WG-37191-072209-036*
Sample Date:				*8/21/2007*	*8/21/2007*	*5/28/2008*	*5/28/2008*	*1/13/2009*	*7/22/2009*
					Duplicate		*Duplicate*		
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Field Parameters									
Conductivity	mS/cm	NC	NC	2.17	--	99.9 >	--	0.23	0.817
Dissolved Oxygen	ug/L	NC	NC	--	--	3240	--	3200	800
Oxidation reduction potential	millivolts	NC	NC	--	--	94	--	--	39
Temperature, Field	Deg C	NC	NC	14.1	--	--	--	6.4	17.89
Turbidity	NTU	5	NC	**102**	--	**221**	--	**16.1**	**46.9**
pH	pH units	6.5-8.5	NC	7.26	--	**6.43**	--	6.87	7.37

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-17*	*MW-17*	*MW-17*	*MW-18*	*MW-18*	*MW-18*
Sample Name:				*WG-37191-052808-009*	*GW-37191-012009-JJW-010*	*WG-37191-072009-013*	*GW-37191-011309-JJW-003*	*GW-37191-011309-JJW-004*	*WG-37191-072209-042*
Sample Date:				*5/28/2008*	*1/20/2009*	*7/20/2009*	*1/13/2009*	*1/13/2009*	*7/22/2009*
								Duplicate	
		New York State Water Quality							
	Units	*Standards*	*Guidance Values*						
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 UJ
1,1,2-Trichloroethane	ug/L	1	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,1-Dichloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,1-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,2,4-Trichlorobenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	5.0 U	5.0 U	5.0 U	25 UJ	50 UJ	50 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,2-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,2-Dichloroethane	ug/L	0.6	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,2-Dichloropropane	ug/L	1	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,3-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
1,4-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	5.0 U	5.0 U	5.0 U	25 UJ	50 UJ	50 U
2-Hexanone	ug/L	NC	50	5.0 U	5.0 U	5.0 U	25 UJ	50 UJ	50 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	25 UJ	50 UJ	50 U
Acetone	ug/L	NC	50	21 U	20 U	11 J	100 U	200 U	200 U
Benzene	ug/L	1	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Bromodichloromethane	ug/L	NC	50	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Bromoform	ug/L	NC	50	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	5.0 U	5.0 UJ	5.0 U	25 UJ	50 UJ	50 U
Carbon disulfide	ug/L	60	60	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Carbon tetrachloride	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Chlorobenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Chloroethane	ug/L	5	NC	5.0 U	5.0 UJ	5.0 U	25 U	50 U	50 U
Chloroform (Trichloromethane)	ug/L	7	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
cis-1,2-Dichloroethene	ug/L	5	NC	1.8 J	5.0 U	5.0 U	**42**	**40 J**	**45 J**
cis-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Dibromochloromethane	ug/L	NC	50	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Ethylbenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Isopropylbenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Methyl acetate	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 UJ
Methyl cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Methyl Tert Butyl Ether	ug/L	NC	10	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Methylene chloride	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Styrene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Tetrachloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	**6.0 J**	50 U	50 U
Toluene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
trans-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
trans-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Trichloroethene	ug/L	5	NC	**5.1**	0.86 J	5.0 U	**680**	**540**	**680**
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 UJ	50 UJ	50 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Vinyl chloride	ug/L	2	NC	5.0 U	5.0 U	5.0 U	25 U	50 U	50 U
Xylene (total)	ug/L	NC	NC	15 U	15 U	15 U	75 U	150 U	150 U

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-17*	*MW-17*	*MW-17*	*MW-18*	*MW-18*	*MW-18*
Sample Name:				*WG-37191-052808-009*	*GW-37191-012009-JJW-010*	*WG-37191-072009-013*	*GW-37191-011309-JJW-003*	*GW-37191-011309-JJW-004*	*WG-37191-072209-042*
Sample Date:				*5/28/2008*	*1/20/2009*	*7/20/2009*	*1/13/2009*	*1/13/2009*	*7/22/2009*
								Duplicate	
	Units	*New York State Water Quality Standards*	*Guidance Values*						
Field Parameters									
Conductivity	mS/cm	NC	NC	1.84	1.1	1.93	0.579	0.579	1.66
Dissolved Oxygen	ug/L	NC	NC	3220	800	810	940	940	1420
Oxidation reduction potential	millivolts	NC	NC	229	--	146	--	--	-50
Temperature, Field	Deg C	NC	NC	13	7.1	15.95	8.5	8.5	14.72
Turbidity	NTU	5	NC	1.8	**22.3**	0.98	**35.7**	**35.7**	**5.3**
pH	pH units	6.5-8.5	NC	6.7	6.95	7.9	6.8	6.8	7.2

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-19*	*MW-20*	*MW-22*
Sample Name:				*WG-37191-072009-002*	*WG-37191-072209-032*	*WG-37191-072009-004*
Sample Date:				*7/20/2009*	*7/22/2009*	*7/20/2009*
		New York State Water Quality				
	Units	*Standards*	*Guidance Values*			
Volatile Organic Compounds						
1,1,1-Trichloroethane	ug/L	5	NC	500 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	500 U	5.0 UJ	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	500 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	500 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	500 U	1.3 J	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	500 U	5.0 UJ	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	500 U	5.0 UJ	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	500 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	500 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	500 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	500 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	500 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	500 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	500 U	5.0 U	5.0 U
2-Hexanone	ug/L	NC	50	500 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	500 U	5.0 U	5.0 U
Acetone	ug/L	NC	50	2000 UJ	20 U	20 UJ
Benzene	ug/L	1	NC	500 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	500 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	500 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	500 U	5.0 U	5.0 U
Carbon disulfide	ug/L	60	60	500 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	500 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	500 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	500 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	500 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	500 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	**410 J**	**89**	1.5 J
cis-1,3-Dichloropropene	ug/L	NC	NC	500 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	500 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	NC	50	500 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	500 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5	NC	500 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	500 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	500 U	5.0 UJ	5.0 U
Methyl cyclohexane	ug/L	NC	NC	500 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	500 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	500 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	500 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	500 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	500 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	500 U	3.0 J	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	500 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	**15000**	**19**	**30**
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	500 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	500 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	500 U	**5.5**	5.0 U
Xylene (total)	ug/L	NC	NC	1500 U	15 U	4.3 J

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				***MW-19***	***MW-20***	***MW-22***
Sample Name:				***WG-37191-072009-002***	***WG-37191-072209-032***	***WG-37191-072009-004***
Sample Date:				***7/20/2009***	***7/22/2009***	***7/20/2009***
	Units	***New York State Water Quality Standards***	***Guidance Values***			
Field Parameters						
Conductivity	mS/cm	NC	NC	1.92	2.83	1.82
Dissolved Oxygen	ug/L	NC	NC	780	1570	1780
Oxidation reduction potential	millivolts	NC	NC	271	-158	-105
Temperature, Field	Deg C	NC	NC	20.81	10.03	15.22
Turbidity	NTU	5	NC	1.43	**5.81**	**10**
pH	pH units	6.5-8.5	NC	7.24	7.08	6.97

[1] - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.9

SVOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-4*	*MW-4*	*MW-4*	*MW-4*	*MW-9*	*MW-9*
Sample Name:				*WG-37191-082107-RN-001*	*WG-37191-082107-RN-002*	*WG-37191-052808-003*	*WG-37191-052808-004*	*WG-37191-082107-RN-007*	*WG-37191-052808-001*
Sample Date:				*8/21/2007*	*8/21/2007*	*5/28/2008*	*5/28/2008*	*8/21/2007*	*5/28/2008*
					Duplicate		*Duplicate*		
	Units	*Standards*	*Quality Guidance Values*						
Semivolatile Organic Compounds									
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
2,4,5-Trichlorophenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
2,4,6-Trichlorophenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
2,4-Dichlorophenol	ug/L	5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
2,4-Dimethylphenol	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
2,4-Dinitrophenol	ug/L	NC	10	53 UJ	52 UJ	47 U	48 U	50 UJ	48 U
2,4-Dinitrotoluene	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
2,6-Dinitrotoluene	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
2-Chloronaphthalene	ug/L	NC	10	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
2-Chlorophenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
2-Methylnaphthalene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	0.62 J	1.9 U
2-Methylphenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
2-Nitroaniline	ug/L	5	NC	53 U	52 U	47 U	48 U	50 U	48 U
2-Nitrophenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
3,3'-Dichlorobenzidine	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
3-Nitroaniline	ug/L	5	NC	53 U	52 U	47 U	48 U	50 U	48 U
4,6-Dinitro-2-methylphenol	ug/L	NC	NC	53 U	52 U	47 U	48 U	50 U	48 U
4-Bromophenyl phenyl ether	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
4-Chloro-3-methylphenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
4-Chloroaniline	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
4-Chlorophenyl phenyl ether	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
4-Methylphenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
4-Nitroaniline	ug/L	5	NC	53 U	52 U	47 U	48 U	50 U	48 U
4-Nitrophenol	ug/L	NC	NC	53 U	52 U	47 U	48 U	50 U	48 U
Acenaphthene	ug/L	NC	20	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Acenaphthylene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Acetophenone	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Anthracene	ug/L	NC	50	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Atrazine	ug/L	7.5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzaldehyde	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(a)anthracene	ug/L	NC	0.002	2.1 U	**0.84 J**	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(a)pyrene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(b)fluoranthene	ug/L	NC	0.002	2.1 U	**0.81 J**	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(g,h,i)perylene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Benzo(k)fluoranthene	ug/L	NC	0.002	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Biphenyl (1,1-Biphenyl)	ug/L	5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
bis(2-Chloroethoxy)methane	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
bis(2-Chloroethyl)ether	ug/L	1	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
bis(2-Ethylhexyl)phthalate	ug/L	5	NC	2.1 J	1.4 J	9.4 U	9.5 U	2.4 J	9.5 U
Butyl benzylphthalate	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
Caprolactam	ug/L	NC	NC	260	370	5.6 U	5.7 U	1200	5.7 U
Carbazole	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Chrysene	ug/L	NC	0.002	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Dibenz(a,h)anthracene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Dibenzofuran	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
Diethyl phthalate	ug/L	NC	50	11 U	3.0 J	9.4 U	9.5 U	9.9 U	9.5 U
Dimethyl phthalate	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
Di-n-butylphthalate	ug/L	50	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
Di-n-octyl phthalate	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
Fluoranthene	ug/L	NC	50	2.1 U	1.5 J	1.9 U	1.9 U	2.0 U	1.9 U
Fluorene	ug/L	NC	50	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Hexachlorobenzene	ug/L	0.04	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Hexachlorobutadiene	ug/L	0.5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Hexachlorocyclopentadiene	ug/L	5	NC	11 UJ	10 UJ	9.4 U	9.5 U	9.9 UJ	9.5 U
Hexachloroethane	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
Indeno(1,2,3-cd)pyrene	ug/L	NC	0.002	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Isophorone	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
Naphthalene	ug/L	NC	10	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Nitrobenzene	ug/L	0.4	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
N-Nitrosodi-n-propylamine	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
N-Nitrosodiphenylamine	ug/L	NC	50	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U
Pentachlorophenol	ug/L	1	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U
Phenanthrene	ug/L	NC	50	0.76 J	1.1 J	1.9 U	1.9 U	2.0 U	1.9 U
Phenol	ug/L	1	NC	2.1 U	0.59 J	1.9 U	1.9 U	0.72 J	1.9 U
Pyrene	ug/L	NC	50	0.72 J	1.2 J	1.9 U	1.9 U	2.0 U	1.9 U

Notes:
1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-5A*	*MW-5A*	*MW-5A*	*MW-6A*	*MW-7A*	*MW-7A*
Sample Name:				*GW-37191-012009-JJW-012*	*WG-37191-072209-038*	*WG-37191-072209-039*	*WG-37191-072209-033*	*GW-37191-012109-JJW-014*	*WG-37191-072209-029*
Sample Date:				*1/20/2009*	*7/22/2009*	*7/22/2009*	*7/22/2009*	*1/21/2009*	*7/22/2009*
						Duplicate			
	Units	*Quality Standards*	*Guidance Values*						
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	10000 U	120 U	1000 UJ	12 UJ	5.0 U	5.0 UJ
1,1,2-Trichloroethane	ug/L	1	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	10000 U	**40 J**	1000 U	12 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	10000 U	120 U	1000 UJ	12 UJ	5.0 U	5.0 UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	10000 U	120 U	1000 UJ	12 UJ	5.0 UJ	5.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	10000 U	120 U	**320 J**	12 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 UJ	5.0 U
2-Hexanone	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 UJ	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	10000 U	120 U	120 J	12 U	5.0 UJ	5.0 U
Acetone	ug/L	NC	50	40000 U	**280 J**	4000 U	22 J	20 UJ	20 U
Benzene	ug/L	1	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	10000 UJ	120 U	1000 U	12 U	5.0 U	5.0 U
Carbon disulfide	ug/L	60	60	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	10000 UJ	120 U	1000 U	12 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	**71000**	**18000**	**27000**	**30**	5.0 U	0.90 J
cis-1,3-Dichloropropene	ug/L	NC	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	10000 U	120 U	1000 U	290	5.0 U	5.0 U
Dibromochloromethane	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 UJ	5.0 U
Ethylbenzene	ug/L	5	NC	10000 U	120 U	1000 U	2.9 J	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	10000 U	120 U	1000 UJ	12 UJ	5.0 UJ	5.0 UJ
Methyl cyclohexane	ug/L	NC	NC	10000 U	120 U	1000 U	130	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	10000 U	**80 J**	**240 J**	12 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	10000 U	**45 J**	1000 U	12 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	10000 U	**24 J**	1000 U	12 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	10000 U	**66 J**	1000 U	12 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	**290000**	**24000**	**35000**	12 U	5.0 U	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	10000 U	**83 J**	1000 U	12 U	5.0 U	5.0 U
Xylene (total)	ug/L	NC	NC	30000 U	110 J	3000 U	17 J	15 U	15 U

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:				*MW-5A*	*MW-5A*	*MW-5A*	*MW-6A*	*MW-7A*	*MW-7A*
Sample Name:				*GW-37191-012009-JJW-012*	*WG-37191-072209-038*	*WG-37191-072209-039*	*WG-37191-072209-033*	*GW-37191-012109-JJW-014*	*WG-37191-072209-029*
Sample Date:				*1/20/2009*	*7/22/2009*	*7/22/2009*	*7/22/2009*	*1/21/2009*	*7/22/2009*
						Duplicate			
	Units	*Quality Standards*	*Guidance Values*						
Field Parameters									
Conductivity	mS/cm	NC	NC	2.85	--	--	0.856	1.58	1.409
Dissolved Oxygen	ug/L	NC	NC	480	--	--	620	0	1410
Oxidation reduction potential	millivolts	NC	NC	--	--	--	-217	--	-251
Temperature, Field	Deg C	NC	NC	9.4	--	--	13.26	10.9	14.94
Turbidity	NTU	5	NC	**151**	--	--	**244**	**38.4**	**20.1**
pH	pH units	6.5-8.5	NC	**8.83**	--	--	7.54	6.72	7.65

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:		*MW-9A*	*MW-9A*	*MW-13A*	*MW-13A*	*MW-14A*	*MW-14A*	*MW-15A*
Sample Name:		*GW-37191-011909-JJW-007*	*WG-37191-072109-014*	*GW-37191-011909-JJW-008*	*WG-37191-072209-034*	*GW-37191-012209-JJW-018*	*WG-37191-072009-005*	*GW-37191-012309-JJW-019*
Sample Date:		*1/19/2009*	*7/21/2009*	*1/19/2009*	*7/22/2009*	*1/22/2009*	*7/20/2009*	*1/23/2009*
	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 UJ	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	1.4 J	5.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 UJ	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	2000 U	1200 UJ	5.0 U	5.0 U	5.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	20	5.0 UJ	2000 U	1200 U	5.0 U	5.0 U	2.7 J
2-Hexanone	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 UJ
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 UJ
Acetone	ug/L	20 U	20 UJ	8000 U	5000 U	20 U	20 UJ	20 UJ
Benzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5.0 UJ	5.0 U	2000 UJ	1200 U	5.0 U	5.0 U	5.0 UJ
Carbon disulfide	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	5.0 UJ	5.0 U	2000 UJ	1200 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	2.6 J	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	**58000**	**42000**	**140**	**120**	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	1.2 J	2.0 J	2000 U	1200 U	5.0 U	5.0 U	3.3 J
Dibromochloromethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2000 U	1200 UJ	5.0 U	5.0 U	5.0 UJ
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	2.6 J
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	2000 U	1200 U	1.3 J	2.2 J	5.0 U
Toluene	ug/L	5.0 U	5.0 U	2000 U	1200 U	1.1 J	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	**350 J**	1200 U	0.83 J	0.88 J	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	**160000**	**39000**	**140**	**190**	4.2 J
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 UJ	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	5.0 U	5.0 U	**850 J**	**530 J**	5.0 U	5.0 U	5.0 U
Xylene (total)	ug/L	15 U	15 U	6000 U	3800 U	15 U	4.3 J	15 U

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:		*MW-9A*	*MW-9A*	*MW-13A*	*MW-13A*	*MW-14A*	*MW-14A*	*MW-15A*
Sample Name:		*GW-37191-011909-JJW-007*	*WG-37191-072109-014*	*GW-37191-011909-JJW-008*	*WG-37191-072209-034*	*GW-37191-012209-JJW-018*	*WG-37191-072009-005*	*GW-37191-012309-JJW-019*
Sample Date:		*1/19/2009*	*7/21/2009*	*1/19/2009*	*7/22/2009*	*1/22/2009*	*7/20/2009*	*1/23/2009*
	Units							
Field Parameters								
Conductivity	mS/cm	0.607	2.09	0.9	2	0.002	0.845	2.99
Dissolved Oxygen	ug/L	360	660	1910	900	9700	1140	0
Oxidation reduction potential	millivolts	--	-130	--	-74	--	-9	--
Temperature, Field	Deg C	10.2	12.52	8.8	15.17	9.9	12.18	12.1
Turbidity	NTU	**148**	**38.7**	**153**	**22**	**34**	**6.26**	**73**
pH	pH units	6.77	7.15	6.78	7.39	**6.2**	7.2	7.09

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:		*MW-15A*	*MW-18A*	*MW-19A*	*MW-20A*	*MW-21A*	*MW-21A*	*MW-22A*
Sample Name:		*WG-37191-072009-012*	*WG-37191-072209-041*	*WG-37191-072009-001*	*WG-37191-072209-031*	*WG-37191-072109-016*	*WG-37191-072109-017*	*WG-37191-072009-003*
Sample Date:		*7/20/2009*	*7/22/2009*	*7/20/2009*	*7/22/2009*	*7/21/2009*	*7/21/2009*	*7/20/2009*
							Duplicate	
	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	s
1,1-Dichloroethene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	2.5 J	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 UJ	5.0 U
2-Hexanone	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Acetone	ug/L	20 UJ	6000 U	800 UJ	100 U	**110 J**	20 UJ	11 J
Benzene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Chloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	1.1 J	**4600**	**1100**	**620**	**890**	**710 J**	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	22
Dibromochloromethane	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	1.0 J
Isopropylbenzene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	17
Methyl Tert Butyl Ether	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	1500 U	200 U	**5.9 J**	50 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Toluene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	1500 U	200 U	**5.5 J**	**11 J**	**7.2**	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Trichloroethene	ug/L	4.5 J	**26000**	**4600**	**200**	**2400**	**1900 J**	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Vinyl chloride	ug/L	5.0 U	1500 U	**70 J**	**14 J**	**26 J**	**42**	5.0 U
Xylene (total)	ug/L	4.3 J	1300 J	600 U	75 UJ	44 J	15 U	11 J

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:		*MW-15A*	*MW-18A*	*MW-19A*	*MW-20A*	*MW-21A*	*MW-21A*	*MW-22A*
Sample Name:		*WG-37191-072009-012*	*WG-37191-072209-041*	*WG-37191-072009-001*	*WG-37191-072209-031*	*WG-37191-072109-016*	*WG-37191-072109-017*	*WG-37191-072009-003*
Sample Date:		*7/20/2009*	*7/22/2009*	*7/20/2009*	*7/22/2009*	*7/21/2009*	*7/21/2009*	*7/20/2009*
							Duplicate	
	Units							
Field Parameters								
Conductivity	mS/cm	2.23	2.19	1.73	1.62	1.83	1.83	1.61
Dissolved Oxygen	ug/L	6820	980	1040	550	1930	1930	450
Oxidation reduction potential	millivolts	-11	-188	-78	-12	-100	-100	-133
Temperature, Field	Deg C	15.29	12.51	13.62	14.57	15.28	15.28	12.9
Turbidity	NTU	**26.2**	**31.7**	**40**	**8.56**	**31.2**	**31.2**	**37.1**
pH	pH units	7.23	7.05	7.13	7.16	6.99	6.99	7.86

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:		*MW-23A*	*MW-23A*	*MW-24A*	*MW-25A*
Sample Name:		*WG-37191-072009-007*	*WG-37191-072009-008*	*WG-37191-072009-010*	*WG-37191-072009-009*
Sample Date:		*7/20/2009*	*7/20/2009*	*7/20/2009*	*7/20/2009*
			Duplicate		
	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	20 UJ	20 UJ	20 UJ	11 J
Benzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
cis-1,2-Dichloroethene	ug/L	0.99 J	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	7.4	7.4	0.78 J	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5.0 U	5.0 U	5.0 U	5.0 UJ
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	5.3	5.4	1.2 J	5.0 U
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	1.6 J	5.0 U	5.0 U	1.1 J
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylene (total)	ug/L	6.9 J	6.9 J	4.4 J	15 U

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:		***MW-23A***	***MW-23A***	***MW-24A***	***MW-25A***
Sample Name:		***WG-37191-072009-007***	***WG-37191-072009-008***	***WG-37191-072009-010***	***WG-37191-072009-009***
Sample Date:		***7/20/2009***	***7/20/2009***	***7/20/2009***	***7/20/2009***
			Duplicate		
	Units				
Field Parameters					
Conductivity	mS/cm	1.7	1.7	2.57	1.036
Dissolved Oxygen	ug/L	3900	3900	2240	400
Oxidation reduction potential	millivolts	-271	-271	-170	-63
Temperature, Field	Deg C	13.55	13.55	15.38	17.73
Turbidity	NTU	**22.7**	**22.7**	**28.1**	**26.5**
pH	pH units	7.33	7.33	6.84	7.89

1.0 - Exceeds Criteria

U - Not present at the associated value.
J - Estimated concentration.
NC - No criteria.

TABLE 6.11

ANALYTICAL RESULTS SUMMARY - SOIL VAPOR INTRUSION
BCP REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

	Location ID:	*82 Harrison*	*82 Harrison*	*82 Harrison*	*103 Harrison*	*103 Harrison*	*127 Harrison*	*127 Harrison*	*127 Harrison*
	Sample Name:	*IA-37191-111809-JDW-002*	*SS-37191-111809-JDW-002*	*SS-37191-111809-JDW-003*	*IA-37191-111809-JDW-001*	*SS-37191-111809-JDW-001*	*IA-37191-111809-JDW-004*	*IA-37191-111809-JDW-005*	*SS-37191-111809-JDW-005*
	Sample Date:	*11/19/2009*	*11/19/2009*	*11/19/2009*	*11/19/2009*	*11/19/2009*	*11/19/2009*	*11/19/2009*	*11/19/2009*
				Duplicate				*Duplicate*	
Volatile Organic Compounds	*Units*								
1,1,1-Trichloroethane	ug/m3	0.44 U	0.90	0.85	0.44 U	0.44 U	0.96	0.96	440 U
1,1,2,2-Tetrachloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	550 U
1,1,2-Trichloroethane	ug/m3	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	440 U
1,1-Dichloroethane	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	320 U
1,1-Dichloroethene	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.30 J	0.28 J	280 J
1,2,4-Trichlorobenzene	ug/m3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3000 U
1,2,4-Trimethylbenzene	ug/m3	1.2	1.1	3.1	9.4	0.94	8.4	3.7	390 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/m3	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	620 U
1,2-Dichlorobenzene	ug/m3	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	480 U
1,2-Dichloroethane	ug/m3	0.32 U	0.32 U	0.32 U	0.34	0.32 U	0.32 U	0.32 U	320 U
1,2-Dichloropropane	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	370 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ug/m3	0.12 J	0.10 J	0.098 J	0.11 J	0.56 U	0.56 U	0.56 U	560 U
1,3,5-Trimethylbenzene	ug/m3	0.39 J	0.32 J	0.92	3.6	0.34 J	2.9	1.6	390 U
1,3-Dichlorobenzene	ug/m3	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	480 U
1,4-Dichlorobenzene	ug/m3	0.31 J	0.48 U	0.48 U	0.42 J	0.48 U	0.20 J	0.48 U	480 U
1,4-Dioxane	ug/m3	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	720 U
2,2,4-Trimethylpentane	ug/m3	0.69 J	0.088 J	0.18 J	0.70 J	0.93 U	0.95	0.99	940 U
2-Butanone (Methyl Ethyl Ketone)	ug/m3	2.9	2.0	1.6	18	2.8	3.1	4.5	950 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/m3	0.68 J	0.26 J	0.24 J	2.0	0.26 J	0.77 J	0.90	820 U
Benzene	ug/m3	1.3	0.41	0.40	1.8	0.38	3.6	3.6	260 U
Benzyl Chloride	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	830 U
Bromodichloromethane	ug/m3	0.13 J	0.54 U	0.54 U	1.5	0.54 U	0.54 U	0.54 U	540 U
Bromoform	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	830 U
Bromomethane (Methyl Bromide)	ug/m3	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	310 U
Carbon tetrachloride	ug/m3	0.48 J	0.19 J	0.19 J	0.49 J	0.31 J	0.47 J	0.47 J	500 U
Chlorobenzene	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	370 U
Chloroethane	ug/m3	0.049 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	210 U
Chloroform (Trichloromethane)	ug/m3	0.32 J	0.13 J	0.13 J	4.1	0.29 J	0.38 J	0.41	390 U
Chloromethane (Methyl Chloride)	ug/m3	0.88	0.15 J	0.14 J	1.4	0.27 J	1.4	1.4	410 U
cis-1,2-Dichloroethene	ug/m3	0.32 U	0.35	0.32 U	2.3	0.32 U	57	55	54000
cis-1,3-Dichloropropene	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	360 U
Cyclohexane	ug/m3	0.44 J	0.23 J	0.26 J	5.0	0.96	1.2	0.86	690 U
Dibromochloromethane	ug/m3	0.68 U	0.68 U	0.68 U	0.49 J	0.68 U	0.68 U	0.68 U	680 U
Dichlorodifluoromethane (CFC-12)	ug/m3	2.2	2.3	2.2	2.0	1.2	4.7	4.7	400 U
Ethylbenzene	ug/m3	1.0	0.38	1.1	11	0.62	2.4	2.3	350 U
Hexachlorobutadiene	ug/m3	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4300 U
Hexane	ug/m3	1.8	0.78	0.88	2.9	0.86	4.3	4.0	80 J
m&p-Xylene	ug/m3	3.4	1.6	7.8	38	2.2	8.7	8.1	350 U
Methyl Tert Butyl Ether	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1400 U
Methylene chloride	ug/m3	2.0	0.79 U	1.1	150	0.69 U	3.5	2.9	430 J
o-Xylene	ug/m3	1.2	0.64	2.6	11	0.72	3.6	3.2	350 U
Styrene	ug/m3	1.2	0.100 J	0.11 J	1.6	0.19 J	2.0	1.5	340 U
Tert-Butyl Alcohol	ug/m3	0.18 J	0.13 J	0.18 J	0.71 J	0.22 J	0.21 J	0.33 J	970 U
Tetrachloroethene	ug/m3	0.49 J	0.97	0.50 J	0.87	0.36 J	3.1	3.5	780
Toluene	ug/m3	5.1	1.5	2.7	24	2.2	11	11	300 U
trans-1,2-Dichloroethene	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	1.0	0.98	1000
trans-1,3-Dichloropropene	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	360 U
Trichloroethene	ug/m3	0.41	1.8	0.29	15	0.17 J	78	77	73000
Trichlorofluoromethane (CFC-11)	ug/m3	36	11	10	5.2	4.5	2.7	2.7	450 U
Trifluorotrichloroethane (Freon 113)	ug/m3	0.59 J	0.51 J	0.49 J	0.68	0.60 J	1.1	1.1	610 U
Vinyl chloride	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	200 U
Helium	%	--	0.51	0.52	--	0.24 U	--	--	0.72

U - Not present at the associated value.
J - Estimated concentration.

TABLE 6.11

ANALYTICAL RESULTS SUMMARY - SOIL VAPOR INTRUSION
BCP REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Location ID:	*138 Harrison*	*138 Harrison*	*Up Wind*	*Up Wind*
Sample Name:	*IA-37191-111809-JDW-003*	*SS-37191-111809-JDW-004*	*OA-37191-111809-JDW-001*	*OA-37191-111809-JDW-002*
Sample Date:	*11/19/2009*	*11/19/2009*	*11/19/2009*	*11/19/2009*
				Duplicate
Volatile Organic Compounds	***Units***			
1,1,1-Trichloroethane	ug/m3	0.44 U	0.44 U	0.44 U	0.44 U
1,1,2,2-Tetrachloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U
1,1,2-Trichloroethane	ug/m3	0.48	0.44 U	0.44 U	0.44 U
1,1-Dichloroethane	ug/m3	0.25 J	0.32 U	0.32 U	0.32 U
1,1-Dichloroethene	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
1,2,4-Trichlorobenzene	ug/m3	3.0 U	3.0 U	3.0 U	3.0 U
1,2,4-Trimethylbenzene	ug/m3	0.73	0.18 J	0.43	1.9
1,2-Dibromoethane (Ethylene Dibromide)	ug/m3	0.61 U	0.61 U	0.61 U	0.61 U
1,2-Dichlorobenzene	ug/m3	0.48 U	0.48 U	0.48 U	0.48 U
1,2-Dichloroethane	ug/m3	3.6	0.32 U	0.32 U	0.32 U
1,2-Dichloropropane	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ug/m3	0.56 U	0.56 U	0.56 U	0.56 U
1,3,5-Trimethylbenzene	ug/m3	0.23 J	0.39 U	0.16 J	0.60
1,3-Dichlorobenzene	ug/m3	0.48 U	0.48 U	0.48 U	0.48 U
1,4-Dichlorobenzene	ug/m3	0.48 U	0.17 J	0.48 U	0.48 U
1,4-Dioxane	ug/m3	0.72 U	0.72 U	0.72 U	0.72 U
2,2,4-Trimethylpentane	ug/m3	0.54 J	0.93 U	1.1	1.00
2-Butanone (Methyl Ethyl Ketone)	ug/m3	5.7	1.9	3.0	2.7
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/m3	0.70 J	0.18 J	0.32 J	0.26 J
Benzene	ug/m3	1.8	0.39	2.0	1.9
Benzyl Chloride	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U
Bromodichloromethane	ug/m3	0.32 J	0.68	0.54 U	0.54 U
Bromoform	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U
Bromomethane (Methyl Bromide)	ug/m3	0.31 U	0.31 U	0.31 U	0.31 U
Carbon tetrachloride	ug/m3	0.47 J	1.0	0.52	0.36 J
Chlorobenzene	ug/m3	0.24 J	0.37 U	0.37 U	0.37 U
Chloroethane	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U
Chloroform (Trichloromethane)	ug/m3	0.93	3.7	0.11 J	0.099 J
Chloromethane (Methyl Chloride)	ug/m3	1.1	0.16 J	1.1	1.2
cis-1,2-Dichloroethene	ug/m3	0.11 J	0.32 U	0.32 U	0.32 U
cis-1,3-Dichloropropene	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U
Cyclohexane	ug/m3	0.48 J	0.69 U	0.66 J	0.62 J
Dibromochloromethane	ug/m3	0.68 U	0.68 U	0.68 U	0.68 U
Dichlorodifluoromethane (CFC-12)	ug/m3	2.2	1.6	2.1	2.2
Ethylbenzene	ug/m3	1.1	0.18 J	1.2	1.2
Hexachlorobutadiene	ug/m3	4.3 U	4.3 U	4.3 U	4.3 U
Hexane	ug/m3	2.5	0.71	2.4	2.2
m&p-Xylene	ug/m3	3.2	0.58	3.6	4.3
Methyl Tert Butyl Ether	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Methylene chloride	ug/m3	3.5	1.3	2.6	1.7
o-Xylene	ug/m3	1.1	0.22 J	1.2	1.6
Styrene	ug/m3	2.5	0.12 J	2.5	4.1
Tert-Butyl Alcohol	ug/m3	0.32 J	0.35 J	0.21 J	0.15 J
Tetrachloroethene	ug/m3	0.51 J	0.80	0.91	0.82
Toluene	ug/m3	5.5	1.1	7.1	6.4
trans-1,2-Dichloroethene	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
trans-1,3-Dichloropropene	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U
Trichloroethene	ug/m3	0.39	0.17 J	0.41	0.33
Trichlorofluoromethane (CFC-11)	ug/m3	1.4	1.3	1.5	1.3
Trifluorotrichloroethane (Freon 113)	ug/m3	1.4	0.76	1.1	1.1
Vinyl chloride	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
Helium	%	--	0.59	--	--

U - Not present at the associated value.
J - Estimated concentration.

TABLE 7.1

SELECTION OF ON-SITE EXPOSURE PATHWAY SCENARIOS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Scenario Timeframe	*Medium*	*Exposure Medium*	*Exposure Point*	*Receptor Population*	*Receptor Age*	*Exposure Route*	*On-Site/ Off-Site*	*Rationale for Selection or Exclusion of Exposure Pathway*
Current/ Future:	Surface Soil (0 to 2 ftbgs)	Surface Soil	Direct Contact	Trespasser	Adolescent	Ingestion Dermal Inhalation of particulates	on-Site	Potential exposure to contaminated surface soil while trespassing onto the Site.
			Direct Contact	Industrial Worker	Adult	Ingestion Dermal Inhalation of particulates	on-Site	Potential exposure to contaminated surface soil while working on the Site.
		Ambient Air	Direct Contact	Trespasser	Adolescent	Inhalation of vapors	on-Site	Potential exposure to VOCs in ambient air while trespassing onto the Site.
			Direct Contact	Industrial Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to VOCs in ambient air while working on the Site.
	Soils (0 to 10 ftbgs)	Indoor Air	Direct Contact	Industrial Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to VOCs in indoor air while working on the Site.
	Groundwater	Indoor Air	Direct Contact	Industrial Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to VOCs in indoor air while working on the Site.
Future:	Soil (0 to 10 ftbgs)	Soil	Direct Contact	Construction Worker	Adult	Ingestion Dermal Inhalation of particulates	on-Site	Potential exposure to contaminated soil during ground intrusive activities on the Site.
		Ambient Air	Direct Contact	Construction Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to VOCs in ambient air during ground intrusive activities on the Site
	Groundwater	Groundwater	Direct Contact	Construction Worker	Adult	Ingestion Dermal	on-Site	Potential exposure to contaminated groundwater during ground intrusive activities on the Site.
		Ambient Air	Direct Contact	Construction Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to contaminated groundwater during ground intrusive activities on the Site.

