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October 3, 2008

Mr. Martin Doster, P.E.  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203

Subject: **Final Engineering Report**  
**Buffalo Color Area ABCE - Interim Corrective Measure**  
**Buffalo, New York**  
**MACTEC Project No. 3613-05-3046**

Dear Mr. Doster:

In accordance with ICM Order B9-0512-0105, Honeywell is submitting the above referenced Report, prepared by MACTEC Engineering and Consulting, Inc. (MACTEC). This Final Engineering Report covers remedial construction activities associated with the implementation of the Interim Corrective Measure for the Buffalo Color Corporation Site, Area ABCE. It summarizes and documents the remedial construction activities performed at the Site.

This Report documents that Honeywell has met the requirements of the ICM Order. We respectfully request that the NYSDEC close out this Order so that South Buffalo Development, LLC can proceed with the Brownfields Cleanup Program approach for this site.

Please contact me if you have any questions.

Sincerely,



John J. Morris  
Remediation Portfolio Director

Enclosures: Final Engineering Report

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**FINAL ENGINEERING REPORT**  
**BUFFALO COLOR SITE – AREA ABCE**  
**INTERIM CORRECTIVE MEASURE**

**BUFFALO, NEW YORK**

**Prepared for:**

**HONEYWELL**  
**Morristown, New Jersey**  
**Honeywell Project Number: 37745**

**Prepared by:**

**MACTEC Engineering and Consulting, Inc.**  
**Portland, Maine**  
**MACTEC Project Number: 3410060491**

**Submitted to:**

**NEW YORK STATE**  
**DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

**OCTOBER 2008**

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John M. Scrabis, P.E.  
Senior Principal Engineer

*For John Scrabis with permission*



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William J. Weber, P.E.  
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NY License No. 073863

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## CERTIFICATION STATEMENT

I, William J. Weber, as a licensed Professional Engineer in the State of New York, to the best of my knowledge, certify that the remedial construction activities associated with the implementation of an Interim Corrective Measure (ICM) at the former Buffalo Color Corporation (BCC) facility in Buffalo, New York were completed in general accordance with project documents, including the following:

- A New York State Department of Environmental Conservation (NYSDEC)-approved “Final Work Plan, Interim Corrective Measure, Buffalo Color Area ABCE Work Plan”, prepared by MACTEC Engineering and Consulting, Inc. (MACTEC), dated July 2005;
- A NYSDEC-approved “100 Percent Basis of Design Report, Interim Corrective Measure, Buffalo Color Area ABCE”, prepared by MACTEC, dated August 2005;
- A September 20, 2005 letter responding to NYSDEC comments on the “100 Percent Basis of Design Report”;
- A “Remedial Action Lump Sum/Unit Rate Proposal, Request for Proposal No. 37745-1, Interim Corrective Measure Area ABCE, Honeywell International, Buffalo Color Corporation Site, Buffalo, New York, RES Project No. 37745” (Contract Documents), prepared by MACTEC, dated November 2005;
- A NYSDEC “NYCRR Part 608: Water Quality Certification Permit” (No. 9-1402-00076/00159), issued November 23, 2005; and
- A Department of the Army, Corps of Engineers (ACOE), “Nationwide Permit No. 13” [Application No. 96-976-0141 (3)], issued December 14, 2005.

I also certify, to the best of my knowledge, that this Final Engineering Report accurately documents the remedial construction activities performed.



William J. Weber, P.E.  
Senior Principal Engineer

New York Professional Engineer License No. 073863

MACTEC Engineering and Consulting, Inc.

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## 1.0 INTRODUCTION

This Final Engineering Report (FER) documents the remedial construction activities associated with the implementation of an Interim Corrective Measure (ICM) for Areas ABCE of the former Buffalo Color Corporation (BCC) facility (i.e., the “Site”) located at 100 Lee Street in Buffalo, New York. A Site Location Map is attached as Figure 1.1. A Site Layout plan, which delineates Site Areas, is attached as Figure 1.2. A metes and bounds site description is included in Appendix A.

The components of the ICM, as specified in a New York State Department of Environmental Conservation (NYSDEC) approved work plan entitled “Final Work Plan, Interim Corrective Measure, Buffalo Color Area ABCE, Buffalo, New York” (ICM Work Plan), prepared by MACTEC, dated July 2005, are as follows:

1. Area A Migration Control System, referred to herein as the Area A GWES;
2. Area BCE Groundwater Control;
3. Institutional Controls;
4. Groundwater Monitoring;
5. Area E Sheet Pile Wall Breach Repair; and
6. Area A Bank Erosion Control, referred to herein as the Area A Bank Stabilization.

Of these, the following three components required construction, as documented herein:

- Area A GWES;
- Area E Sheet Pile Wall Repair; and
- Area A Bank Stabilization.

### 1.1 GENERAL

MACTEC, working under contract to Honeywell, Inc. (Honeywell), engineered designs of the Area A GWES, the Area E Sheet Pile Wall Repair, and the Area A Bank Stabilization in accordance with the NYSDEC-approved ICM Work Plan. The ICM Work Plan and the resulting design were based, in part, on the following historical documents:

- A “Final Report on Resource Conservation and Recovery Act (RCRA) Facility Investigation, Buffalo Color Corporation, Buffalo, New York”, prepared by Golder Associates Inc. (Golder), dated November 1997;
- An “Addendum to the Final Report on RCRA Facility Investigation, Buffalo Color Corporation, Buffalo, New York”, prepared by Golder, dated December 1998;
- A “Report on Area ABCE, Corrective Measures Study, Buffalo Color Corporation, Buffalo, New York”, prepared by Golder, dated January 2000;
- A “Statement of Basis for the Buffalo Color Corporation”, dated November 7, 2001;
- A “Proposed Scope of Work/Work Plan for Interim Corrective Measure, Buffalo Color Area ABCE, Buffalo, New York”, prepared by Conestoga-Rovers & Associates (CRA), dated August 2003; and
- An “Order on Consent” (File No. 02-04; Index No. B9-0512-0105), executed by Honeywell and NYSDEC, effective April 4, 2005.

The ICM remedial construction activities documented herein were implemented from May to October 2006. Remedial construction activities were conducted in accordance with the following documents:

- The “Final Work Plan, Interim Corrective Measure, Buffalo Color Area ABCE”, prepared by MACTEC, dated July 2005;
- A “100 Percent Basis of Design Report, Interim Corrective Measure, Buffalo Color Area ABCE”, prepared by MACTEC, dated August 2005;
- A letter responding to NYSDEC comments on the “100 Percent Basis of Design Report”, dated September 20, 2005;
- A “Remedial Action Lump Sum/Unit Rate Proposal, Request for Proposal No. 37745-1, Interim Corrective Measure Area ABCE, Honeywell International, Buffalo Color Corporation Site, Buffalo, New York, RES Project No. 37745” (Contract Documents), prepared by MACTEC, dated November 2005;
- A NYSDEC “NYCRR Part 608: Water Quality Certification Permit” (No. 9-1402-00076/00159), issued November 23, 2005; and
- A Department of the Army, Corps of Engineers (ACOE), “Nationwide Permit No. 13” [Application No. 96-976-0141 (3)], issued December 14, 2005.

MACTEC provided regular on-site observation of the construction activities, as Honeywell’s site representative, to facilitate conformance with the referenced documents and the overall intent of the design. In addition, NYSDEC personnel conducted periodic site visits during construction to review ICM work activities and progress.

## **1.2 ICM GOALS**

The goals for the ICM are to reduce the potential for exposure to contaminated soil and to control off-Site migration of contaminated groundwater to protect human health and the environment.

## **1.3 PROJECT TEAM**

Mr. Tim Metcalf served as Honeywell’s Remediation Manager (RM) and primary point of contact throughout ICM development, design, and construction. The current Honeywell RM is Mr. John Morris.

In 2004, Honeywell contracted MACTEC for the engineering design of the ICM. Mr. William Weber, of MACTEC, a Professional Engineer registered in the State of New York, was the Engineer of Record for the design and construction of the ICM. Mr. Travis Carpenter and Mr. Eric Weiler, both of MACTEC, provided regular oversight/observation of remedial construction activities.

Honeywell contracted Severson Environmental Services, Inc. (Severson) to construct certain components of the ICM, specifically the Area A GWES and the Area A Bank Stabilization. Mr. Kim Lickfield served as Severson’s project manager. Mr. Chris Juliano was Severson’s site superintendent and was on-site full-time throughout construction. Mr. Peter Bolland, of Severson, was the on-site Health and Safety Officer (HSO).

Honeywell contracted Geo-Con, a trade name of Environmental Barrier Company, LLC (Geo-Con) to construct the Area E Sheet Pile Wall Repair. Mr. William Buccille, P.E. was the project manager for Geo-Con. Mr. Brian Benson and Mr. Frank Kish, both of Geo-Con, served as the project engineer and the site superintendent, respectively, and were on-site during construction. Mr. Aaron Handel, of Geo-Con, was the on-site HSO.

MACTEC contracted SAMCO Water Technologies (SAMCO) for a new overhead power feed (installed on existing pipe rack) from the existing groundwater treatment building (GWTB) to Building 80; a new electric panel board at Building 80; and new sump pumps and associated starter panels, controls, and level switches at the Central Low Lift Station.