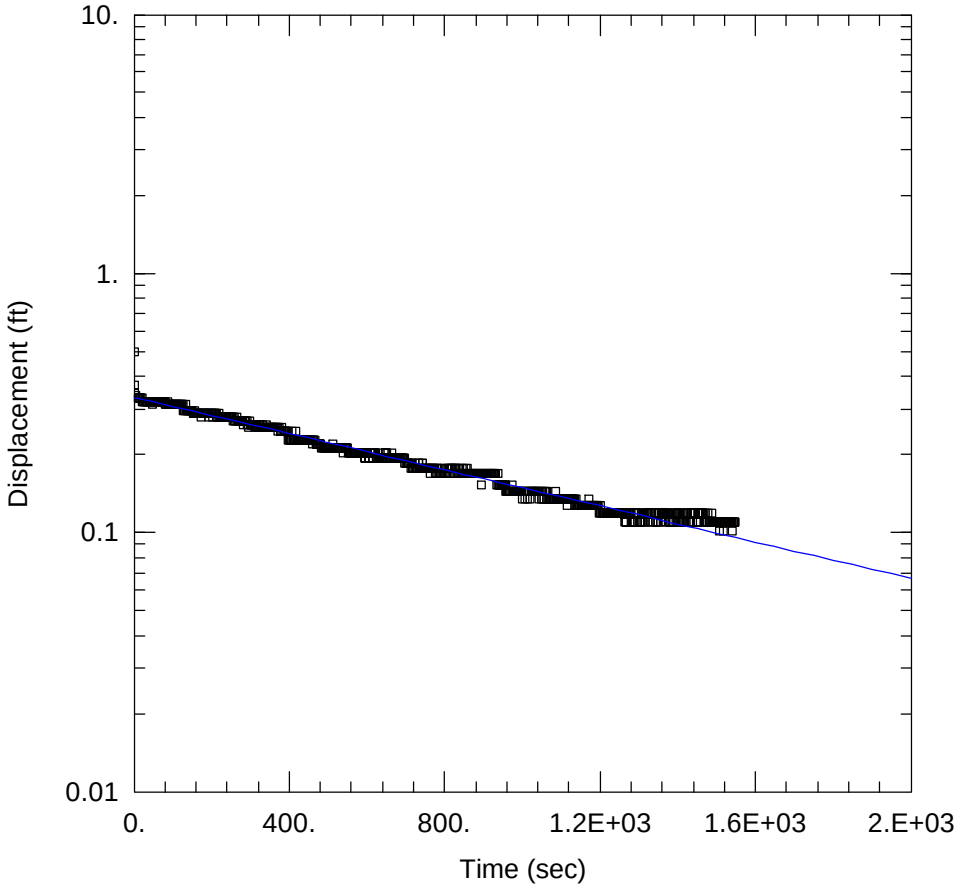
TABLE 7.2

SELECTION OF OFF-SITE EXPOSURE PATHWAY SCENARIOS
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION
FORMER BUFFALO CHINA SITE (NO. C915209)
BUFFALO, NEW YORK

Scenario Timeframe	*Medium*	*Exposure Medium*	*Exposure Point*	*Receptor Population*	*Receptor Age*	*Exposure Route*	*On-Site/ Off-Site*	*Rationale for Selection or Exclusion of Exposure Pathway*
Current/ Future:	Surface Soil (0 to 2 ftbgs)	Surface Soil	Direct Contact	Trespasser	Adolescent	Ingestion Dermal Inhalation of particulates	off-Site	Potential exposure to contaminated surface soil while trespassing onto off-Site commercial/industrial properties.
			Direct Contact	Industrial Worker	Adult	Ingestion Dermal Inhalation of particulates	off-Site	Potential exposure to contaminated surface soil while working on off-Site commercial/industrial properties.
			Direct Contact	Resident	Adult/ Child	Ingestion Dermal Inhalation of particulates	off-Site	Potential exposure to contaminated surface soil during outdoor activities at home.
	Groundwater	Indoor Air	Direct Contact	Industrial Worker	Adult	Inhalation of vapors	off-Site	Potential exposure to VOCs in indoor air while working on off-Site commercial/industrial properties.
		Indoor Air	Direct Contact	Resident	Adult/ Child	Inhalation of vapors	off-Site	Potential exposure to VOCs in indoor air while at home.
Future:	Soil (0 to 10 ftbgs)	Soil	Direct Contact	Construction Worker	Adult	Ingestion Dermal Inhalation of particulates	off-Site	Potential exposure to contaminated soil during ground intrusive activities off-Site.
		Ambient Air	Direct Contact	Construction Worker	Adult	Inhalation of vapors	off-Site	Potential exposure to VOCs in ambient air during ground intrusive activities off-Site
	Groundwater	Groundwater	Direct Contact	Construction Worker	Adult	Ingestion Dermal	off-Site	Potential exposure to contaminated groundwater during ground intrusive activities off-Site
		Ambient Air	Direct Contact	Construction Worker	Adult	Inhalation of vapors	off-Site	Potential exposure to contaminated groundwater during ground intrusive activities off-Site

APPENDIX E

HYDRAULIC CONDUCTIVITY TESTING RESULTS



MW-4 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-4_1.aqt
Date: 10/06/09 Time: 10:24:45

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-4
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

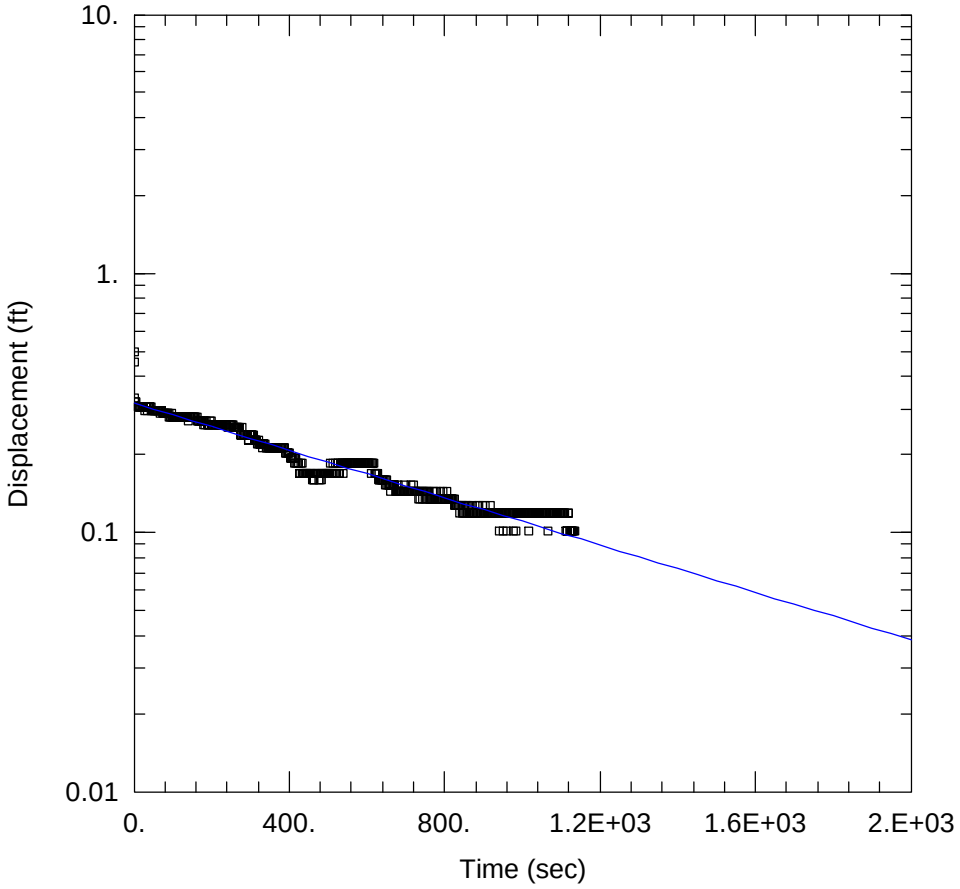
WELL DATA (MW-4)

Initial Displacement: 0.5 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 4.96 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.813E-05 cm/sec y0 = 0.3325 ft



MW-4 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-4_2.aqt
Date: 10/06/09 Time: 10:25:24

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-4
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

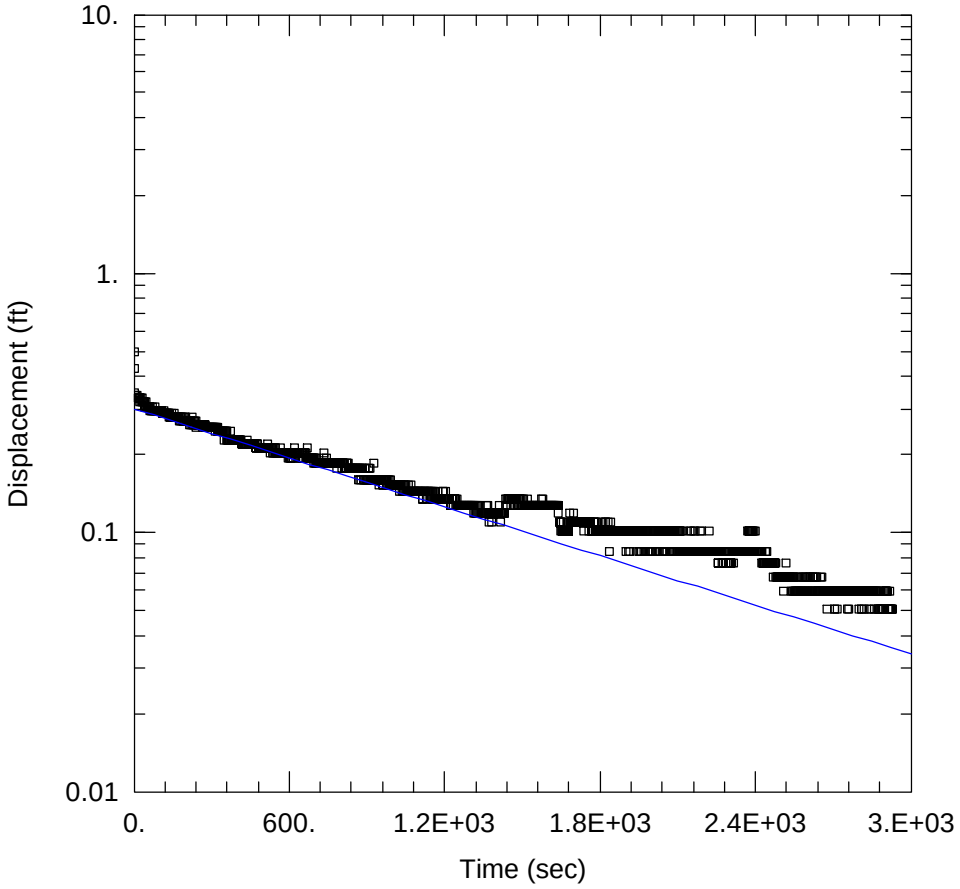
WELL DATA (MW-4)

Initial Displacement: 0.5 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 4.96 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.678E-05 cm/sec y0 = 0.3162 ft



MW-4 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-4_3.aqt
Date: 10/06/09 Time: 10:25:10

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-4
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

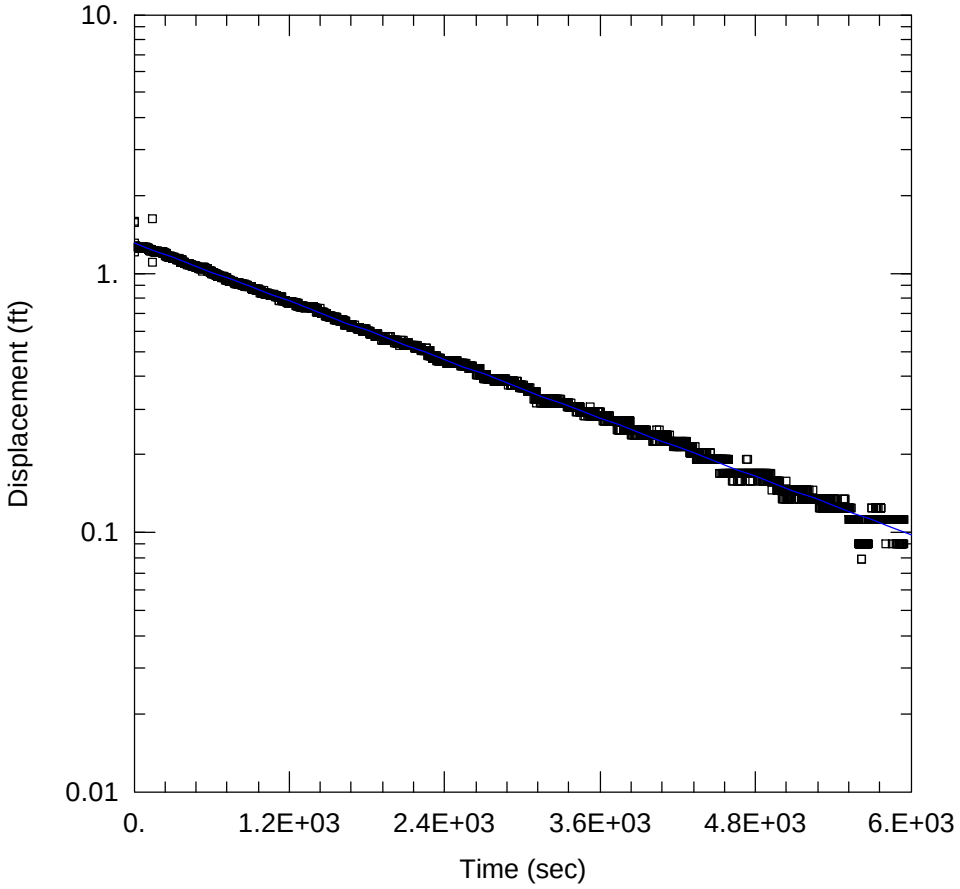
WELL DATA (MW-4)

Initial Displacement: 0.5 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 4.96 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.54E-05 cm/sec y0 = 0.3004 ft



MW-5 FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW5_1.aqt
Date: 10/06/09 Time: 12:25:26

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-5
Test Date: February 13, 2009

AQUIFER DATA

Saturated Thickness: 8.1 ft Anisotropy Ratio (Kz/Kr): 1.

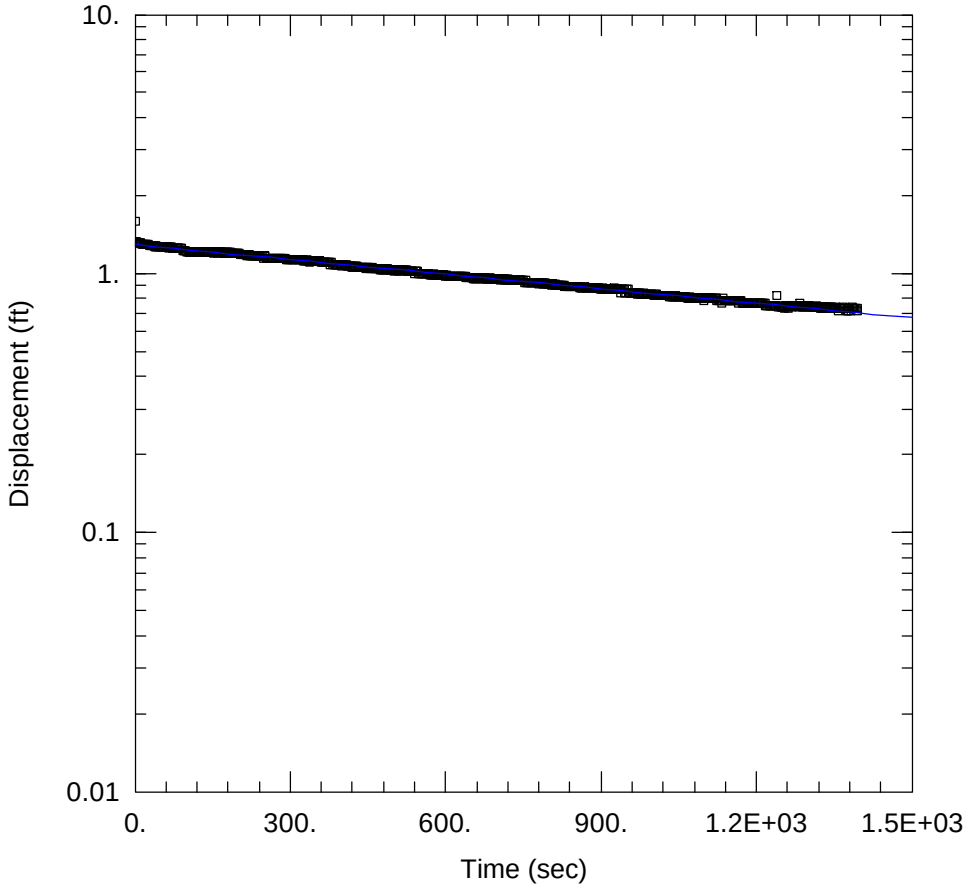
WELL DATA (MW-5)

Initial Displacement: 1.6 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 8.1 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.05E-05 cm/sec y0 = 1.313 ft



MW-5 RISING HEAD TEST #1

Data Set: C:\Buffalo China\MW5_2.aqt
Date: 10/06/09 Time: 12:27:43

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-5
Test Date: February 13, 2009

AQUIFER DATA

Saturated Thickness: 8.1 ft Anisotropy Ratio (Kz/Kr): 1.

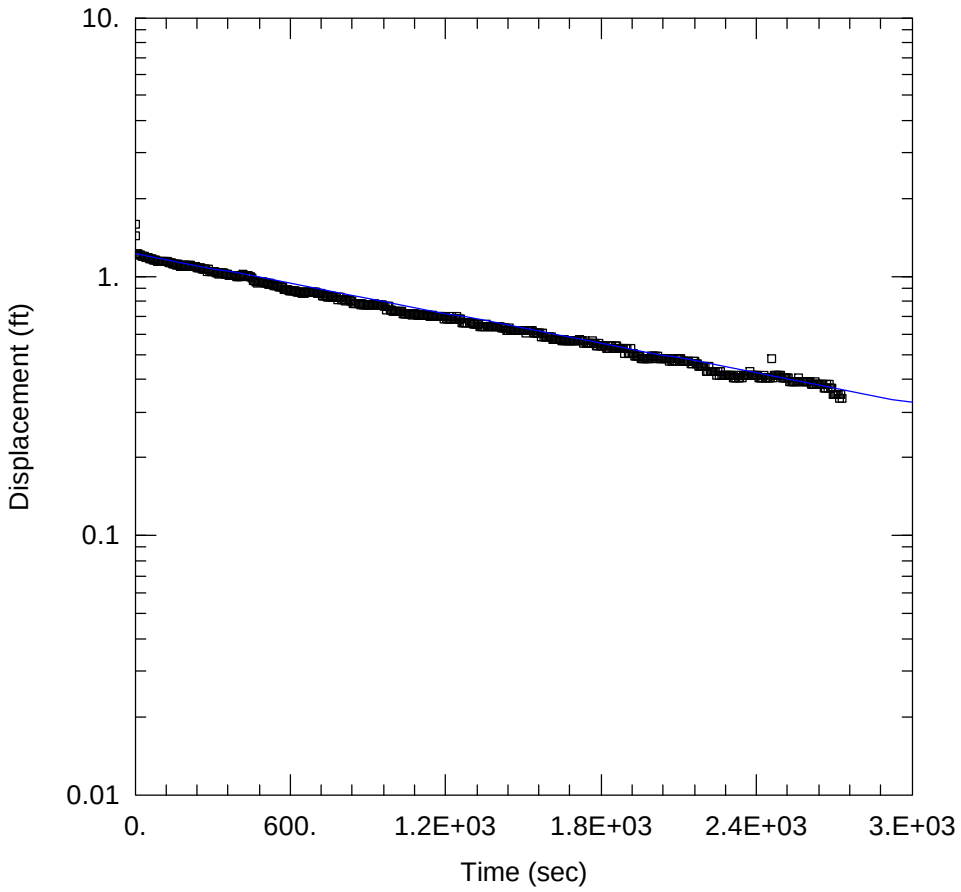
WELL DATA (MW-5)

Initial Displacement: 1.6 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 8.1 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.048E-05 cm/sec y0 = 1.29 ft



MW-5 FALLING HEAD TEST #2

Data Set: C:\Buffalo China\MW5_3.aqt
Date: 10/06/09 Time: 12:29:55

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-5
Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 8.1 ft Anisotropy Ratio (Kz/Kr): 1.

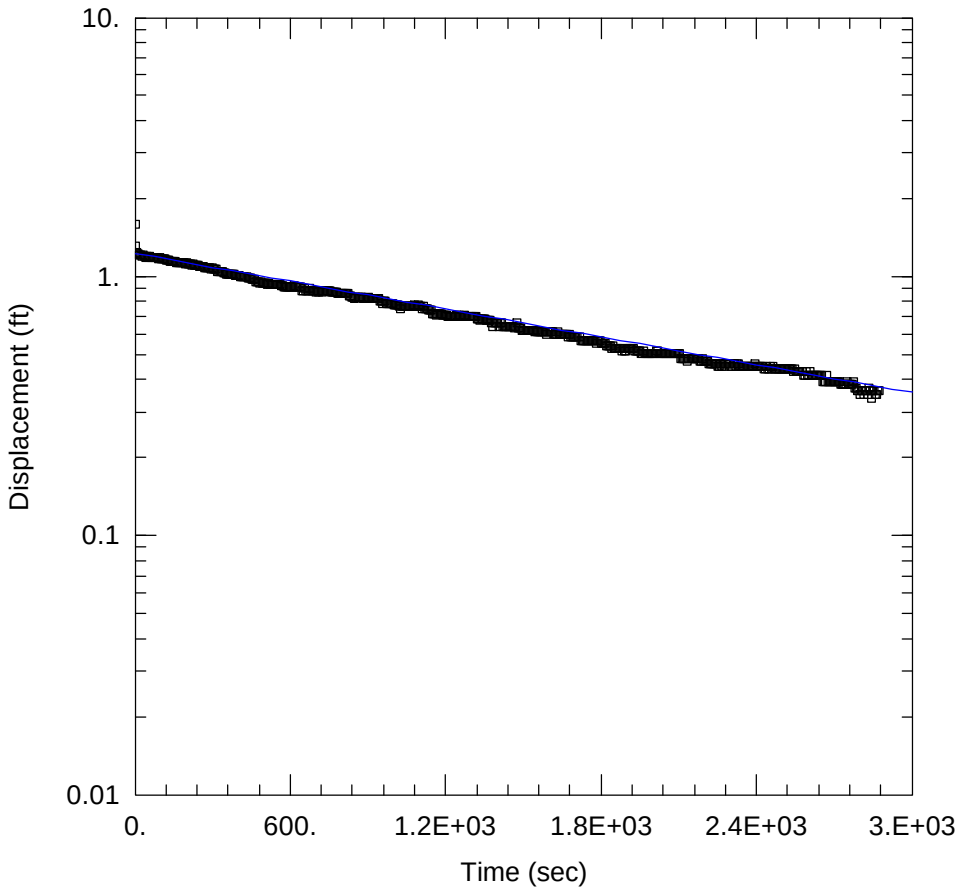
WELL DATA (MW-5)

Initial Displacement: 1.6 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 8.1 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 2.096E-05 cm/sec y0 = 1.227 ft



MW-5 RISING HEAD TEST #2

Data Set: C:\Buffalo China\MW5_4.aqt
Date: 10/06/09 Time: 12:31:02

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-5
Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 8.1 ft Anisotropy Ratio (Kz/Kr): 1.

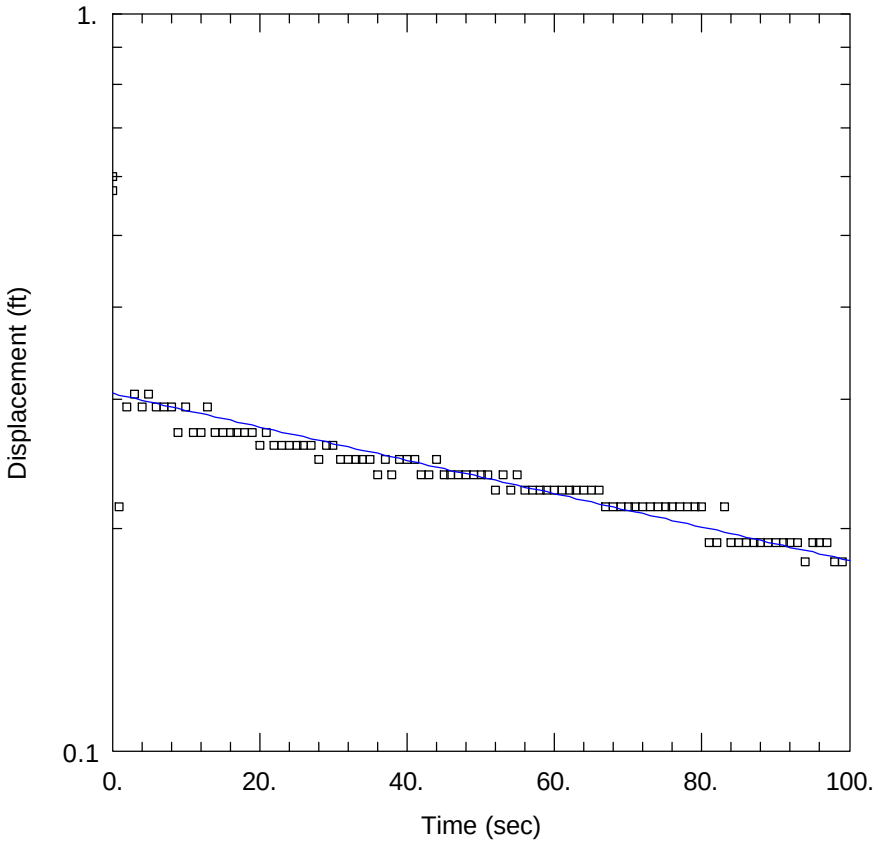
WELL DATA (MW-5)

Initial Displacement: 1.6 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 8.1 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.956E-05 cm/sec y0 = 1.23 ft



MW-6A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW6A_A.aqt
Date: 07/09/09 Time: 09:28:18

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-6A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 17.4 ft Anisotropy Ratio (Kz/Kr): 1.

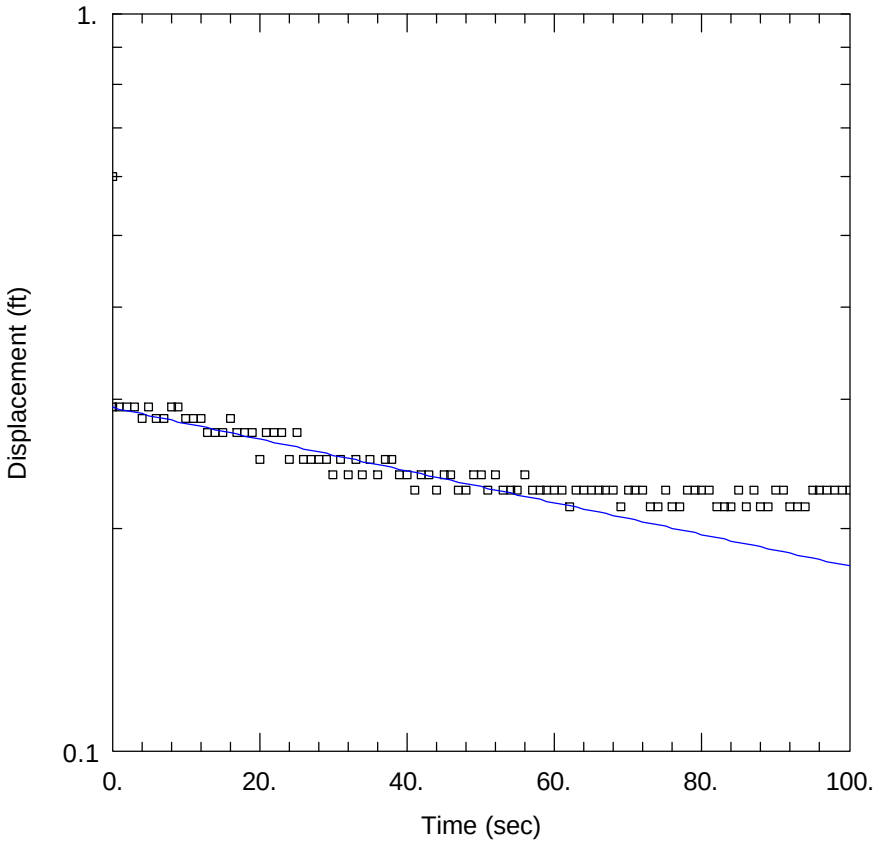
WELL DATA (MW-6A)

Initial Displacement: 0.6 ft
Total Well Penetration Depth: 17.4 ft
Casing Radius: 0.167 ft
Static Water Column Height: 17.4 ft
Screen Length: 9.3 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0008286 cm/sec
y0 = 0.3051 ft



MW-6A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW6A_B.aqt
Date: 07/09/09 Time: 09:30:28

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-6A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 17.4 ft Anisotropy Ratio (Kz/Kr): 1.

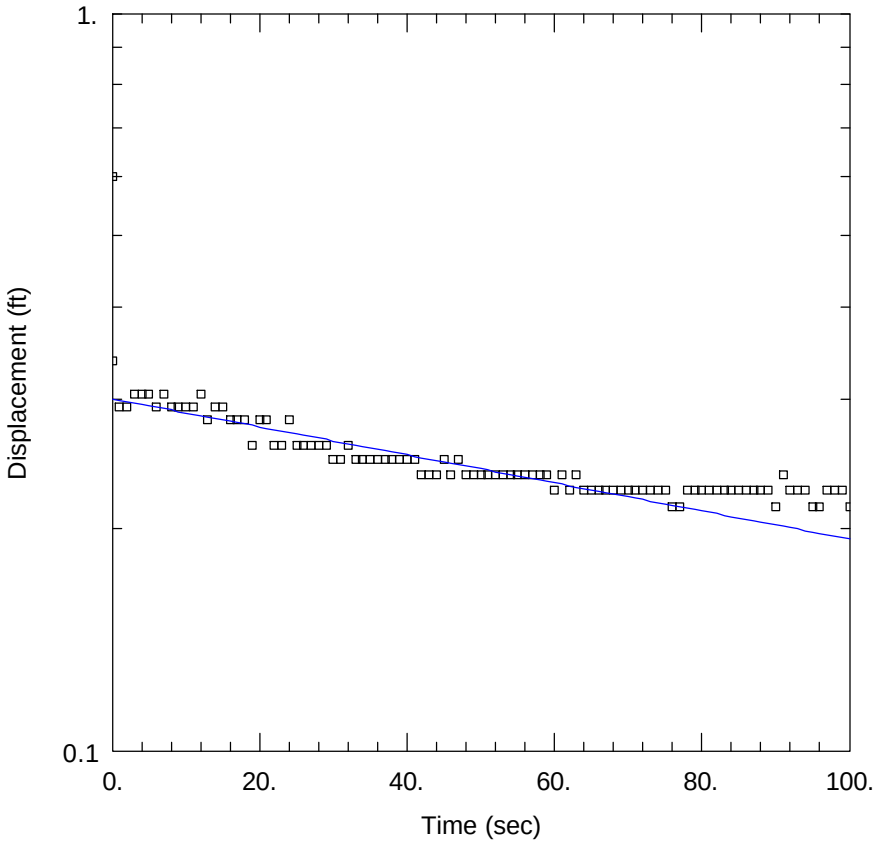
WELL DATA (MW-6A)

Initial Displacement: 0.6 ft
Total Well Penetration Depth: 17.4 ft
Casing Radius: 0.167 ft
Static Water Column Height: 17.4 ft
Screen Length: 9.3 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0007872 cm/sec
y0 = 0.2921 ft



MW-6A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW6A_C.aqt
Date: 07/09/09 Time: 09:32:10

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-6A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 17.4 ft Anisotropy Ratio (Kz/Kr): 1.

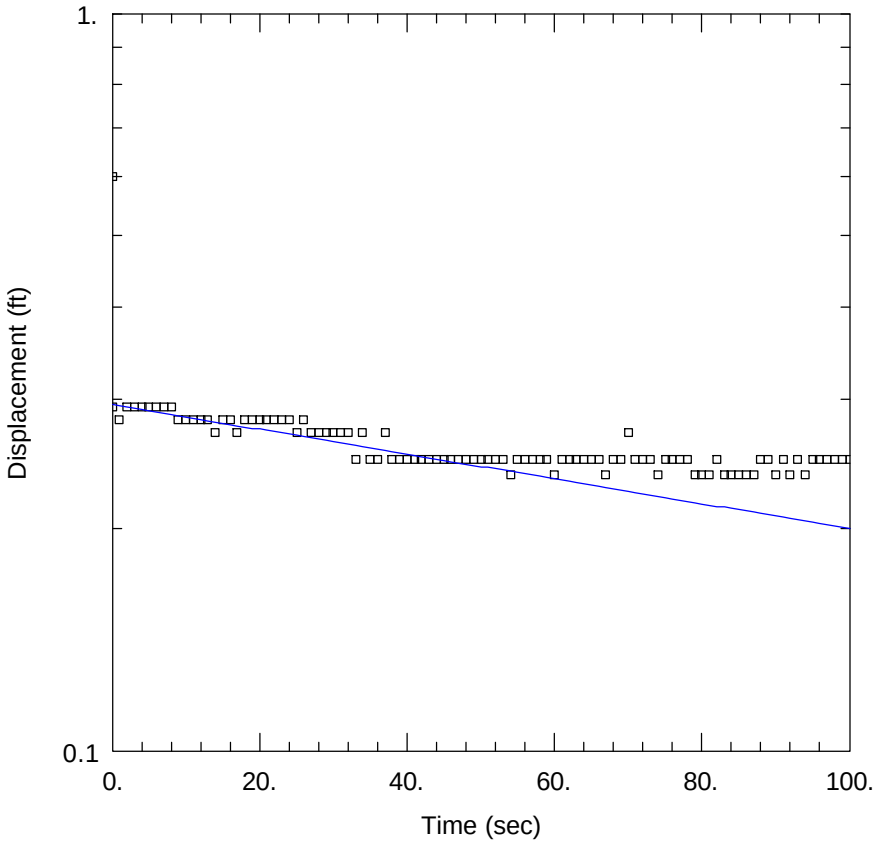
WELL DATA (MW-6A)

Initial Displacement: 0.6 ft
Total Well Penetration Depth: 17.4 ft
Casing Radius: 0.167 ft
Static Water Column Height: 17.4 ft
Screen Length: 9.3 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0006947 cm/sec
y0 = 0.3 ft



MW-6A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW6A_D.aqt
Date: 07/09/09 Time: 09:34:32

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-6A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 17.4 ft Anisotropy Ratio (Kz/Kr): 1.

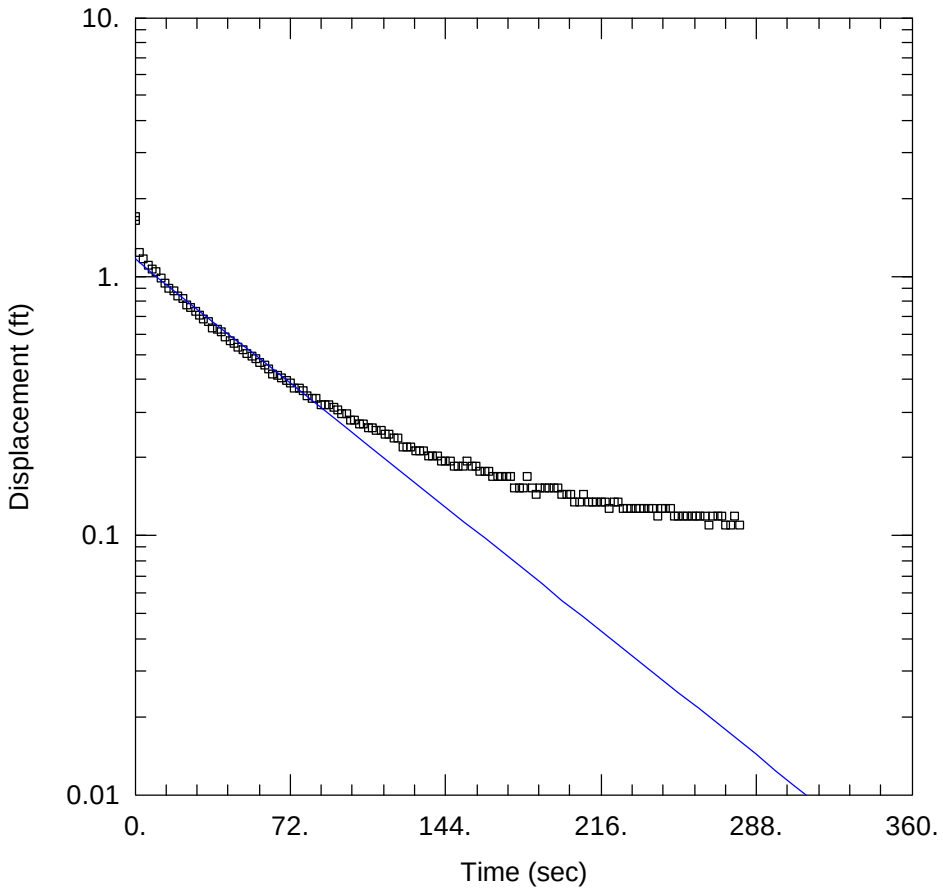
WELL DATA (MW-6A)

Initial Displacement: 0.6 ft
Total Well Penetration Depth: 17.4 ft
Casing Radius: 0.167 ft
Static Water Column Height: 17.4 ft
Screen Length: 9.3 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0006151 cm/sec
y0 = 0.2947 ft



MW-7 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-7_1.aqt
Date: 10/06/09 Time: 10:27:37

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

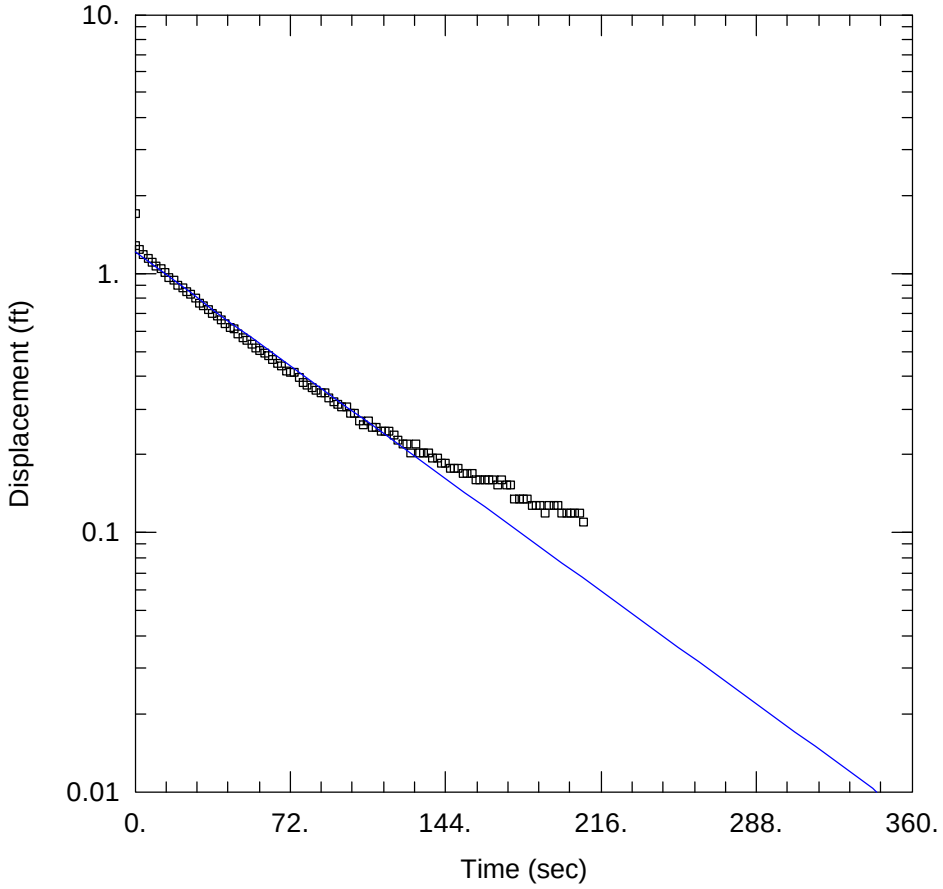
WELL DATA (MW-7)

Initial Displacement: 1.7 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 5.49 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005496 cm/sec y0 = 1.165 ft



MW-7 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-7_2.aqt
Date: 10/06/09 Time: 10:27:50

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

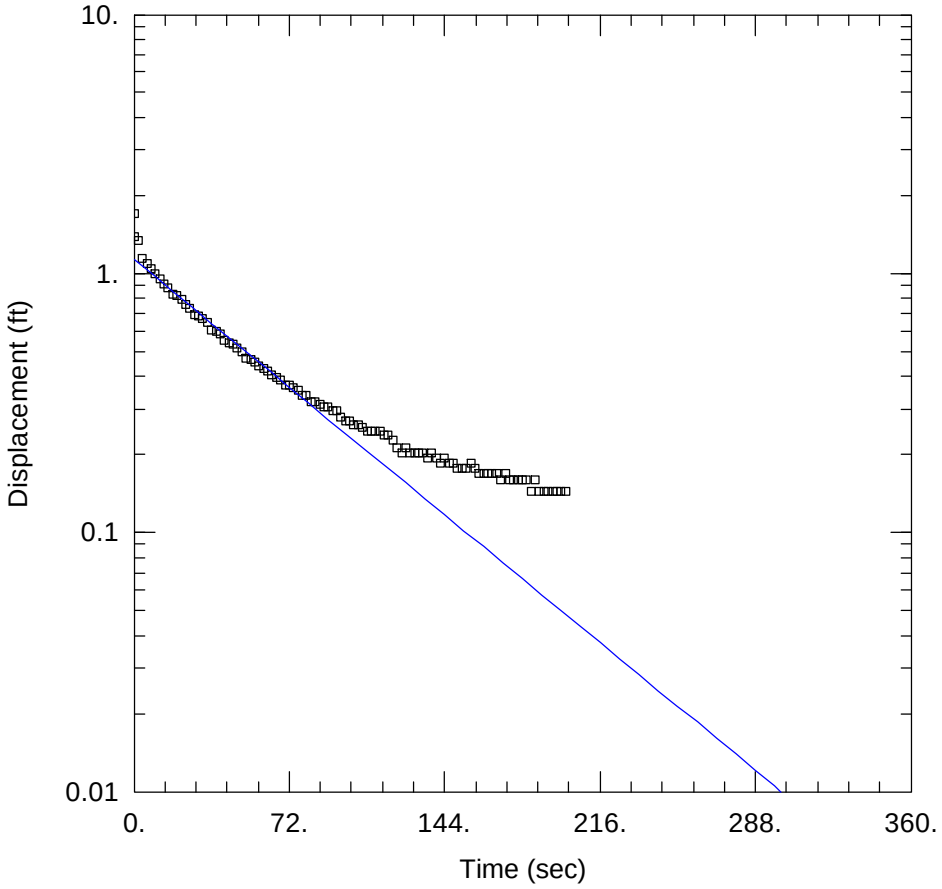
WELL DATA (MW-7)

Initial Displacement: 1.7 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 5.49 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005009 cm/sec y0 = 1.205 ft



MW-7 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-7_3.aqt
Date: 10/06/09 Time: 10:28:02

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

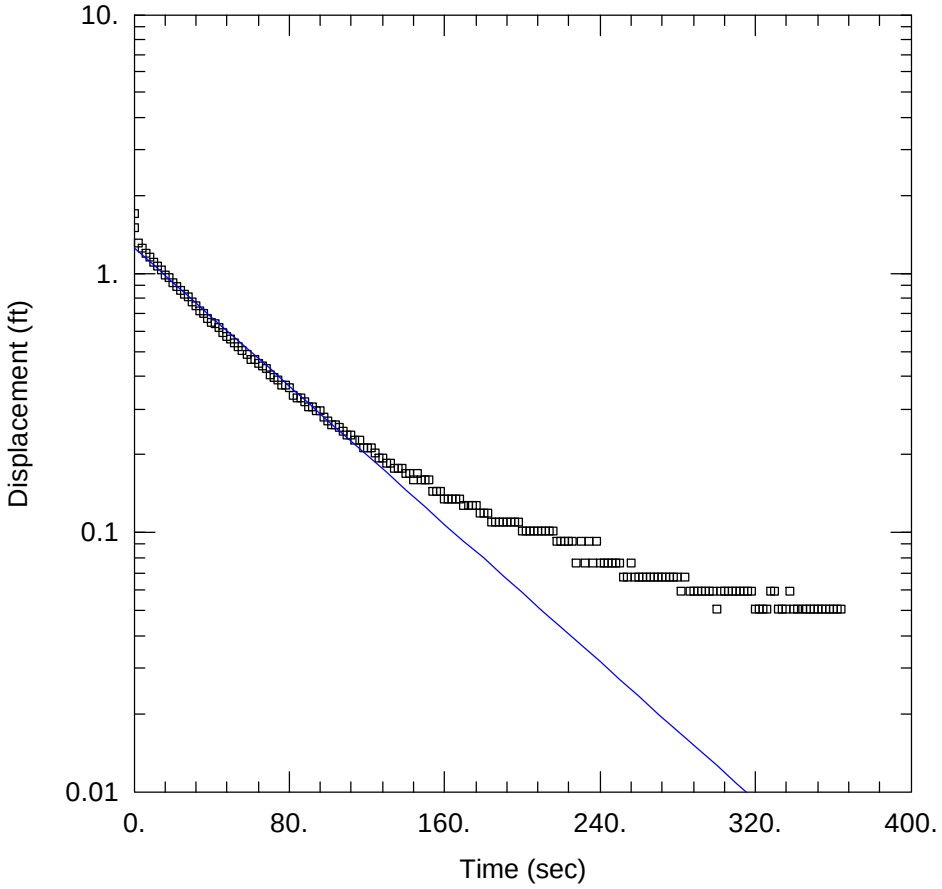
WELL DATA (MW-7)

Initial Displacement: 1.7 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 5.49 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005665 cm/sec y0 = 1.132 ft



MW-7 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-7_4.aqt
Date: 10/06/09 Time: 10:28:19

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

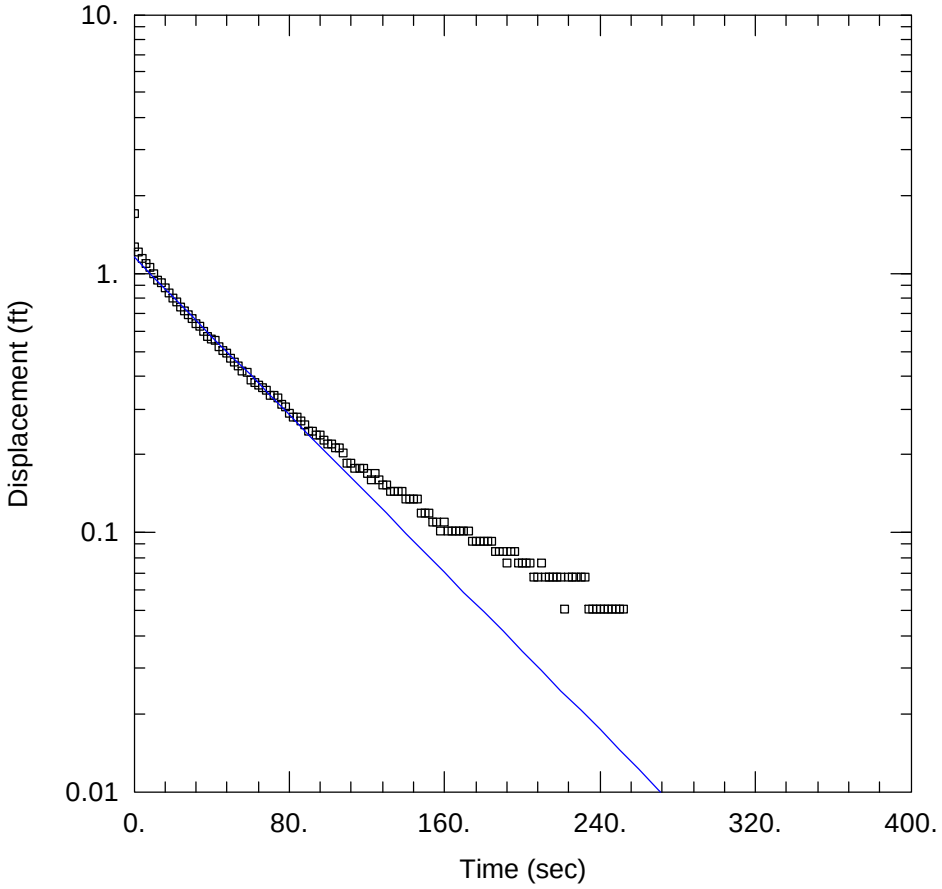
WELL DATA (MW-7)

Initial Displacement: 1.7 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 5.49 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0005512 cm/sec y0 = 1.255 ft



MW-7 FALLING HEAD SLUG TEST #3

Data Set: C:\Buffalo China\MW-7_5.aqt
Date: 10/06/09 Time: 10:28:35

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

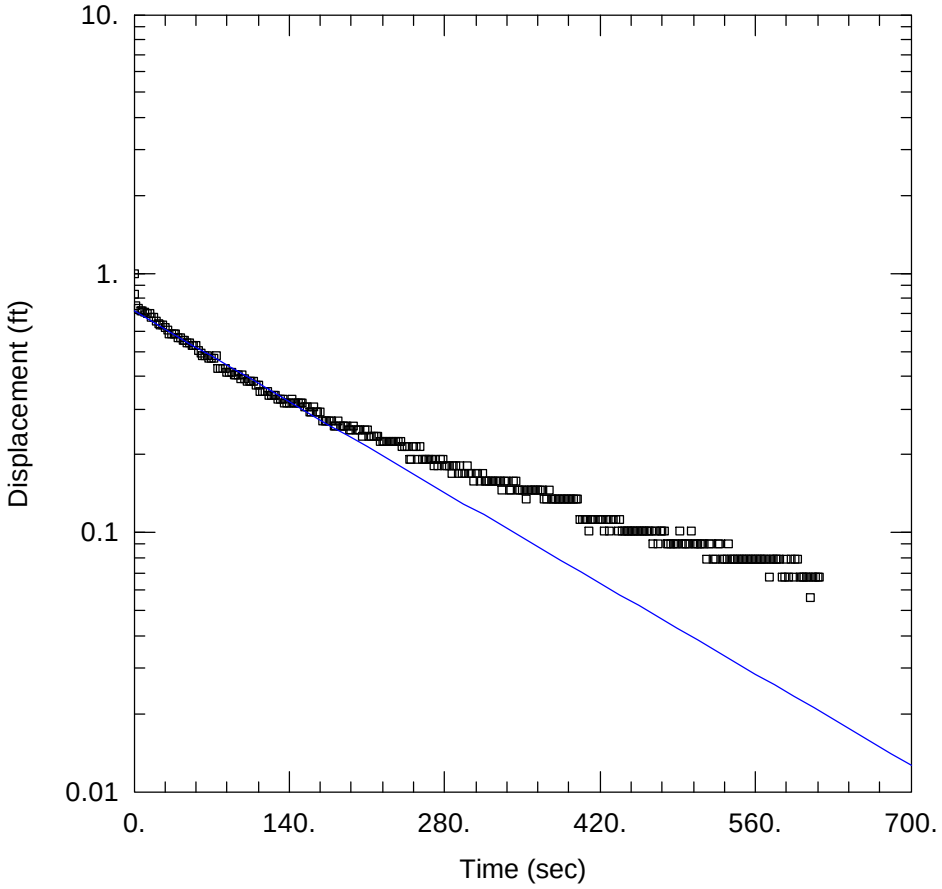
WELL DATA (MW-7)

Initial Displacement: 1.7 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 5.49 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006292 cm/sec y0 = 1.155 ft



MW-7A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-7A_1.aqt
Date: 10/06/09 Time: 10:30:15

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7A
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

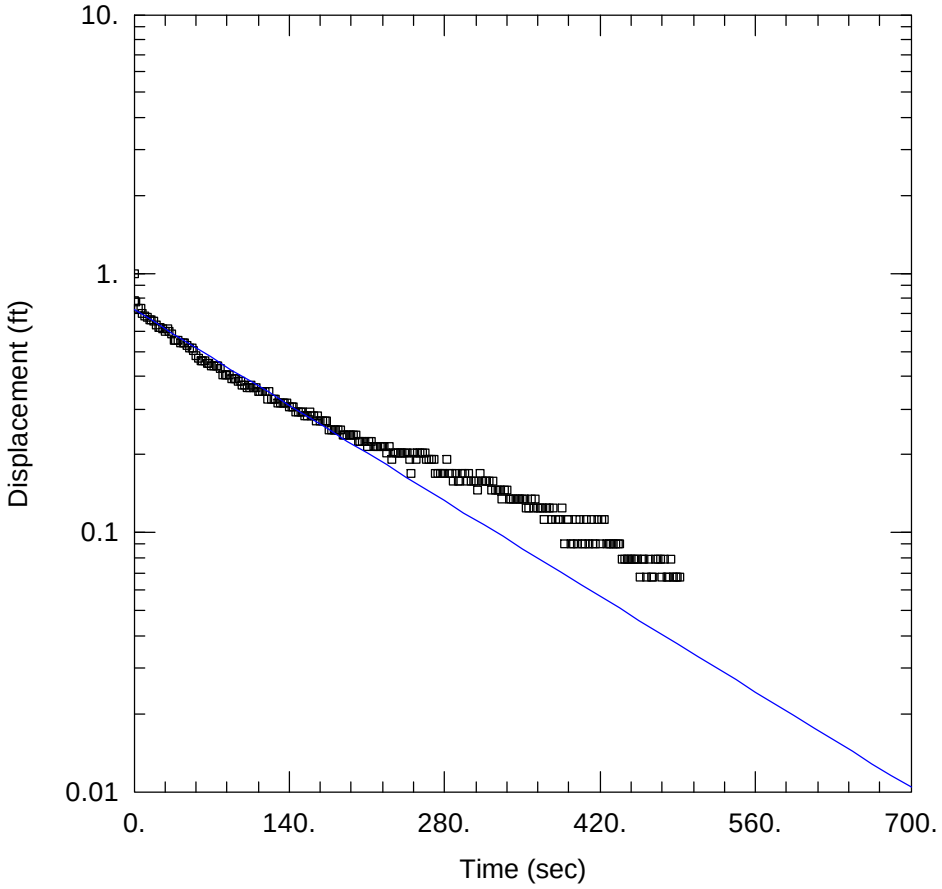
WELL DATA (MW-7A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 11.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001293 cm/sec y0 = 0.7182 ft



MW-7A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-7A_2.aqt
Date: 10/06/09 Time: 10:30:02

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7A
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

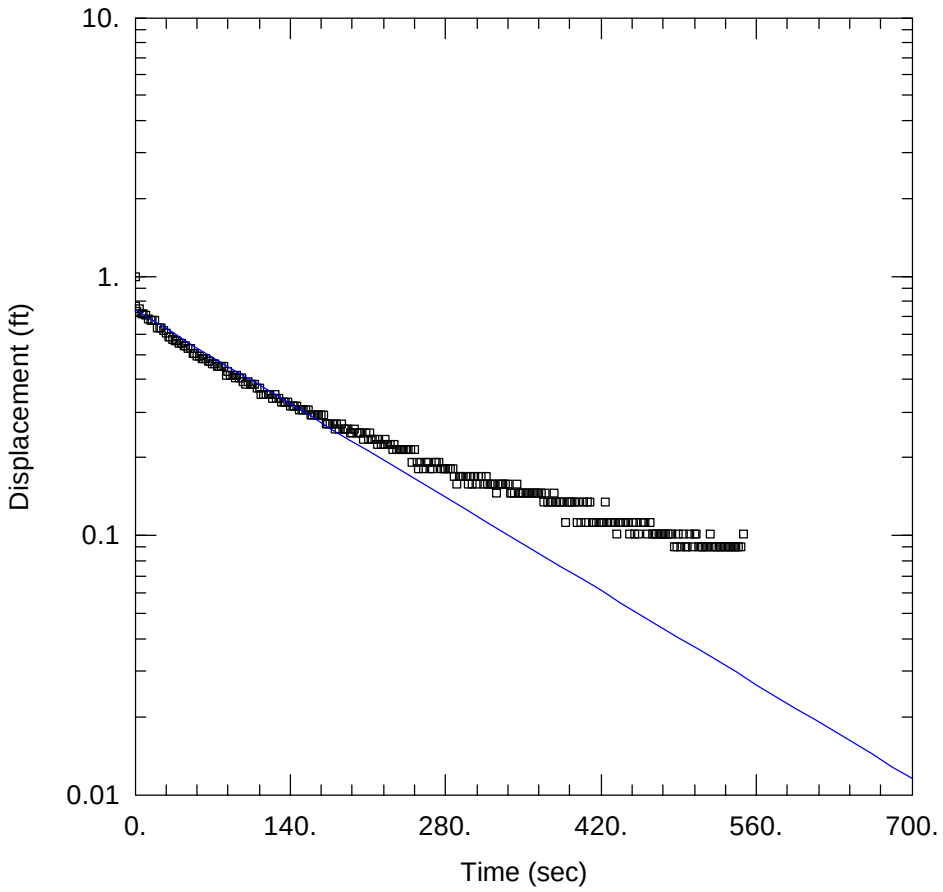
WELL DATA (MW-7A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 11.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001362 cm/sec y0 = 0.727 ft



MW-7A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-7A_3.aqt
Date: 10/06/09 Time: 10:29:45

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7A
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

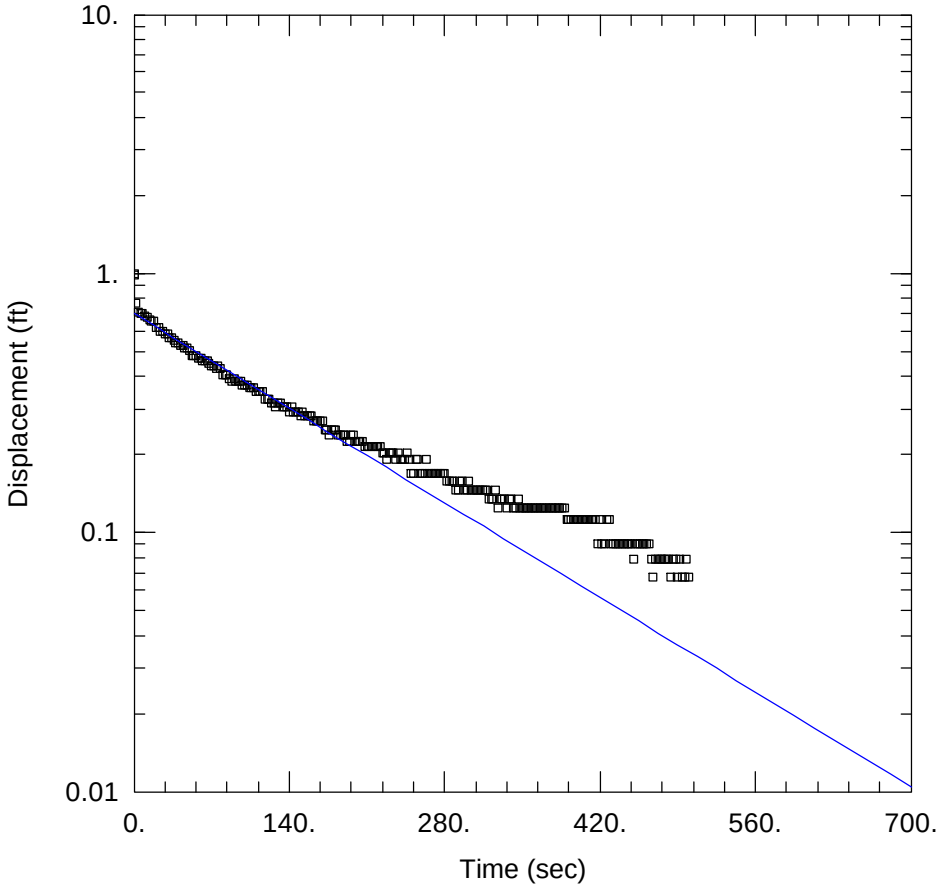
WELL DATA (MW-7A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 11.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001333 cm/sec y0 = 0.7414 ft



MW-7A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-7A_4.aqt
Date: 10/06/09 Time: 10:29:30

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-7A
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

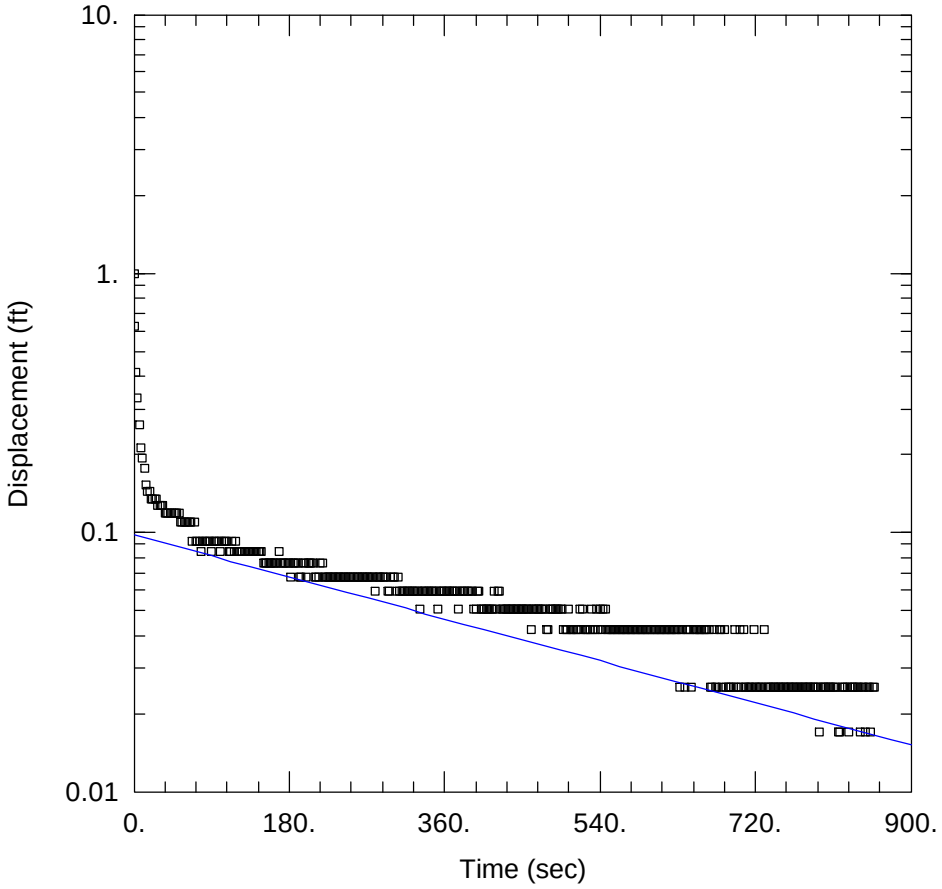
WELL DATA (MW-7A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 11.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001347 cm/sec y0 = 0.7 ft



MW-8 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-8_1.aqt
Date: 10/06/09 Time: 10:31:54

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-8
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

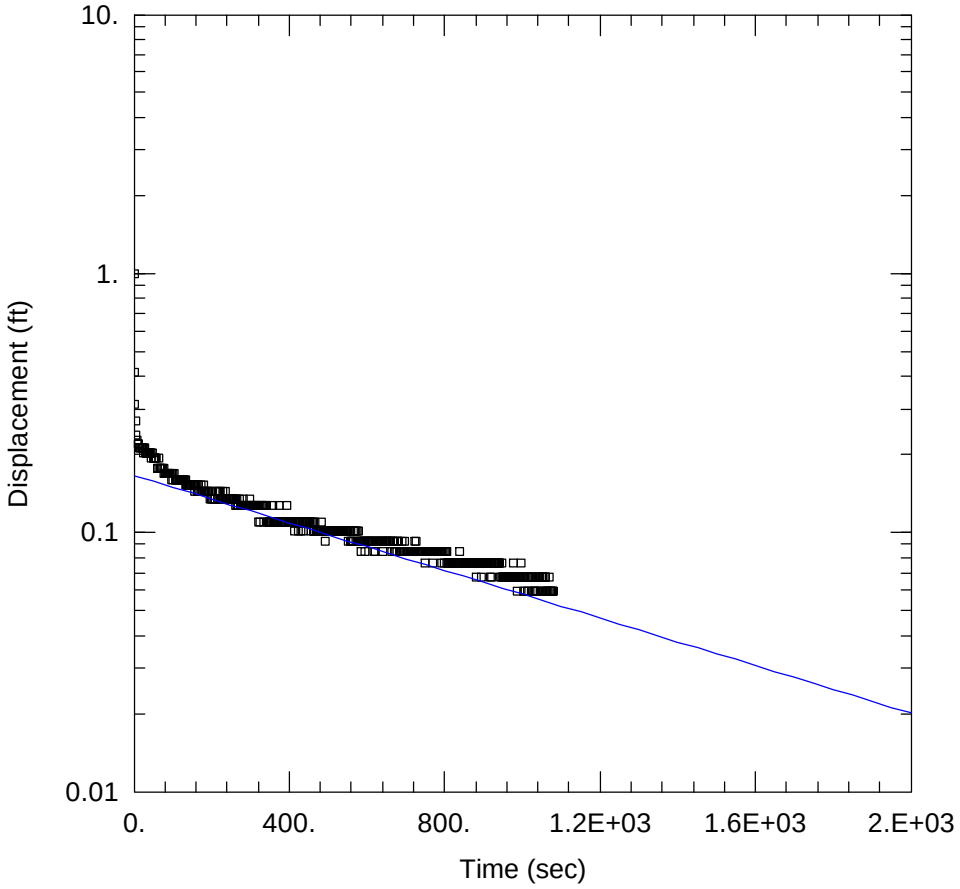
WELL DATA (MW-8)

Initial Displacement: 1. ft
Wellbore Radius: 0.333 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.333 ft
Total Well Penetration Depth: 5.3 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 7.355E-05 cm/sec y0 = 0.09792 ft



MW-8 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-8_2.aqt
Date: 10/06/09 Time: 10:31:40

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-8
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

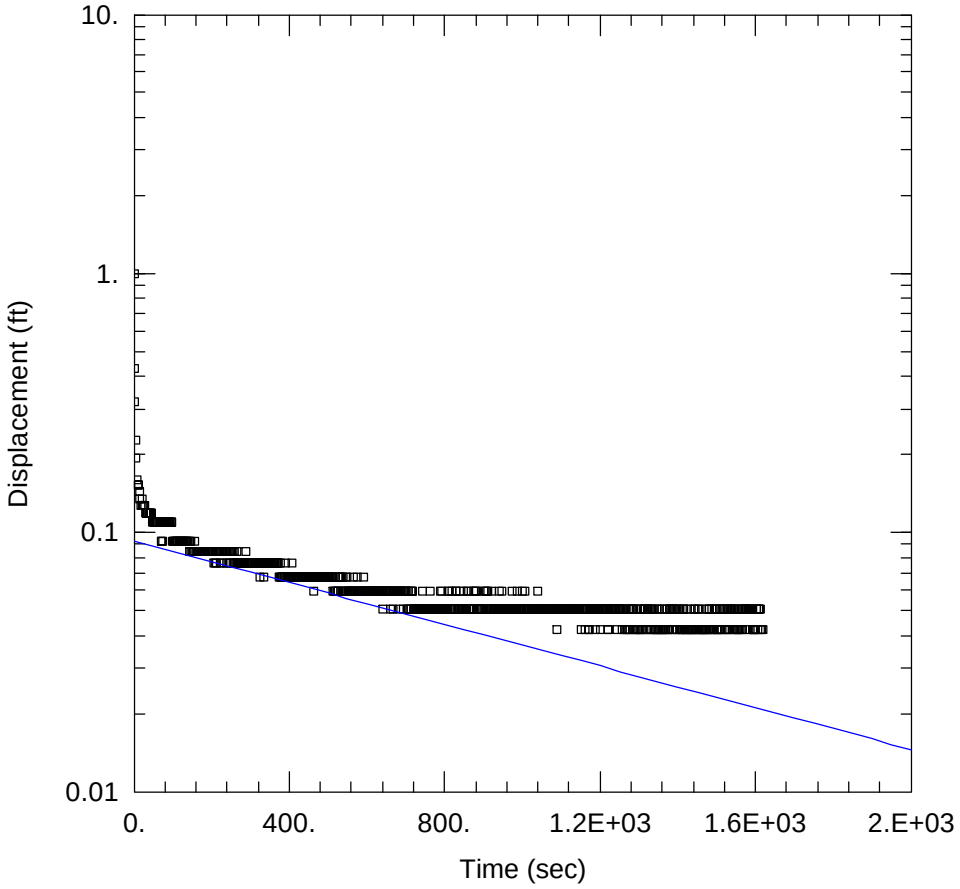
WELL DATA (MW-8)

Initial Displacement: 1. ft
Wellbore Radius: 0.333 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.333 ft
Total Well Penetration Depth: 5.3 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.746E-05 cm/sec
y0 = 0.1662 ft



MW-8 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-8_3.aqt
Date: 10/06/09 Time: 10:31:29

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-8
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

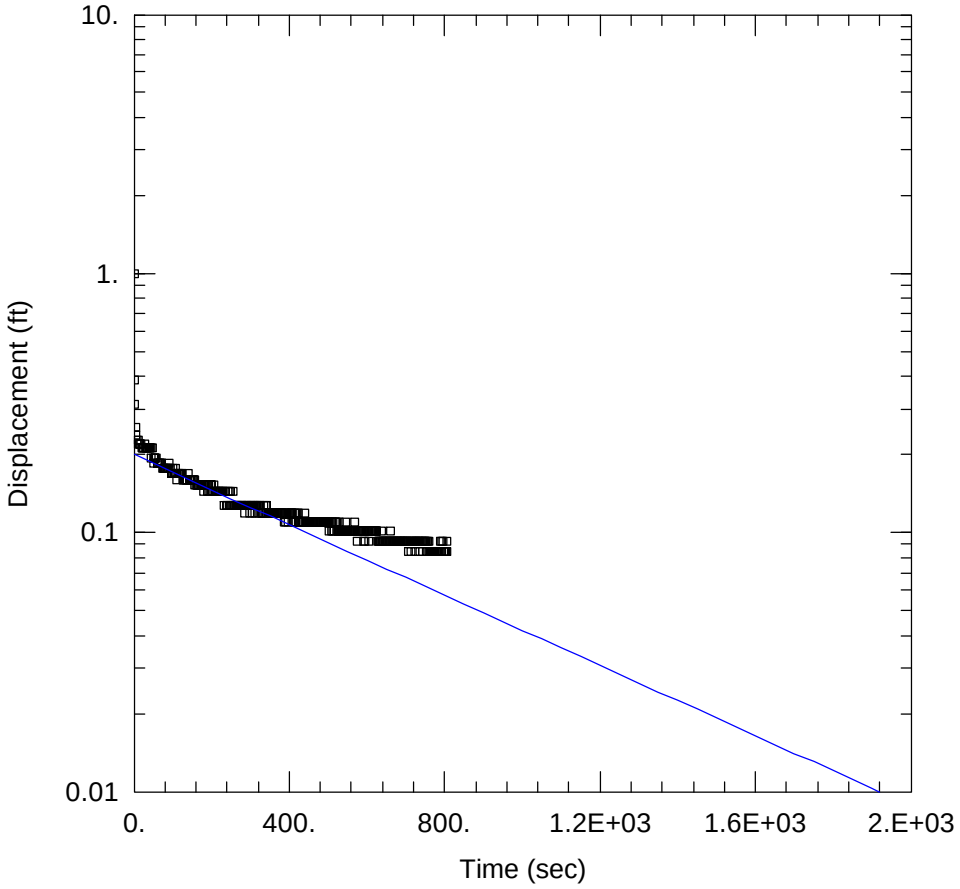
WELL DATA (MW-8)

Initial Displacement: 1. ft
Wellbore Radius: 0.333 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.333 ft
Total Well Penetration Depth: 5.3 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.283E-05 cm/sec
y0 = 0.09273 ft



MW-8 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-8_4.aqt
Date: 10/06/09 Time: 10:31:15

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-8
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

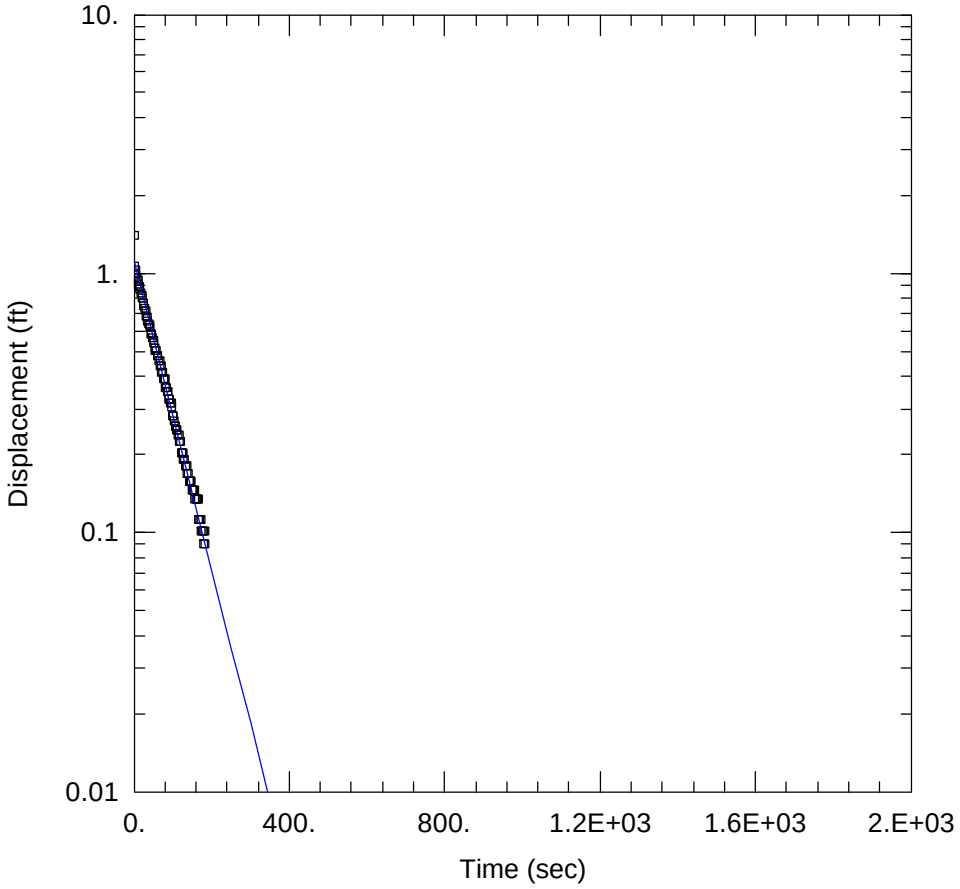
WELL DATA (MW-8)

Initial Displacement: 1. ft
Wellbore Radius: 0.333 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.333 ft
Total Well Penetration Depth: 5.3 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 5.531E-05 cm/sec y0 = 0.1995 ft



MW-9 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-9_1.aqt
Date: 10/06/09 Time: 10:33:28

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

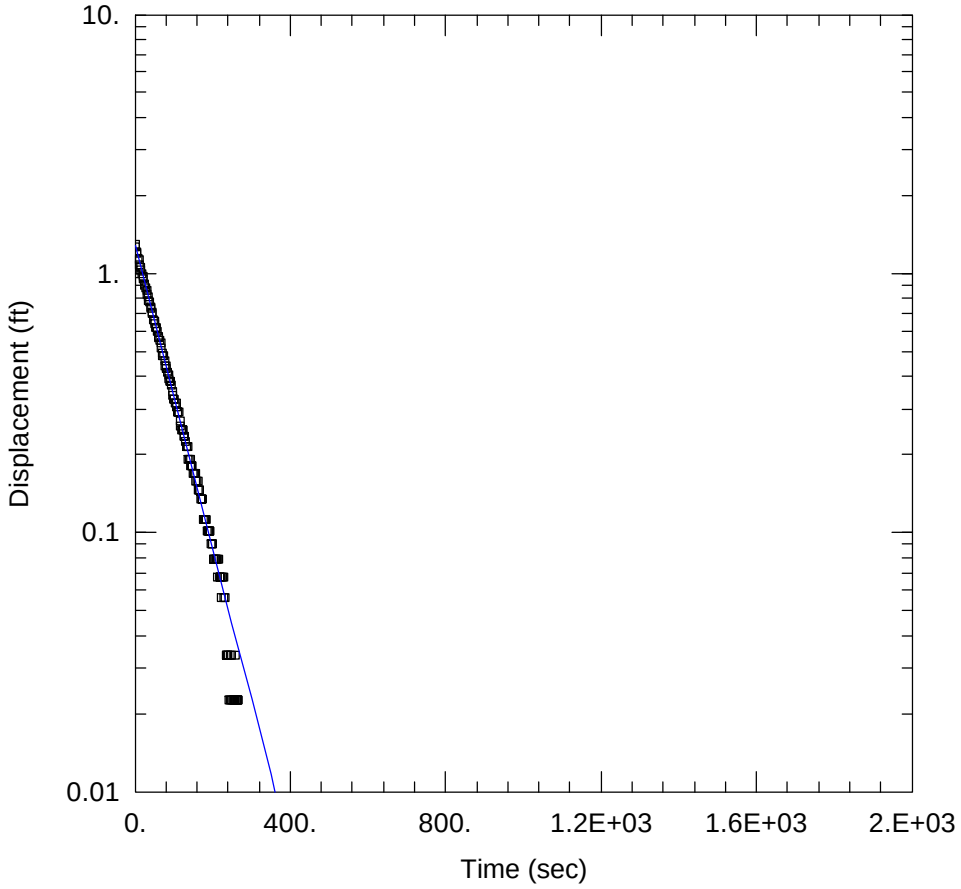
WELL DATA (MW-9)

Initial Displacement: 1. ft
Wellbore Radius: 0.333 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.333 ft
Total Well Penetration Depth: 4.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0004719 cm/sec y0 = 1.11 ft



MW-9 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-9_2.aqt
Date: 10/06/09 Time: 10:33:15

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

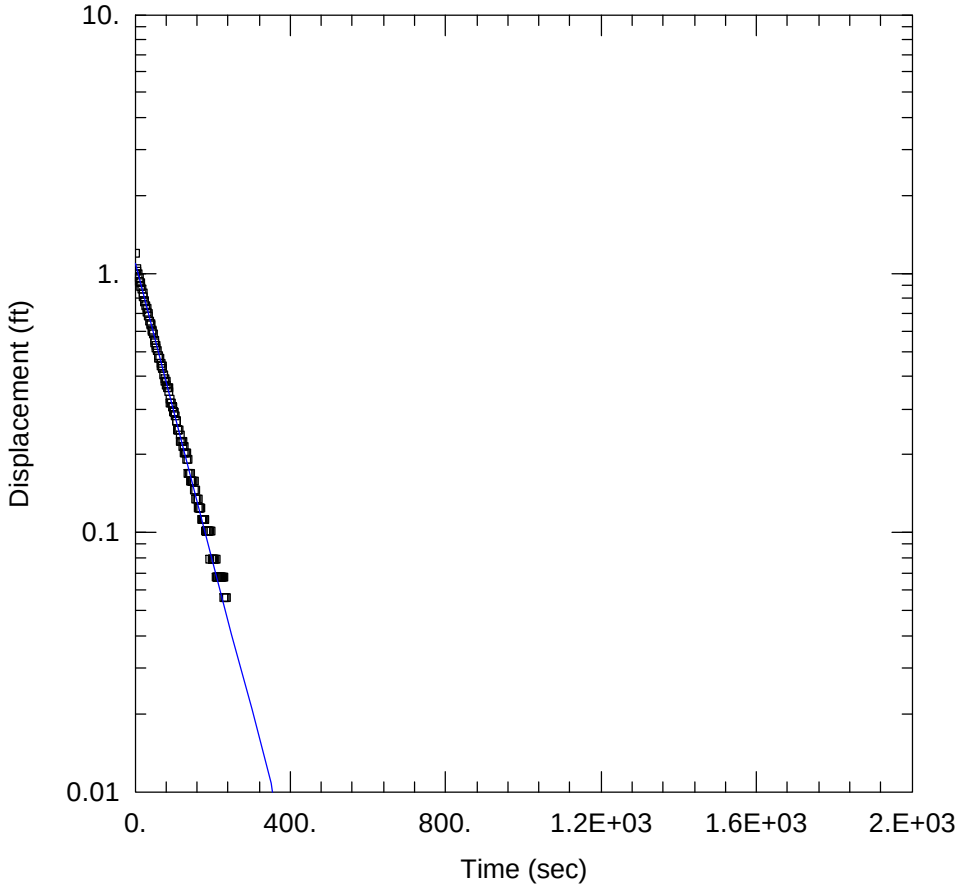
WELL DATA (MW-9)

Initial Displacement: 1. ft
Wellbore Radius: 0.333 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.333 ft
Total Well Penetration Depth: 4.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0004641 cm/sec y0 = 1.285 ft



MW-9 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-9_3.aqt
Date: 10/06/09 Time: 10:33:01

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

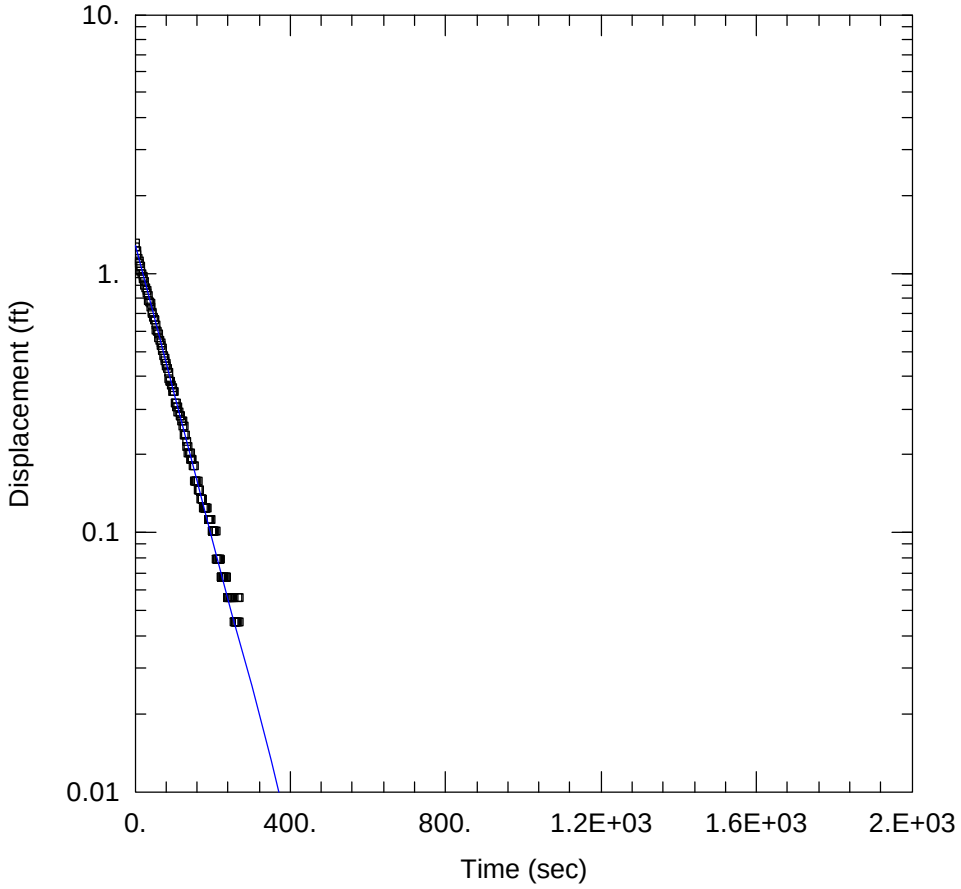
WELL DATA (MW-9)

Initial Displacement: 1. ft
Wellbore Radius: 0.333 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.333 ft
Total Well Penetration Depth: 4.8 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.000456 cm/sec
y0 = 1.099 ft



MW-9 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-9_4.aqt
Date: 10/06/09 Time: 10:32:43

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

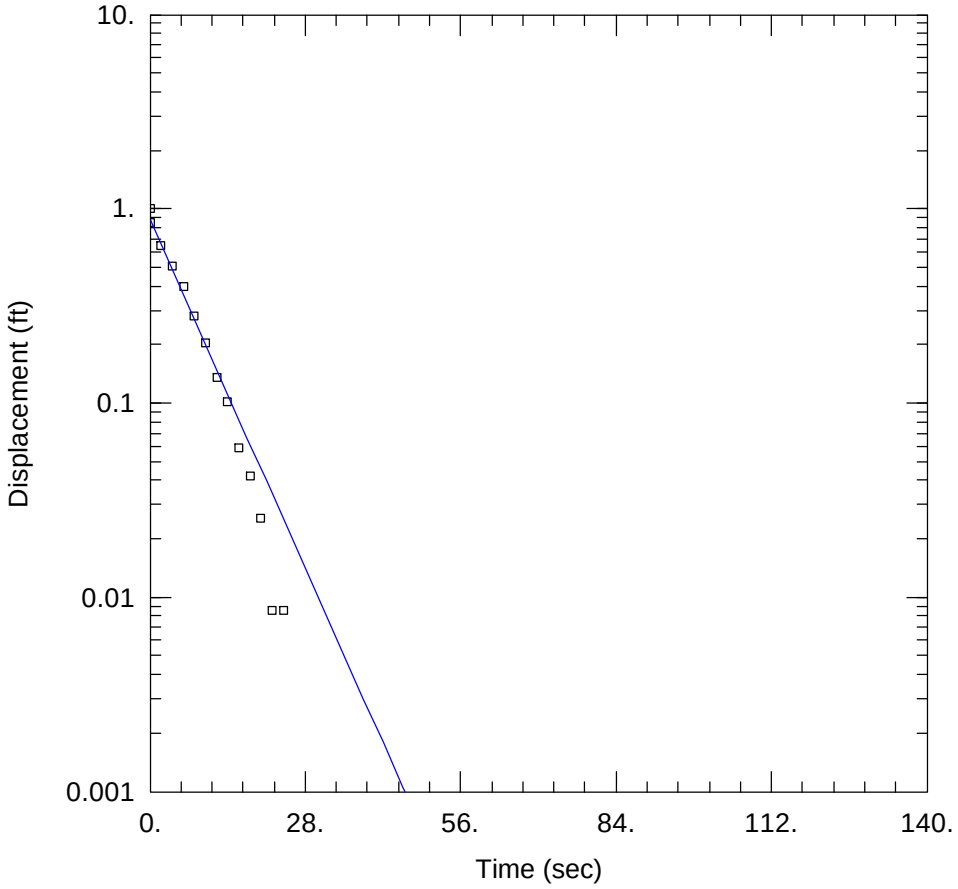
WELL DATA (MW-9)

Initial Displacement: 1. ft
Wellbore Radius: 0.333 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.333 ft
Total Well Penetration Depth: 4.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0004505 cm/sec y0 = 1.28 ft



MW-9A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-9A_1.aqt
Date: 10/06/09 Time: 10:35:57

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9A
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft Anisotropy Ratio (Kz/Kr): 1.