MACTEC contracted SAMCO and Elite Environmental and Petroleum Services, Inc. (ELITE) for re-piping the Area A GWES above-grade pump discharge piping (due to pipe fouling/clogging following initial start-up operations), as discussed herein.

## **2.0 AREA A GROUNDWATER EXTRACTION SYSTEM**

The following subsections summarize the ICM design and construction activities associated with the Area A GWES.

### **2.1 ICM DESIGN OVERVIEW**

The ICM Work Plan identified the Area A GWES as one of the primary components of the ICM. Subsequently, MACTEC, working under contract to Honeywell, completed NYSDEC-approved plans for a GWES, designed to control the migration of contaminated groundwater to the Buffalo River, based on the “Proposed Scope of Work/Work Plan for Interim Corrective Measure” (CRA, August, 2003). The design (and subsequent addenda) included drawings and/or technical specifications for the following components of work:

- Development and implementation of a site-specific Health and Safety Plan (HASP);
- Installation and development of 18 piezometers, 5 monitoring wells, and 5 extraction wells in overburden soils (fill and alluvial sands);
- Installation of above ground piping with heat tracing and insulation from the extraction wells to the Central Low Lift Station;
- Replacement of the existing 6-inch diameter carbon steel force main piping with 6-inch diameter polyvinyl chloride (PVC) piping from the Central Low Lift Station to the Buffalo Sewer Authority (BSA) sewer;
- Installation of below-grade piping and vaults at each extraction well;
- Installation of extraction well pumps, level sensors, and instrumentation/controls;
- Site restoration;
- As-built survey of new piezometers and wells; and
- Waste management.

### **2.2 ICM CONSTRUCTION**

Honeywell contracted Severson to construct the Area A GWES in accordance with the ICM design drawings and technical specifications. MACTEC provided regular on-site oversight/observation of the installation and development of the piezometers, monitoring wells, and extraction wells. MACTEC also provided periodic on-site observation of the installation of GWES piping, mechanical, and

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electrical systems. NYSDEC personnel conducted periodic site visits during construction to review work activities and progress.

Some of the work activities (e.g., Mobilization, Temporary Facilities, and Site Preparation; and Waste Management) associated with the GWES were common to the Bank Stabilization System, as both of these ICM components were constructed by Severson during the same relative timeframe. These shared work activities are identified in the following subsections, but are summarized in Section 4.2. The following subsections identify and/or summarize remedial construction activities associated with the Area A GWES.

### **2.2.1 Health and Safety**

The work was completed in accordance with a site-specific HASP prepared by Severson. The HASP was based on the requirements of Honeywell’s “General Requirements for Safety, Health, and Emergency Response” (Specification Section 01620) and the Occupational Safety and Health Administration’s (OSHA) “Hazardous Waste Operations and Emergency Response Standard” (29 Code of Federal Regulations [CFR] 1910.120).

MACTEC, Severson, and subcontractor personnel provided certification of health and safety training [OSHA 40-hour HAZWOPER, 8-hour “refresher” (when applicable), and/or 8-hour supervisor (when applicable)] and confirmation of enrollment in a medical surveillance program, where appropriate, prior to beginning work.

### **2.2.2 Mobilization, Temporary Facilities, and Site Preparation**

Severson mobilized equipment, facilities, and personnel to Area A for the purpose of both the GWES and the Bank Stabilization System. Refer to Subsections 4.2.2 and 4.2.4 for an inclusive summary of Severson’s mobilization, temporary facilities, and site preparation activities.

### **2.2.3 Piezometers, Monitoring Wells, and Extraction Wells**

Severson subcontracted Clear Creek Land Surveying, L.L.C. (CCLS) to establish the planned locations of 18 piezometers, 5 monitoring wells, and 5 extraction wells, based on the Contract

Documents. Following installation, CCLS returned to the Site to record the as-built piezometer, monitoring well, and extraction well locations, as shown on Figure 2.1.

Sevenson subcontracted SJB Drilling Services, Inc. (SJB) to install and develop the piezometers and wells. The installation and development of piezometers, monitoring wells, and extraction wells is summarized in the following paragraphs.

#### 2.2.3.1 Piezometer and Monitoring Well Installation

The Contract Documents required confirmation of the subsurface lithology at each extraction well location in order to verify the depth/elevation of native clay and to validate (or modify if necessary) the specified extraction well materials (i.e., screen size and filter pack). Accordingly, five “confirmation” piezometers (PZ-102, PZ-105, PZ-108, PZ-111, and PZ-114) were installed immediately adjacent to the planned extraction well locations during the initial stages of work. For the confirmation piezometers, SJB advanced borings through overburden soils via 4¼-inch inside diameter hollow-stem augers (HSAs) to depths of ranging from 30 to 38 feet below the ground surface (bgs), conducted standard penetration tests (SPTs) at continuous (i.e., 2-foot) intervals as the boreholes were advanced, and obtained soil samples via a standard split-spoon sampler to identify the top of the native clay stratum. The samples were stored in moisture-tight screw-top glass jars. MACTEC subsequently reviewed the samples and verified that the lithology encountered at each extraction well location was generally consistent with that assumed for the design. For the remaining piezometers and monitoring wells, SJB advanced soil borings through overburden soils via 4¼-inch inside diameter HSAs to the designed piezometer/well depths, and the lithology was described based on observations of the drill cuttings.

Upon completion of drilling and/or sampling, each borehole was restored as a conventional piezometer (identified herein as PZ-101 through PZ-118, inclusive) or monitoring well (identified herein as ICM-101 through ICM-105, inclusive). The following materials were utilized:

- Screen            2-inch diameter, schedule 40 PVC, machine-slotted (0.010-inch slot size), 10 feet in length;
  - Riser             2-inch diameter, schedule 40 PVC;
  - Filter Pack      U.S. Silica Filpro™ No. 1 well sand;
  - Top Seal         Bentonite chips/pellets;
-

- Riser Backfill Portland Type I/II cement grout with bentonite (20:1 cement to bentonite ratio);
- Surface Casing 8-inch diameter lockable flush-mount steel well cover rated for AASHTO H-20 wheel loading (for piezometers/monitoring wells finished at grade in trafficable areas) or 4-inch diameter lockable protective metal casing (for piezometers/monitoring wells finished above grade).

Piezometer construction diagrams and associated soil boring logs are included in Appendix B-1. Monitoring well construction diagrams and associated soil boring logs are included in Appendix B-2.

### 2.2.3.2 Extraction Well Installation

For the extraction wells, SJB advanced soil borings through overburden soils via HSAs to depths of 32 to 38 feet bgs. Lithology was described based on observations of the drill cuttings. The extraction well screens (bottoms) were installed at or near the top of clay, based on drilling observations and on comparisons with the confirmation piezometers. Upon completion of drilling and/or sampling, each borehole was restored as an extraction well (identified herein as EW-1 through EW-5, inclusive). The following materials were utilized:

- Sediment Sump 6-inch diameter, schedule 40 stainless steel, 5 feet in length with bottom cap (welded);
- Screen 6-inch diameter, continuous wire-wound stainless steel, 0.030-inch openings;
- Riser 6-inch diameter, schedule 40 stainless steel, with removable water-tight cap;
- Filter Pack U.S. Silica Filpro™ No. 1 well sand;
- Top Seal Bentonite chips/pellets;
- Riser Backfill Portland Type I/II cement grout with bentonite (20:1 cement to bentonite ratio);
- Surface Vault 4-foot diameter, 4-foot tall/deep pre-cast concrete manhole barrel section with a spring-loaded single-leaf access door, vault cover (rated for AASHTO H-20 wheel loading), and lock box.

Extraction well construction diagrams and associated soil boring logs are included in Appendix B-3.

### 2.2.3.3 Piezometer/Well Development

SJB developed the installed piezometers, monitoring wells, and extraction wells via industry-standard means/methods, including surging, pumping, and bailing. SJB and/or MACTEC personnel monitored pH, temperature, turbidity, and/or conductivity of the development water. In addition, water levels (i.e. drawdown) and pumping rates versus time were typically monitored for purposes of estimating the specific capacity/yield of each piezometer/well. Development water was pumped directly into “frac” tanks and stored for subsequent sampling, analysis, characterization, and disposal.

Development records and specific capacity test forms for all piezometers, monitoring wells, and extraction wells are included in Appendix B-4. Sampling, analysis, characterization, and subsequent disposal of the development water are discussed in Subsection 2.2.9.

### 2.2.4 Piping/Mechanical System

The system is comprised of the five aforementioned extraction wells and vaults; stainless steel submersible well pumps; 1-inch diameter threaded-steel pump discharge piping (within the well); 1-inch diameter high density polyethylene (HDPE) discharge piping (underground); 1 to 2-inch diameter carbon steel (CS) or HDPE discharge piping (above-grade) with heat tracing and insulation to the Central Low Lift Pump Station and the existing GWTB; associated instrumentation, sensors, and controls; and a replacement 6-inch diameter force main from the Central Low Lift Pump Station to the point of discharge into the BSA sewer (existing BSA pipeline and manhole located at the northeastern corner of Area B). The general alignments of the underground piping and the above-grade piping are depicted on Figure 2.1. A schematic of system, including expected flow rates, is shown on Figure 2.2. A current Piping & Instrumentation Diagram (P&ID) is provided on Figure 2.3. Additional details are summarized in the following paragraphs.