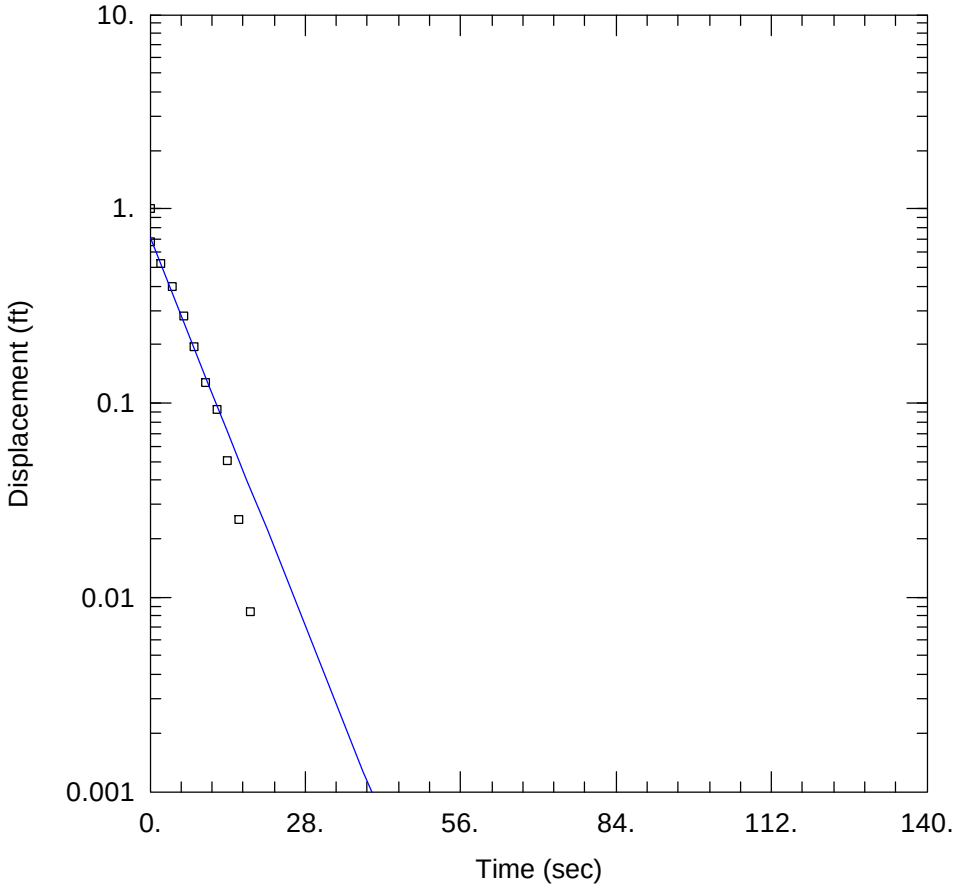
WELL DATA (MW-9A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 26. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.03673 cm/sec y0 = 0.8768 ft



MW-9A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-9A_2.aqt
Date: 10/06/09 Time: 10:35:46

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9A
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft Anisotropy Ratio (Kz/Kr): 1.

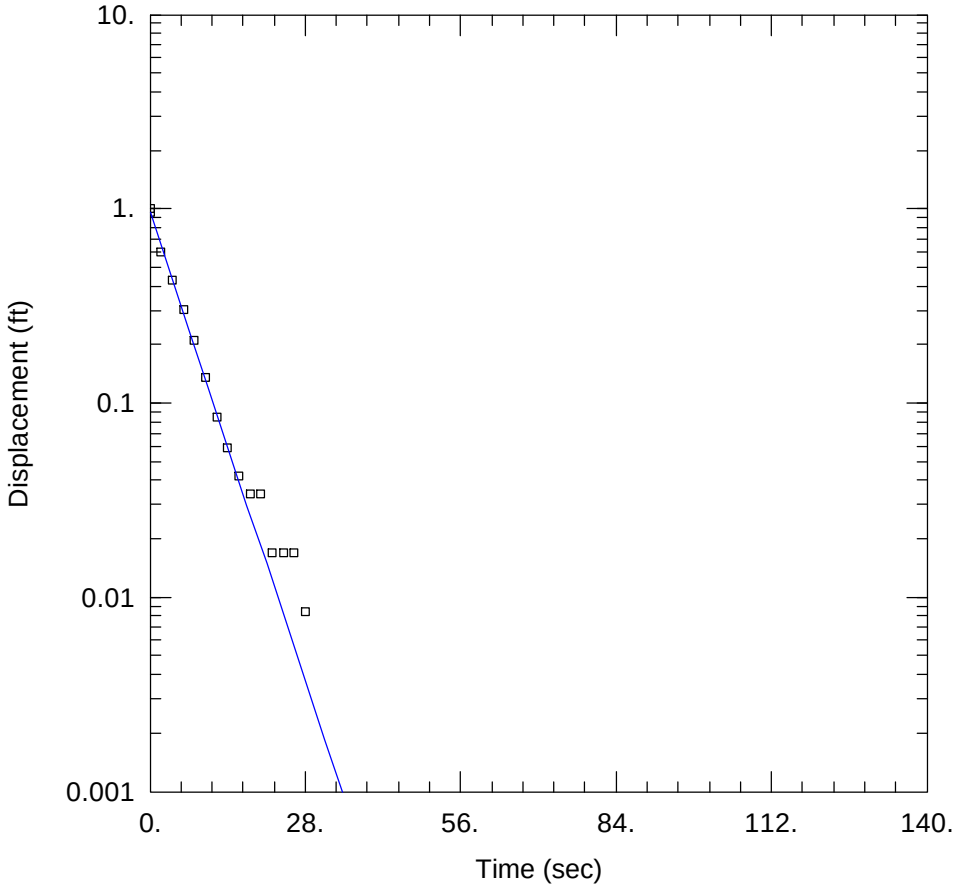
WELL DATA (MW-9A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 26. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.04088 cm/sec y0 = 0.7099 ft



MW-9A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-9A_3.aqt
Date: 10/06/09 Time: 10:35:34

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9A
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft Anisotropy Ratio (Kz/Kr): 1.

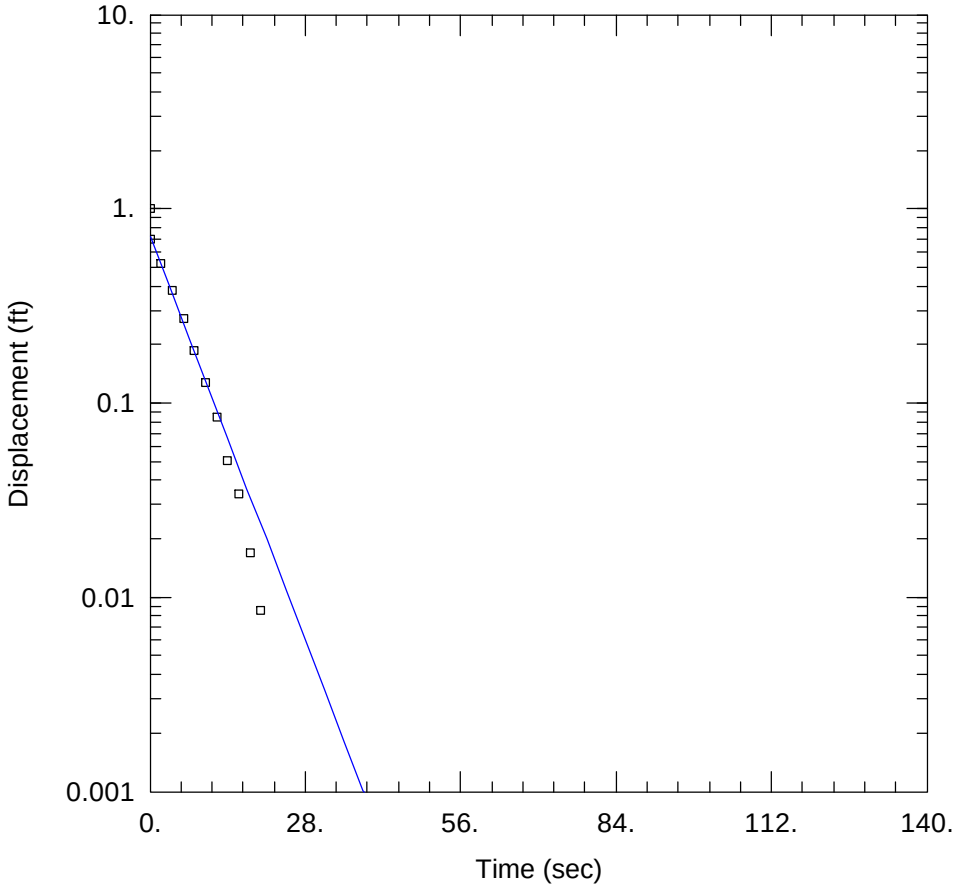
WELL DATA (MW-9A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 26. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.04934 cm/sec y0 = 0.9581 ft



MW-9A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-9A_4.aqt
Date: 10/06/09 Time: 10:35:15

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9A
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft Anisotropy Ratio (Kz/Kr): 1.

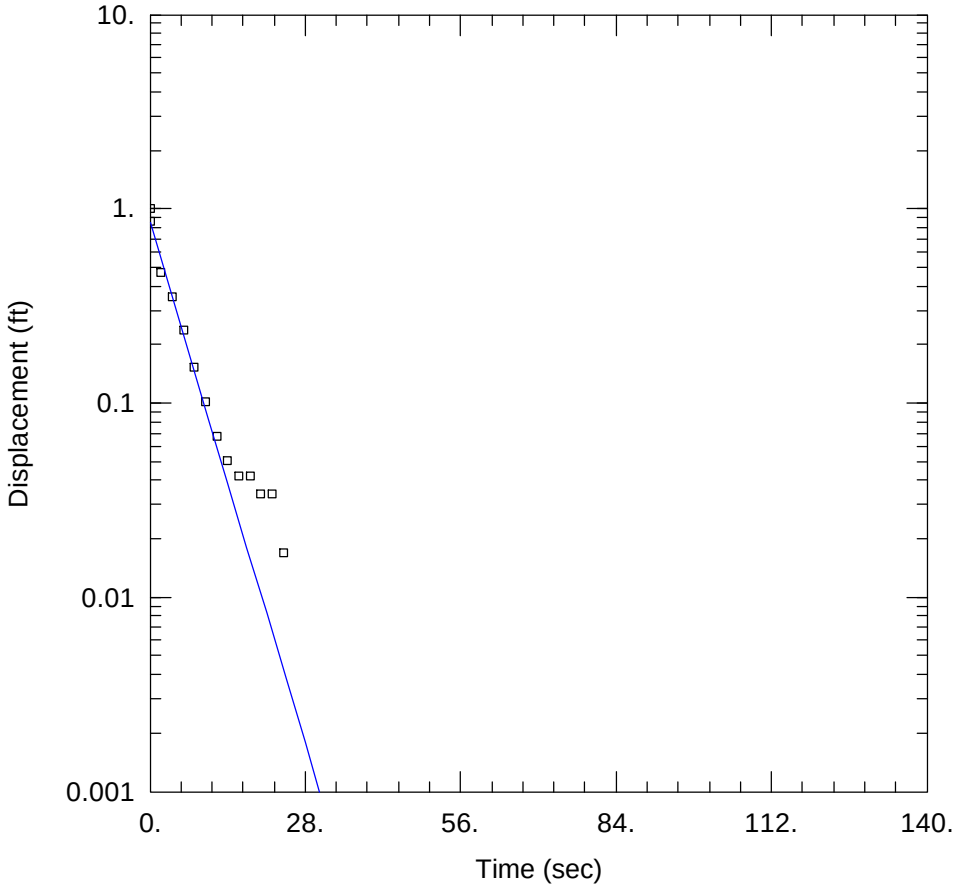
WELL DATA (MW-9A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 26. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0425 cm/sec y0 = 0.7211 ft



MW-9A FALLING HEAD SLUG TEST #3

Data Set: C:\Buffalo China\MW-9A_5.aqt
Date: 10/06/09 Time: 10:34:57

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9A
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft Anisotropy Ratio (Kz/Kr): 1.

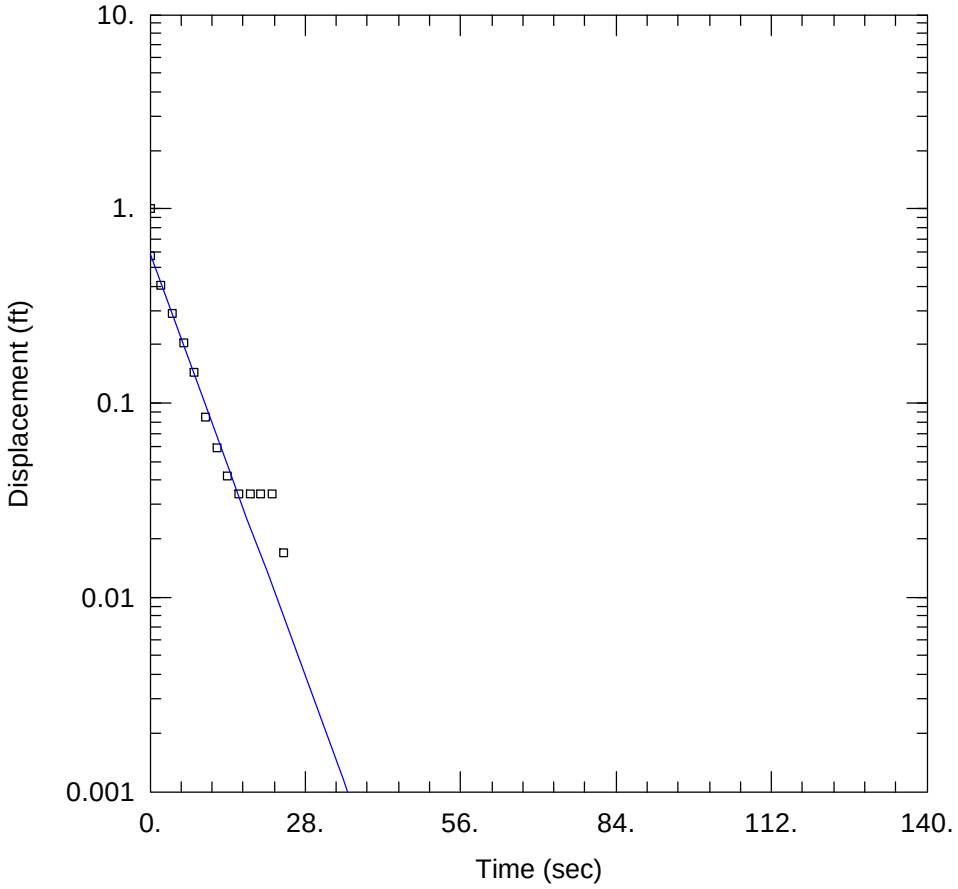
WELL DATA (MW-9A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 26. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.05474 cm/sec y0 = 0.8437 ft



MW-9A RISING HEAD SLUG TEST #3

Data Set: C:\Buffalo China\MW-9A_6.aqt
Date: 10/06/09 Time: 10:34:43

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-9A
Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft Anisotropy Ratio (Kz/Kr): 1.

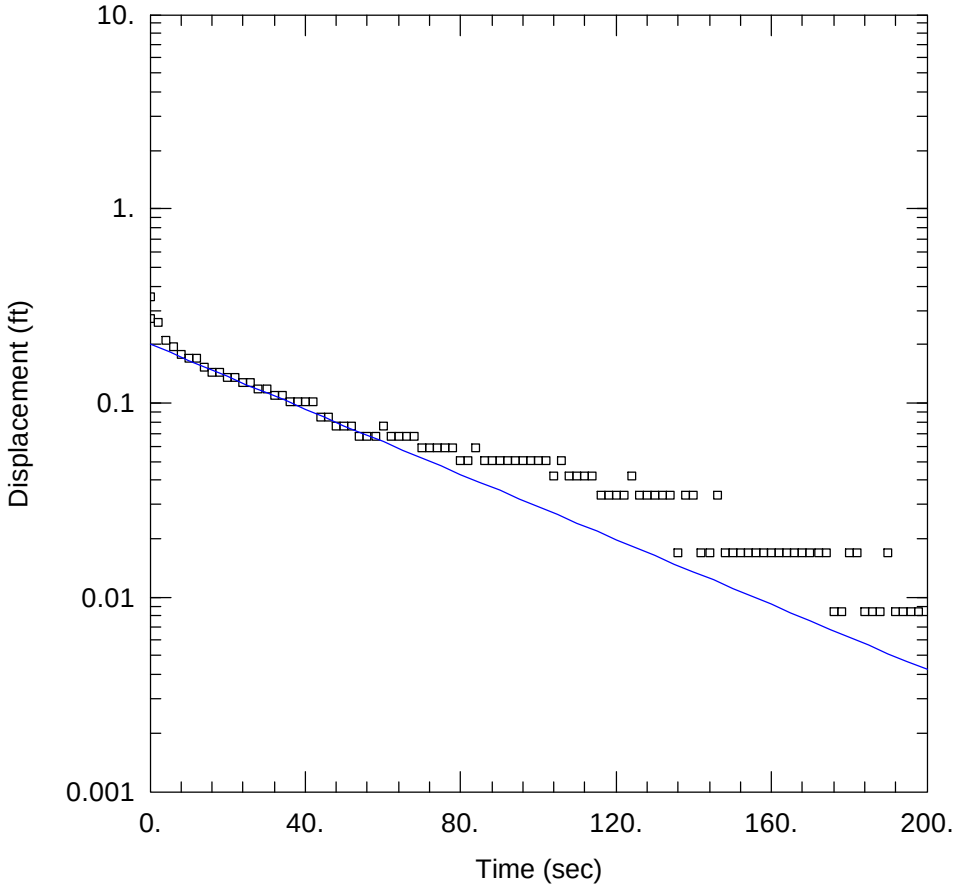
WELL DATA (MW-9A)

Initial Displacement: 1. ft
Wellbore Radius: 0.167 ft
Screen Length: 5. ft
Casing Radius: 0.167 ft
Well Skin Radius: 0.167 ft
Total Well Penetration Depth: 26. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0444 cm/sec y0 = 0.5833 ft



MW-10 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-10_1.aqt
Date: 07/13/09 Time: 10:36:33

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-10
Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

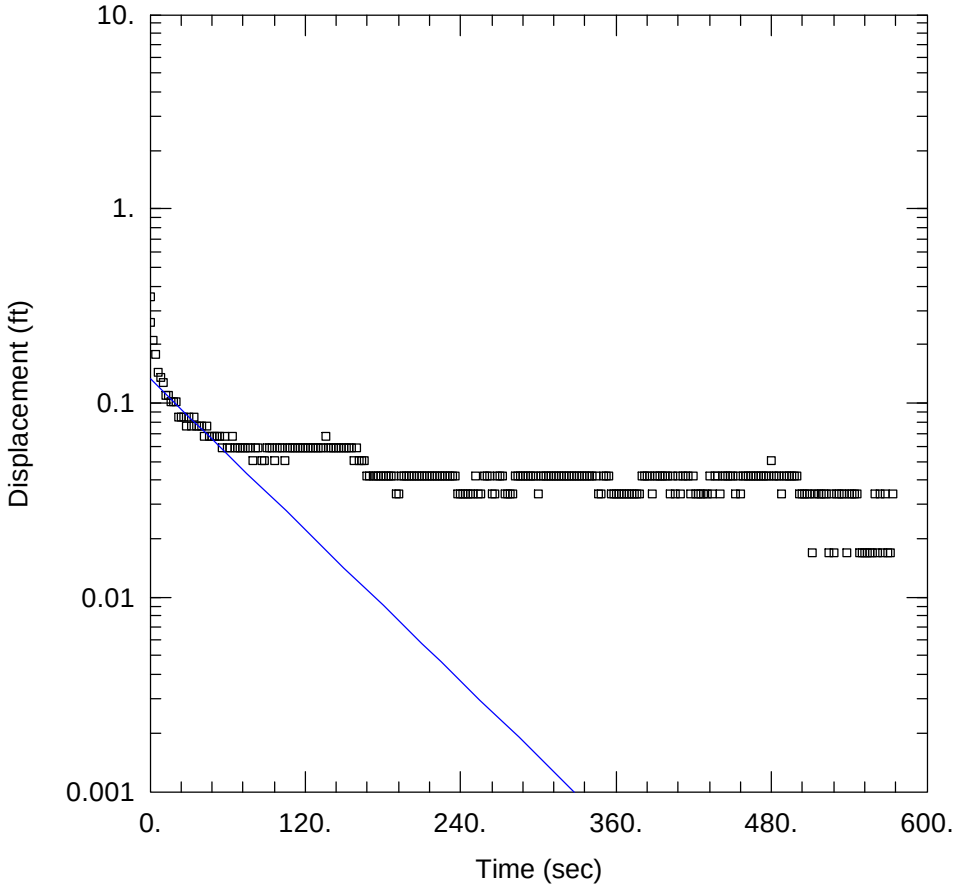
WELL DATA (MW-10)

Initial Displacement: 0.35 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 1.5 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0004363 cm/sec y0 = 0.2013 ft



MW-10 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-10_2.aqt
Date: 07/13/09 Time: 10:37:04

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-10
Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

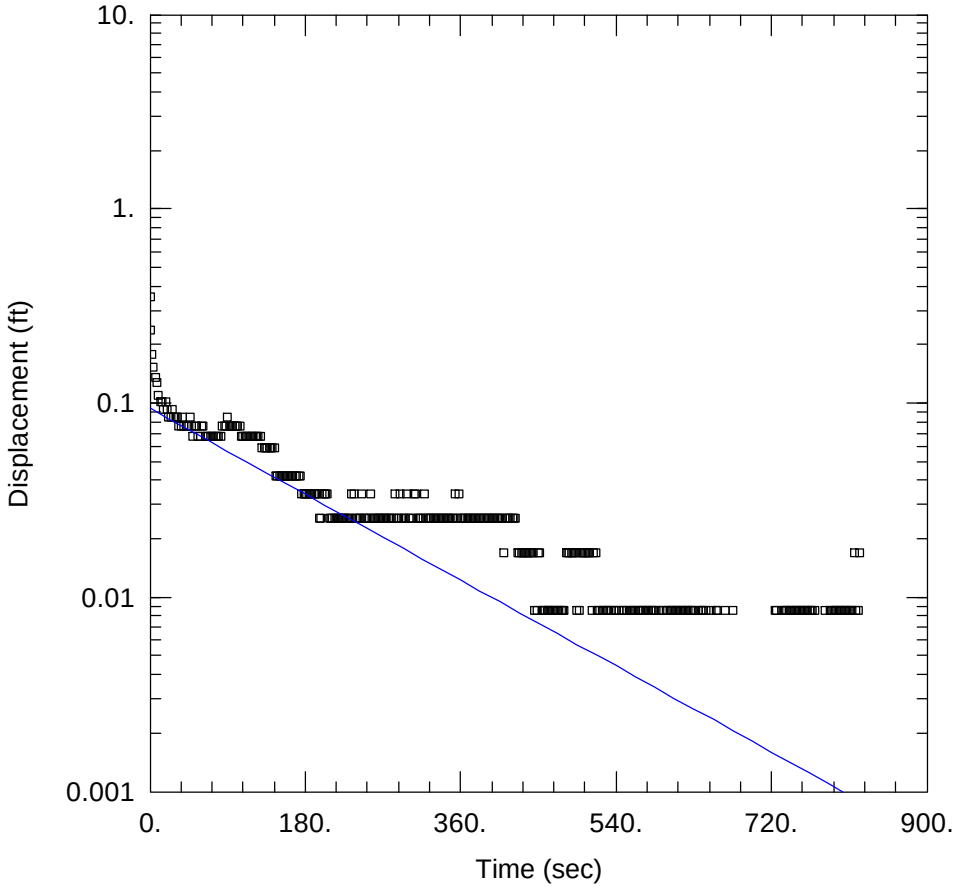
WELL DATA (MW-10)

Initial Displacement: 0.35 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 1.5 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0003373 cm/sec y0 = 0.1332 ft



MW-10 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-10_3.aqt
Date: 07/13/09 Time: 10:37:30

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-10
Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

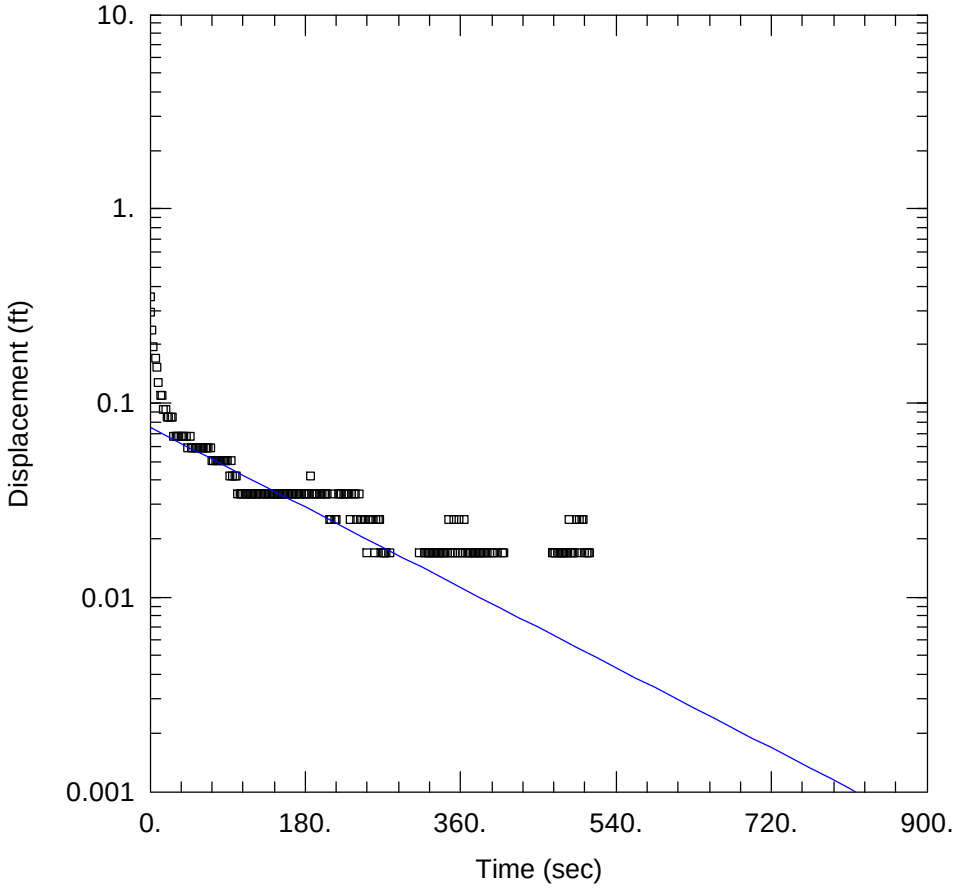
WELL DATA (MW-10)

Initial Displacement: 0.35 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 1.5 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0001278 cm/sec y0 = 0.09379 ft



MW-10 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-10_4.aqt
Date: 07/13/09 Time: 10:37:51

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-10
Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

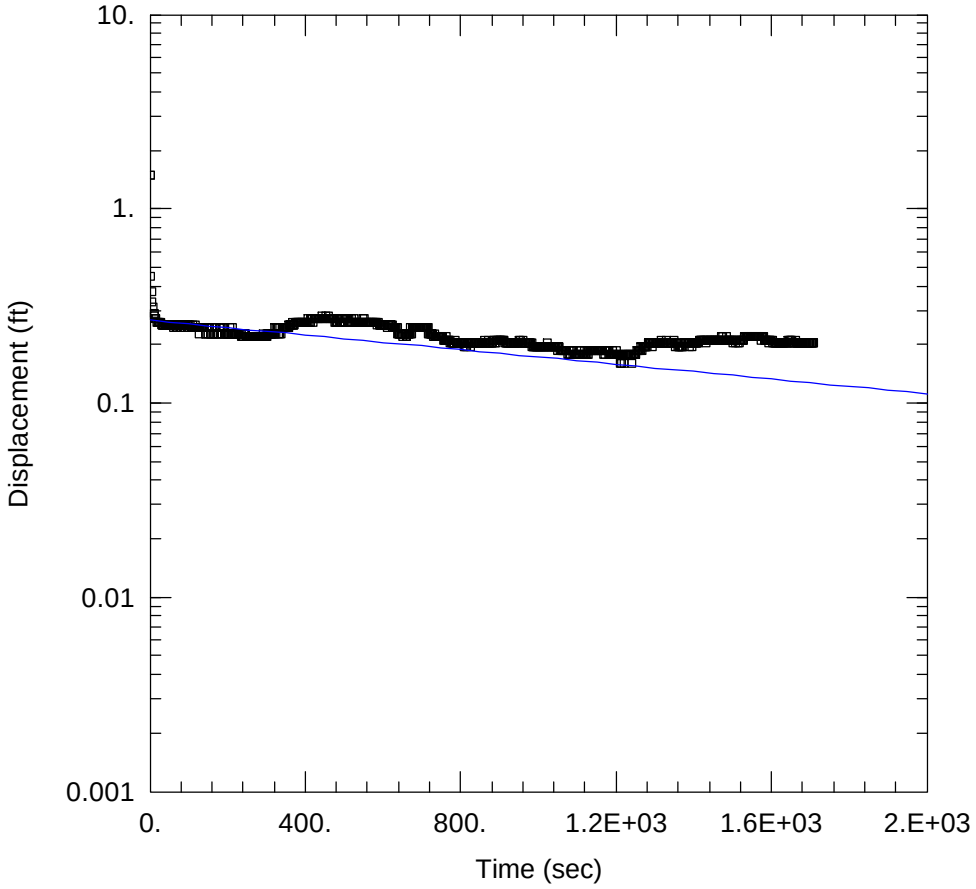
WELL DATA (MW-10)

Initial Displacement: 0.35 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 1.5 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0001193 cm/sec y0 = 0.07513 ft



MW-11 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-11_1.aqt
Date: 07/13/09 Time: 10:38:55

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-11
Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

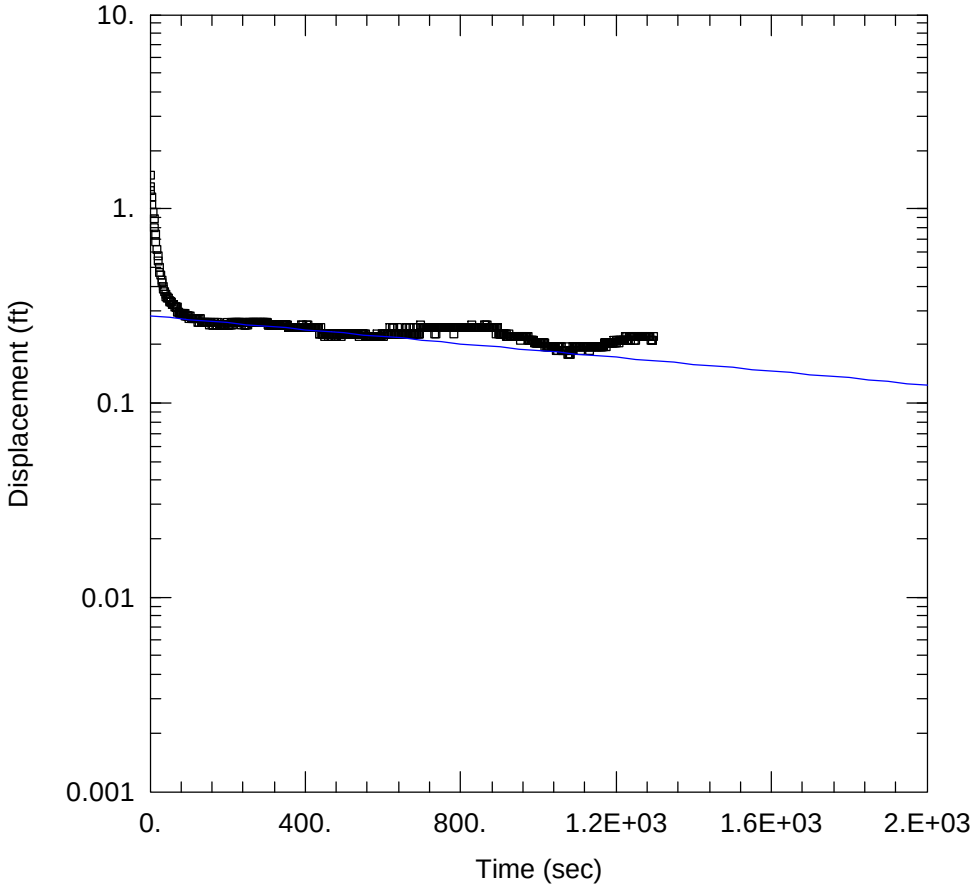
WELL DATA (MW-11)

Initial Displacement: 1.5 ft Casing Radius: 0.083 ft
Wellbore Radius: 0.33 ft Well Skin Radius: 0.33 ft
Screen Length: 5. ft Total Well Penetration Depth: 5. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.523E-05 cm/sec y0 = 0.2666 ft



MW-11 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-11_2.aqt
Date: 07/13/09 Time: 10:39:25

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-11
Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

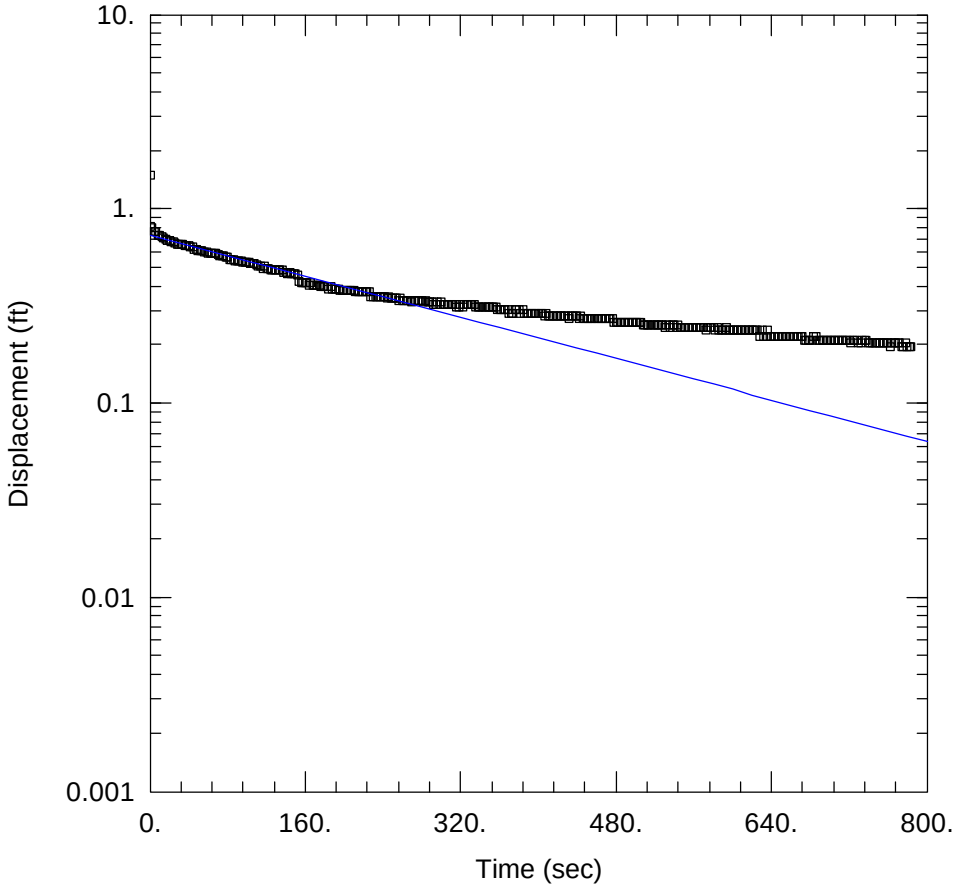
WELL DATA (MW-11)

Initial Displacement: 1.5 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 5. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.433E-05 cm/sec y0 = 0.2808 ft



MW-13A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-13A_1.aqt
Date: 10/06/09 Time: 10:37:36

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-13A
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

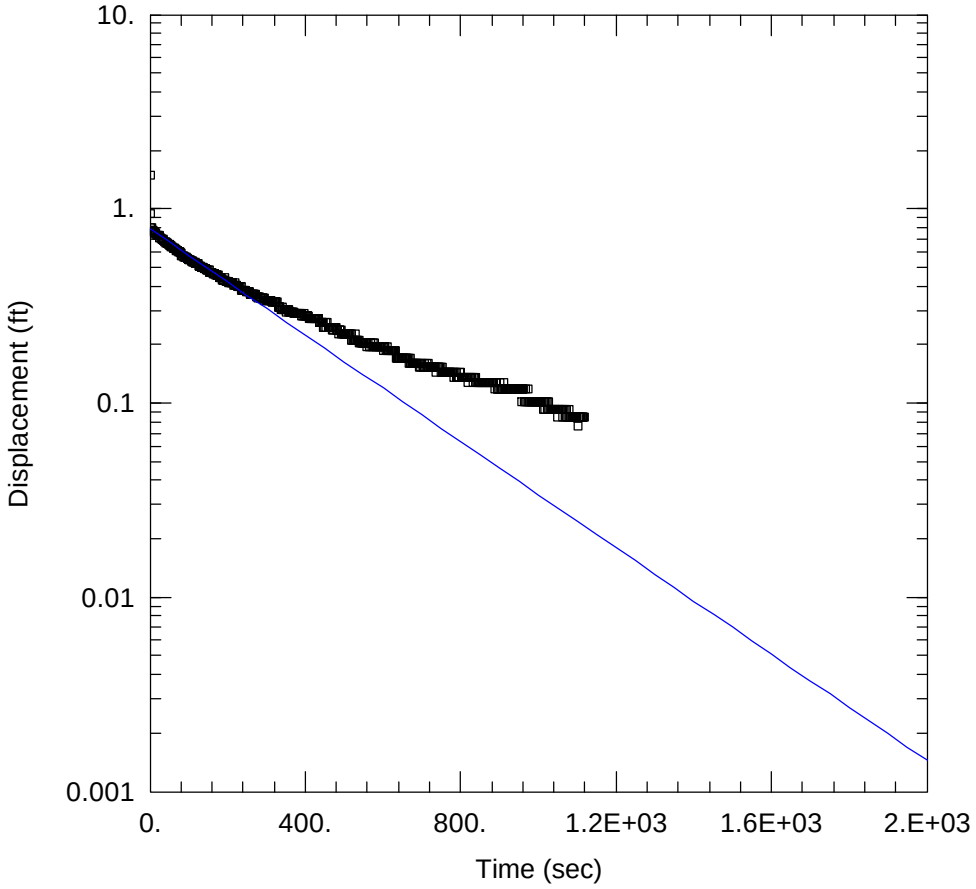
WELL DATA (MW-13A)

Initial Displacement: 1.5 ft Casing Radius: 0.167 ft
Wellbore Radius: 0.167 ft Well Skin Radius: 0.167 ft
Screen Length: 5. ft Total Well Penetration Depth: 9. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006392 cm/sec y0 = 0.729 ft



MW-13A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-13A_2.aqt
Date: 10/06/09 Time: 10:37:22

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-13A
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

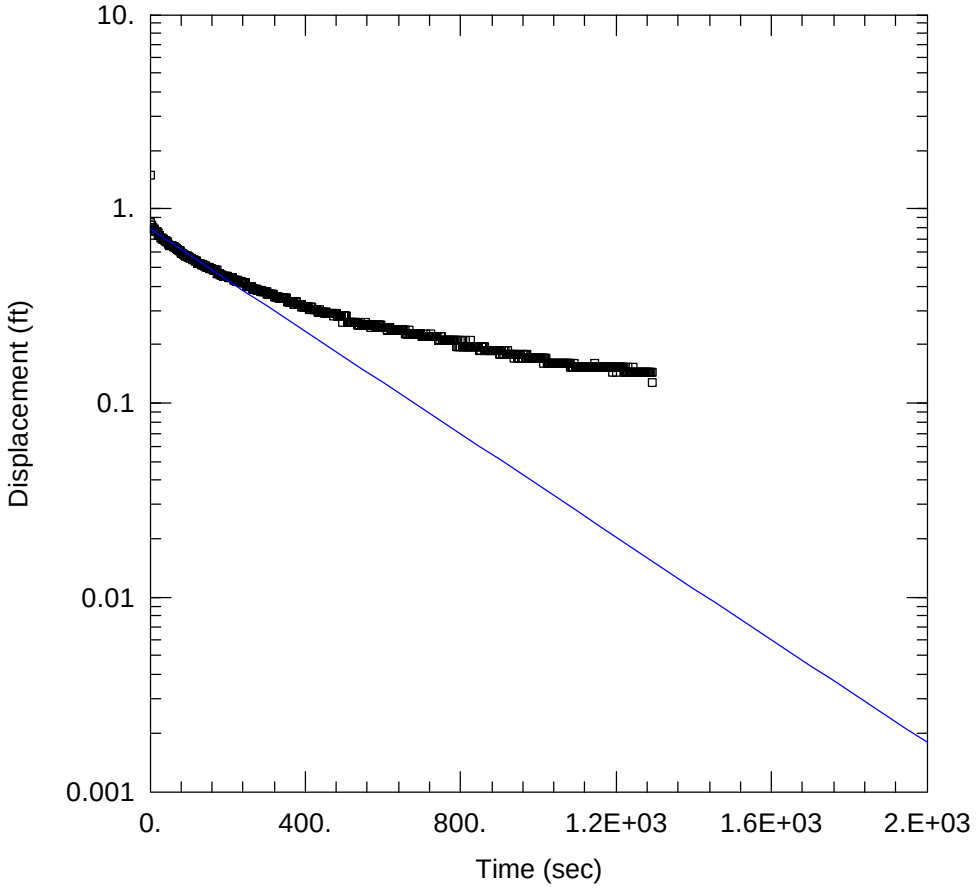
WELL DATA (MW-13A)