#### 2.2.4.1 Pumps

Details relative to the submersible extraction well pumps are listed as follows:

- General Environmental pump with Teflon seals; Stainless steel; 4-inch diameter (nominal);

- Motor            ½ horsepower (HP); 240-volt; 3-phase
- Model No.       5S05-13
- Manufacturer   Grundfos
- Supplier         Root Neal & Company

Initially, the extraction well pumps were installed with  $\frac{1}{3}$  HP, 240-volt, single-phase motors. However, during initial start-up attempts it was determined that the single-phase motors were not compatible with the variable frequency pump motor drives (VFDs) at the pump control panels (see Subsection 2.2.5). Consequently, the pumps were changed to environmental pumps with  $\frac{1}{2}$  HP 240-volt 3-phase motors, as listed above.

#### 2.2.4.2 Underground Extraction Well Pump Discharge Piping

One-inch diameter HDPE extraction well pump discharge piping was installed underground from each extraction well vault to the nearest pipe rack or building, where the discharge piping transitioned to an above-grade installation (Subsection 2.2.4.3). As a result, the underground pipe runs were typically very short, except for EW-1. During trenching for EW-1 underground piping (from EW-1 to existing GWTB), some purple-colored and black-colored soils were observed along the trench sidewalls. NYSDEC personnel collected five soil samples from the trench. A copy of the NYSDEC Trench Sampling Report is included in Appendix B-5.

#### 2.2.4.3 Above-Grade Extraction Well Pump Discharge Piping

The above-grade CS and HDPE extraction well pump discharge piping was installed utilizing existing buildings, pipe racks, and supports to the extent possible. Minor field modifications were made to the planned pipeline alignments and/or elevations in order to minimize obstructions/maximize space available on existing pipe racks and support. Some new hangers were installed as required. All of the above-grade piping was heat-traced and insulated with one inch of insulation and encompassed within a PVC jacket.

#### 2.2.4.4 Force Main Piping

An existing 6-inch diameter CS force main was abandoned in place and a new 6-inch diameter PVC pipeline was installed from the Central Low Lift Pump Station to the point of discharge (manhole on the northeastern corner of Area B), from which the effluent is conveyed to the 36-inch diameter BSA sanitary sewer interceptor located south of Area E. The new force main piping generally followed the same routing/alignment as the original one, was installed at the same elevation, and utilized the same pipe racks and supports. Some new hangers and/or intermediate pipe supports (steel) were installed as required. The new force main was heat-traced and insulated with one inch of insulation and encompassed within a PVC jacket.

The design elevation/height above grade of the new pipeline was modified where the original force main was routed up and over a former truck entry/exit way along the northern end of Area B. The truck way had been abandoned for some time and another pipeline had been installed (by others) across the opening. Consequently, the new force main continued across the opening at approximately 3 feet above grade instead of the 20 feet above grade as designed.

#### 2.2.5 Electrical System

The primary components of the electrical system are described in the following paragraphs.

##### 2.2.5.1 Main Power Panel Board

The main power supply to the BCC facility was terminated during the initial stages of work. The design was modified to include a new main power panel board. SAMCO installed the new power panel board in Building 80. The new panel board is 120/240 volt rated, single-phase, 3-wire, and 60 Hz. It is manufactured by Square D/Schneider Electric. The installation included a new overhead power line/feed (Grullo; Overhead Service Drop Cable; Quadruplex; 2/0 AWG; XLP) from the existing power panel at the GWTB (power supply separate from BCC facility) to Building 80.



### 2.2.5.2 System Electric Panels and Heat Tracing

Originally, the electric supply for GWES system was to come from Building 901 (Former Indigo Storage Electrical Building). However, the aforementioned termination of the facility's power supply resulted in a design modification to locate the system electrical panels at Building 80 adjacent to the new main power supply.

New electric panel boards were installed in Building 80 to supply power to the heat tracing circuits for the extraction well piping and for the force main piping. There is one heat tracing control panel for the extraction well piping and another for force main piping. There are five heat tracing circuits on each panel.

The heat tracing installed for the extraction well piping is rated at 5 Watts/foot with 277 volt power, Thermon BSX5-20J. The heat tracing installed for the force main is rated at 10 Watts/foot with 277 Volt power supply, Thermon BSX10-20J or Thermon RSX10-20J. Each heat tracing control panel has an indicator light for each circuit and dual temperature control modules.

### 2.2.5.3 Pump Control Panels and VFD

A pump control panel was installed adjacent to each extraction well. Each pump control panel includes a VFD to control the associated extraction well pump motor speed by using level control signal. The VFD converts 240-volt single-phase power to a three-phase 240-volt power supply. The VFD is used to adjust the speed of the extraction pump motor to maintain a manually set groundwater level within the extraction well casing.

## 2.2.6 Alarm/Auto-Dialing System

The primary components of the alarm/auto-dialing system are described as follows:

- Phone Slim-line corded phone; Model No. 29263GE1; Manufactured by General Electric (GE);
- Primary Cable Self-supporting unfilled telephone cable (6 pairs/19-gauge) meeting REA Specification PE-38; Product No.

- Building Entrance Terminal 2012020; Supplied/manufactured by General Cable; Installed overhead with integral support strand;
- Surge Protection Module(s) Heavy duty; Model No. 1880110US-6; Manufactured by Circa Enterprises, Inc. (Circa); and 5-pin, 3-element gas tube protector module; Model No. 3B1E; Manufactured by Circa.

The alarm can be triggered by low temperature in the pipeline heat tracing system or a high or low groundwater level in an extraction well. The alarm signal is transmitted via an auto-dialer. See Appendix B-6 for a schematic diagram of the alarm/auto-dialing system.

### **2.2.7 Start-up: Testing, Calibration, and Operations**

The primary elements of the start-up testing, calibration, and operations are described in the following paragraphs.

#### **2.2.7.1 Pressure Testing**

The 1-inch to 2-inch diameter extraction well discharge piping was pressure checked as a complete system. The discharge piping was tested at a sustained water pressure of 100 pounds per square inch (psi) for a 2-hour time period, indicating a passing test.

Initially, the 6-inch diameter PVC force main from the Central Low Lift Pump Station to the BSA sewer connection was unable to achieve and/or sustain the required 100 psi pressure. Inspection of the pipeline during the test indicated a leaky joint. Subsequently, this joint was removed and replaced. A re-test indicated that the force main could sustain the 100 psi pressure for the required time period, thereby achieving a successful test.

#### **2.2.7.2 VFD Calibration**

The VFDs were calibrated to provide the initial extraction well drawdown, as established by the groundwater modeling conducted during design. The calibrated/established drawdowns for each extraction well were successfully achieved during the initial start-up operations of each well.

### 2.2.7.3 Initial Operations

Startup of the Area A GWES occurred in October 2006. Shortly after startup, plugging of the discharge lines due to rapid buildup of scale where the effluent from wells EW-3 and EW-4 combined with flow from other wells prevented simultaneous pumping at all five extraction wells (EW-1 through EW-5). In late 2006 and into the Spring of 2007, MACTEC conducted various laboratory and field/operational tests involving pumping at selected extraction well locations to determine the cause of the piping scale. It was concluded that the scale buildup occurred when extracted groundwater with varying chemistry and pH levels combined in the discharge piping. Beginning in April 2007, continuous pumping of groundwater was initiated at extraction well EW-1, which is not affected by high-pH groundwater. This well has the highest chlorobenzene concentrations of the five extraction wells; thus, the groundwater pumped from EW-1 was discharged to the on-Site treatment building (which was originally constructed to treat effluent from the Area D groundwater extraction system), where it passes through carbon filters prior to discharge to the BSA via the Area A low lift station. Operation of EW-1 has resulted in mass removal of chlorobenzene-impacted groundwater.

To address the piping scale associated with the rest of the Area A GWES, MACTEC determined that installation of dedicated HDPE discharge piping was necessary to isolate the high pH groundwater at EW-3 and EW-4 from the groundwater extracted at other locations. Thus, installation of new HDPE piping was required to convey the groundwater from extractions wells EW-3/EW-4 and separately convey groundwater from extraction well EW-5 directly to the Area A low lift station. Construction of the new HDPE piping was initiated in July 2007 and was completed in November 2007.

In December 2007, pumping was initiated at the remaining extraction wells (EW-2 through EW-5). Since that time, pumping has generally continued at all five extraction wells. Discharge from EW-1 and EW-2 is pretreated to reduce chlorobenzene levels via the on-Site treatment building prior to discharge to the Area A low-lift station. The effluent from wells EW-3, EW-4 and EW-5 is currently discharged to the low-lift station without pretreatment.

The current P&ID configuration is depicted on Figure 2.3. The current piping alignment/configuration, as described herein, is expected to minimize the scaling/plugging of the existing extraction well pipe header.

Please refer to the monthly Progress Reports prepared by MACTEC and submitted to NYSDEC and the Discharge Monitoring Reports prepared by MACTEC and submitted to BSA (carbon-copied to NYSDEC) on a quarterly basis for information on GWES pumping rates, water levels, flow, analytical data, and other system performance criteria/evaluations obtained from OM&M activities since initial start-up operations.