Initial Displacement: 1.5 ft Casing Radius: 0.167 ft
Wellbore Radius: 0.167 ft Well Skin Radius: 0.167 ft
Screen Length: 5. ft Total Well Penetration Depth: 9. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006615 cm/sec y0 = 0.7895 ft



MW-13A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-13A_3.aqt
Date: 10/06/09 Time: 10:37:08

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-13A
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

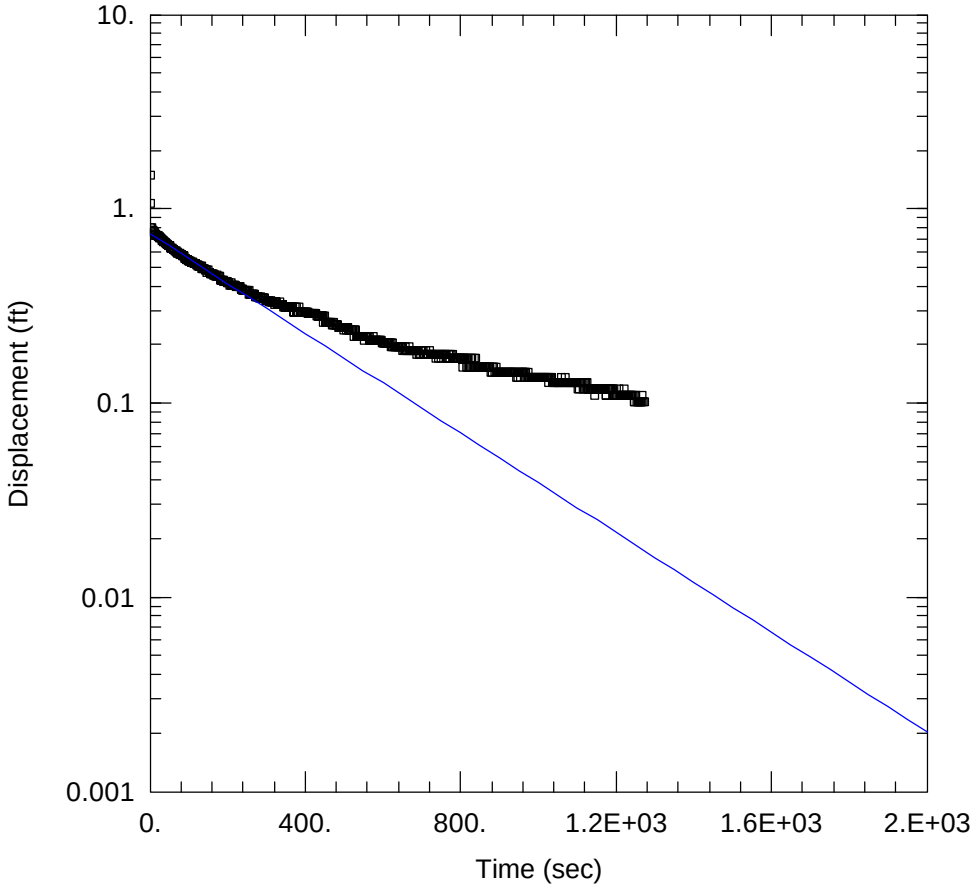
WELL DATA (MW-13A)

Initial Displacement: 1.5 ft Casing Radius: 0.167 ft
Wellbore Radius: 0.167 ft Well Skin Radius: 0.167 ft
Screen Length: 5. ft Total Well Penetration Depth: 9. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006388 cm/sec y0 = 0.7892 ft



MW-13A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-13A_4.aqt
Date: 10/06/09 Time: 10:36:52

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-13A
Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

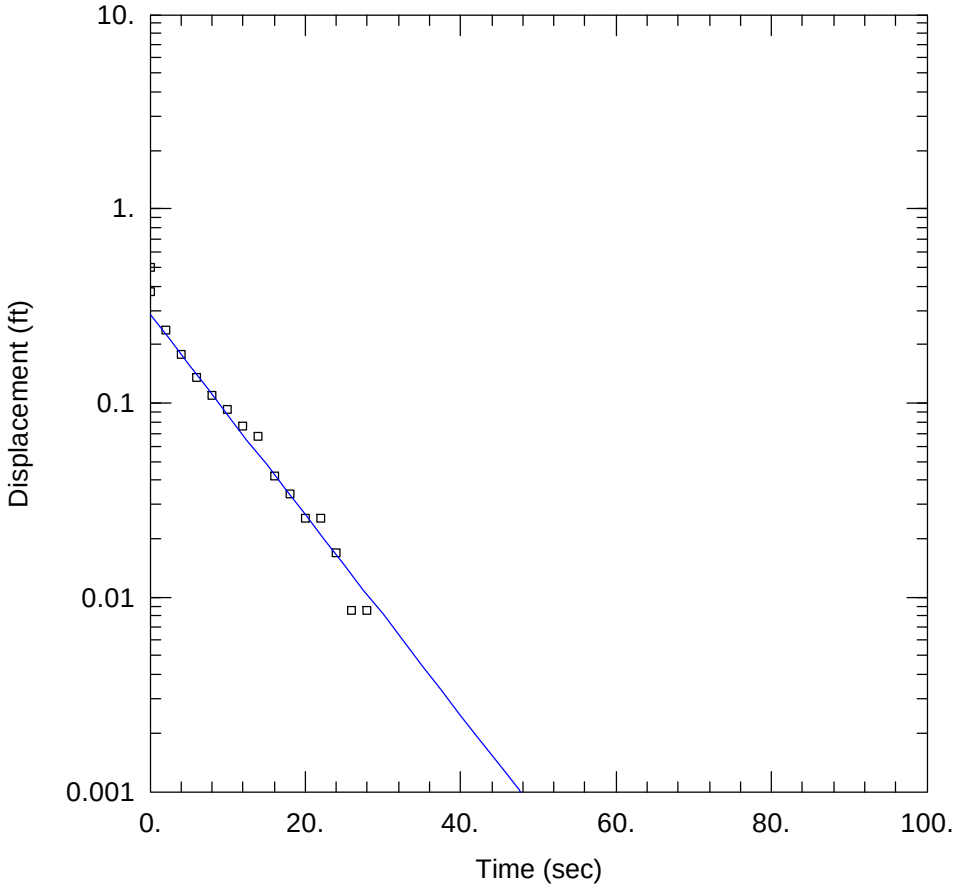
WELL DATA (MW-13A)

Initial Displacement: 1.5 ft Casing Radius: 0.167 ft
Wellbore Radius: 0.167 ft Well Skin Radius: 0.167 ft
Screen Length: 5. ft Total Well Penetration Depth: 9. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006198 cm/sec y0 = 0.7447 ft



MW-14A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-14A_1.aqt
Date: 07/13/09 Time: 10:43:32

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-14A
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

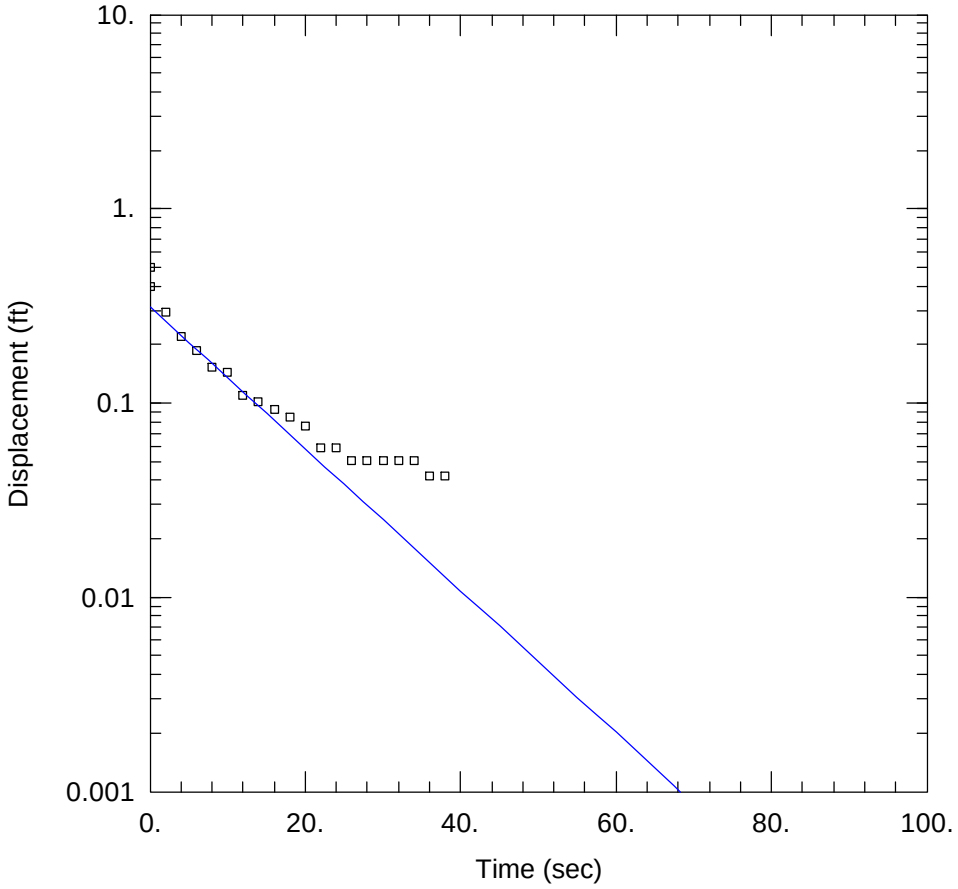
WELL DATA (MW-14A)

Initial Displacement: 0.5 ft Casing Radius: 0.167 ft
Wellbore Radius: 0.167 ft Well Skin Radius: 0.167 ft
Screen Length: 5. ft Total Well Penetration Depth: 4.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.02176 cm/sec y0 = 0.2858 ft



MW-14A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-14A_2.aqt
Date: 07/13/09 Time: 10:43:57

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-14A
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

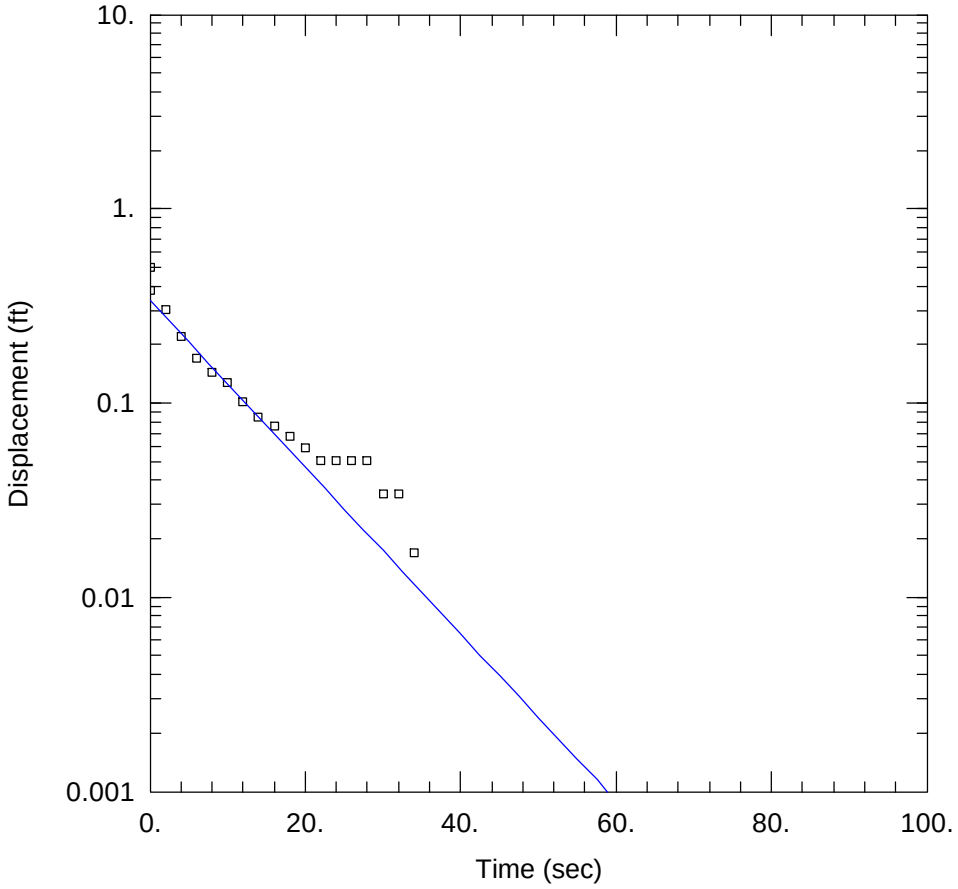
WELL DATA (MW-14A)

Initial Displacement: 0.5 ft Casing Radius: 0.167 ft
Wellbore Radius: 0.167 ft Well Skin Radius: 0.167 ft
Screen Length: 5. ft Total Well Penetration Depth: 4.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.01542 cm/sec y0 = 0.3126 ft



MW-14A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-14A_3.aqt
Date: 07/13/09 Time: 10:44:33

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-14A
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

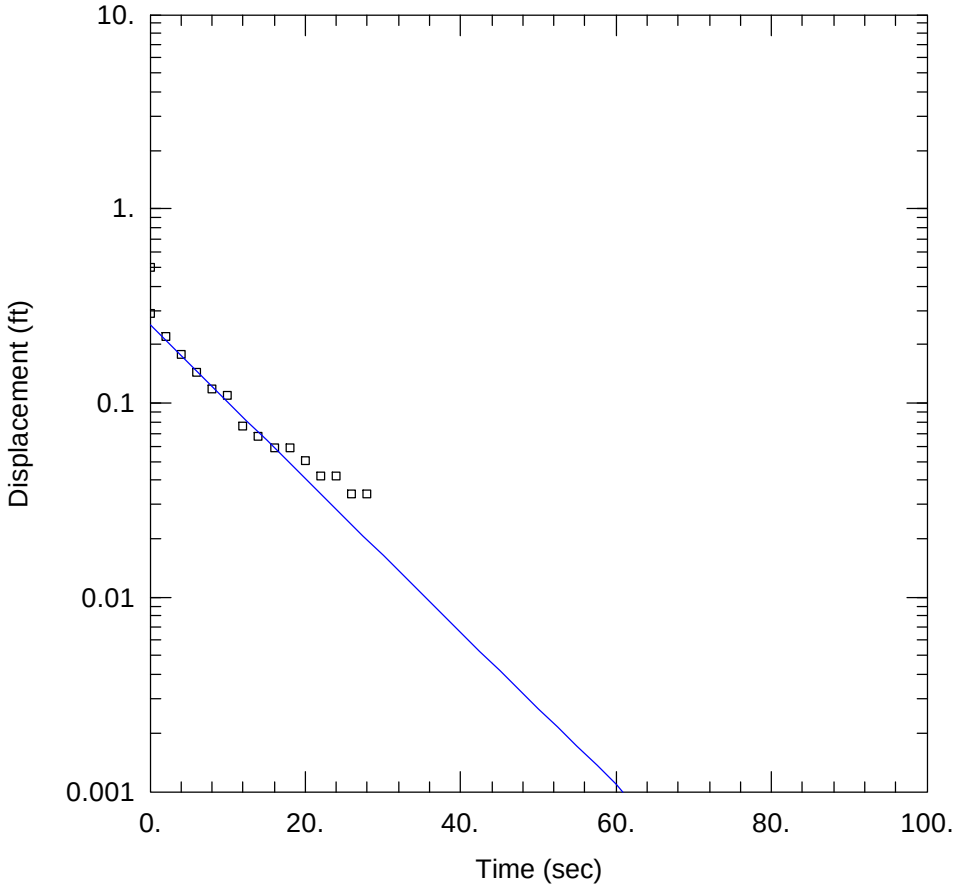
WELL DATA (MW-14A)

Initial Displacement: 0.5 ft Casing Radius: 0.167 ft
Wellbore Radius: 0.167 ft Well Skin Radius: 0.167 ft
Screen Length: 5. ft Total Well Penetration Depth: 4.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.01813 cm/sec y0 = 0.3373 ft



MW-14A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-14A_4.aqt
Date: 07/13/09 Time: 10:45:12

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-14A
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 1.

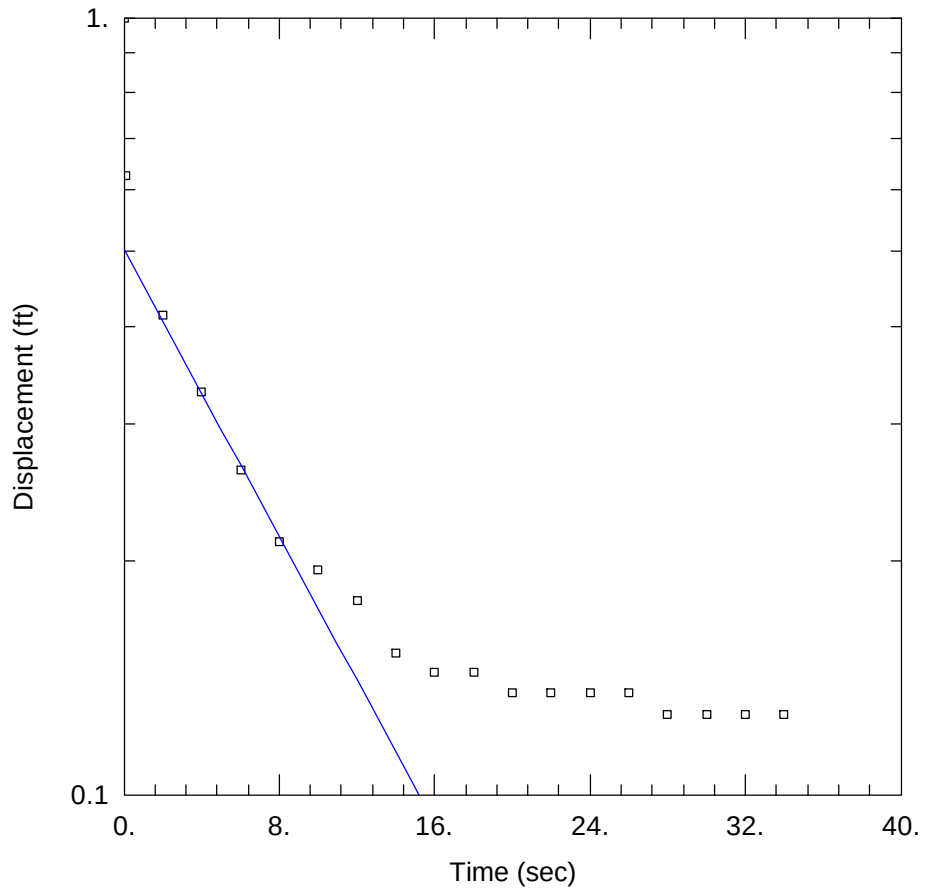
WELL DATA (MW-14A)

Initial Displacement: 0.5 ft Casing Radius: 0.167 ft
Wellbore Radius: 0.167 ft Well Skin Radius: 0.167 ft
Screen Length: 5. ft Total Well Penetration Depth: 4.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.01664 cm/sec y0 = 0.2507 ft



MW-15A FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW15A_1.aqt
Date: 10/06/09 Time: 11:52:54

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-15A
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 4. ft Anisotropy Ratio (Kz/Kr): 1.

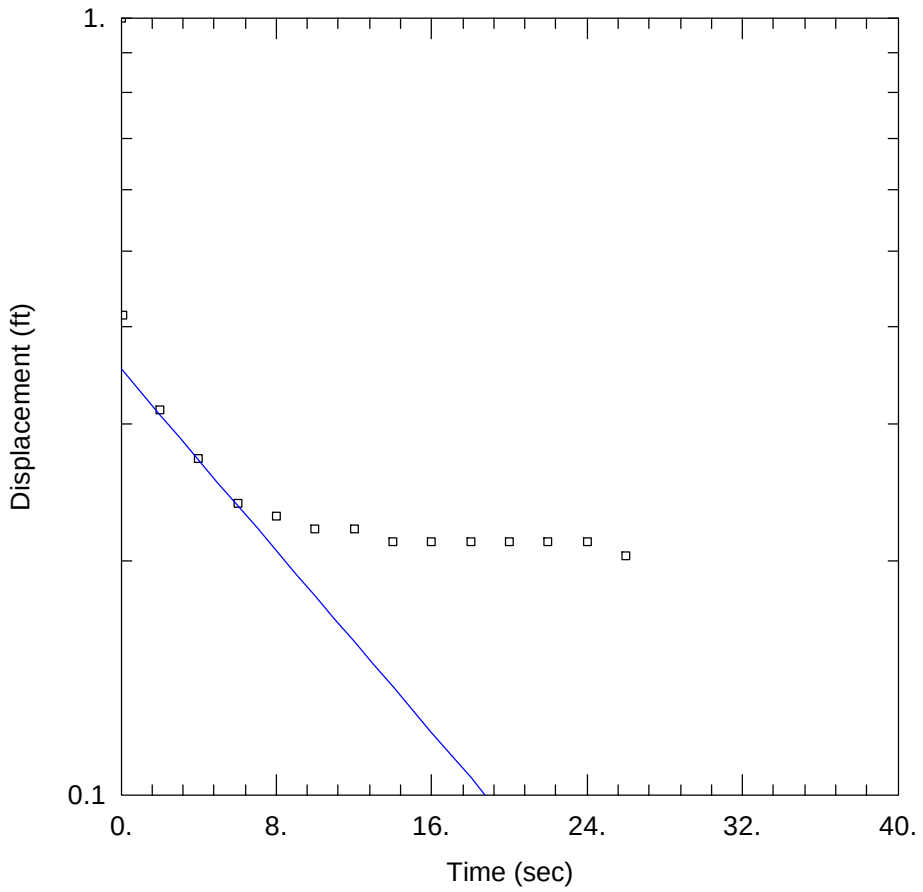
WELL DATA (MW-15A)

Initial Displacement: 1. ft
Wellbore Radius: 0.33 ft
Screen Length: 4. ft
Casing Radius: 0.33 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 4. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.07939 cm/sec y0 = 0.503 ft



MW-15A RISING HEAD TEST #1

Data Set: C:\Buffalo China\MW15A_2.aqt
Date: 10/06/09 Time: 11:52:43

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-15A
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 4. ft Anisotropy Ratio (Kz/Kr): 1.

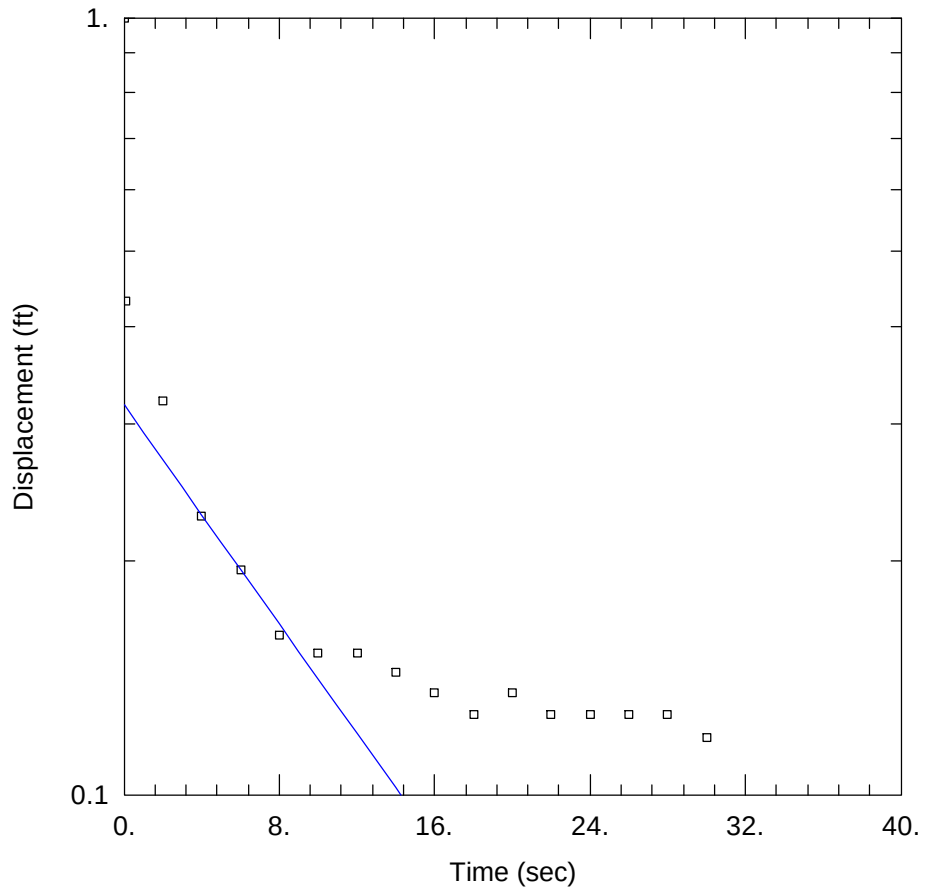
WELL DATA (MW-15A)

Initial Displacement: 1. ft
Wellbore Radius: 0.33 ft
Screen Length: 4. ft
Casing Radius: 0.33 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 4. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.05019 cm/sec y0 = 0.3526 ft



MW-15A FALLING HEAD TEST #2

Data Set: C:\Buffalo China\MW15A_3.aqt
Date: 10/06/09 Time: 11:52:32

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-15A
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 4. ft Anisotropy Ratio (Kz/Kr): 1.

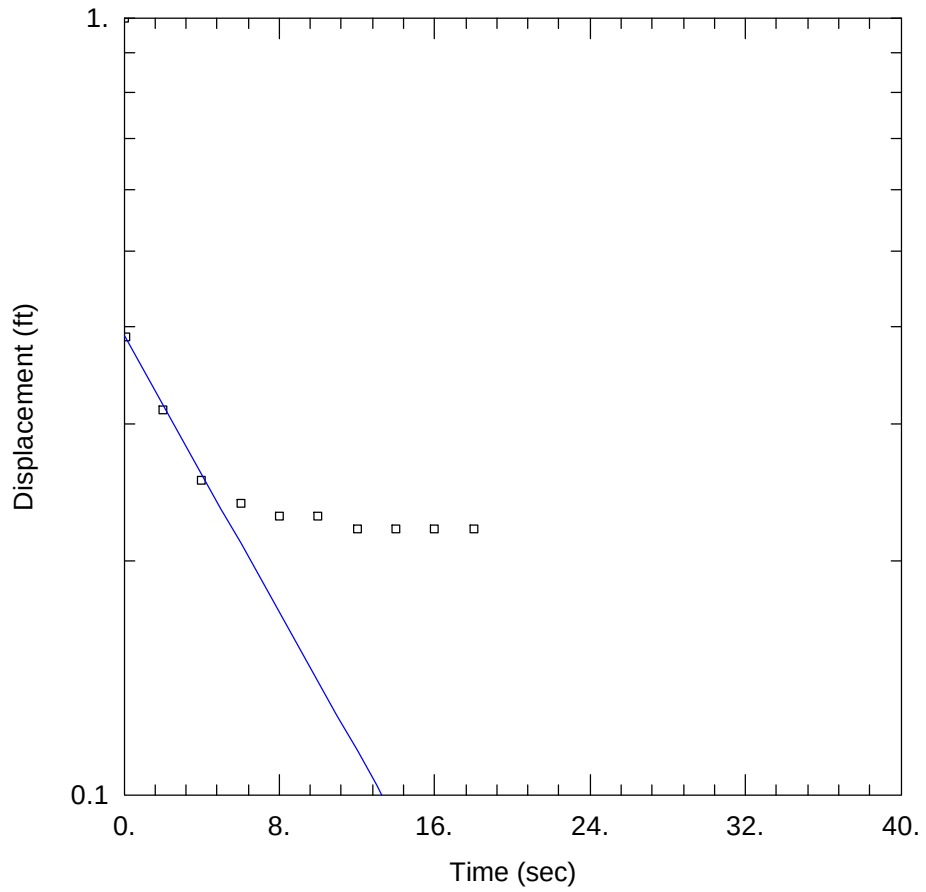
WELL DATA (MW-15A)

Initial Displacement: 1. ft
Wellbore Radius: 0.33 ft
Screen Length: 4. ft
Casing Radius: 0.33 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 4. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.06055 cm/sec y0 = 0.317 ft



MW-15A RISING HEAD TEST #2

Data Set: C:\Buffalo China\MW15A_4.aqt
Date: 10/06/09 Time: 11:53:02

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-15A
Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 4. ft Anisotropy Ratio (Kz/Kr): 1.

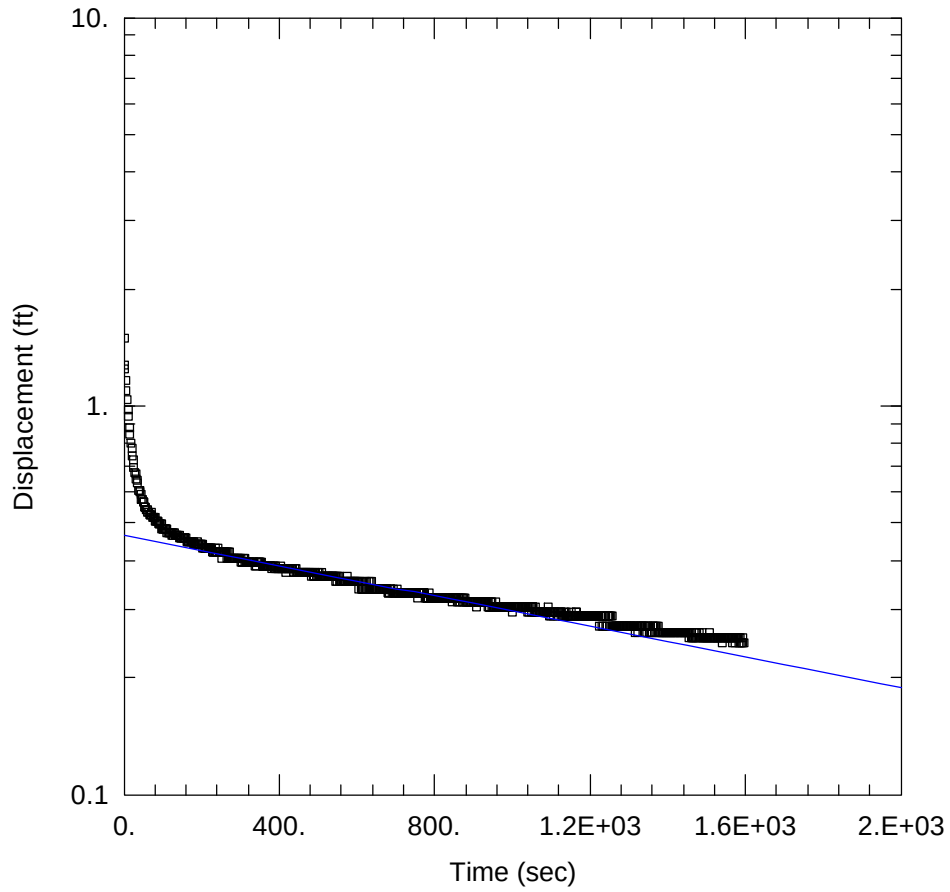
WELL DATA (MW-15A)

Initial Displacement: 1. ft
Wellbore Radius: 0.33 ft
Screen Length: 4. ft
Casing Radius: 0.33 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 4. ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.07669 cm/sec y0 = 0.3901 ft



MW-18 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-18_1.aqt
Date: 07/13/09 Time: 10:53:46

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-18
Test Date: February 10, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

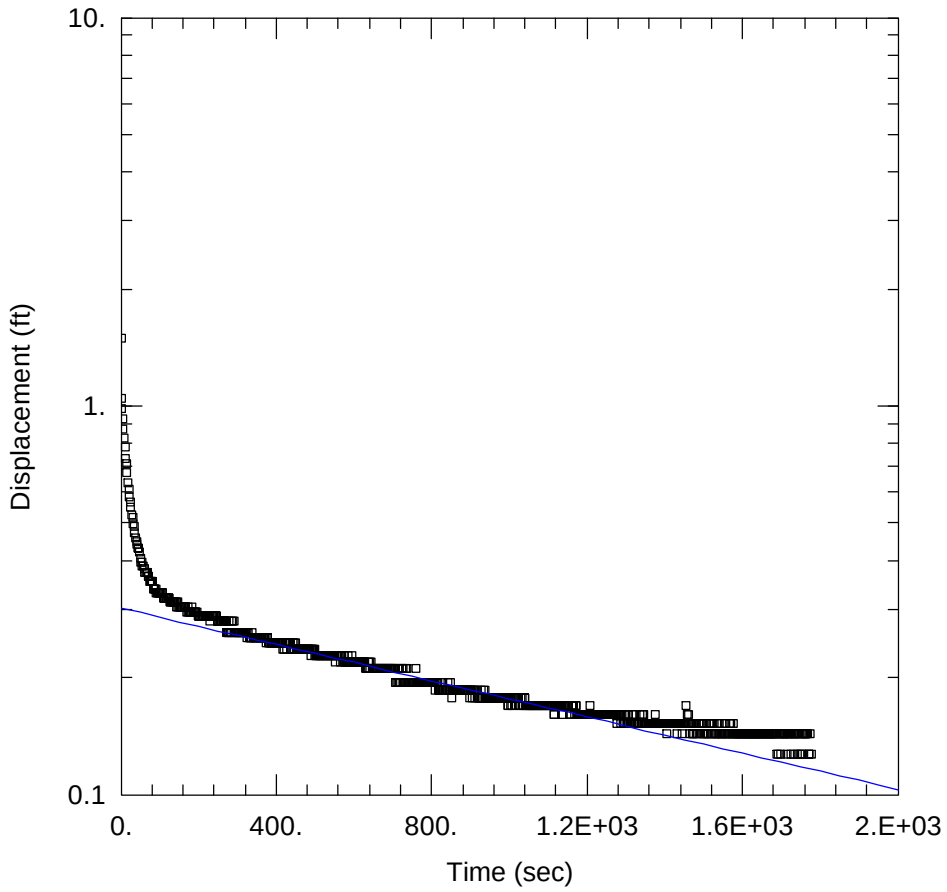
WELL DATA (MW-18)

Initial Displacement: 1.5 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 3.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.465E-05 cm/sec y0 = 0.4654 ft



MW-18 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-18_2.aqt
Date: 07/13/09 Time: 10:54:33

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-18
Test Date: February 10, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

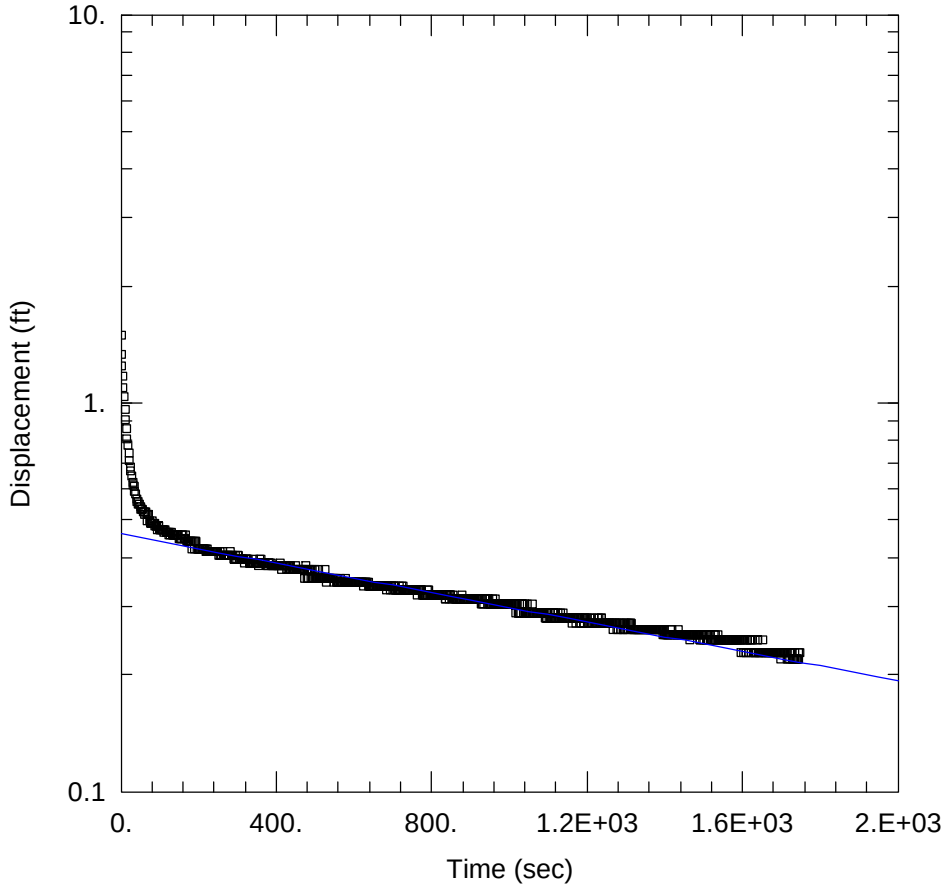
WELL DATA (MW-18)

Initial Displacement: 1.5 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 3.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.741E-05 cm/sec y0 = 0.3017 ft



MW-18 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-18_3.aqt
Date: 07/13/09 Time: 10:55:23

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-18
Test Date: February 10, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

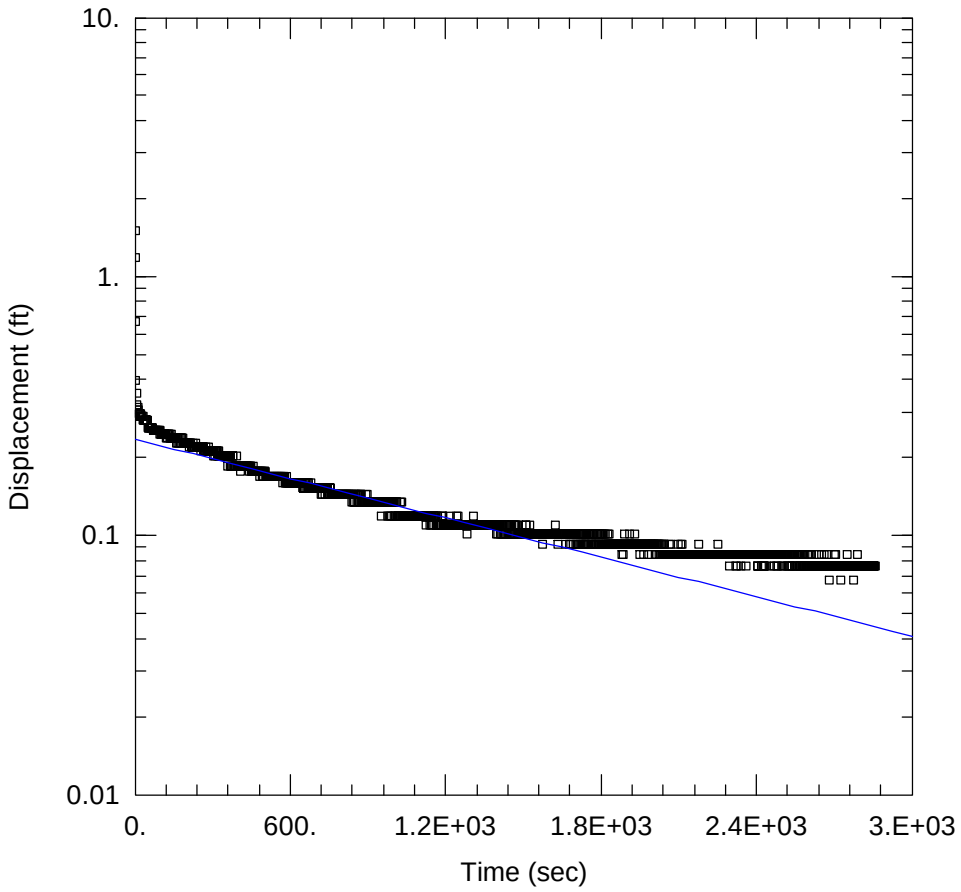
WELL DATA (MW-18)

Initial Displacement: 1.5 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 3.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.41E-05 cm/sec y0 = 0.4602 ft



MW-18 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-18_4.aqt
Date: 07/13/09 Time: 10:56:02

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Test Location: 51 Hayes Place
Test Well: MW-18
Test Date: February 10, 2009

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

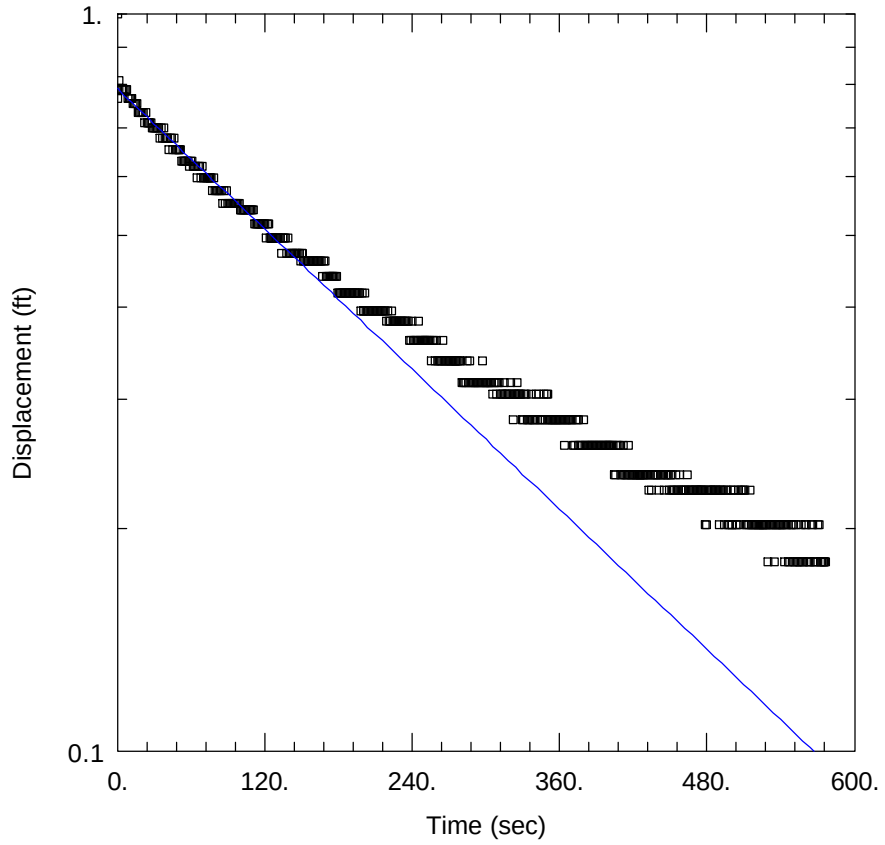
WELL DATA (MW-18)

Initial Displacement: 1.5 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 3.8 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 1.891E-05 cm/sec y0 = 0.2356 ft



MW-18A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW18A_A.aqt
Date: 07/09/09 Time: 13:15:29

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-18A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft Anisotropy Ratio (Kz/Kr): 1.