### **2.2.8 Site Restoration**

Sevenson restored existing pavement disturbed during installation of below-grade piping and vaults with an asphaltic concrete surface patch. Final grades were restored to match existing grades to the extent practical (nominal grade changes exist in some areas immediately adjacent to extraction well vaults).

### **2.2.9 Waste Management**

Site work activities for the Area A GWES were conducted concurrently with those associated with the Area A Bank Stabilization System. Refer to Subsection 4.2.10 for a comprehensive summary of Sevenson's waste management initiatives.

### **2.2.10 Modifications to the Contract Documents/ICM Work Plan**

Modifications to the Contract Documents and/or the ICM Work Plan are noted as follows:

- Several of the planned piezometer, monitoring well, and extraction well locations required minor offsets and/or re-location to avoid existing subsurface debris, former building foundations, and/or other obstructions (i.e. drilling refusal). The as-built locations are depicted on Figure 2.1;
- The Contract Documents specified extraction well pumps with 1/3 HP, 240-volt, single-phase motors. During initial start-up activities it was determined that the single-phase motors were not compatible with the VFDs already installed at the pump control panels.

Consequently, the pumps were changed to pumps with ½ HP 240-volt 3-phase motors. Refer to Subsections 2.2.4.1 and 2.2.5.3 for additional information;

- Minor field modifications were made to the planned pipeline alignments and/or elevations in order to minimize obstructions/maximize space available on existing pipe racks and supports;
- Minor field modifications were also made to the planned force main alignment and/or elevation. Refer to Subsection 2.2.4.3 for additional information;
- The design was modified to include a new main power panel in Building 80, as the main power supply to the BCC facility was terminated during the initial stages of work. As a result, the system electrical panels for heat tracing and other controls were also installed in Building 80 (in lieu of Building 901 as planned) adjacent to the new main power supply; and
- Following initial start-up operations, some re-piping of above-grade discharge piping was necessitated for extraction wells EW-3, EW-4, and EW-5 to mitigate observed fouling/plugging, as described in Subsection 2.2.7.3.

### **3.0 AREA E SHEET PILE WALL REPAIR**

During construction of a 36-inch diameter BSA sewer along the southern boundary of Area E (Prenatt Street), which occurred decades ago, a timber/wooden sheet pile wall was installed as a shoring measure to support/stabilize the deep trench excavations. The timber sheet pile wall was left in place following installation of the BSA sewer. Previous site investigations and studies (by others) concluded that this wall has historically impeded groundwater flow from Area E towards the Buffalo River.

In the 1970s, a section of the timber sheet pile wall was cut out to enable construction of a 42-inch diameter BCC storm sewer (BCC Outfall 011) perpendicular to the BSA sewer alignment. Previous investigations/studies (by others) concluded that the resulting breach in the wall created a preferential pathway (i.e. a drain) for groundwater from Area E to migrate off-Site.

#### **3.1 ICM DESIGN OVERVIEW**

In 2005, the ICM Work Plan identified the repair of the Area E sheet piling breach as one of the primary components of the ICM. Subsequently, MACTEC, working under contract to Honeywell, designed a subsurface repair of the breach in the wall. The NYSDEC-approved design included drawings and/or technical specifications for the following components of work:

- Development and implementation of a site-specific HASP;
- Pre-construction site investigation;
- Bench-scale grout mix design;
- Jet grout test columns;
- Jet grouting;

- Quality Assurance/Quality Control (QA/QC) testing;
- Piezometer installation;
- Site restoration;
- As-built survey;
- Groundwater monitoring; and
- Waste management.

### **3.2 ICM CONSTRUCTION**

Honeywell contracted Geo-Con to construct the Area E Sheet Pile Wall Repair in accordance with the ICM design drawings and technical specifications. MACTEC provided regular oversight/observation of the ICM remedial construction activities. In addition, NYSDEC personnel conducted periodic site visits during construction to review work activities and progress.

The following subsections summarize remedial construction activities associated with the Area E Sheet Pile Wall Repair.

#### **3.2.1 Health and Safety**

The work was performed in accordance with a site-specific HASP prepared by Geo-Con. The HASP was based on the requirements of Honeywell’s “General Requirements for Safety, Health, and Emergency Response” (Specification Section 01620) and OSHA 29 CFR 1910.120.

MACTEC, Geo-Con, and subcontractor personnel provided certification of health and safety training [OSHA 40-hour HAZWOPER, 8-hour “refresher” (when applicable), and/or 8-hour supervisor (when applicable)] and confirmation of enrollment in a medical surveillance program, where appropriate, prior to beginning work.

#### **3.2.2 Pre-Construction Site Investigation**

A pre-construction site investigation was performed to obtain and/or confirm information necessary to guide and implement repairs to the existing timber sheet pile wall. The pre-construction site investigation included the following primary tasks:

- Initial site survey;
- Test pits;
- Soil borings; and
- “Baseline” groundwater levels.

The key activities and/or findings associated with each task are summarized in the following paragraphs.

#### 3.2.2.1 Initial Site Survey

Geo-Con subcontracted the services of Nussbaumer and Clarke, Inc. (NCI) to complete a limited site survey of the Sheet Pile Wall Repair work area. The initial site survey included the completion of the following tasks:

- Location of existing manholes in close proximity to the work area along the 42-inch BCC storm sewer and the 36-inch BSA sewer;
- Field location and mark-out of the BCC and BSA sewer alignments in the vicinity of the proposed sheet pile repairs, based on the location of the existing manholes;
- Limited topographic survey (NAVD 88) of the work area; and
- Location and elevation (top of concrete) of 18 pre-existing monitoring wells/piezometers in close proximity to the work area.

Following the field location and mark-out of the BCC and BSA sewer alignments, a baseline stationing system was established in the field. Station 0+00 was defined as the centerline “intersection” of the BCC and BSA sewers, with station numbers increasing in an easterly direction along the BSA sewer alignment. The initial site survey data and baseline stationing are depicted in Figure 3.1.

#### 3.2.2.2 Test Pits

Geo-Con utilized a rubber-tired backhoe (John Deere 310SG) to excavate three test pits in the Sheet Pile Wall Repair work area. The first test pit (TP-01) was excavated approximately 40 feet northwest of the planned repair area inside of the BCC Area E security fencing, due to initial constraints on



access to Prenatt Street. TP-01 was utilized to gather site-specific soil samples necessary to prepare a jet grout mix design. Following approval from the City of Buffalo to access Prenatt Street, two additional test pits (TP-02 and TP-03) were excavated to locate the sheet pile wall, to confirm the lateral extent of the breach, and to confirm the depth of the BCC sewer pipe at the location of the breach. TP-02 extended from Station 0+42 to Station 0+07 and was excavated up to 10 feet bgs. TP-03 extended from Station 0-20 to 0+04 and was also excavated up to 10 feet bgs.

Excavated materials were typically segregated into two distinct piles, as follows:

- Shallow surficial soils/materials excavated from above the water table were temporarily staged along one side of the excavation; and
- Soils/materials excavated from near or below the water table (or shallow/surficial soils suspected to be impacted based on visual and/or olfactory observations) were temporarily staged on polyethylene sheeting along the other side of the excavation.

Upon completion of each test pit, soils/materials staged on the sheeting were utilized to backfill the bottom of the excavation. Subsequently, non-impacted (based on visual and olfactory observations) soils/materials staged on the other side of the pit were utilized for backfill to final grade.

The test pit operations yielded the following information:

- Representative soil samples were collected for use in preparation of the jet grout mix design (see Subsection 3.2.3);
- The timber sheet pile wall was found approximately 4 feet south of the BSA sewer alignment. The wall parallels the BSA sewer;
- Observations of the exposed wall (limited to approximately 1 foot of exposure) indicated that the timbers piles were intact and relatively solid (i.e. not dilapidated/decayed);
- To the east of the BCC sewer, the breach in the timber wall extended laterally to Station 0+10, where the top of the wall was encountered at approximately 8 feet below the ground surface (bgs). From Station 0+10 to Station 0+42, the top of the wall varied (stepped up/down periodically) from approximately 8.5 feet to 6 feet bgs;
- To the west of the BCC sewer, the breach was conservatively assumed to extend laterally to Station 0-12.5, as the wall could not be confirmed from Station 0-3.5 to 0-12.5 due to the presence of a large concrete footer supporting an overhead pipe rack. From Station 0-12.5 to Station 0-20, the top of the wall varied from approximately 4 feet to 2.5 feet bgs; and
- The top of the 42-inch diameter BCC sewer pipe (at the BSA “intersection”) was found at a depth of approximately 9 feet bgs, indicating a bottom of pipe depth of approximately 13.25 to 13.5 feet bgs.

The test pit operations indicate that the breach was no more than 22.5 feet wide. Test pit logs are included in Appendix C-1. Pre-construction test pit locations and findings (Section A-A') are shown on Figure 3.1.

### 3.2.2.3 Soil Borings

Following the test pit operations, Geo-Con subcontracted the services of Buffalo Drilling Company, Inc. to drill three soil borings in the immediate vicinity of the breach in the timber sheet pile wall. The borings were advanced through overburden soils via 2¼-inch inside diameter hollow-stem augers to depths of 26 feet bgs. SPTs were performed at continuous intervals (i.e., 2-foot) as the boreholes were advanced. Soil samples were collected via a standard split-spoon sampler and stored in moisture-tight screw-top glass jars. The soil borings yielded the following information:

- Fill materials typically extend to approximately 12 to 14 feet bgs;
- Native fine sand, silty sand, and/or clayey sand extend from the bottom of the fill to approximately 22 to 23 feet bgs; and
- Native clay was encountered at approximately 22 to 23 feet bgs.

The fill depths observed at the soil boring locations combined with the test pit findings relative to the BCC sewer pipe depth suggest that the breach extends to about 13.5 to 14 feet bgs. Soil boring logs are included in Appendix C-1. Pre-construction soil boring locations and findings (Section A-A') are identified in Figure 3.1.

### 3.2.2.4 “Baseline” Groundwater Levels

Geo-Con measured groundwater levels in 18 pre-existing monitoring wells/piezometers located in close proximity to the work area. The depth to groundwater (below the top of casing) was measured via an electronic water level meter. Three distinct events were recorded to establish “baseline” groundwater levels prior to jet grout repair of breach in the timber sheet pile wall. “Baseline” groundwater data are summarized in Table 3.1. Pre-existing well/piezometer locations are depicted in Figure 3.1.

### 3.2.3 Jet Grout Mix Design

Geo-Con utilized site-specific soils obtained from the Pre-Construction Site Investigation test pit operations to conduct a “bench-scale” jet grout mix design. Three candidate mix designs were evaluated by combining site soils and a cement-bentonite slurry to simulate the following in situ jet grout replacement rates:

- 50% replacement;
- 65% replacement; and
- 70% replacement.

All of the candidate mix designs utilized cement-bentonite slurry of the following proportions:

- Water 80% by weight;
- Portland Cement – Type I 17% by weight; and
- Bentonite 3% by weight.

Geo-Con cast three 3-inch diameter by 6-inch tall test cylinders of each mix. Geotechnics, Inc. (Geotechnics), working under contract to Geo-Con, conducted unconfined compressive strength and permeability testing of the test cylinders. Mix design testing results are included in Appendix C-2.

Geo-Con selected a target in situ jet grout replacement rate of 65%, based on preliminary results of the bench-scale mix design program. Subsequently, the cement-bentonite slurry mix proportions were refined based on the results of the bench-scale permeability testing (Appendix C-2) and observations of the Jet Grout Test Columns (Subsection 3.2.5).

### 3.2.4 Mobilization, Temporary Facilities, and Site Preparation

On May 17, 2006, MACTEC and Geo-Con held a pre-construction meeting at the Site to review the Contract Documents. Additional MACTEC and Geo-Con personnel participated via teleconference.

On May 21, 2006, Geo-Con began the mobilization of necessary personnel, equipment, and materials to the Site. General site preparation activities were initiated on May 22, 2006. The following tasks were completed between May 21 and May 25, 2006:

- Set up of temporary sanitary facilities;
- Mobilization of John Deere 310SG backhoe;
- Minor clearing (i.e. shrubs) of the work area;
- Mobilization of Caterpillar (CAT) TH460B loader with fork(lift) attachments;
- Staging of Portland cement and bentonite materials;
- Mobilization and set up of mixing/batch plant equipment (jet pump, mixing tank, generator, etc.);
- Connection to an on-site water source (nearby fire hydrant located on Orlando Street);
- Establishment of waste staging and storage area;
- Excavation of a grout-return sump/trench along wall repair alignment;
- Establishment of temporary lined grout-return holding pond; and
- Mobilization and set up of a Davey Kent jet grout rig.

### 3.2.5 Jet Grout Test Columns

On May 25, 2006, Geo-Con completed an on-site “pilot” test program in order to evaluate and optimize various jetting parameters for the actual in-situ conditions. Two jet grout test columns were installed from 1 to 11 feet bgs in close proximity to the planned repair alignment. The test column locations are shown on Figure 3.2.

The following subsections summarize grout mix proportions, jetting parameters, and observations associated with installation of the jet grout test columns.

#### 3.2.5.1 Grout Mix Proportions

For test column installation, the cement-bentonite grout mixture averaged the following proportions:

- Water 80.4% by weight;
  - Portland Cement – Type I 16.4% by weight; and
-

- Bentonite 3.2% by weight.

Geo-Con's May 25, 2006 Batch Plant Quality Control Report is included in Appendix C-3.

### 3.2.5.2 Jetting Parameters

The first test column (TC-01) was installed with the following jetting parameters:

- Grout Pressure 4,500 psi;
- Flow Rate 37 gallons per minute (gpm);
- Rotation Rate 12 revolution per minute (rpm); and
- Lift Rate 1 foot per minute (fpm).

The second test column (TC-02) was installed via the following jetting parameters:

- Grout Pressure 5,500 psi;
- Flow Rate 41 gpm;
- Rotation Rate 12 rpm; and
- Lift Rate 1 fpm.

Geo-Con's May 25, 2006 Jet Grout Quality Control Report is included in Appendix C-3.

### 3.2.5.3 Observations

On May 26, 2006, Geo-Con exposed the test columns with the John Deere 310SG backhoe. Observation of the exposed columns indicated that a 3-foot diameter column could be achieved by injecting grout at 4,500 psi and lifting the drill rods at a rate of 1 fpm. Consequently, Geo-Con established a typical grout pressure of 4,500 psi and a typical lifting rate of 1 fpm for full-scale production grouting (i.e. for 3-foot diameter columns).

### 3.2.6 Production Grouting (Jet Grout Sheet Pile Wall Repair)

From May 26 to May 31, 2006, Geo-Con installed regularly-spaced overlapping jet grout columns to form a continuous low permeability barrier wall along the identified breach in the wall. Twenty (20) vertical columns were installed along the repair alignment. Two columns, C-10A and C-11A, were angled to extend beneath the BCC sewer pipe. Two additional columns, C-10B and C-11B, utilized higher grout pressure (5,500 psi) and a slower lift rate (0.5 fpm) to create larger diameter (approximately 5 feet) columns immediately to either side of the BCC sewer pipe. The column locations are depicted on the attached Figure 3.2.

The following subsections summarize the grout materials, mix proportions, and installation/jetting parameters for full-scale production grouting.

#### 3.2.6.1 Cement-Bentonite Grout Materials

Geo-Con utilized the following materials for the cement-bentonite grout mix/slurry:

- Water Supplied by nearby City of Buffalo hydrant (Orlando Street);
- Portland Cement – Type I Supplied by St. Mary’s Cement (Cleveland, Ohio); and
- Bentonite (Premium Gel<sup>®</sup>) Supplied/manufactured by CETCO.

Material certifications for the Portland cement and bentonite are included in Appendix C-4.

#### 3.2.6.2 Target Grout Mix Proportions

Geo-Con modified the cement-bentonite slurry mix proportions slightly, based on mix design permeability test results and observations of the jet grout test columns. The following mix proportions were targeted for full-scale production grouting:

- Water 79% by weight;
- Portland Cement – Type I 17% by weight; and
- Bentonite 4% by weight.

Geo-Con’s daily Batch Plant Quality Control Reports are included in Appendix C-3.

### 3.2.6.3 Typical Installation/Jetting Parameters

Typical column installation depths, size, spacing, and jetting parameters associated with full-scale production grouting are summarized as follows:

- Average Top Depth                      7    feet bgs;
- Average Bottom Depth                18   feet bgs;
- Column Diameter                        3    feet;
- Average Column Spacing              1.5 feet;
- Typical Grout Pressure                4,500 psi;
- Typical Flow Rate                        35   gpm;
- Typical Rotation Rate                 6    rpm; and
- Typical Lift Rate                         1    fpm.

The production grouting operations established a 27.75-foot wide, 11-foot tall, and 3-foot thick repair/barrier that extends approximately 2 to 3 feet laterally beyond the breach in each direction and extends approximately 4 feet vertically below the breach. Table 3.2 summarizes the location (station no.), depths, orientation (vertical or angled), and jetting parameters associated with each of the jet grout columns installed. Geo-Con’s daily Jet Grout Quality Control Reports are included in Appendix C-3.

### 3.2.7 QC Testing

On May 30, 2006, Geo-Con cast two sets of six test cylinders (3-inch diameter by 6-inches tall) during full-scale production grouting. One set was cast from grout-return materials generated during the installation of column no. 7 (C-07). The second set was cast from grout-return materials associated with column no. 12 (C-12).

Geotechnics was retained by Geo-Con to conduct unconfined compressive strength and permeability testing of the test cylinders. Laboratory testing yielded the following results:

- Average Permeability  $1.6 \times 10^{-6}$  centimeters/second (cm/s); and
- Average Compressive Strength 50 psi at 28 days.

Laboratory testing reports are included in Appendix C-5.

### 3.2.8 Piezometer Installation

Following Production Grouting, Geo-Con subcontracted SJB to install and develop five piezometers in close proximity to the jet grout repair area. Installation was completed on May 31 and June 1, 2006. ICM piezometer locations are depicted on Figure 3.2.

SJB advanced borings through overburden soils via 4¼-inch inside diameter hollow-stem augers to depths of approximately 15 to 20 feet bgs. SPTs were performed at continuous intervals as the boreholes were advanced. Soil samples were collected via a standard split-spoon sampler and stored in moisture-tight screw-top glass jars.