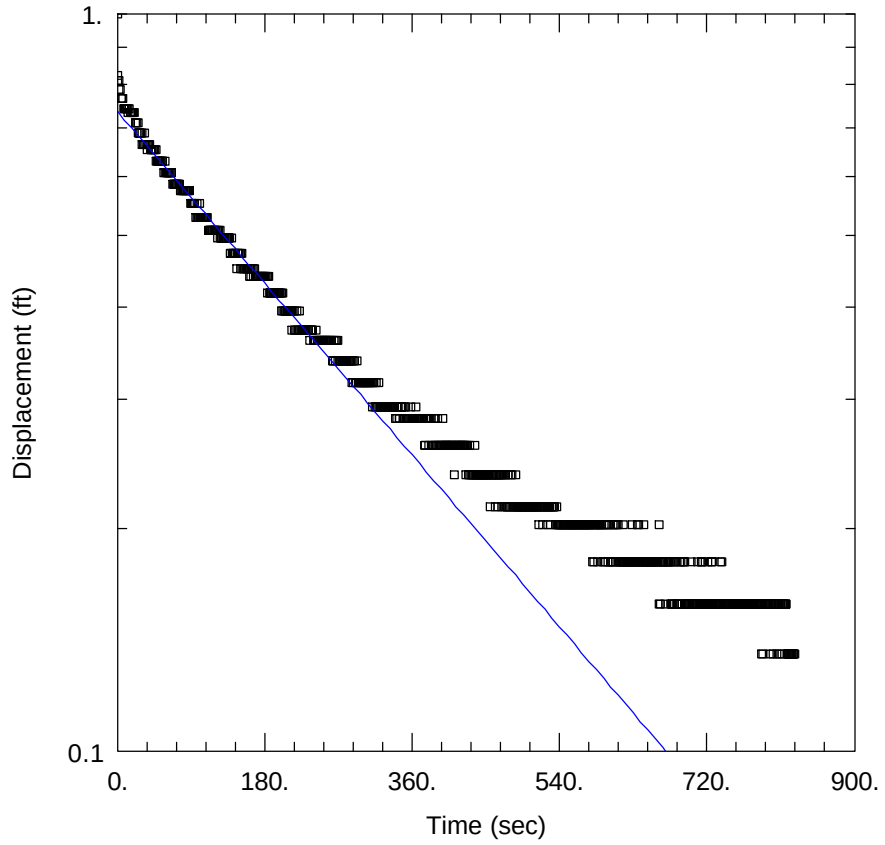
WELL DATA (MW-18A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 9.1 ft
Casing Radius: 0.167 ft
Static Water Column Height: 9.1 ft
Screen Length: 5. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0009098 cm/sec
y0 = 0.7903 ft



MW-18A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW18A_B.aqt
Date: 07/09/09 Time: 13:16:29

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-18A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft Anisotropy Ratio (Kz/Kr): 1.

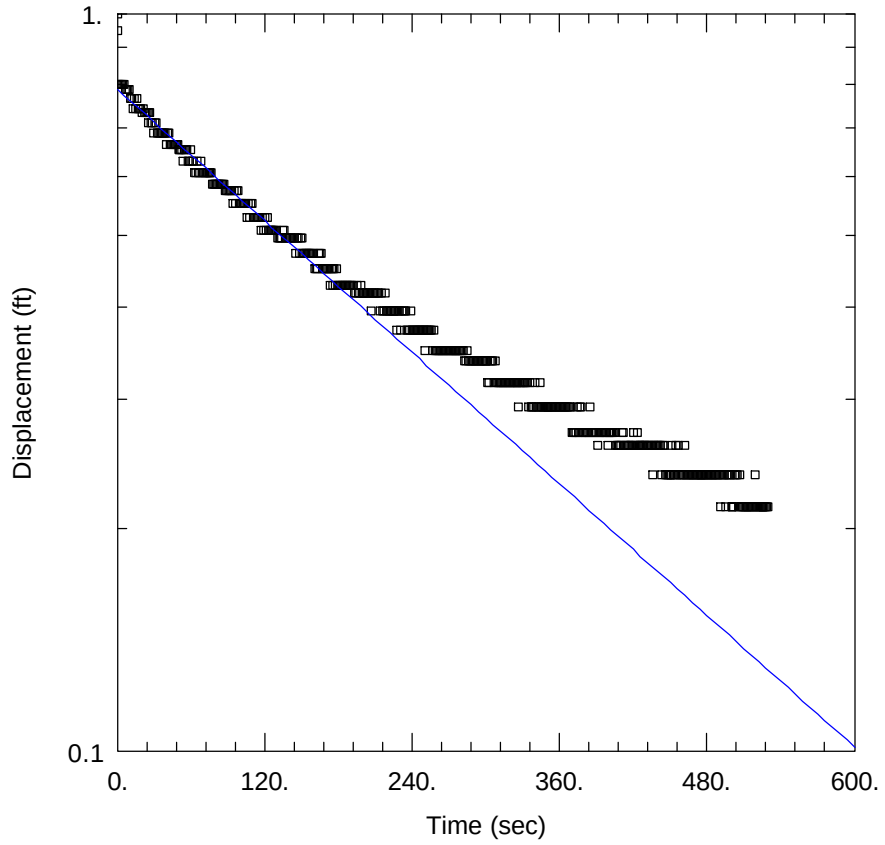
WELL DATA (MW-18A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 9.1 ft
Casing Radius: 0.167 ft
Static Water Column Height: 9.1 ft
Screen Length: 5. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0007438 cm/sec
y0 = 0.7368 ft



MW-18A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW18A_C.aqt
Date: 07/09/09 Time: 13:17:31

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-18A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft Anisotropy Ratio (Kz/Kr): 1.

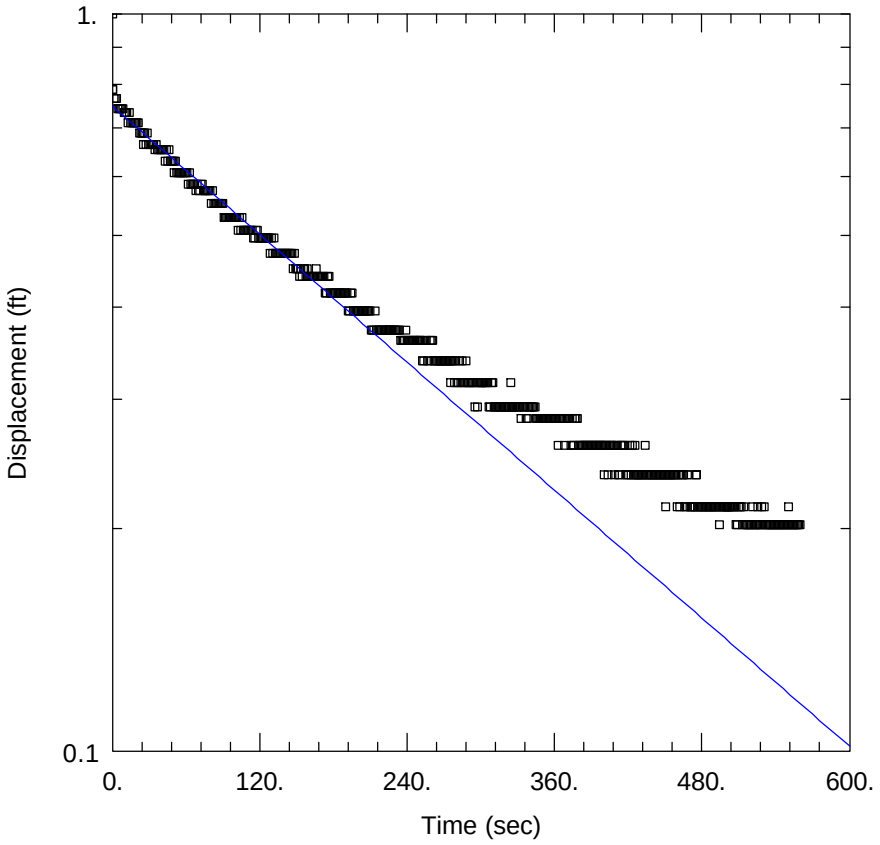
WELL DATA (MW-18A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 9.1 ft
Casing Radius: 0.167 ft
Static Water Column Height: 9.1 ft
Screen Length: 5. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.000854 cm/sec
y0 = 0.7893 ft



MW-18A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW18A_D.aqt
Date: 07/09/09 Time: 13:18:32

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-18A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft Anisotropy Ratio (Kz/Kr): 1.

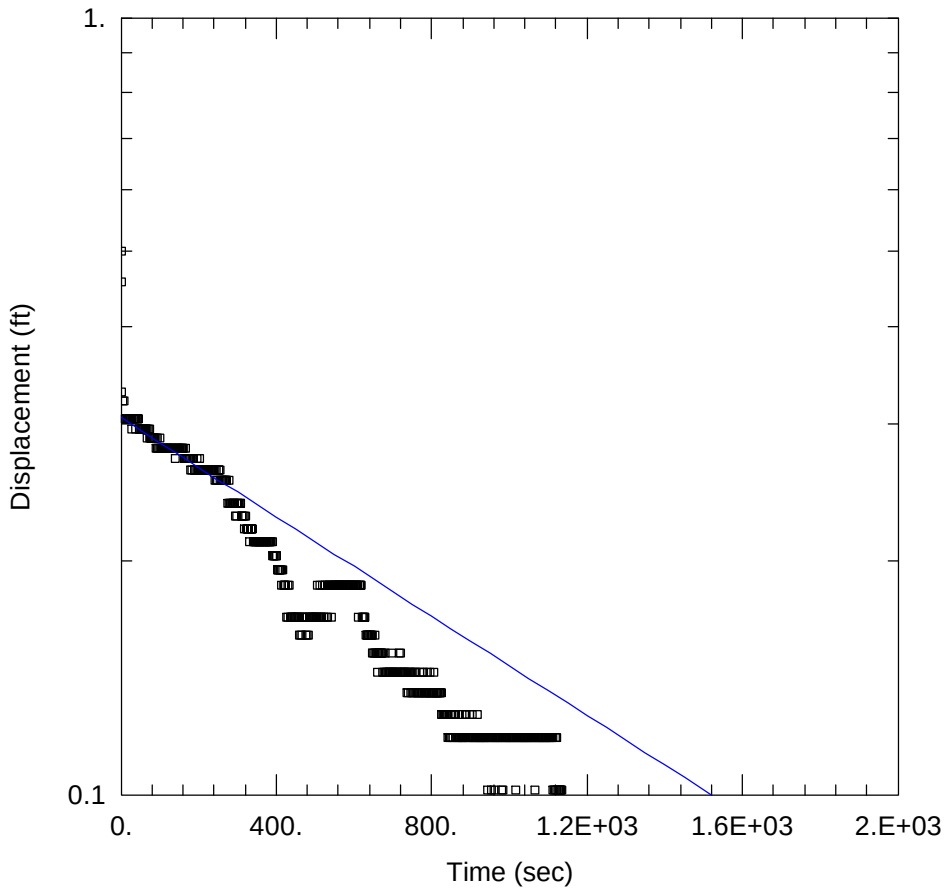
WELL DATA (MW-18A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 9.1 ft
Casing Radius: 0.167 ft
Static Water Column Height: 9.1 ft
Screen Length: 5. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0008307 cm/sec
y0 = 0.7489 ft



MW-19 FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW19_A.aqt
Date: 10/06/09 Time: 10:38:04

PROJECT INFORMATION

Company: CRA
Client: Hodgson-Russ
Project: 37191
Test Location: Former Buffalo China Site
Test Well: MW-19
Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 5.9 ft Anisotropy Ratio (Kz/Kr): 1.

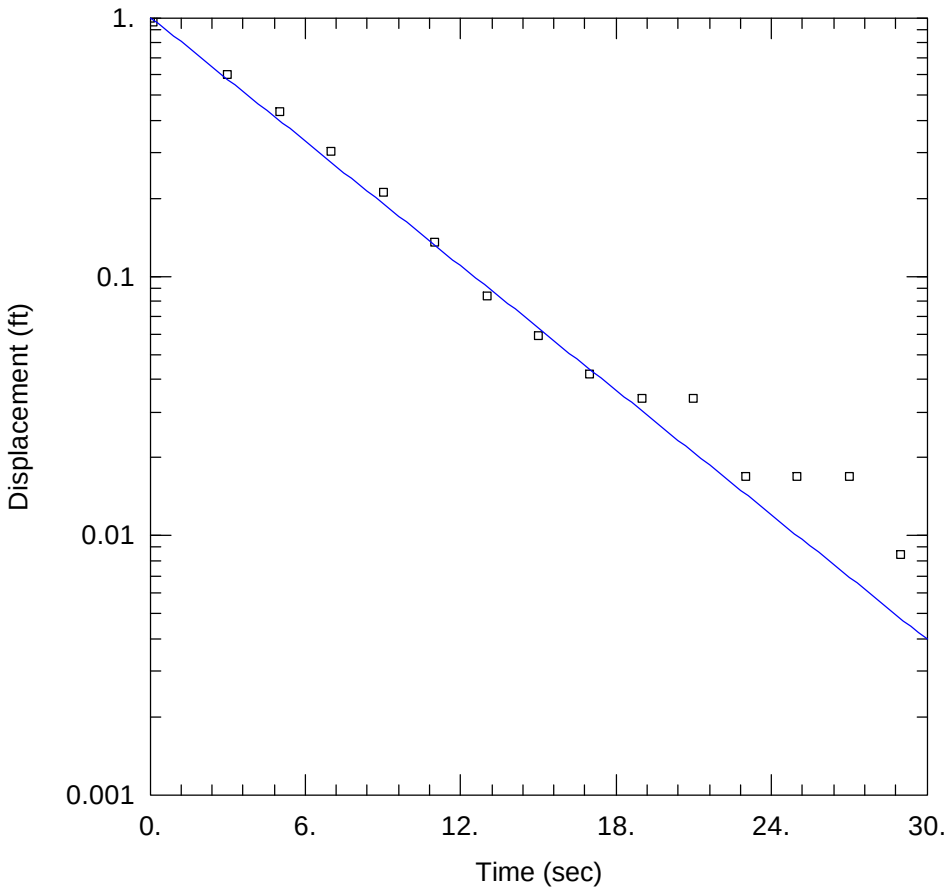
WELL DATA (MW-19)

Initial Displacement: 0.5 ft
Wellbore Radius: 0.33 ft
Screen Length: 5. ft
Casing Radius: 0.083 ft
Well Skin Radius: 0.33 ft
Total Well Penetration Depth: 5.9 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 3.209E-05 cm/sec y0 = 0.3053 ft



MW-19A FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW19A_A.aqt
Date: 10/06/09 Time: 10:42:05

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-19A
Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 10.3 ft Anisotropy Ratio (Kz/Kr): 1.

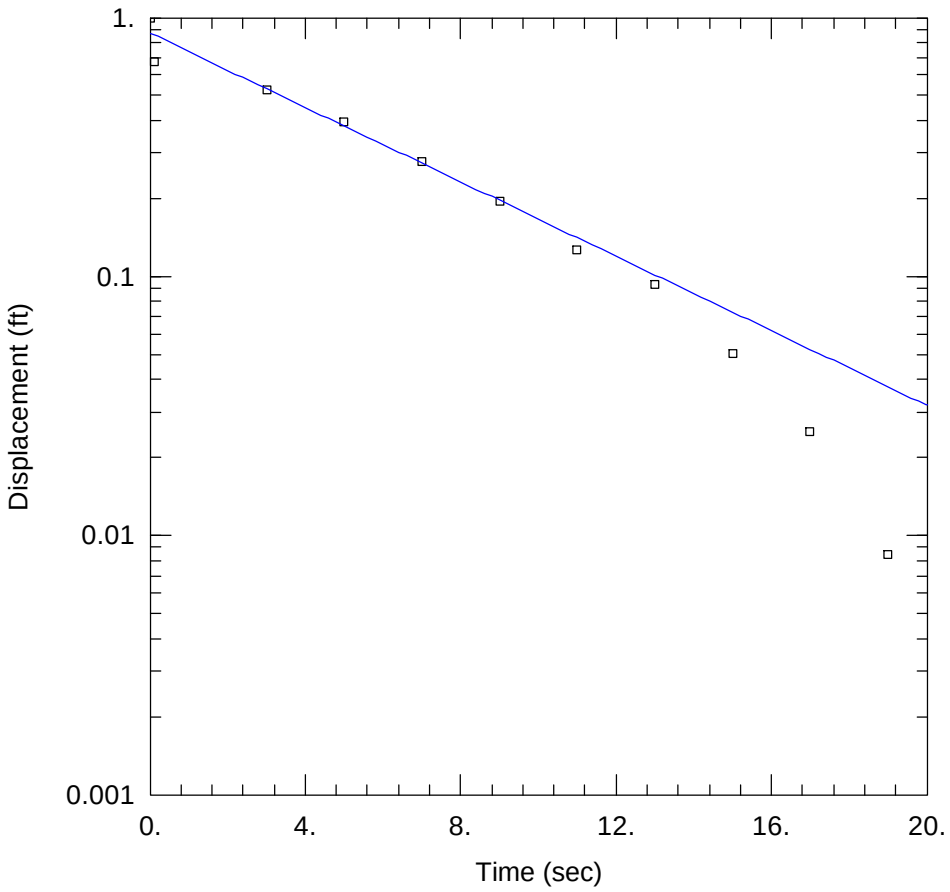
WELL DATA (MW-19A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 19.2 ft
Casing Radius: 0.167 ft
Static Water Column Height: 10.3 ft
Screen Length: 17. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.02706 cm/sec
y0 = 1.006 ft



MW-19A RISING HEAD TEST #1

Data Set: C:\Buffalo China\MW19A_B.aqt
Date: 10/06/09 Time: 10:41:55

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-19A
Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 10.3 ft Anisotropy Ratio (Kz/Kr): 1.

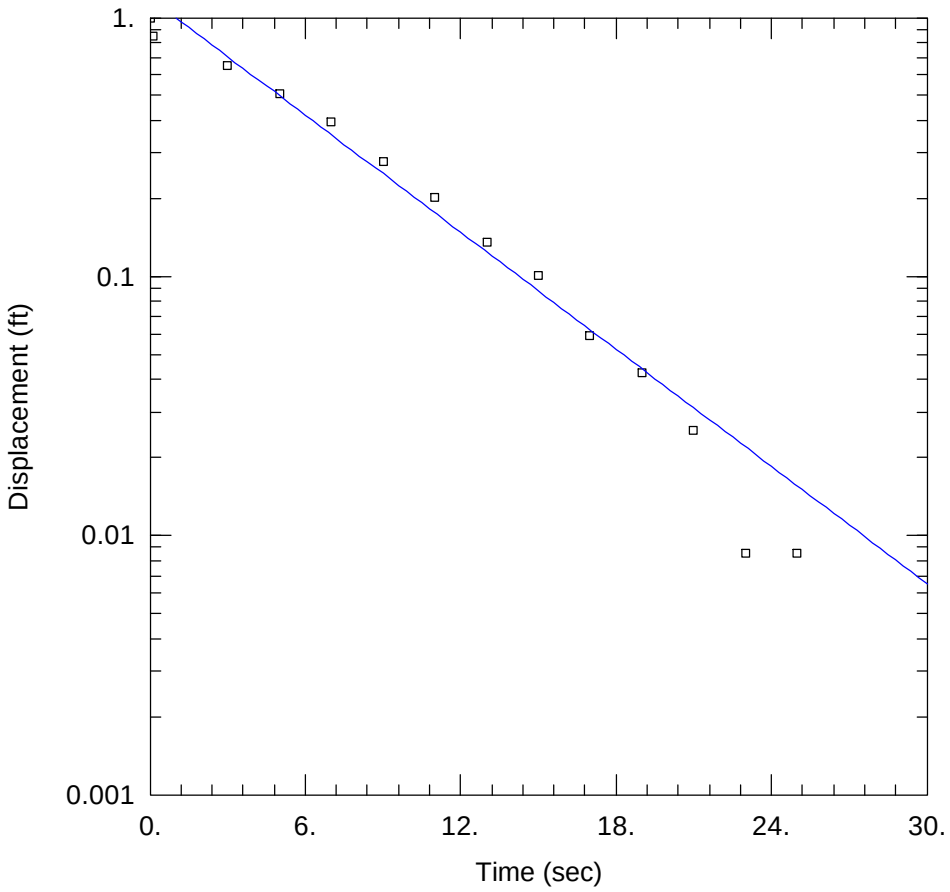
WELL DATA (MW-19A)

Initial Displacement: 1. ft Static Water Column Height: 10.3 ft
Total Well Penetration Depth: 19.2 ft Screen Length: 17. ft
Casing Radius: 0.167 ft Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.02428 cm/sec y0 = 0.8721 ft



MW-19A FALLING HEAD TEST #2

Data Set: C:\Buffalo China\MW19A_C.aqt
Date: 10/06/09 Time: 10:41:38

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-19A
Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 10.3 ft Anisotropy Ratio (Kz/Kr): 1.

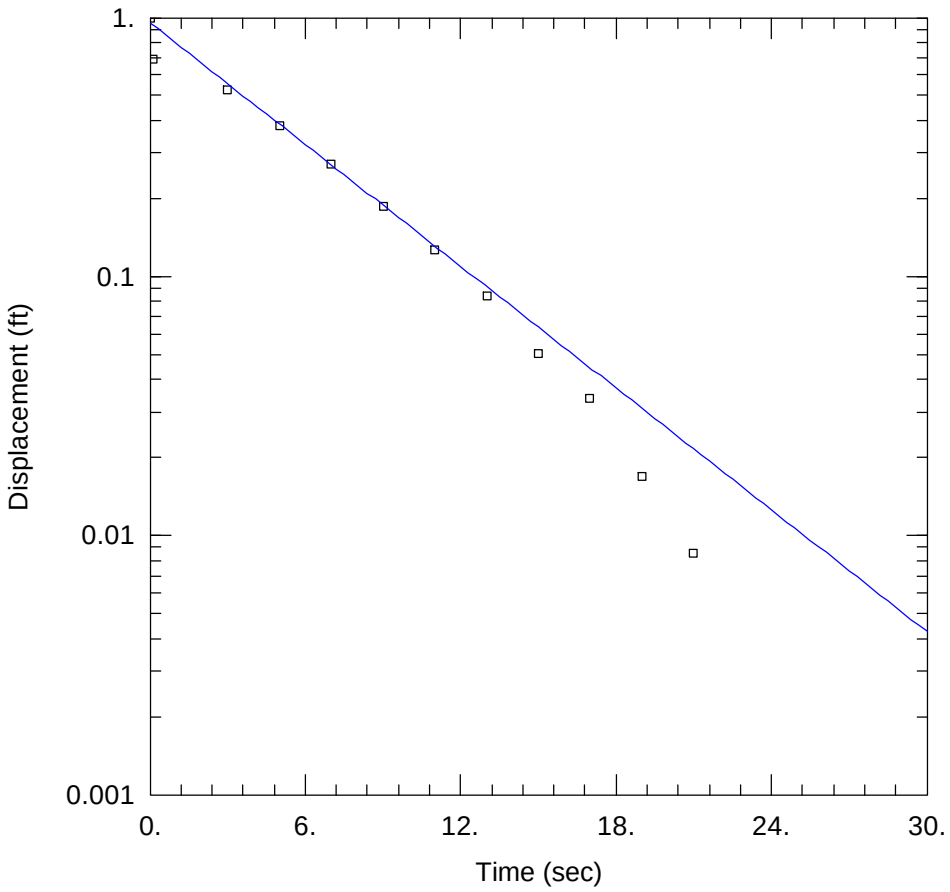
WELL DATA (MW-19A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 19.2 ft
Casing Radius: 0.167 ft
Static Water Column Height: 10.3 ft
Screen Length: 17. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.02545 cm/sec
y0 = 1.189 ft



MW-19A RISING HEAD TEST #2

Data Set: C:\Buffalo China\MW19A_D.aqt
Date: 10/06/09 Time: 10:41:23

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-19A
Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 10.3 ft Anisotropy Ratio (Kz/Kr): 1.

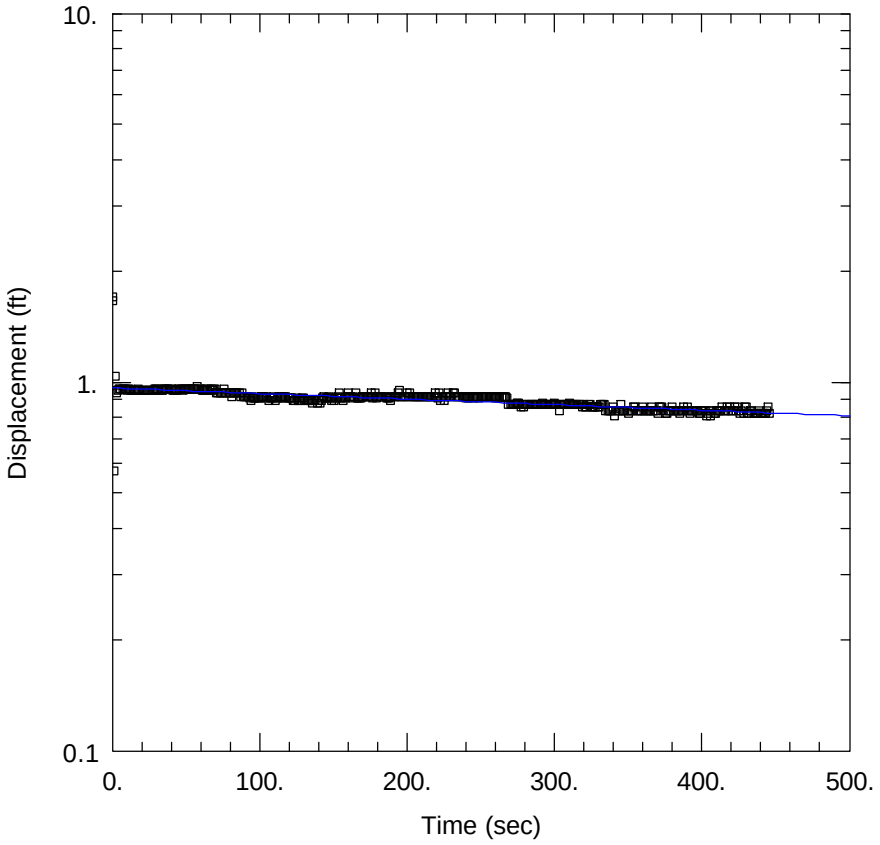
WELL DATA (MW-19A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 19.2 ft
Casing Radius: 0.167 ft
Static Water Column Height: 10.3 ft
Screen Length: 17. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.02647 cm/sec
y0 = 0.9553 ft



MW-20 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW20_A.aqt
Date: 07/09/09 Time: 13:22:16

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-20
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 6.6 ft Anisotropy Ratio (Kz/Kr): 1.

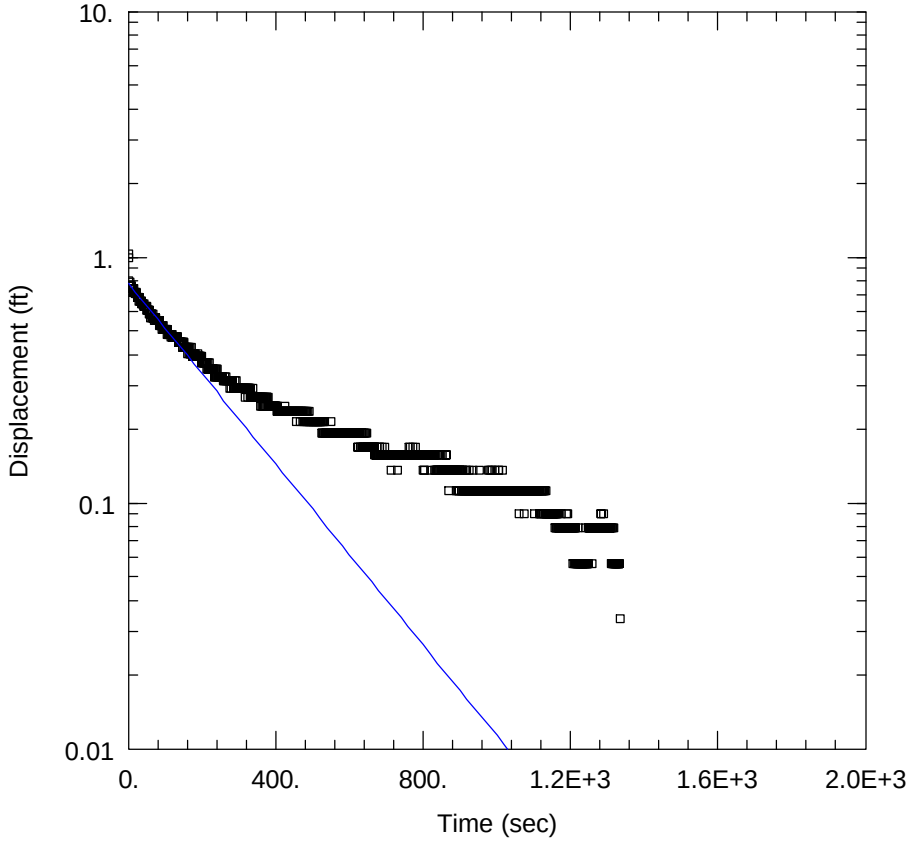
WELL DATA (MW-20)

Initial Displacement: 1.7 ft
Total Well Penetration Depth: 6.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 6.6 ft
Screen Length: 5. ft
Well Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.564E-5 cm/sec
y0 = 0.9634 ft



MW-20A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW20A_A.aqt
Date: 07/09/09 Time: 09:51:04

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-20A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft Anisotropy Ratio (Kz/Kr): 1.

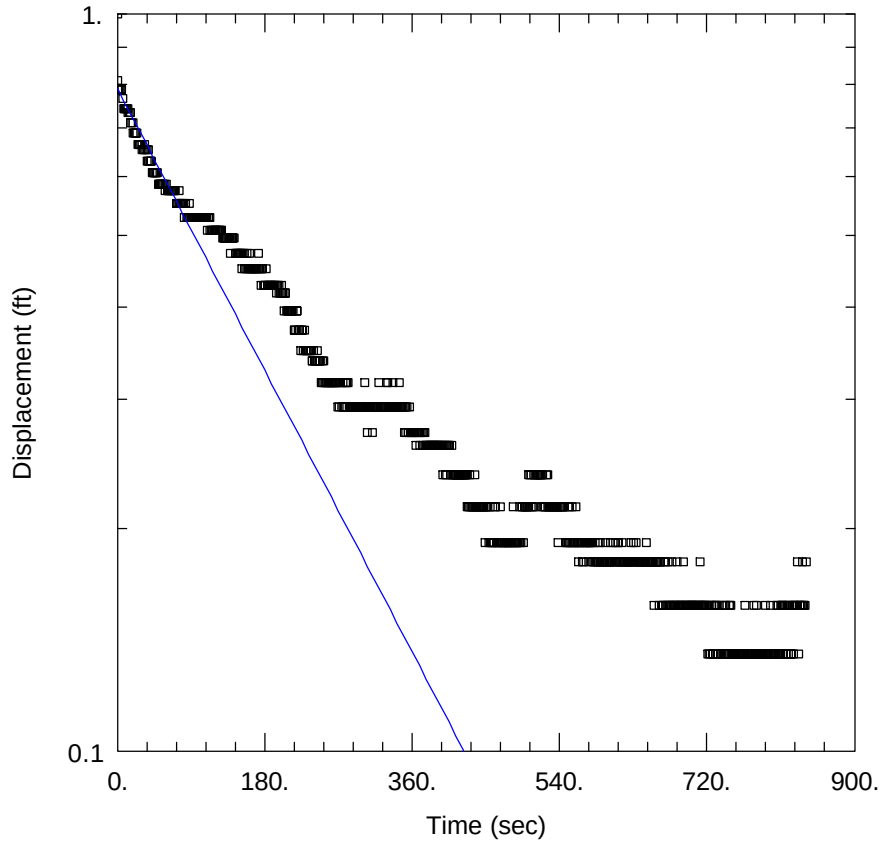
WELL DATA (MW-20A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 16.6 ft
Casing Radius: 0.167 ft
Static Water Column Height: 16.6 ft
Screen Length: 9.4 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0006611 cm/sec
y0 = 0.7855 ft



MW-20A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW20A_B.aqt
Date: 07/09/09 Time: 09:52:11

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-20A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft Anisotropy Ratio (Kz/Kr): 1.

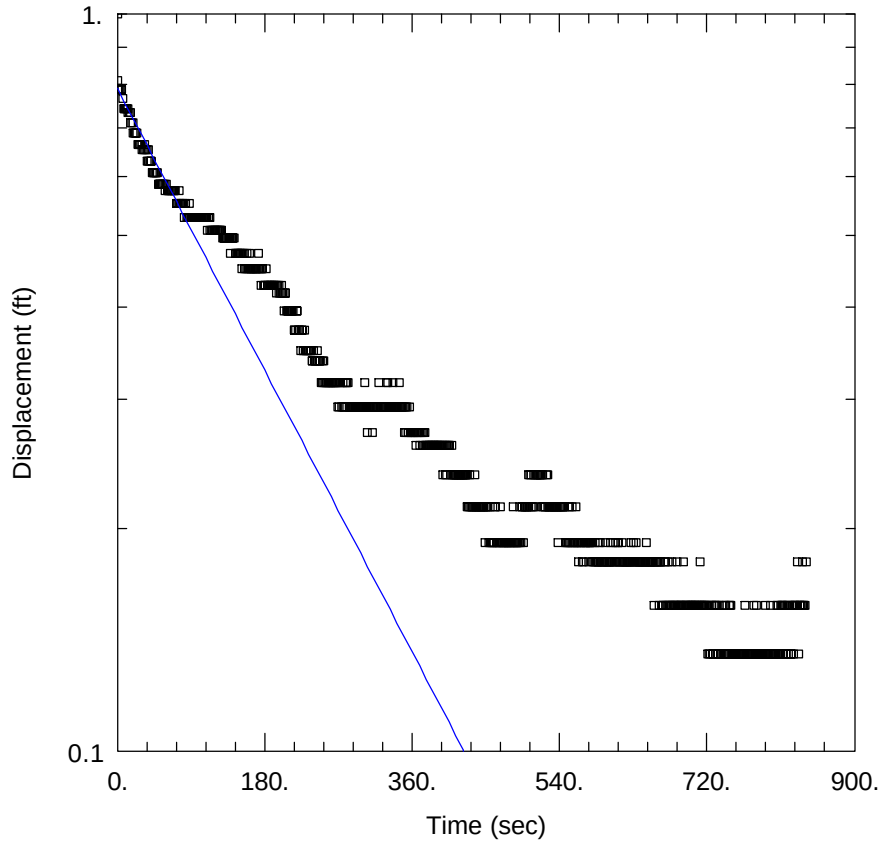
WELL DATA (MW-20A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 16.6 ft
Casing Radius: 0.167 ft
Static Water Column Height: 16.6 ft
Screen Length: 9.4 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0007617 cm/sec
y0 = 0.7905 ft



MW-20A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW20A_B.aqt
Date: 07/09/09 Time: 09:52:11

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-20A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft Anisotropy Ratio (Kz/Kr): 1.

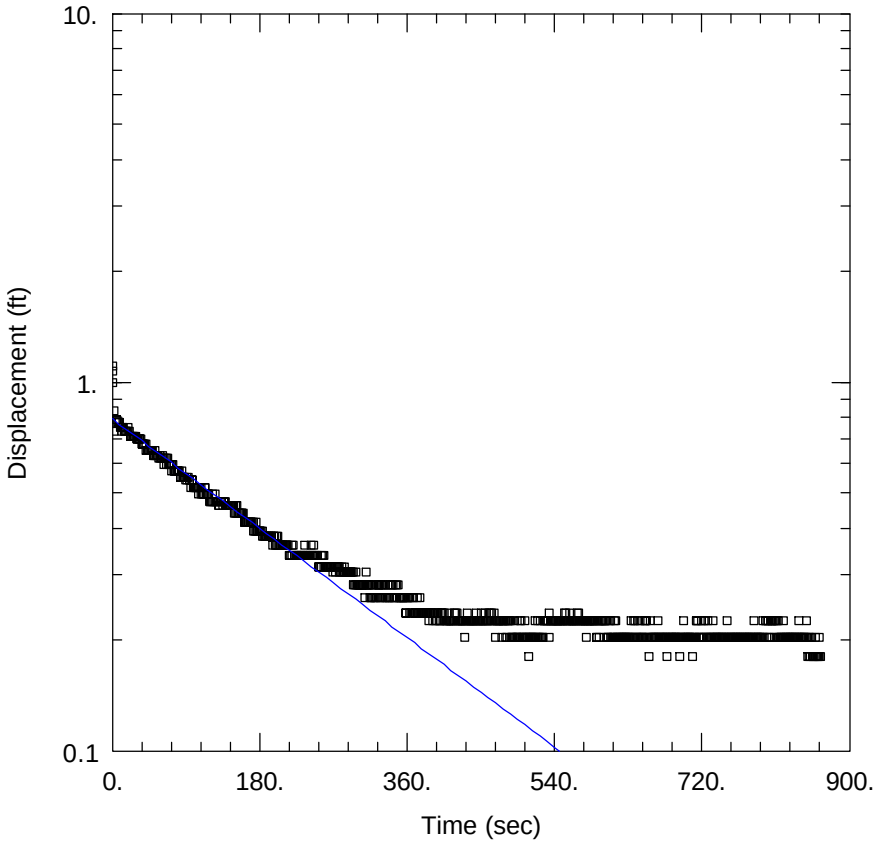
WELL DATA (MW-20A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 16.6 ft
Casing Radius: 0.167 ft
Static Water Column Height: 16.6 ft
Screen Length: 9.4 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0007617 cm/sec
y0 = 0.7905 ft



MW-20A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW20A_C.aqt
Date: 07/09/09 Time: 09:53:22

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-20A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft Anisotropy Ratio (Kz/Kr): 1.