The boreholes were restored as conventional piezometers with the following materials:

- Screen 2-inch diameter, PVC, machine-slotted (0.010-inch slot size);
- Riser 2-inch diameter, PVC, with removable water-tight J-plug/cap;
- Filter Pack U.S. Silica Filpro™ No. 1 well sand;
- Top Seal Bentonite chips/pellets;
- Riser Backfill Portland cement grout; and
- Surface Casing 4-inch square, steel, lockable.

On June 13 and June 14, 2006, SJB returned to the Site to develop the installed piezometers via standard means/methods, including surging, pumping, and bailing. SJB monitored pH, temperature, and conductivity of the development water. Development water was pumped into a 1,000-gallon poly tank and stored for subsequent sampling, analysis, and characterization.

ICM piezometer construction diagrams, development records, and soil boring logs are included in Appendix C-6.



### **3.2.9 Site Restoration**

Following Production Grouting, Geo-Con transported all spoils and excess grout-return materials to the Waste Staging and Storage area via the John Deere 310SG backhoe. Subsequently, the backhoe was utilized to grade the work area to a relatively smooth condition.

Geo-Con imported topsoil/loam from a local supplier, Leo Brenon Topsoil (North Tonawanda, New York). An approximately 4-inch thick layer of topsoil was spread across areas disturbed by remedial construction activities. Subsequently, the area was seeded and mulched.

### **3.2.10 As-Built Survey**

Geo-Con retained NCI to complete an as-built site survey that included completion of the following tasks:

- Location and elevation (ground surface) of test pits and soil borings completed during the Pre-Construction Investigation;
- Location and documentation of the timber sheet pile wall alignment and the pipe rack footer;
- Location and elevation (ground surface) of all installed jet grout columns, including the two test columns; and
- Location and elevation (top of concrete) of the five new ICM-series piezometers.

The test pit and soil boring locations are included with the rest of the Pre-Construction Investigation survey data on Figure 3.1. The balance of the as-built survey data is depicted in Figure 3.2.

### **3.2.11 Waste Management**

The management of waste materials generated during construction is discussed in the following paragraphs.

#### **3.2.11.1 Solid Waste**

A temporary on-site solid waste staging area was constructed in Area E to the north of the Sheet Pile Repair work area. The perimeter of the staging area was bermed with soil, timbers, and hay bales.

The area was lined with plastic sheeting to prevent solid waste materials from contacting the underlying soils.

During remedial construction activities, solid waste materials consisting primarily of excess test pit spoils, borehole cuttings, and grout-return materials were stockpiled in the solid waste staging area for subsequent sampling, analysis, characterization, and disposal. The stockpile was subsequently covered with tarpaulins and/or plastic sheeting to minimize contact with precipitation/storm water. The covers were anchored with concrete blocks, lumber, and/or clean soil.

#### 3.2.11.2 Wastewater

A 1,000-gallon plastic tank was temporarily staged in Area E to the north of the Sheet Pile Repair work area. Wastewater generated during equipment decontamination and/or piezometer development was containerized in the tank for subsequent sampling, analysis, characterization, and disposal. It is estimated that less than 250 gallons of waste water were generated.

#### 3.2.11.3 Sampling, Analysis, Characterization, and Disposal

The following paragraphs describe the sampling, analytical testing/analysis, characterization, and off-site transportation and/or disposal of the solid waste and waste water materials generated during construction.

##### Solid Waste

Geo-Con collected a composite sample from the solid waste stockpile. The sample was transported to Pace Analytical Services, Inc. (Pace) in Export, Pennsylvania for analytical testing/analysis and characterization. The testing frequency and parameters were in accordance with the requirements of the off-site disposal facility, BFI-WSNA Niagara Landfill located in Niagara Falls, New York. A Report of Laboratory Analysis is included in Appendix C-7.

Test results indicated that the solid waste was non-hazardous. A bucket loader/excavator loaded the stockpiled materials and the underlying sheeting/liner into trucks for off-site disposal at the BFI-WSNA Niagara Landfill. The trucks were lined with plastic prior to loading and covered with

taraulins prior to leaving the Site. Approximately 94 cubic yards of non-hazardous solid waste was disposed. Waste manifests and truck tickets are included in Appendix C-8.

### Wastewater

Geo-Con collected a wastewater sample from the 1,000-gallon plastic tank. Sampling frequency and chemical analyses were in general accordance with the requirements of the site-specific BSA discharge permit. The sample was transported to Pace for analytical testing/analysis and characterization. A Report of Laboratory Analysis is included in Appendix C-7.

Test results indicated that the waste water met applicable discharge requirements of the BSA discharge permit. Accordingly, the waste water was pumped from the on-site temporary storage tank into a nearby BSA sewer manhole. It is estimated that less than 250 gallons of waste water were discharged.

### **3.2.12 Post-Repair Groundwater Monitoring**

Following the repair of the breach, Geo-Con measured groundwater levels in the 18 pre-existing monitoring wells/piezometers and the 5 new ICM-series piezometers on a weekly basis for about 1 month. Subsequently, MACTEC measured groundwater levels periodically for two additional months. “Post-Repair” groundwater data is included in Table 3.1. Pre-existing well/piezometer locations are depicted on Figure 3.1. ICM-series piezometers are shown on Figure 3.2.

Additional discussion and interpretation of the “Baseline” (Subsection 3.2.2.4) and “Post-Repair” groundwater data is included in Section 5.2.

### **3.2.13 Modifications to ICM Work Plan/Contract Documents**

At the start of ICM remedial construction activities, the size/extent of the breach in the existing timber sheet pile wall was not known. The ICM Work Plan indicated that a 5 to 10-foot section of sheet piling had “reportedly” been removed during installation of BCC Outfall 011. The Contract Documents specified a 20-foot wide repair (minimum, including overlap/tie-in with the timber wall), but included provisions for a Pre-Construction Investigation to determine the size/depth and lateral extent of the breach. Results of the investigation indicated that the breach is no more than

22.5 feet wide. The actual installed repair is about 27.75 feet wide, which provides for at least a 2-foot overlap/tie-in (on each side) with the existing wall, as specified in the Contract Documents.

## **4.0 AREA A BANK STABILIZATION**

The following subsections summarize remedial design and construction activities associated with the Area A Bank Stabilization.

### **4.1 ICM DESIGN OVERVIEW**

In 2005, the ICM Work Plan identified Area A riverbank erosion control as one of the primary components of the ICM. Subsequently, MACTEC, working under contract to Honeywell, designed a Bank Stabilization System to repair existing erosion and to minimize the potential for future erosion of approximately 190 linear feet of the Area A riverbank along the Buffalo River. The design included drawings and/or technical specifications for the following components of work:

- Development and implementation of a site-specific HASP;
- Temporary erosion and sedimentation control (during construction);
- Site preparation;
- Soil anchor system;
- Polymeric marine mattresses (PMMs) with a woven geotextile fabric under layer;
- Quality assurance/quality control;
- Site restoration;
- As-built survey; and
- Waste management.

MACTEC conducted a limited (two soil borings) pre-design geotechnical investigation to gather information on soil and groundwater conditions along the riverbank, as necessary for preliminary stability evaluations and preparation of the Contract Documents. MACTEC subcontracted SJB to carry out the drilling and sampling. MACTEC provided regular oversight of this limited field investigation.

## **4.2 ICM CONSTRUCTION**

Honeywell contracted Sevenson to construct the Area A Bank Stabilization System in accordance with the ICM design drawings and technical specifications. MACTEC provided regular oversight/observation of the ICM remedial construction activities. In addition, NYSDEC personnel conducted periodic site visits during construction to review work activities and progress.

The following subsections summarize remedial construction activities associated with the Area A Bank Stabilization System. Some of the work summarized in Section 4.2 is common to both the Bank Stabilization System and the GWES (e.g., Mobilization, Temporary Facilities, and Site Preparation; and Waste Management), as both of these ICM components were constructed by Sevenson during the same relative timeframe.

### **4.2.1 Health and Safety**

Sevenson prepared a site-specific HASP prior to the commencement of on-site work activities. The HASP was based on the requirements of Honeywell’s “General Requirements for Safety, Health, and Emergency Response” (Specification Section 01620) and OSHA 29 CFR 1910.120.

MACTEC, Sevenson, and subcontractor personnel provided certification of health and safety training [OSHA 40-hour HAZWOPER, 8-hour “refresher” (when applicable), and/or 8-hour supervisor (when applicable)] and confirmation of enrollment in a medical surveillance program, where appropriate, prior to beginning work.

### **4.2.2 Mobilization and Temporary Facilities**

On April 21, 2006, representatives from Honeywell, MACTEC, Sevenson, and various subcontractors met at the Site to review the Contract Documents. Ms. Linda Ross of the NYSDEC was also present. The Area A pre-construction conditions are depicted on Figure 4.1.