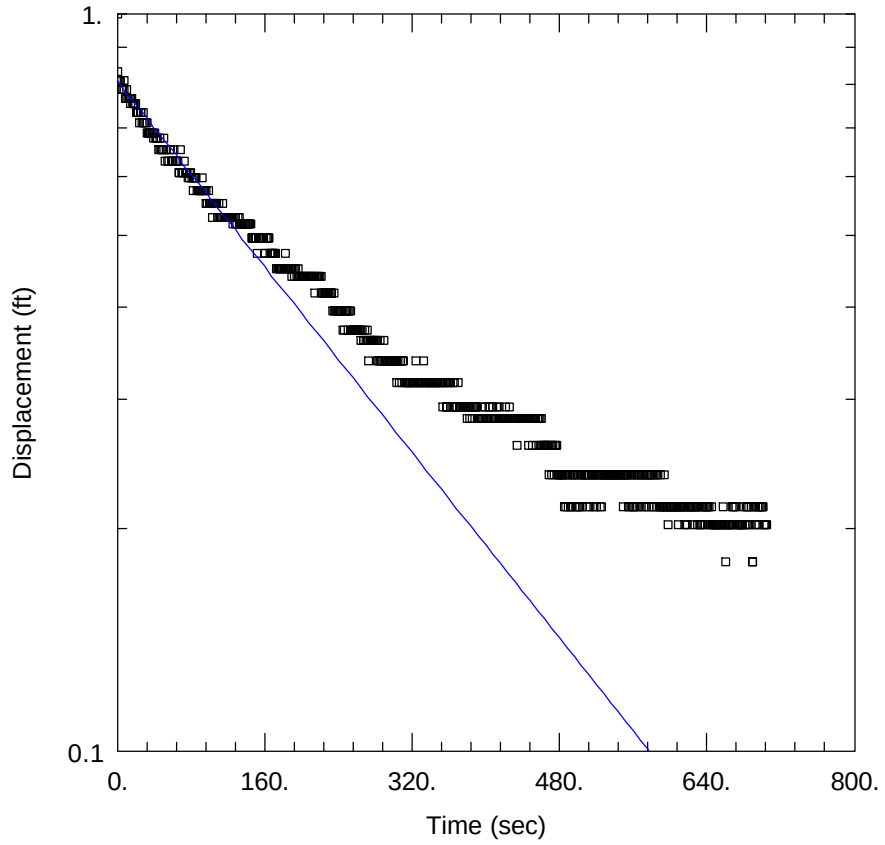
WELL DATA (MW-20A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 16.6 ft
Casing Radius: 0.167 ft
Static Water Column Height: 16.6 ft
Screen Length: 9.4 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0005915 cm/sec
y0 = 0.7943 ft



MW-20A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW20A_D.aqt
Date: 07/09/09 Time: 09:54:27

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-20A
Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft Anisotropy Ratio (Kz/Kr): 1.

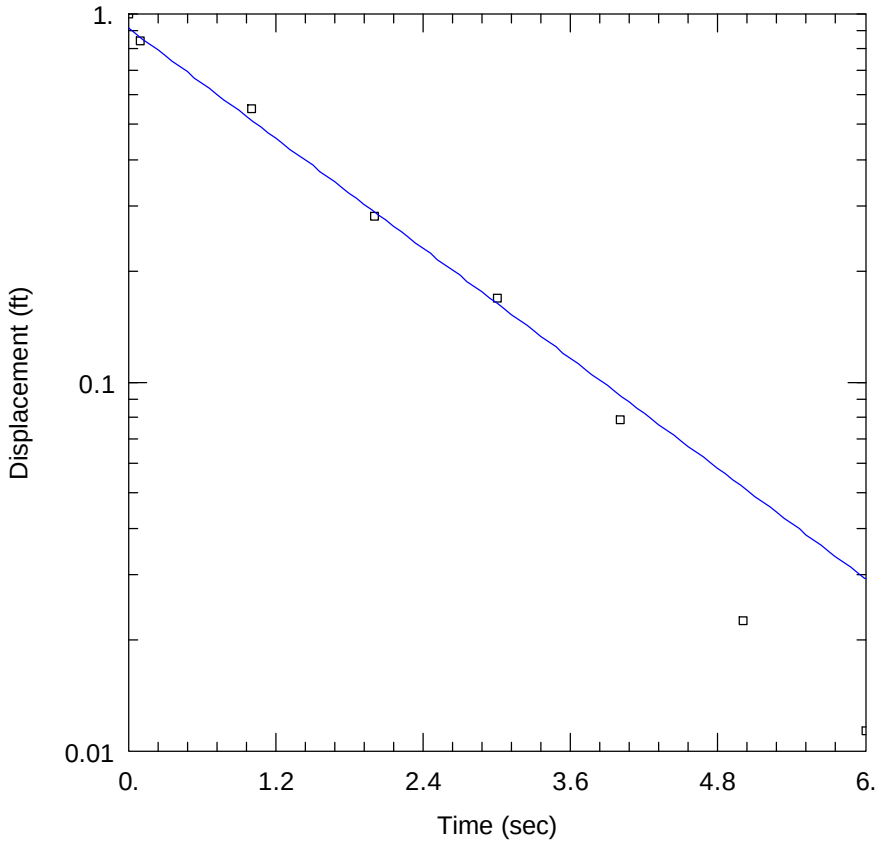
WELL DATA (MW-20A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 16.6 ft
Casing Radius: 0.167 ft
Static Water Column Height: 16.6 ft
Screen Length: 9.4 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0005651 cm/sec
y0 = 0.8097 ft



MW-21A FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW21A_A.aqt
Date: 07/09/09 Time: 09:05:04

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-21A
Test Date: June 24, 2009

AQUIFER DATA

Saturated Thickness: 14.4 ft Anisotropy Ratio (Kz/Kr): 1.

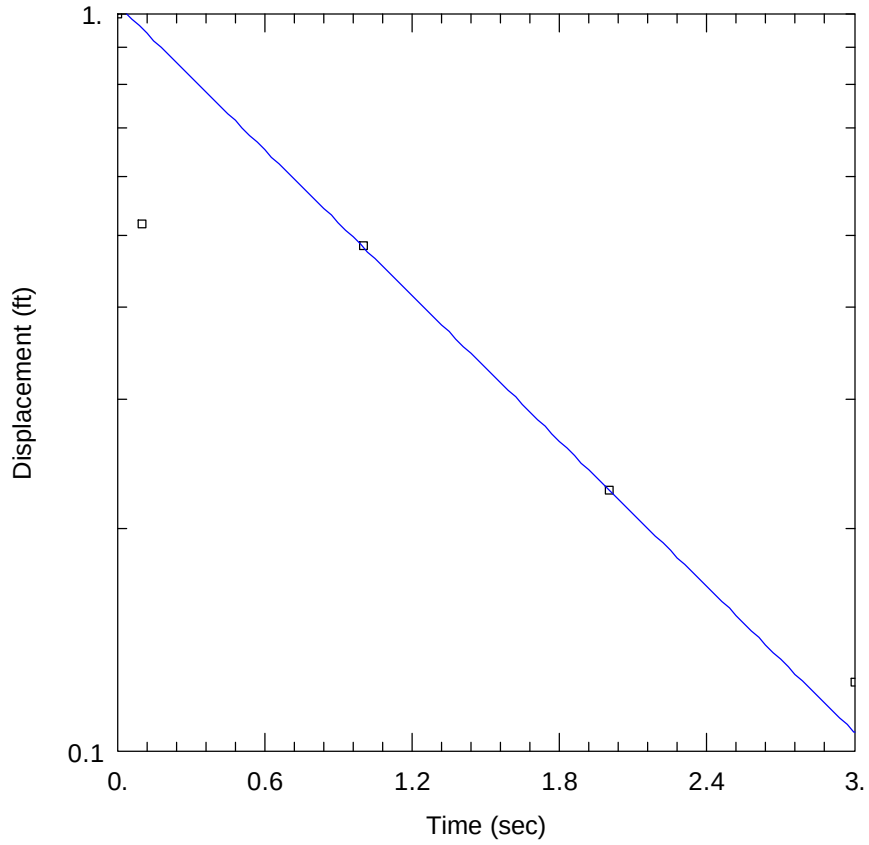
WELL DATA (MW-21A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.167 ft
Static Water Column Height: 14.4 ft
Screen Length: 15.5 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.05877 cm/sec
y0 = 0.9127 ft



MW-21A RISING HEAD TEST #1

Data Set: C:\Buffalo China\MW21A_B.aqt
Date: 07/09/09 Time: 09:15:43

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-21A
Test Date: June 24, 2009

AQUIFER DATA

Saturated Thickness: 14.4 ft Anisotropy Ratio (Kz/Kr): 1.

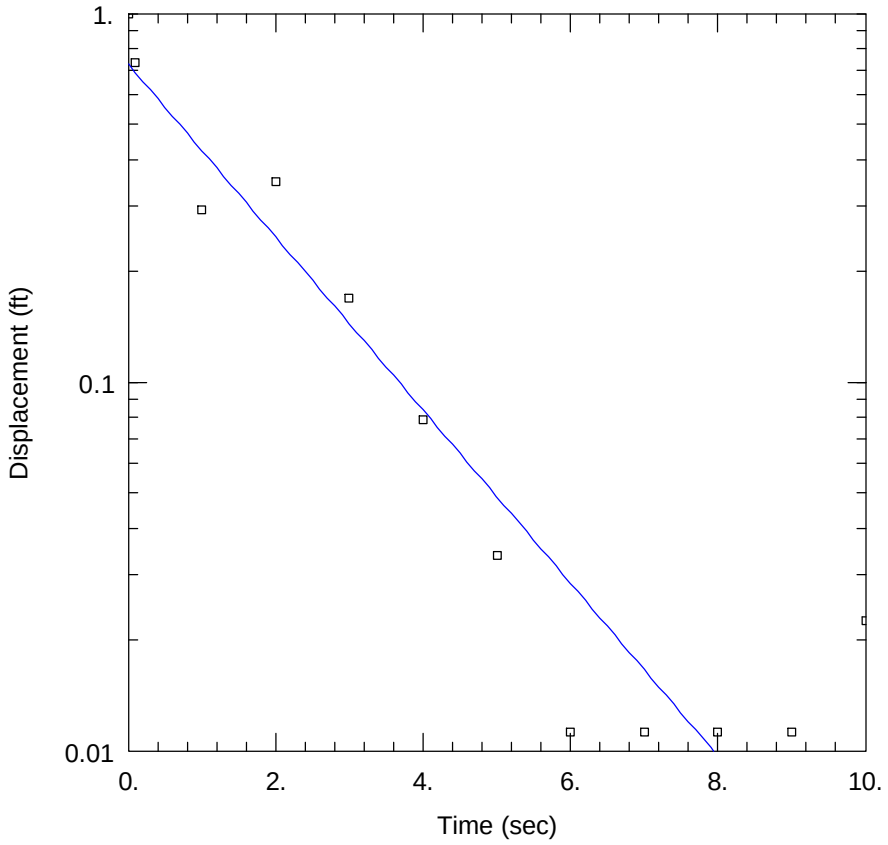
WELL DATA (MW-21A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.167 ft
Static Water Column Height: 14.4 ft
Screen Length: 15.5 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.07773 cm/sec
y0 = 1.029 ft



MW-21A FALLING HEAD TEST #2

Data Set: C:\Buffalo China\MW21A_C.aqt
Date: 07/09/09 Time: 09:17:53

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-21A
Test Date: June 24, 2009

AQUIFER DATA

Saturated Thickness: 14.4 ft Anisotropy Ratio (Kz/Kr): 1.

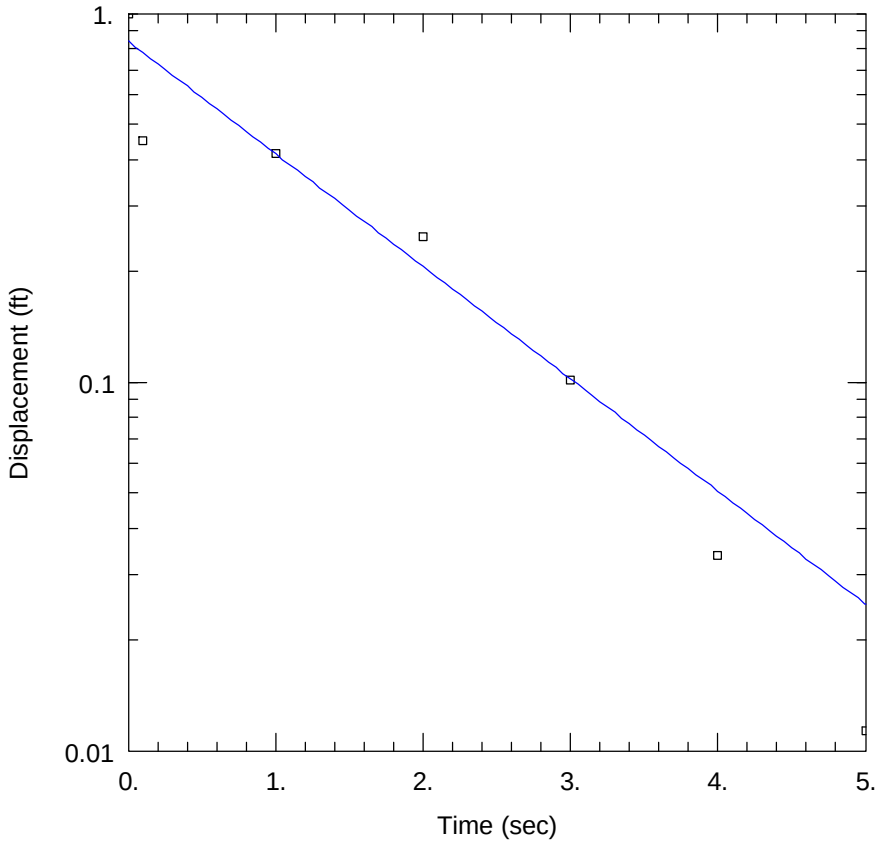
WELL DATA (MW-21A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.167 ft
Static Water Column Height: 14.4 ft
Screen Length: 15.5 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.05541 cm/sec
y0 = 0.7289 ft



MW-21A RISING HEAD TEST #2

Data Set: C:\Buffalo China\MW21A_D.aqt
Date: 07/09/09 Time: 09:19:52

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-21A
Test Date: June 24, 2009

AQUIFER DATA

Saturated Thickness: 14.4 ft Anisotropy Ratio (Kz/Kr): 1.

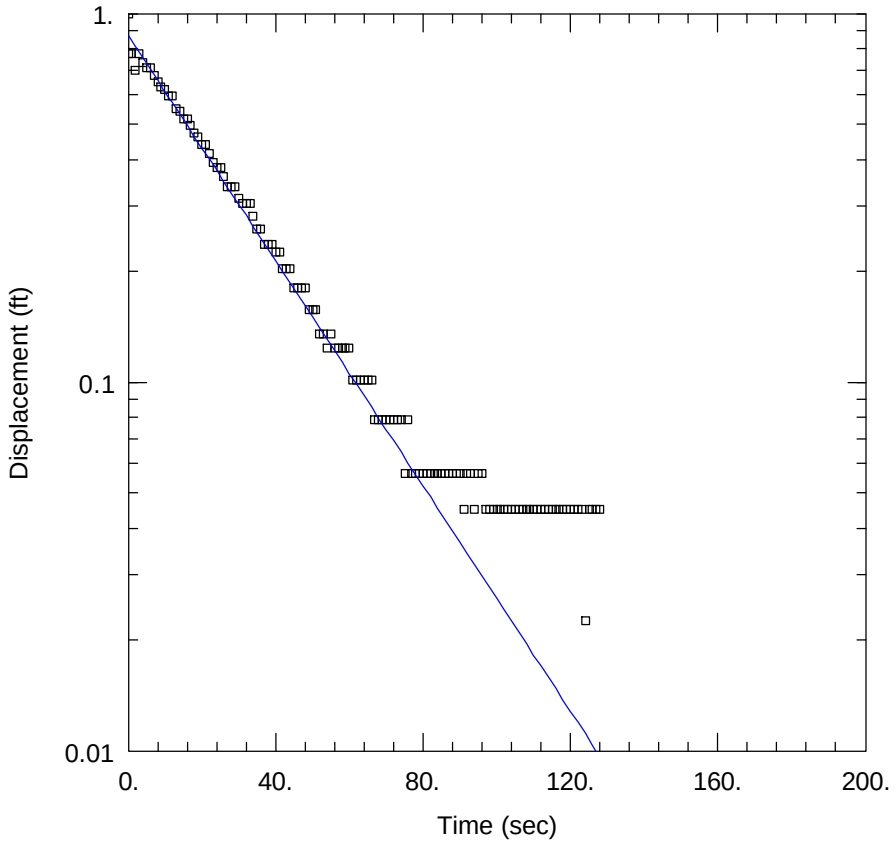
WELL DATA (MW-21A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 15.5 ft
Casing Radius: 0.167 ft
Static Water Column Height: 14.4 ft
Screen Length: 15.5 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.07205 cm/sec
y0 = 0.8398 ft



MW-22A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW22A_A.aqt
Date: 07/09/09 Time: 11:20:13

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-22A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 26.4 ft Anisotropy Ratio (Kz/Kr): 1.

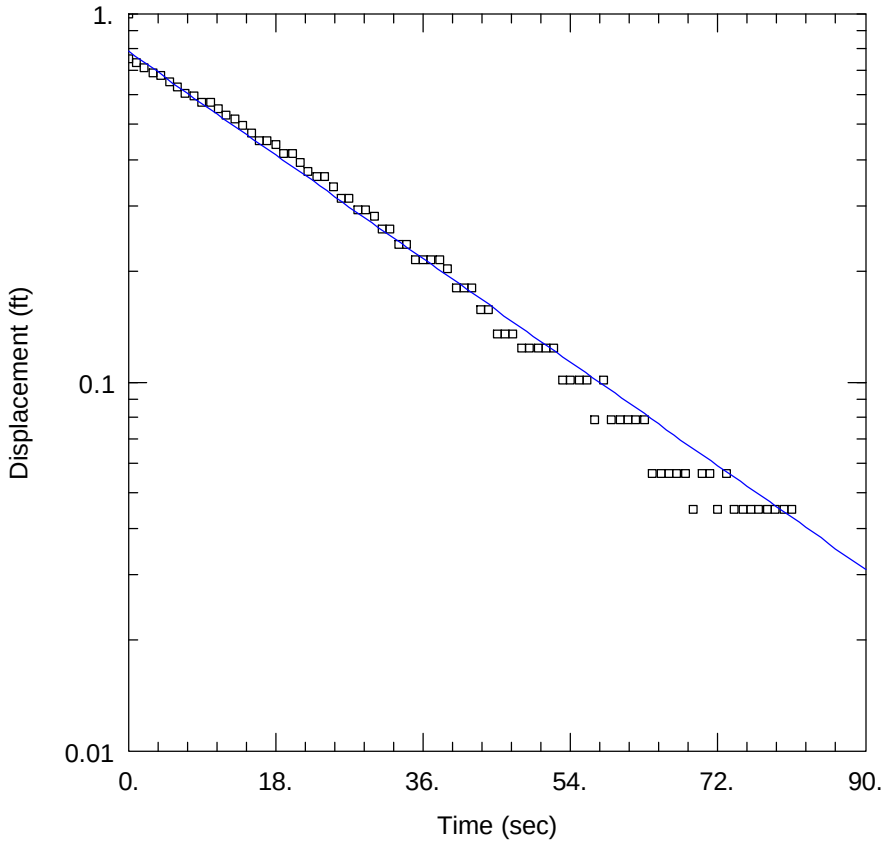
WELL DATA (MW-22A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 26.4 ft
Casing Radius: 0.167 ft
Static Water Column Height: 26.4 ft
Screen Length: 20.6 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.002813 cm/sec
y0 = 0.8717 ft



MW-22A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW22A_B.aqt
Date: 07/09/09 Time: 11:21:46

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-22A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 26.4 ft Anisotropy Ratio (Kz/Kr): 1.

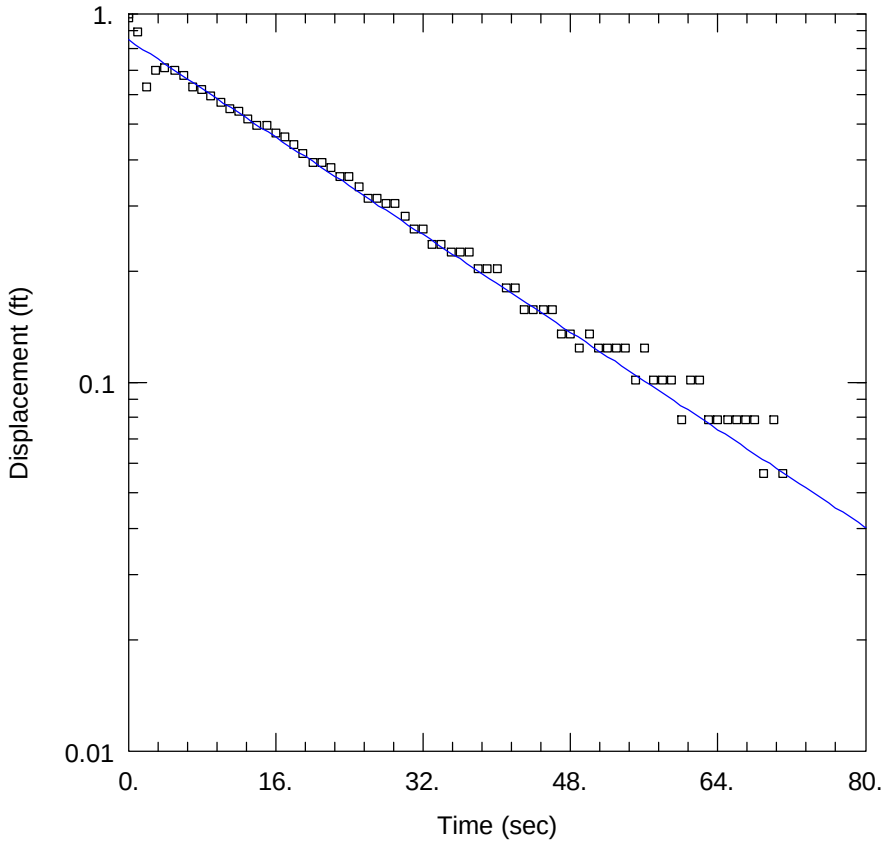
WELL DATA (MW-22A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 26.4 ft
Casing Radius: 0.167 ft
Static Water Column Height: 26.4 ft
Screen Length: 20.6 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.002873 cm/sec
y0 = 0.7884 ft



MW-22A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW22A_C.aqt
Date: 07/09/09 Time: 11:22:46

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-22A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 26.4 ft Anisotropy Ratio (Kz/Kr): 1.

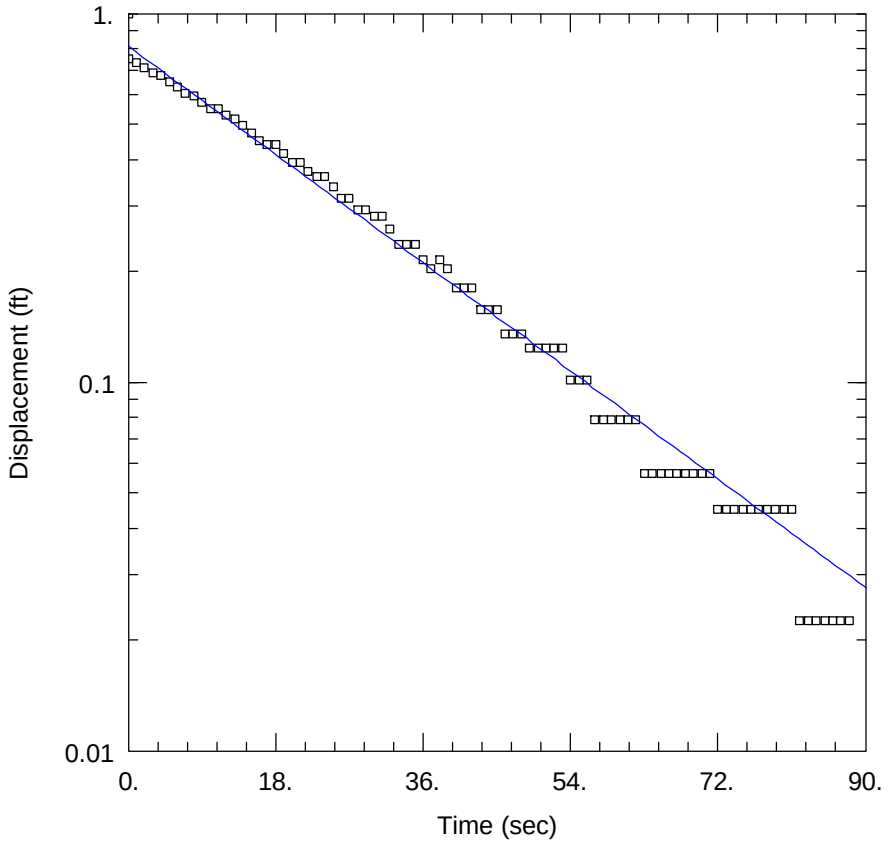
WELL DATA (MW-22A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 26.4 ft
Casing Radius: 0.167 ft
Static Water Column Height: 26.4 ft
Screen Length: 20.6 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.003043 cm/sec
y0 = 0.8484 ft



MW-22A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW22A_D.aqt
Date: 07/09/09 Time: 11:24:02

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-22A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 26.4 ft Anisotropy Ratio (Kz/Kr): 1.

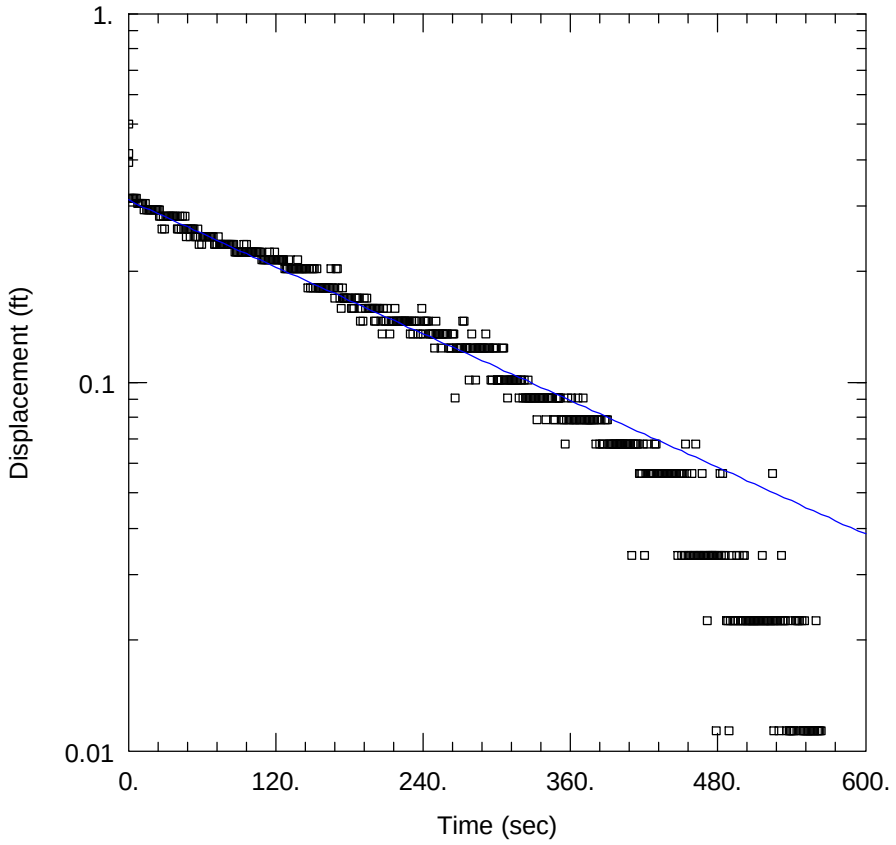
WELL DATA (MW-22A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 26.4 ft
Casing Radius: 0.167 ft
Static Water Column Height: 26.4 ft
Screen Length: 20.6 ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.003003 cm/sec
y0 = 0.8145 ft



MW-23A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW23A_A.aqt
Date: 07/09/09 Time: 11:27:05

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-23A
Test Date: June 30, 2009

AQUIFER DATA

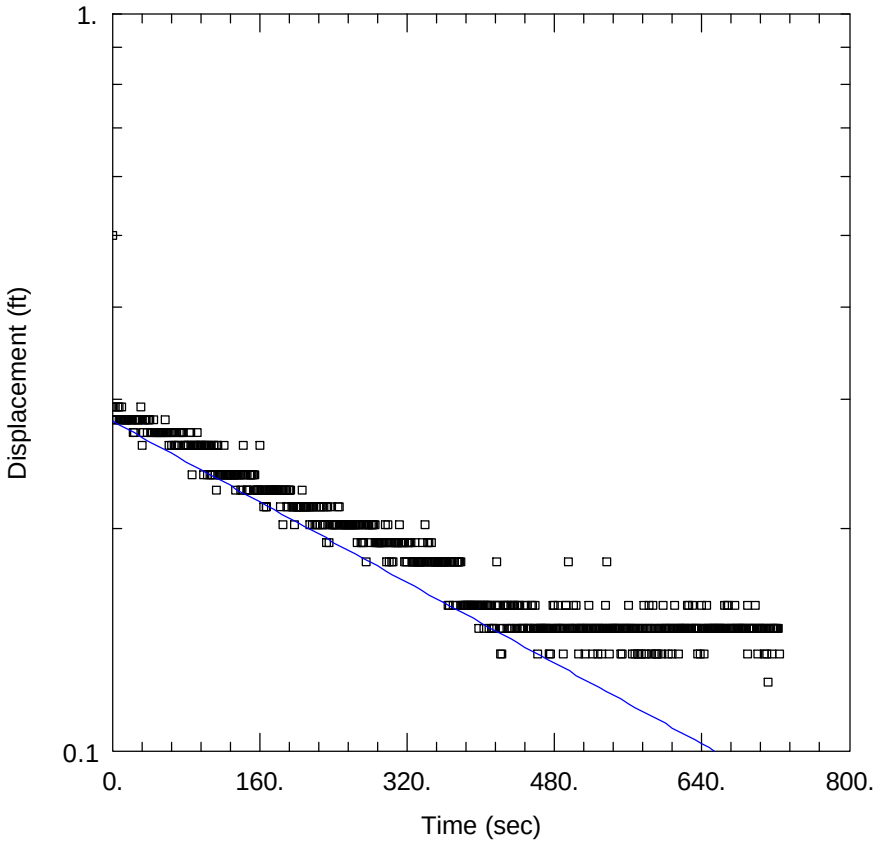
Saturated Thickness: 20. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23A)

Initial Displacement: 0.5 ft Static Water Column Height: 20. ft
Total Well Penetration Depth: 20. ft Screen Length: 18.8 ft
Casing Radius: 0.167 ft Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.0002894 cm/sec y0 = 0.3116 ft



MW-23A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW23A_B.aqt
Date: 07/09/09 Time: 11:28:19

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-23A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 20. ft Anisotropy Ratio (Kz/Kr): 1.

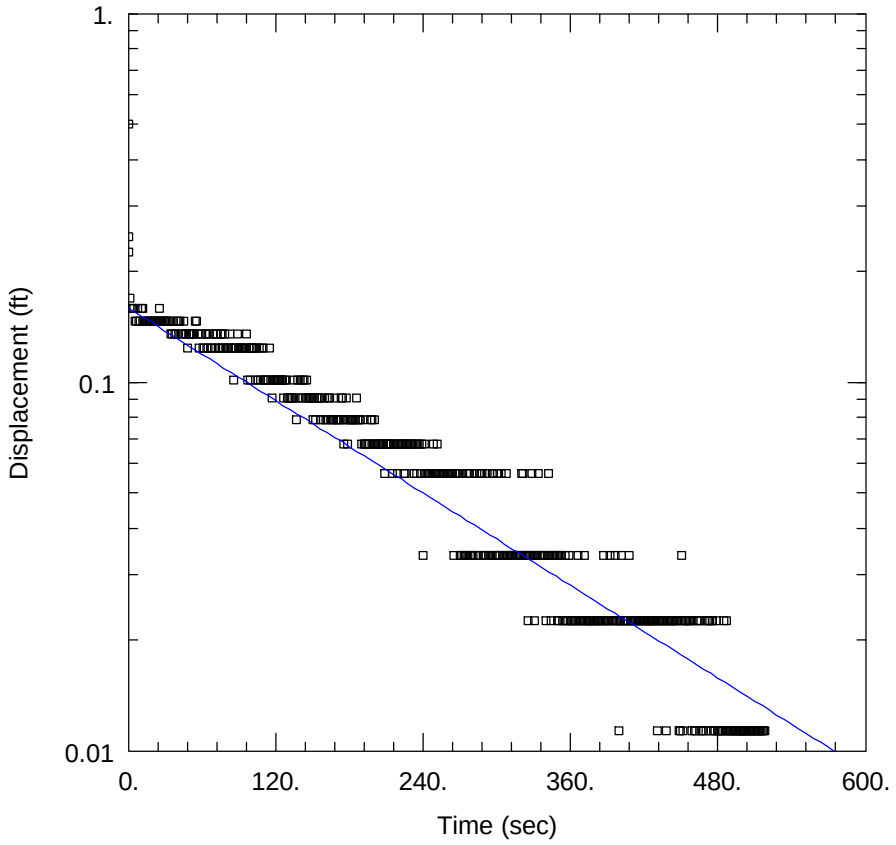
WELL DATA (MW-23A)

Initial Displacement: 0.5 ft Static Water Column Height: 20. ft
Total Well Penetration Depth: 20. ft Screen Length: 18.8 ft
Casing Radius: 0.167 ft Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.000131 cm/sec y0 = 0.2799 ft



MW-23A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW23A_C.aqt
Date: 07/09/09 Time: 11:29:26

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-23A
Test Date: June 30, 2009

AQUIFER DATA

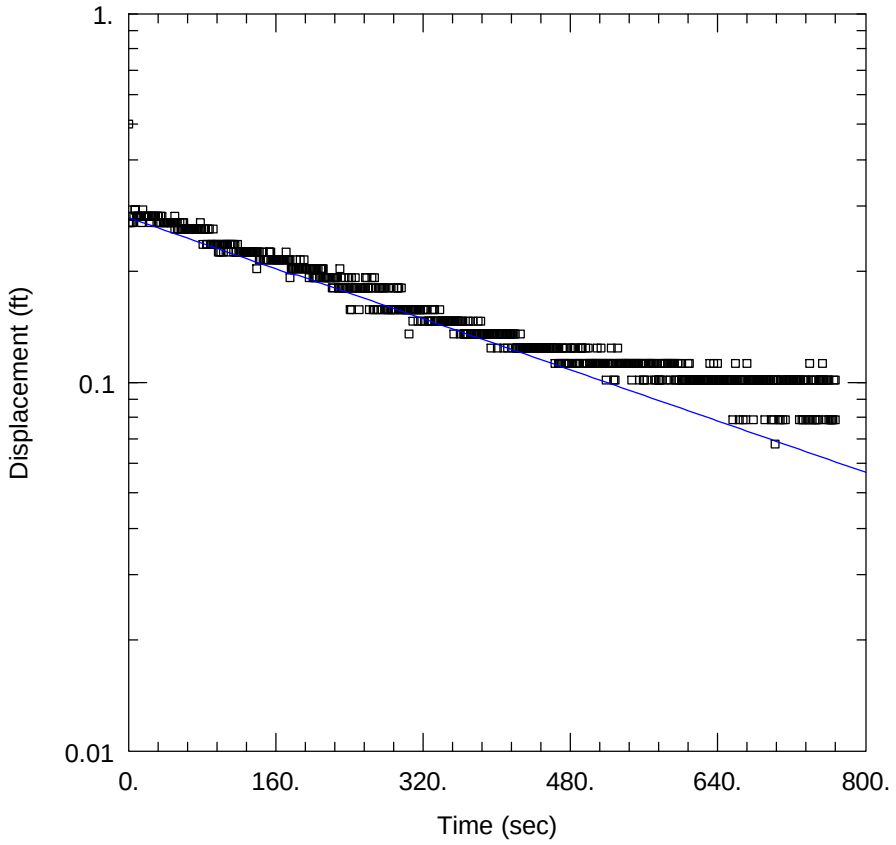
Saturated Thickness: 20. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23A)

Initial Displacement: 0.5 ft Static Water Column Height: 20. ft
Total Well Penetration Depth: 20. ft Screen Length: 18.8 ft
Casing Radius: 0.167 ft Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.0004007 cm/sec y0 = 0.1589 ft



MW-23A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW23A_D.aqt
Date: 07/09/09 Time: 11:30:23

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-23A
Test Date: June 30, 2009

AQUIFER DATA

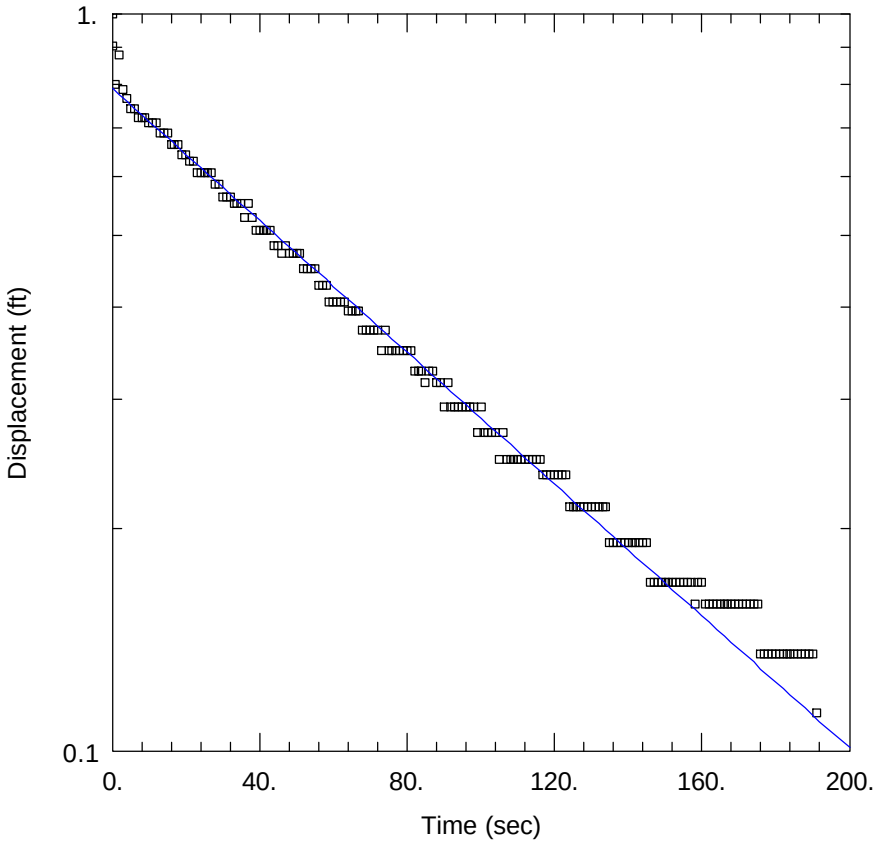
Saturated Thickness: 20. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23A)

Initial Displacement: 0.5 ft Static Water Column Height: 20. ft
Total Well Penetration Depth: 20. ft Screen Length: 18.8 ft
Casing Radius: 0.167 ft Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.0001656 cm/sec y0 = 0.2801 ft



MW-24A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW24A_A.aqt
Date: 07/09/09 Time: 10:00:01

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-24A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft Anisotropy Ratio (Kz/Kr): 1.

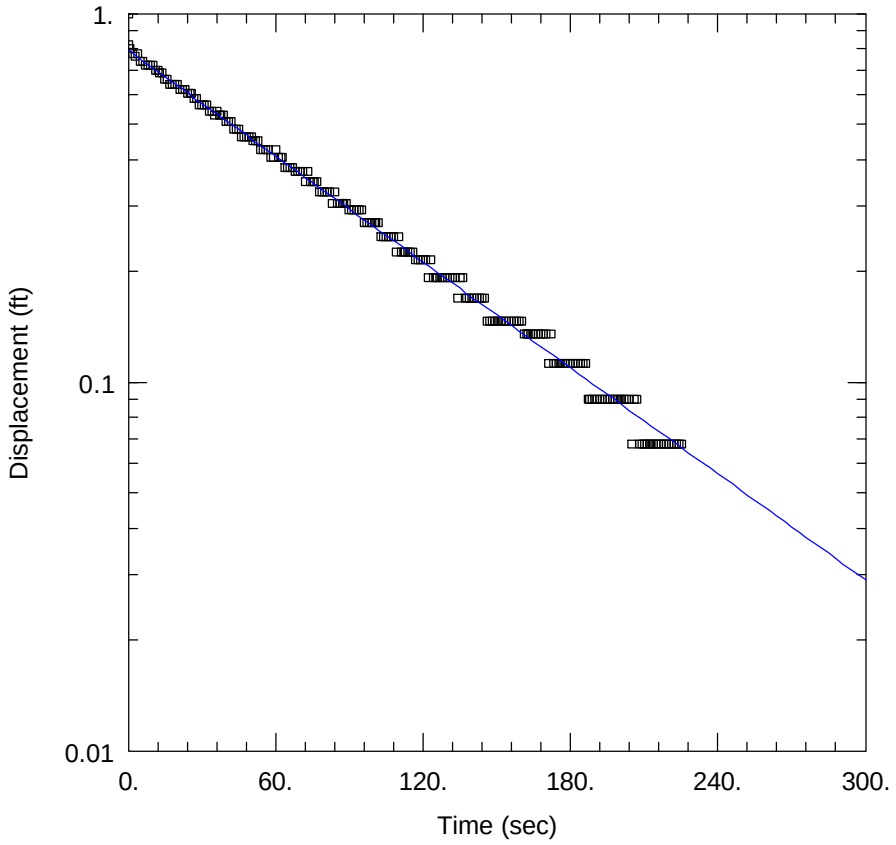
WELL DATA (MW-24A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.167 ft
Static Water Column Height: 9.1 ft
Screen Length: 6. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.002127 cm/sec
y0 = 0.7913 ft



MW-24A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW24A_B.aqt
Date: 07/09/09 Time: 10:00:53

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-24A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft Anisotropy Ratio (Kz/Kr): 1.