On May 1, 2006, Sevenson began the mobilization of necessary personnel, equipment, and materials to the Site. In general, the following mobilization and setup activities were completed from May 1 to May 3, 2006:

- Setup of temporary facilities, including job trailer and sanitary facilities;
- Setup of subcontractors' job trailers and equipment/material storage boxes;
- Installation/hook-up of temporary electrical service to job trailers;
- Mobilization of a Komatsu PC300 LC ("long-stick" excavator);
- Mobilization of a Komatsu PC400 (excavator/backhoe);
- Mobilization of a Komatsu PC40 MR (small excavator) with bucket and hoe-ram attachments (subsequently replaced with a larger Komatsu PC78 with bucket and hoe-ram attachments);
- Mobilization of a Volvo L150 (bucket loader/wheeler);
- Mobilization of a Bowmag double-drum walk-behind compactor;
- Mobilization of a small D37-E2 bulldozer (which was later replaced with a small PC90 dozer); and
- Mobilization of various support equipment, including chipper, generators, etc.

### 4.2.3 Temporary Erosion and Sedimentation Controls

Temporary erosion and sedimentation control measures included a floating turbidity curtain and silt fence materials. The following subsections summarize the temporary measures installed.

#### 4.2.3.1 Turbidity Curtain

On May 3, 2006 Severson deployed a heavy duty floating turbidity curtain system (Silt-dam Type III) in the Buffalo River. The system was supplied by Brockton Equipment/Spilldam, Inc. and included the following components:

- **Permeable Barrier Curtain**      Woven geotextile filter fabric (6% open area) with reefing/adjusting lines and a top tension cable;
- **Flotation System**              8-inch diameter, flexible, closed-cell foam flotation with a 22-ounce PVC-coated polyester cover; and
- **Anchorage System**              Curtain and/or float ends were tied off/anchored to shoreline via nylon rope. The base of the curtain was secured via anchor lines to concrete blocks at regularly-spaced intervals along the river bottom.

Sevenson made periodic minor adjustments to the system in order to maintain the surface float a sufficient distance from the shoreline to complete the work (i.e. deploy marine mattresses). MACTEC's observations indicated that the turbidity curtain remained intact (i.e. undamaged) and in place throughout construction.

#### 4.2.3.2 Silt Fence

Sevenson installed a mesh-backed silt fence on the riverbank at the limits of disturbance. The silt fence was supplied/manufactured by Mutual Industries, Inc. and included the following components:

- Fabric                                      Woven geotextile fabric;
- Fence Posts                                Hardwood, 2-inch by 2-inch (square) by 48-inch (nominal);
- Mesh Backing                              Polypropylene, 7/16-inch by 7/16-inch (square) mesh size.

MACTEC's observations indicated that the silt fence remained intact and in place during construction. The silt fence remained in place into September 2006, well after new grass and vegetation had become established along the riverbank at the southern limits of disturbance.

#### 4.2.3.3 Erosion Control Blanket

Refer to Section 4.2.8 for details.

### 4.2.4 Site Preparation

Sevenson personnel completed the following site preparation activities during the first week of remedial construction activities.

#### 4.2.4.1 Waste Staging and Storage Area

Sevenson established a waste staging and storage area in a relatively flat area in the southwestern corner of Area A to provide temporary on-site storage for waste materials subject to sampling, analysis, and characterization prior to off-site disposal. The staging area was set up to facilitate



segregation of waste materials based on material source/type (e.g. cleared materials, demolition debris, excess riverbank/trench spoils, etc.). Each area was constructed as follows:

- The perimeter was bermed with railroad ties/timbers; and
- The area was lined with an impermeable plastic membrane/sheeting in order to prevent solid waste materials from contacting the underlying soils or storm water runoff.

During periods of inactivity, solid waste stockpiles were covered with tarpaulins/plastic sheeting and ballasted with sand bags.

#### 4.2.4.2 Clearing

From May 3 to May 5, 2006, Severson cleared most of the riverbank of trees, shrubs, and brush via a chainsaw and the Komatsu PC400 hydraulic excavator. Cleared materials were chipped on-site and temporarily stockpiled in the waste staging and storage area prior to off-site disposal.

#### 4.2.4.3 Selective Demolition

##### Fencing

On May 2, 2006, Severson removed the chain-link fence along the crest of the riverbank. Wire-cutters were utilized to remove the fence fabric. Fence fabric (not in contact with site soils) was disposed of with other “cleared” materials. The D37-E2 bulldozer was utilized to pull the fence posts. Any below-grade concrete was transported to the waste staging and storage area and stockpiled with other concrete demolition debris, as described below.

##### Concrete

From May 4 to May 9, 2006, Severson utilized the Komatsu PC400 excavator to remove surficial concrete and debris along the riverbank. The excavator was also utilized to break up and remove pre-existing concrete slabs-on-grade and concrete foundations, as necessary, to facilitate riverbank re-grading and subgrade preparation activities (see Subsection 4.2.4.5). Concrete debris was segregated from riverbank soils to the extent practical.

The concrete debris was transported to the waste staging and storage area and temporarily stockpiled for subsequent sampling, analysis, characterization, and disposal. A Komatsu PC40 MR

with a hoe-ram attachment was utilized to further break up (i.e. “size”) the concrete debris to meet the requirements of the off-site disposal facility, Modern Landfill, prior to off-site transportation and disposal.

Concrete encountered during excavations for below-grade piping associated with the GWES was broken up/removed, as necessary, stockpiled in the waste staging and storage area, and handled as described above.

#### Asphaltic Concrete Pavement

Sevenson removed existing asphaltic concrete pavement near the crest of the riverbank as necessary to accommodate a riverbank re-grading and anchor trench installation. The asphaltic concrete debris was transported to the waste staging and storage area and temporarily stockpiled with site soils and debris for subsequent sampling, analysis, characterization, and disposal.

#### 4.2.4.4 Work Layout (Horizontal and Vertical Control)

Sevenson subcontracted CCLS to lay out various components of the work and establish horizontal and vertical controls. CCLS was on-site periodically, beginning on May 8, 2006. The following tasks were completed:

- Establishment of cut/fill benchmarks (i.e. stakes) for rough grading of the riverbank;
- Layout of anchor trench alignment atop the re-graded riverbank;
- Establishment of basic stationing system (0+00 to 1+90) along the anchor trench alignment (see Subsection 4.2.5); and
- Periodic monitoring/topographic survey of the riverbank re-grading to confirm maximum specified slope.

#### 4.2.4.5 Riverbank Re-Grading and Subgrade Preparation

##### Riverbank Re-Grading

From May 4 to May 9, 2006, Sevenson utilized the Komatsu PC400 and PC300 excavators to complete limited re-grading (i.e. minor “cuts” and “fills”) of the riverbank to provide for a maximum specified slope above the ordinary high water line (OHWL) of no steeper than 1½ H:1V

(horizontal to vertical). Existing concrete debris, slabs-on-grade, and foundations were removed (see Subsection 4.2.4.3) as necessary to facilitate riverbank re-grading.

Sevenson utilized the Komatsu PC300 long-stick excavator to “shim/rake” the riverbank subgrade below the water line to provide for a relatively smooth surface free of abrupt grade changes, to the extent practical based on operator “feel”.

Excess riverbank soils were segregated from concrete/demolition debris, transported to the waste staging and storage area, and temporarily stockpiled for subsequent sampling, analysis, characterization, and disposal.

On May 5, 2006, Sevenson uncovered a limited volume of purple-colored/stained soil near the crest of the riverbank near the northern end of the work area. The purple-colored soils were completely removed (based on Sevenson’s observations), yielding approximately five shovelfuls. This material was segregated from other riverbank soils, containerized, and temporarily staged for subsequent sampling, analysis, characterization, and disposal (see Subsection 4.2.10.3).

At the request of NYSDEC, MACTEC collected two distinct samples of the exposed riverbank subgrade soils at random locations. The samples were transported to Severn Trent Laboratories, Inc. (STL) in Buffalo, New York for analytical testing. Test results are included in Appendix D-1.

#### Riverbank Subgrade Compaction

Following riverbank re-grading, Sevenson utilized a Bowmag double-drum walk-behind vibratory compactor to compact the exposed subgrade soils. The compactor was mobilized up and down the steep riverbank slope with assistance from the Komatsu PC300 long-stick excavator. Refer to Subsection 4.2.7 for discussion of quality control testing.

#### **4.2.5 Soil Anchor System**

The Contract Documents included drawings and technical specifications for a soil anchor system to provide necessary anchorage (i.e. sliding resistance) for the PMMs. The following subsections summarize the key components of the installed soil anchor system.

#### 4.2.5.1 Anchor Materials

Sevenson utilized Manta Ray<sup>®</sup> driven tipping-plate soil anchors supplied by Williams Form Engineering Corp. (Williams) and manufactured by Foresight Products, LLC (Foresight). The anchor materials include the following primary components:

- Soil Anchors Model MR-SR (typical), MK-B (2 total), or MR-1 (3 total); ductile iron; 40 kip ultimate tensile strength (minimum); galvanized;
- Anchor Rod ¾-inch diameter; continuously-threaded steel rebar (CTB); grade 75; 44 kip ultimate tensile strength (minimum); galvanized; and
- Hardware Hex nuts meeting ASTM A 108 specifications, stop-type couplings (ASTM A 108), and hardened washers (ASMT F 436); galvanized.

#### 4.2.5.2 Crest Anchor Trench

From May 15 to May 18, 2006, Sevenson utilized the Komatsu PC300 excavator to excavate an anchor trench along the crest of the re-graded riverbank. The trench was excavated to a depth of approximately 2.5 feet below the exposed subgrade (approximately 3.5 feet below final grade). A 3-foot wide horizontal “grade break” was provided between the top of the 1½ H:1V (average) riverbank and the anchor trench sidewall. Trench spoils (i.e. excavated soil and miscellaneous concrete and brick rubble) were transported to the waste staging and storage area and temporarily stockpiled for subsequent sampling, analysis, characterization, and disposal.