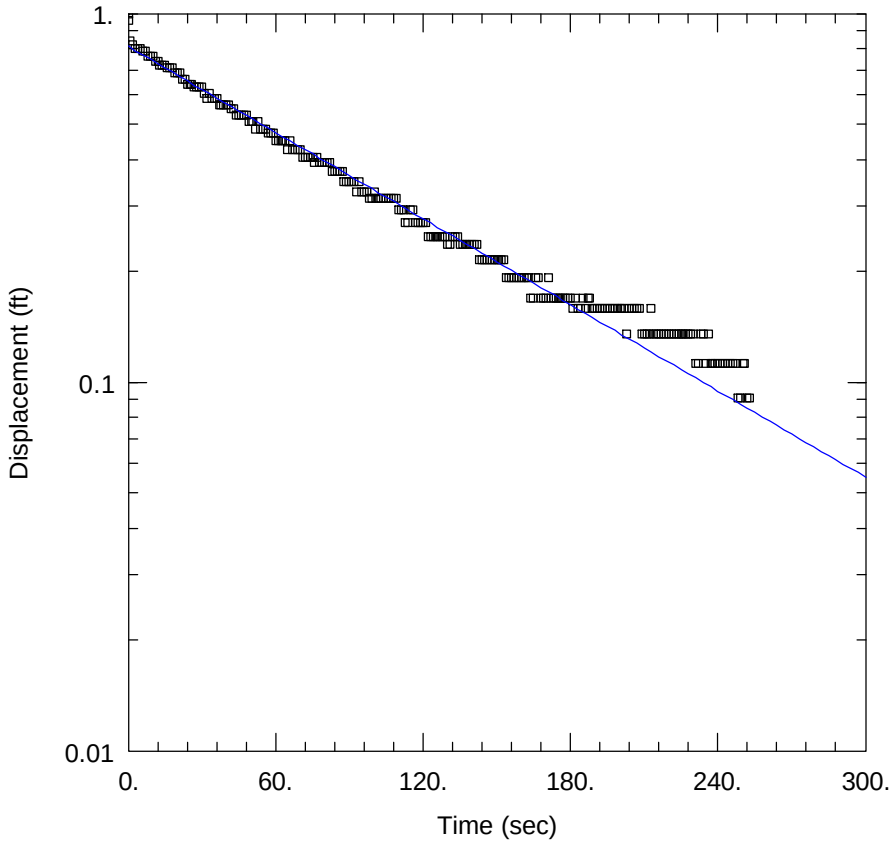
WELL DATA (MW-24A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.167 ft
Static Water Column Height: 9.1 ft
Screen Length: 6. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.002277 cm/sec
y0 = 0.7944 ft



MW-24A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW24A_C.aqt
Date: 07/09/09 Time: 10:01:53

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-24A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft Anisotropy Ratio (Kz/Kr): 1.

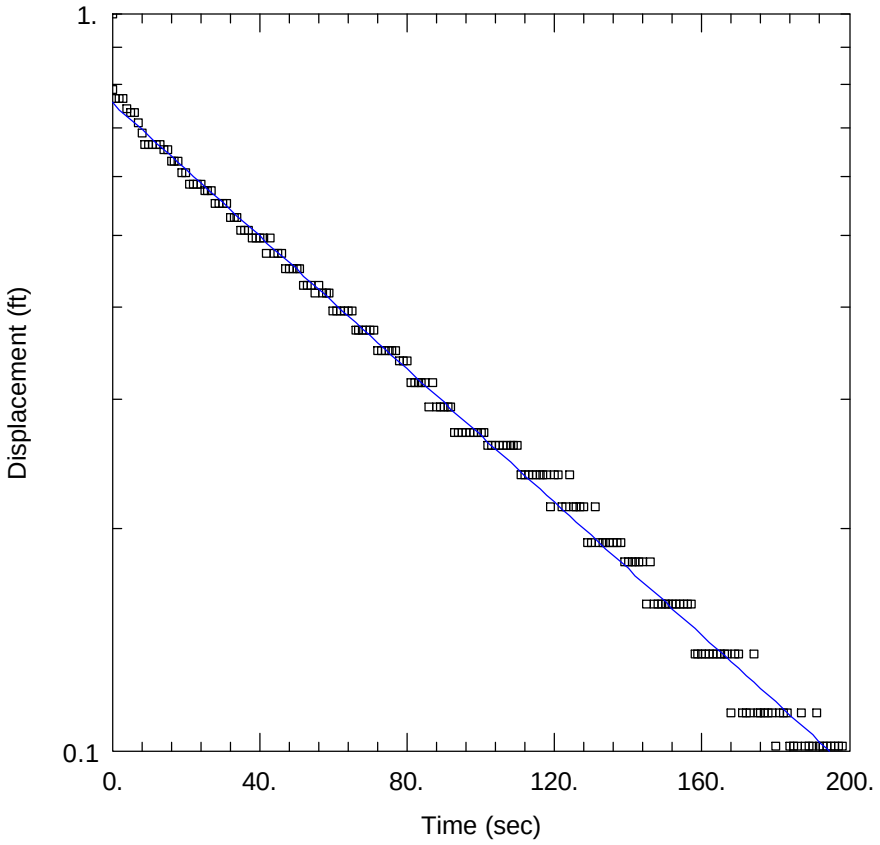
WELL DATA (MW-24A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.167 ft
Static Water Column Height: 9.1 ft
Screen Length: 6. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001853 cm/sec y0 = 0.8141 ft



MW-24A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW24A_D.aqt
Date: 07/09/09 Time: 10:03:12

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-24A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft Anisotropy Ratio (Kz/Kr): 1.

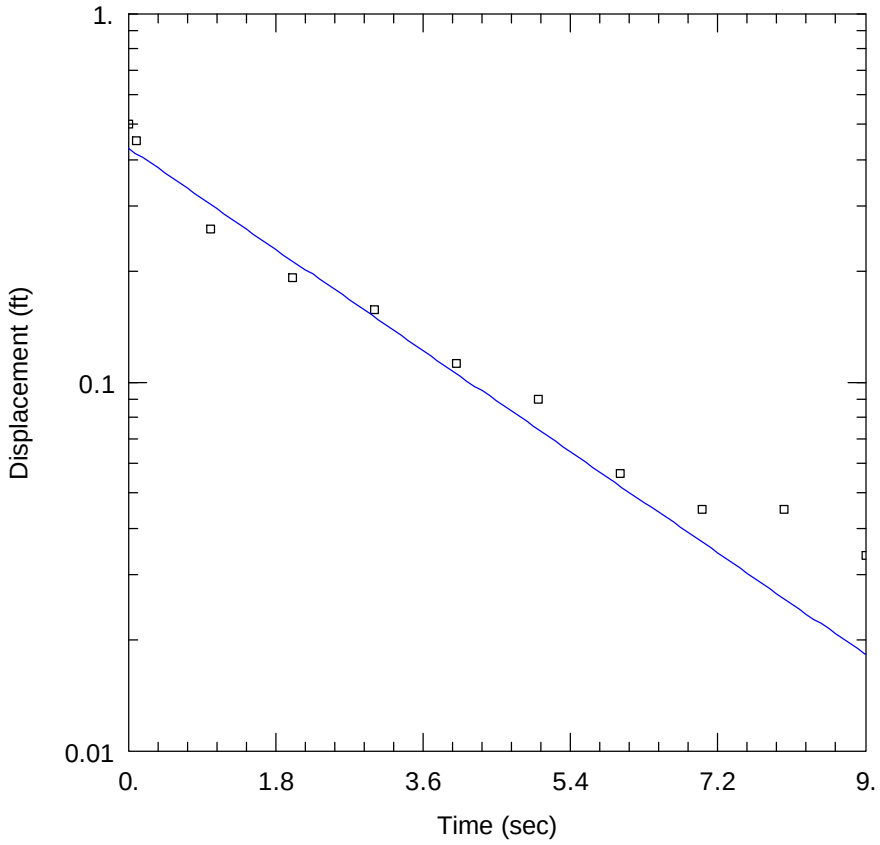
WELL DATA (MW-24A)

Initial Displacement: 1. ft
Total Well Penetration Depth: 9. ft
Casing Radius: 0.167 ft
Static Water Column Height: 9.1 ft
Screen Length: 6. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.002147 cm/sec
y0 = 0.756 ft



MW-25A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW25A_A.aqt
Date: 07/09/09 Time: 11:04:53

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-25A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 7.2 ft Anisotropy Ratio (Kz/Kr): 1.

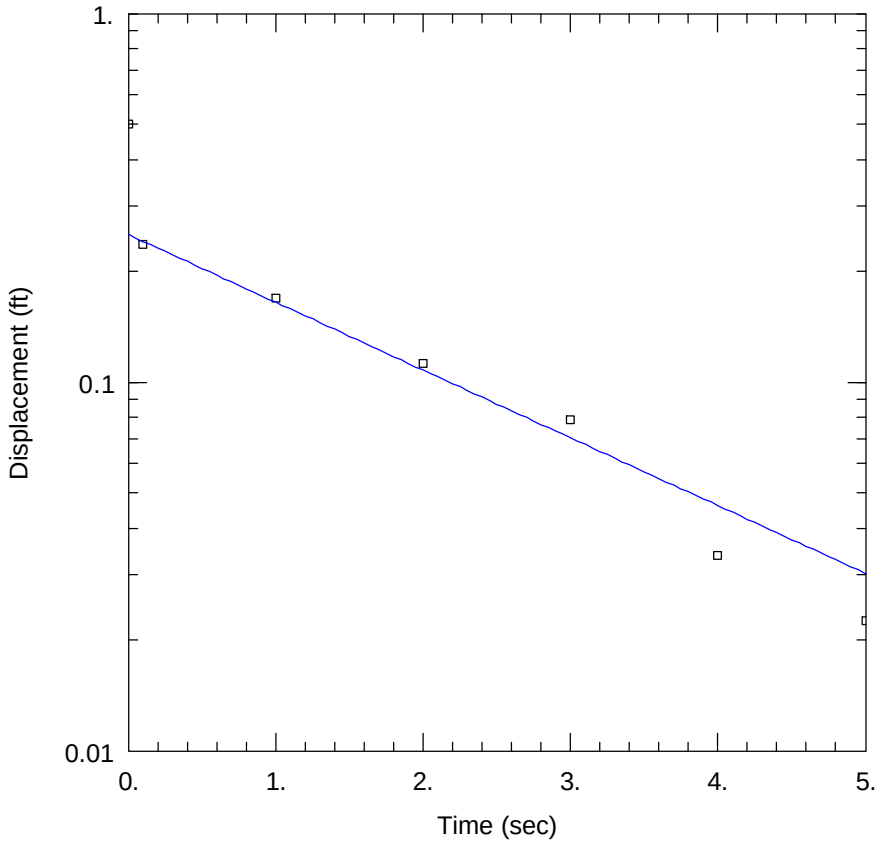
WELL DATA (MW-25A)

Initial Displacement: 0.5 ft
Total Well Penetration Depth: 7.2 ft
Casing Radius: 0.167 ft
Static Water Column Height: 7.2 ft
Screen Length: 5. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.08347 cm/sec y0 = 0.4317 ft



MW-25A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW25A_B.aqt
Date: 07/09/09 Time: 11:06:13

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-25A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 7.2 ft Anisotropy Ratio (Kz/Kr): 1.

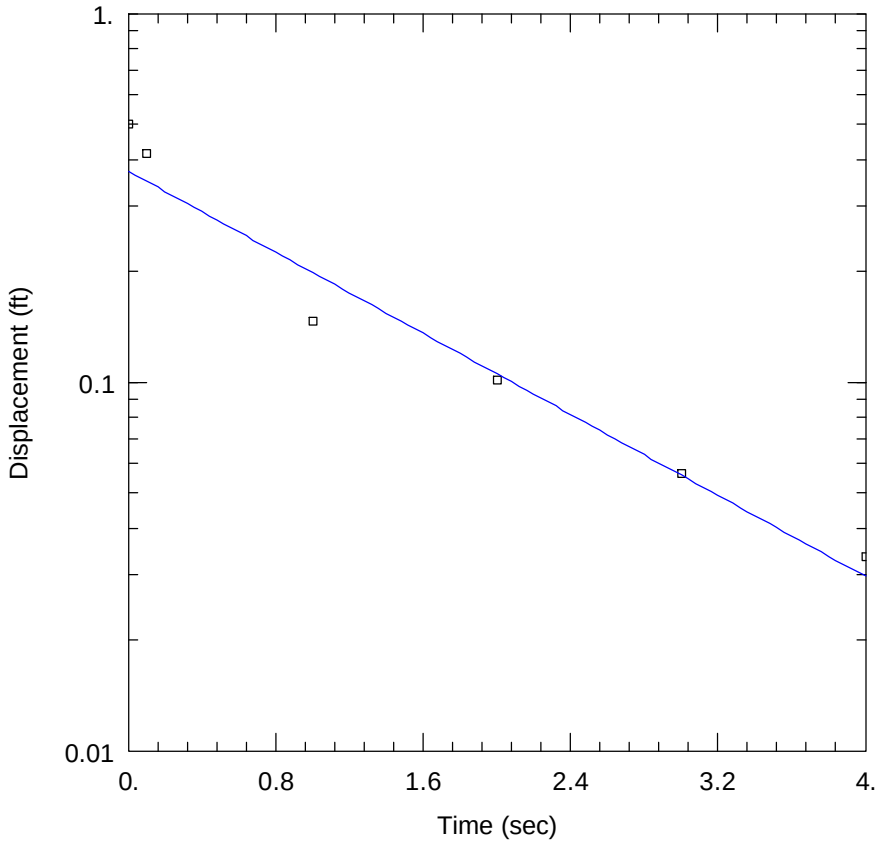
WELL DATA (MW-25A)

Initial Displacement: 0.5 ft
Total Well Penetration Depth: 7.2 ft
Casing Radius: 0.167 ft
Static Water Column Height: 7.2 ft
Screen Length: 5. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.1006 cm/sec
y0 = 0.2513 ft



MW-25A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW25A_C.aqt
Date: 07/09/09 Time: 11:08:02

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-25A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 7.2 ft Anisotropy Ratio (Kz/Kr): 1.

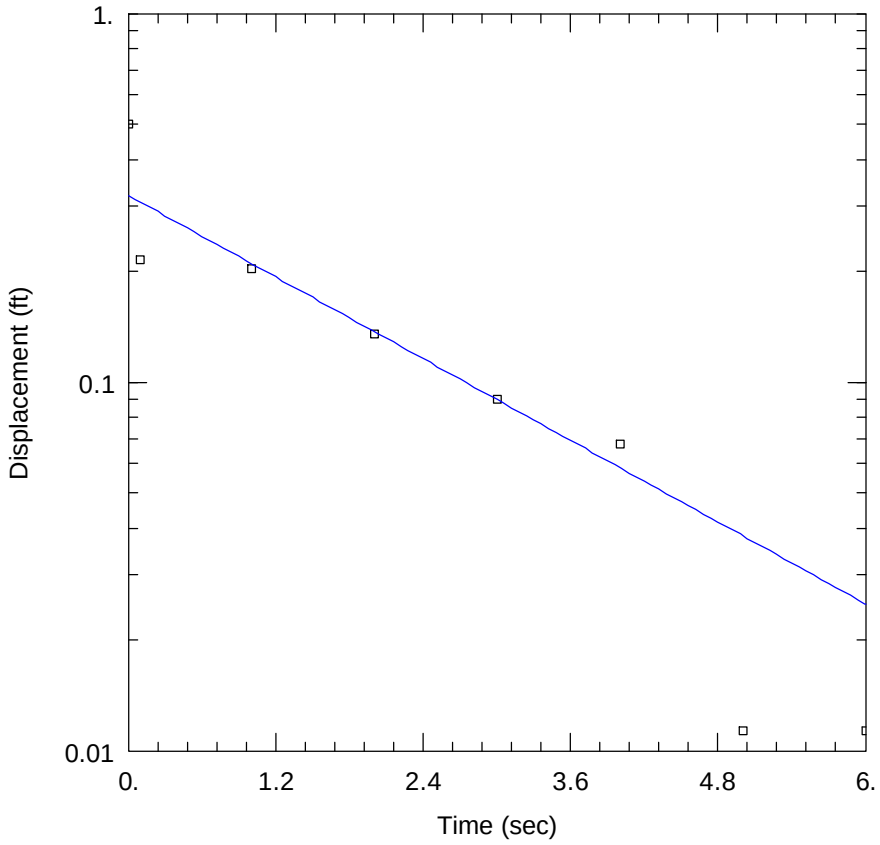
WELL DATA (MW-25A)

Initial Displacement: 0.5 ft
Total Well Penetration Depth: 7.2 ft
Casing Radius: 0.167 ft
Static Water Column Height: 7.2 ft
Screen Length: 5. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.1504 cm/sec
y0 = 0.3735 ft



MW-25A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW25A_D.aqt
Date: 07/09/09 Time: 11:08:59

PROJECT INFORMATION

Company: CRA
Client: Hodgson Russ
Project: 37191
Location: Former Buffalo China
Test Well: MW-25A
Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 7.2 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25A)

Initial Displacement: 0.5 ft
Total Well Penetration Depth: 7.2 ft
Casing Radius: 0.167 ft
Static Water Column Height: 7.2 ft
Screen Length: 5. ft
Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.101 cm/sec
y0 = 0.321 ft

APPENDIX H

FISH AND WILDLIFE IMPACT RECORDS

FISH AND WILDLIFE IMPACT ANALYSIS

FORMER BUFFALO CHINA SITE
51 HAYES PLACE
BUFFALO, NEW YORK

APRIL 2008
REF. NO. 037191
This report is printed on recycled paper.

EXECUTIVE SUMMARY

This report presents a Fish and Wildlife Impact Analysis (FWIA) for the former Buffalo China site (Site) located at 51 Hayes Place, Buffalo, New York. This FWIA follows the requirements as set forth in the *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites* guidance of the New York State Department of Environmental Conservation (NYSDEC). The objectives of the FWIA were to: identify the fish and wildlife resources that presently exist and that existed before contaminant introduction; provide information necessary for the design of a remedial investigation; determine the impacts of Site-related contaminants on fish and wildlife resources; and evaluate the effects of the remedial alternatives on the productivity and diversity of fish and wild resources.

Conestoga-Rovers & Associates (CRA) found that no fish or wildlife resources are associated with the Site, and there is minimal potential for contaminant migration to the Buffalo River, which is the nearest resource to the Site. Potential remedial actions being considered for the Site would ensure that Site-related contaminants do not reach ecological receptors in the future.

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1.0 INTRODUCTION

1.1 BACKGROUND AND OBJECTIVES

This report presents a Fish and Wildlife Impact Analysis (FWIA) for the former Buffalo China site (Site) located at 51 Hayes Place, Buffalo, Erie County, New York. The property is currently owned by Niagara Ceramics and is located at 51 Hayes Place, Buffalo, New York, as shown on Figure 1. In March 2004, Buffalo China sold the property to Niagara Ceramics and retained liability for environmental impairment of the Site and adjacent properties impacted by the Site prior to the sale. Buffalo China has entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) to investigate and remediate, as appropriate, potential areas of environmental concern associated with the Site.

Generally, this FWIA follows the requirements as set forth in the *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites* guidance issued by NYSDEC dated October 1994. In accordance with the guidance, the objectives of the FWIA are:

- identify the fish and wildlife resources that presently exist and that existed before contaminant introduction (Step I);
- provide information necessary for the design of a remedial investigation (Step I);
- determine the impacts of Site-related contaminants on fish and wildlife resources (Step II); and
- evaluate the effects of the remedial alternatives on the productivity and diversity of fish and wildlife resources (Step III).

If no resources are associated with the Site or if there is no potential for contaminant migration to the resources, then only Step 1 of the FWIA must be completed with all the necessary information to support these conclusions.

1.2 REPORT ORGANIZATION

In addition to the goals and objectives provided in Section 1.1, this Section also provides a general description of the Site and surrounding area.

1.3 SITE LOCATION

The former Buffalo China site (Site) is located at 51 Hayes Place, City of Buffalo, Erie County, New York. Figure 1 shows the location of the Site and a 2-mile radius. The Site comprises approximately 10 acres and is bounded on the north by railroad tracks, on the east by the adjoining Buffalo China Warehouse and other commercial/industrial facilities, and on the south and west by commercial, industrial, and residential properties. Interstate I-190 is located nearby to the south of the Site, while the City of Buffalo School 26 and adjacent playground is located a few hundred feet to the southwest. The nearest body of water is the Buffalo River, located approximately 0.25 mile south and east of the Site.

1.4 SITE DESCRIPTION

A site reconnaissance of the Site was conducted by CRA on April 3, 2008 to document habitat characteristics and identify potential ecological receptors, environmentally sensitive areas, and potentially complete exposure and contaminant migration pathways. Figure 1 shows the location of the Site, and the area within a 2-mile radius of the Site is inscribed. Figure 2 shows the Site and the area within a 0.5-mile radius. Color photographs were taken to document the existing conditions, and are provided in Appendix A.

The Site includes buildings, outdoor storage silos, a railroad spur, roadways, and parking areas. The manufacturing building is a multi-story structure covering approximately 4 acres. The building is connected to the Buffalo China Warehouse to the east. Another smaller building, referred to as the Harrison Street Warehouse, is located in the northwest end of the Site and covers an area of approximately 0.5 acre. The primary access to the Site is from Hayes Place (a street name) through the east side of the Site near the Buffalo China Warehouse. The property has been used for the manufacture of china for the past 100 plus years. During that time period, the manufacturing facility expanded to adjacent industrial properties, which included the Standard Mirror Company and Atlas Wrecking. The Harrison Street Warehouse was once part of the Standard Mirror facility.

Stormwater runoff from the Site is collected in municipal stormwater sewers. Figure 3 shows a drainage map of the Site and the various storm sewer inlets. The City has combined sewers in this location, and stormwater and sanitary wastewater is ultimately conveyed to the City's Bird Island Sewage Treatment Plant. The main sewer line that

serves the Site runs underneath Seneca Street. However, combined sewer overflows (CSOs) occur when the volume of stormwater exceeds the capacity of the sewers. When flows exceed capacity, regulators on the system discharge to surface water. There are numerous CSOs in various locations on the sewer system. Any overflows originating from the Seneca Street sewer will ultimately discharge to the Buffalo River at the Hamburg Street CSO. The Remedial Action Plan (RAP) for the Buffalo River identifies CSOs as a major impact to the River's water quality.

Ecologically, the Site is considered to be an unnatural habitat consisting of manmade structures such as industrial buildings, residences, roadways, railroads, and parking lots. Undisturbed natural habitat is lacking and replaced by manmade habitats dominated by ornamental plant species and early successional and invasive plant species. Mammalian wildlife species inhabiting these areas are those species found in close proximity to human settlements. Avian species consist of the usual bird fauna of cities and towns, as well as occasional seasonal neotropical migrants. Due to the small extent of undisturbed areas on the Site, very few individual animals could be supported by the Site's habitat. Aquatic habitat is lacking from the Site.

1.5 SURROUNDING LAND USE

The Site and surrounding land lie within the Erie-Ontario Lake Plain Province. This is an area with a small degree of relief occupying the Lake Erie plain. The Province was once a glacial lakebed. Soils are primarily a silt loam. Human activities and human modified habitat dominate in the Buffalo City area. Natural habitats are rare, and undisturbed habitats are non-existent.

Table 1 lists and Figure 2 shows each general cover-type within a 0.5-mile radius of the Site and also shows the acreage associated with each cover-type. The land within 0.5 mile of the Site consists of a mixture of urban land uses. There are residential areas with grass yards and shade trees. There are also commercial and industrial areas with impervious surfaces (paved roads, parking lots, and buildings). Urban manmade habitats account for 98 percent of the total 488 acres within the 0.5-mile radius of the Site.

To the immediate north of the Site are active railroad tracks with ruderal grasses and weeds. A narrow row of shrubs and saplings exists on both sides of the tracks. There is a school and grass playground to the southwest of the Site. Further from the Site, there are automobile junkyards to the southwest and a quarry to the northwest. There are

also vacant lots covered with a mixture of grasses, weeds, and bare soil. On either side of I-190, which is south of the Site, there are small grassy areas with a few trees and shrubs. There is also a small open field upland with a scattering of trees north of the Site.

Various small pocket parks exist in the vicinity of the Site. Houghton Park is located over a half mile from the Site to the southeast. The majority of the parks consist of athletic fields; however, there are some small fragmented wooded areas associated with the parks. Table 2 lists area parks and their features.

The nearest body of water to the Site is the Buffalo River. The Buffalo River watershed encompasses 447 square miles. NYSDEC has classified the river as a Class C waterbody, which stipulates that its beneficial uses are fishing with waters suitable for fish propagation and survival. In addition, Class C water quality should be suitable for primary and secondary contact recreation. However, other factors could limit use for these purposes. The Buffalo River in the vicinity of the Site is designated as a navigable channel and is maintained by the U.S. Army Corps of Engineers at a minimum depth of 22 feet. The shoreline is not natural and consists of moorings, bulkheads, pilings, and other structures on the bank. Fish and wildlife habitat is sparse in the lower section of the river, as are beds of emergent and submerged aquatic vegetation. Nearly the entire lower section of the river is located within a 2-mile radius of the Site (see Figure 1). Due to a northern bend in the river, the nearest area of the river is approximately 0.25 mile south of the Site.

The Buffalo River from roughly its confluence with Cazenovia Creek is designated as a Great Lakes Area of Concern (AOC) by the U.S.-Canada Great Lakes Water Quality Agreement. As required for all AOCs, a RAP was developed for the Buffalo River in 1989. The AOC encompasses 6.2 miles and is characterized by a highly urbanized and industrial lower watershed. The Buffalo China Site is located just upstream of the Buffalo River AOC and is not listed as a contributor to contamination in the river (Buffalo Niagara Riverkeeper 2005). The United States Environmental Protection Agency (USEPA) Great Lakes National Program Office (GLNPO) selected Friends of the Buffalo Niagara Rivers (now the Buffalo Niagara Riverkeeper) to coordinate the implementation of the Buffalo River RAP. Remedial activities are ongoing and focus on water quality monitoring, river bottom sediment monitoring and remediation, planning for the remediation of inactive hazardous waste sites, assessment of municipal and industrial wastewater treatment facilities and elimination of CSOs, and planning for the restoration of fish and wildlife habitat.

2.0 DESCRIPTION OF FISH AND WILDLIFE RESOURCES

2.1 FISH AND WILDLIFE RESOURCES AND COVER-TYPES

The only aquatic habitat in the vicinity of the Site is the Buffalo River. There are six known beneficial use impairments in the Buffalo River AOC. These are restrictions on fish consumption, fish tumors/other deformities, degradation of benthos, restrictions on dredging, degradation of aesthetics, and loss of fish and wildlife habitat. Factors affecting water quality in the Buffalo River AOC include industrial discharges, CSOs, agricultural runoff, inactive hazardous waste sites, stormwater runoff and failing septic systems, and re-suspension of historically contaminated sediments.

Water quality of the Buffalo River within the AOC is affected by low dissolved oxygen concentrations, turbidity, contamination by heavy metals (copper, iron, lead, mercury, and zinc), ammonia, and elevated fecal coliform bacteria (2005 RIBS, Riverkeeper 2005). A water quality investigation conducted in 2005 found no polychlorinated biphenyls (PCBs) or pesticides, one semi-volatile organic compound (SVOC) (bis (2-ethylhexyl) phthalate), and several metals in surface water (NYSDEC 2006). River sediments are contaminated with PCBs, polynuclear aromatic hydrocarbons (PAHs), metals, industrial organic chemicals, and cyanides. Recently deposited sediments were not as contaminated as deeper sediments; however, deep sediments may have been re-suspended during dredging operations.

Ongoing assessments of benthic macroinvertebrates, fish, bird, mammal, reptiles, and amphibian populations are conducted within the AOC. A benthic macroinvertebrate and fish study conducted during 2003-2004 (Irvine et al. 2005) found low fish diversity and dominance of the invertebrate community by pollution tolerant tubificid worms and midge larvae. Fish habitat is degraded due to dredging and shoreline alterations, and there is a fish advisory warning against consumption of carp due to elevated levels of PCBs (Buffalo Niagara Riverkeeper, 2005).

A Palustrine scrub/shrub wetland is shown on the National Wetlands Inventory (NWI) map just north of the Site; however, there is presently a building at that location. There are no other wetlands in the vicinity of the Site. However, there is a riparian area identified as a palustrine forested wetland on the NWI map located on the opposite (south) bank of the river associated with the Seneca Bluffs area.

A small portion of the Seneca Bluffs Area is located within the 0.5-mile radius of the Site on the opposite (south) side of the Buffalo River. Seneca Bluffs is a 15-acre floodplain

designated as palustrine forested wetland on the NWI map. There are several habitats in the area, including palustrine emergent wetland, forested floodplain, upland meadow, eroding bluff, and 2,500 feet of river shoreline. The area was identified as a unique and critical habitat that provided habitat for waterfowl, amphibians, fish, migratory birds, and wading birds. Mature cottonwood and willow trees are present in the area. Seneca Bluffs also serves as a recreational area for residents. The area is also within the Great Lakes migratory bird flyway. However, the Seneca Bluffs have been impacted by human activities. Its vegetation was dominated by invasive and non-native plant species, illegal dumping and litter were common, and off-road vehicles were impacting habitats (Buffalo Niagara Riverkeeper, 2005). The Seneca Bluffs restoration activities have reduced invasive vegetation and planted native plants, and seasonal aquatic habitats were constructed.

A portion of the Tifft Farm Nature Preserve is located within 2 miles southwest of the Site. This 264-acre preserve is designated a Significant Coastal Fish and Wildlife Habitat. It is one of the largest remaining wetland systems in the Lake Erie coastal region. The preserve wetlands provide habitat for a variety of species, such as waterfowl, shorebirds and migratory birds, muskrats, mink, reptiles, fish, and burrowing crayfish. There are also upland areas that provide habitat for birds, mammals and reptiles, as well as ponds that support warm water fish and amphibians. Several threatened and endangered species also reside on the preserve.

Upland natural habitats are for the most part non-existent within the 0.5-mile radius of the Site. Within the entire half mile area, there is only one upland forested area consisting of approximately 5 acres. This forested lot is surrounded by human activities.

2.2 FAUNA EXPECTED WITHIN EACH COVER TYPE AND AQUATIC HABITAT

Due to the limited natural habitats in the vicinity of the Site, fauna are expected to be restricted to those species well adapted to an urban setting, such as resident birds of urban areas and small rodents such as gray squirrels and house mice. Studies conducted on the Buffalo River show that there is low fish and invertebrate diversities in the river due to sediment and water column contamination and habitat degradation (Irvine et al. 2005; Buffalo Riverkeeper 2005).

Two New York State threatened bird species, the least bittern (*Ixobrychus exilis*) and pied billed grebe (*Podilymbus podiceps*), were reported by the New York Natural Heritage

Program as occurring within 2 miles of the Site. Neither of these species is expected to occur on or near the Site because the appropriate habitats (freshwater marshes, ponds, and lakes) are absent.

The unlisted but imperiled, devil crayfish (*Cambarus diogenes*), has also been found in a pond 2 miles from the Site at the Tifft Farm Nature Preserve. A special concern fish, the black redhorse (*Moxostoma duquesnei*), has been observed upstream of the Buffalo River AOC. Two unlisted mussels, the fragile papershell (*Leptodea fragilis*) and the pink heelsplitter (*Potamilus alatus*), have also been observed upstream of the AOC. None of these aquatic species are expected to occur within the vicinity of the Site. A letter from the New York Natural Heritage Program is in Appendix C.

2.3 OBSERVATIONS OF STRESS

During the Site visit, CRA did not observe any areas of noticeable stress in the vegetation due to Site operations. City vegetation is stressed by human activities to a certain extent and this level of stress is normally encountered. This stress may be manifested by stunted vegetation due to poor drainage or poor soil conditions, buildup of road deicing salts, and other factors. Aquatic stresses found in the Buffalo River were discussed above. These stresses are due in part to current conditions such as CSO discharges and poor habitat conditions due to over 100 years of industrial activities along the banks of the river.

3.0 DESCRIPTION OF FISH AND WILDLIFE RESOURCE VALUE

3.1 VALUE OF HABITAT TO ASSOCIATED FAUNA

The area surrounding the Site consists of residential, commercial, and industrial developments. There are some areas of mowed lawn and a small sparsely wooded area is located to the north of the Site. However, because food, shelter, and breeding/roosting habitat features are limited in the area surrounding the Site, use by wildlife is very limited.

A portion of the Seneca Bluffs area is located approximately 0.5 mile to the south of the Site. The area is currently used as a recreational area for residents (fishing, walking) and habitat for birds and other animals. The Seneca Bluffs area is just upstream of the uppermost end of the Buffalo River AOC. The Buffalo River AOC is distinguished by low fish and macroinvertebrate diversity, degraded habitat, low dissolved oxygen, and presence of PCBs, metals, and industrial organics in sediment. It can be assumed that the area of the river just upstream of the AOC is also degraded. A study conducted on the AOC determined that the water quality just below the confluence of the Buffalo River and Cazenovia Creek (downstream of the Site and Seneca Bluffs) was generally good, but fish and macroinvertebrate populations were impoverished (Irvine et al. 2005).

In summary, the area surrounding the Site offers limited habitat to species that may live in the Buffalo City area due to limited food, cover, and breeding sites. Most of the land surrounding the Site is industrial, commercial, or residential, and few areas of natural habitat exist. The Buffalo River has been severely degraded for several decades. The Seneca Bluffs area is located on the opposite bank of the Buffalo River as the Site; therefore, it is very unlikely that Site related chemicals could have affected Seneca Bluffs.

3.2 VALUE OF RESOURCES TO HUMANS

There are no current or potential uses of fish and wildlife resources by humans within 0.5 mile of the Site, except for a small area by the Buffalo River, which could be used for fishing. The Seneca Bluffs habitat restoration area is located to the south of the Site and can be used by humans for fishing, hiking, and wildlife observation. The area around the Site is too densely populated for hunting. Within 2 miles of the Site, there are additional recreational prospects for residents. There is a grass playground to the immediate southwest of the Site. Houghton Park is located to the southeast of the Site, with the majority of the park consisting of playing fields, with areas of the park near the

river forested. Several other small recreational parks are located within 2 miles of the Site. Several miles of the Buffalo River flow south of the Site, including parts of the river designated as an AOC. Studies of resident use of the river show that it is used for fishing, boating, swimming, and other activities (Irvine et al. 2005). There is a fish advisory on the Buffalo River stating that no one should consume carp from the river due to contamination by PCBs. Use of these natural resources is limited due to the urbanized nature of the area surrounding the Site, as well as the ongoing contamination of the Buffalo River by other sources.

4.0 IDENTIFICATION OF APPLICABLE FISH AND WILDLIFE REGULATORY CRITERIA

There are no terrestrial wildlife habitats, wetlands, or aquatic habitats on the Site that would be used by aquatic life or wildlife or humans. However, to remain conservative, the screening criteria listed in Table 3 should be used to screen surficial soil chemical parameters for future remediation decisions. In addition, groundwater parameters should be screened to surface water criteria. The screening of groundwater parameters to surface water criteria is a conservative approach that will protect aquatic life. There are no sediments associated with the Site.

For the purpose of this assessment, recent Site data were screened to ecological screening values. Table 4 presents the results of the screening. Lead, the only chemical analyzed for in soil, was screened against the Eco-SSL criteria produced by USEPA (USEPA 2005). Chemicals detected in groundwater were screened to surface water concentrations. The conservatism of this screening of groundwater with surface water ecological screening values (ESVs) should be emphasized. There will often be appreciable reductions in groundwater concentrations due to ongoing fate processes before the groundwater discharges to the nearest surface water where dilution is the primary reduction mechanism. No surface water discharges on the Site.

As a first choice, water quality criteria for aquatic life from New York were chosen for ESVs (NYDEC 2008). If no New York value was available, national water quality criteria (USEPA 2006) for freshwater were used. If no national chronic water quality criteria were available, ESVs from USEPA Region V (2003a) and the State of Michigan (MDEQ 2000) were employed. For PAHs, Final Chronic Values (FCV) for water were used (USEPA 2003b).

Most of the surface water quality criteria for metals are applicable to dissolved metals concentrations, because adsorbed and insoluble metals pose little to no risk (USEPA, 1993, 1999). For those ESVs based on dissolved metals, dissolved concentrations of metals in surface water were used.

5.0 CONTAMINANT-SPECIFIC IMPACT ASSESSMENT

5.1 PATHWAYS ANALYSIS

There are two possible pathways that contaminants may mobilize from the Site. Dissolved contaminants in groundwater may be transported through groundwater flow to the Buffalo River. The other pathway is through stormwater runoff where soil particles are suspended in runoff and transported to the Site's storm sewer system. However, there is no evidence that either of these pathways is transporting contaminants in significant concentrations to the Buffalo River. Contaminants in groundwater appear to be localized in one area of the Site. In addition dilution by upgradient groundwater will significantly dilute on-Site water as will dilution afforded by the river should contaminants ever reach the river. Once collected in the sewers, soil contaminants would be provided treatment and dilution by the Buffalo sewage treatment plant. Likewise, any discharges from CSOs would take place during heavy precipitation events when upstream dilution rate of the river will be extremely high. Based on this discussion, CRA does not believe that contaminants originating from the Site are impacting fish and wildlife habitats.

5.2 CRITERIA-SPECIFIC ANALYSIS

CRA screened groundwater data and surficial soil data against conservative screening criteria as discussed in Section 4.0. Data Tables are included as Appendix B. The results of the screening are shown in Table 4. Four volatile organic compounds (VOCs) detected in groundwater exceeded the ecological screening values as shown in Table 4. These compounds were 1,1,2-trichloroethane, cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene. These compounds are industrial degreasers. The greatest concentrations of these compounds were located in one area of the Site, which may indicate a potential source area. Also exceeding screening were two SVOCs, benzo(b)fluoranthene and bis(2-ethylhexyl)phthalate. Another SVOC, caprolactam, was included because a screening value could not be found. In surficial soils lead exceeded its screening value.

6.0 ECOLOGICAL EFFECTS OF REMEDIAL ACTIONS

Remedial actions have not yet been finalized but may consist of one or more of the following: source removal, soil vapor extraction and vapor phase carbon treatment, on-Site groundwater treatment, and Site paving. None of these actions will have a adverse ecological impact on the Site. Remediation of the Site will result in eliminating any future potential pathways to ecological receptors.

7.0 FISH AND WILDLIFE REQUIREMENTS FOR IMPLEMENTATION OF REMEDIAL ACTIONS

Implementation of erosion control and stormwater management measures on the Site during remediation will reduce the potential for contaminants to migrate off the Site.

8.0 MONITORING

The lack of fish and wildlife habitat and lack of evidence of a contaminant pathway in the vicinity of the Site indicate that monitoring of fish and wildlife habitats is not required. CRA is recommending that during any active remedial measures that erosion control measures, stormwater management measures and treatment system operations be monitored in accordance with accepted practices and permit conditions.

9.0 SUMMARY AND CONCLUSIONS

The objectives of the FWIA were to identify fish and wildlife resources that presently exist and that existed before contamination introduction on a site and to provide information for the design of a remedial investigation. Upon review of the Buffalo China Site, CRA has concluded no impact to fish and wildlife on or near the Site due to dense urbanization and lack of natural habitats surrounding the Site. However, to be conservative, CRA completed the additional relevant steps of the FWIA. Based on this analysis, CRA concludes that the planned remedial actions will not harm fish or wildlife and will result in the removal or isolation of Site-related contaminants, thus preventing future off-Site migration of Site-related contaminants and impacts to natural resources.

10.0 REFERENCES

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