Sevenson utilized the Bowmag double-drum walk-behind compactor to compact the exposed subgrade along the bottom of the trench and the horizontal “grade break”. As the site work progressed, Sevenson operated the Komatsu PC40 MR periodically to shape the anchor trench, as necessary. Following each trench re-shaping, the Bowmag and/or a small plate compactor were utilized to re-compact the exposed subgrade surfaces.

#### 4.2.5.3 Pre-Construction Testing

On May 16, 2006, a Williams representative was on-site to conduct pre-construction field testing of the soil anchors and to provide training/instruction for Sevenson personnel. The purpose of the pre-construction testing was to determine the ultimate capacities of the proposed anchors, based on

actual/in situ soil and groundwater conditions. The May 16, 2006 testing is summarized as follows:

- Three Manta Ray<sup>®</sup> MR-1 soil anchors were installed with the Komatsu PC40 MR via a hoe ram attachment (see Subsection 4.2.5.4 for discussion of installation means/methods);
- Williams conducted a proof test of each anchor (see Subsection 4.2.5.4 for discussion of proof testing procedures); and
- An ultimate capacity of approximately 7 kips (7,000 pounds) was reported for each anchor/test.

The Contract Documents required the soil anchors to be sized/spaced to provide for an ultimate capacity of at least of 2,900 pounds per linear foot (plf) of PMM along the crest of the riverbank. The 7-kip MR-1 ultimate capacity, based on pre-construction testing, would have necessitated an anchor spacing of no more than 2.4 feet, which was potentially problematic from a constructability standpoint. Consequently, Severson ordered larger soil anchors and conducted additional pre-construction testing.

Severson received the larger soil anchors on May 23, 2006. The additional pre-construction testing is summarized as follows:

- Two Manta Ray<sup>®</sup> MK-B and one Manta Ray<sup>®</sup> MR-SR soil anchors were installed;
- Severson conducted a proof test of each anchor; and
- Ultimate capacities of 18 kips (each MK-B) and 16.5 kips (MR-SR) were reported.

Severson proceeded with MR-SR anchors, with a target spacing of approximately five feet (16.5 kips/5 feet = 3.3 kips per linear foot [3,300 plf]), based on the results of the pre-construction testing.

#### 4.2.5.4 Anchor Installation and Proof Testing

##### Installation

Severson received the Manta Ray<sup>®</sup> MR-SR soil anchors on May 31, 2006. “Full-scale” installation activities were initiated on June 2, 2006. Installation means and methods are summarized as follows:

- Severson utilized a Komatsu PC78 (excavator) with a hoe-ram attachment to drive the MR-SR anchors and the attached CTB and couplings to a target depth (axial) of approximately 17 feet bgs;
- After driving the anchor to the target depth, the driving tool works (i.e. the drive steel) was removed;
- The anchor was then “tipped” from its edgewise driving position to its “load locked” position via Williams/Foresight-supplied anchor load locking equipment (see Proof Testing below);
- The anchors were installed at a target horizontal spacing of five linear feet along the alignment of the crest anchor trench.

Severson completed the installation and proof testing (see below) of soil anchors by June 9, 2006. Anchor locations (by Station), final depths (after proof testing), and ultimate capacities are summarized in Table 4.1.

#### Proof Testing

Proof testing is defined as the incremental loading of the installed soil anchor, holding the load for a period of time, and monitoring the total movement. It provides an immediate “proof” of the ultimate holding capacity of each anchor. Proof testing procedures are summarized as follows:

- Severson utilized Williams/Foresight-supplied equipment to load lock and proof test each installed anchor. The equipment includes a 10-ton fast acting hydraulic jack with an 8-inch stroke, self-aligning base, CTB gripping jaws, and a direct reading gauge;
- First, each anchor was “tipped” into its “load locked” position by one or more 8-inch strokes of the equipment;
- Subsequently, each anchor was loaded incrementally until the target load was reached (or to a smaller yet sustainable load if excessive movement is observed during incremental loading);
- Upon reaching the target load, it was held constant for a period of 1 minute during which time movement of the CTB was monitored;
- Movement of no more than ½ of an inch constituted a “passing” test;
- Excess movement necessitated a re-test at a lower load until a “passing” test was achieved; and
- For each passing test, Severson recorded the ultimate capacity and the final depth (axial) bgs.

#### 4.2.5.5 Anchor Pipe

The steel anchor pipe utilized for the anchoring the geogrid “tails” from the PMMs consists of 4-inch diameter galvanized steel pipe in accordance with ASTM A 53, Grade B, Extra Strong (Schedule 80), and was certified by Welded Tube of Canada, Concord, Ontario for Klein Steel of Rochester, New York. The anchor pipe contains 1-inch diameter holes, centered, to allow the anchor pipe to be bolted to the CTB anchor rod. Anchor pipe locations (by Station) and other installation details are summarized in Table 4.2.

#### 4.2.6 Polymeric Marine Mattresses (PMMs)

The chief component of the Area A Bank Stabilization System consisted of stone-filled polymeric marine mattress units underlain by woven geotextile fabric. The PMM system provides a flexible armoring system capable of conforming to a variable/changing subgrade surface. Individual PMMs consist of a compartmental structure filled densely and tightly with Stone Infill prior to installation. The units are comprised of structural geogrid, braid, and mechanical connection elements that are fabricated to allow placement as a unit and provide containment of stone infill, stability of individual particles, and resistance to movement when subjected to waves and/or currents.

Installation of the PMMs was initiated in the downstream portion of the riverbank working in the upstream direction. The PMM system was installed along approximately 190 linear feet of the riverbank over an approximated riverbank width of 49 feet. The installed PMMs also covered an additional three feet along the horizontal grade break along the top of the bank. The following subsections summarize the primary components of the installed PMM system.

##### 4.2.6.1 Geogrid Materials

The geogrid materials utilized in the Bank Stabilization System include the following Tensar® Geogrid:

- BX 110060 – Polypropylene;
- UX TRITON 100 – HDPE; and
- UX TRITON 200 – HDPE.

The geogrid materials are designed to resist naturally occurring forms of chemical, biological, and environmental degradation. The long-term design strength (LTDS) of the structural geogrid will provide adequate capacity for anchorage.

#### 4.2.6.2 Woven Geotextile

Mirafi<sup>®</sup> Filterweave<sup>®</sup> 404, a Woven Geotextile fabric manufactured by Ten Cate Nicolon USA, was installed to the underside of the PMM units and at the Stone-Infilled PMM and Topsoil/Subgrade Fill/Sand interface in the anchor trench along the crest of the riverbank. Woven Geotextile was utilized in lieu of a non-woven geotextile to minimize the potential for biological clogging. The Woven Geotextile underlayer was deployed simultaneously with each PMM unit, by affixing/mechanically connecting the fabric to the bottom of each unit prior to deployment.

#### 4.2.6.3 Stone Infill

Stone Infill grain size analyses, abrasion tests, specific gravity, and absorption tests were performed by Glynn Geotechnical Engineering (GGE), working under subcontract to Severson. Stone Infill utilized in the PMMs consisted of relatively well-graded angular stone having a maximum particle size of approximately 10 inches, a minimum size of 1.5 inches, and a D<sub>50</sub> (median particle size) of approximately 4 inches.

Stones larger than 6 to 8 inches (comprising approximately 5 to 10 percent of the overall stone infill matrix/volume) were removed by hand/manually to the extent practical during on-site stockpiling and during PMM filling operations.

#### 4.2.6.4 Filling/Fabrication

The mattresses were pre-fabricated off-site (by Tensar) to provide for a filled thickness of 12 inches. Severson attached woven geotextile to the bottom of each PMM prior to filling with Stone Infill.



A Tensar representative, Mr. Jeff Fiske, was on site to provide training, observation, and technical support during the initial filling/fabrication. Each mattress was placed in a rigid filling guide/template, pre-fabricated and supplied by Tensar, to facilitate stone infilling. A bucket-loader dumped Stone Infill materials (in lifts) into the mattress while Severson personnel compacted (via hand rods) the infill and removed over-sized stones as necessary.

#### 4.2.6.5 Deployment

Deployment of the PMMs was completed by picking up one end of the filled PMM with a crane and positioning it on the bank. Once positioned on the bank, the PMMs were secured (mechanical connection of the geogrid lifting tabs to geogrid anchorage tabs via bodkin bars) to the crest anchor pipe. Adjustments were made as necessary to minimize “slack” in the geogrid anchorage tabs around the anchor pipes.

#### 4.2.6.6 Anchor Trench Backfill

Following the attachment of the PMM anchorage tabs to anchor pipes, the crest anchor trench was backfilled with clean sand. The trench backfill materials were compacted using a walk-behind vibratory roller. Subsequently the trench was restored with topsoil and seeded.

#### 4.2.6.7 Penetrations

Special attention was necessary to adequately deploy and secure down-slope mattresses at the existing BCC outfall pipe at the downstream end of the Bank Stabilization Area. The outfall penetration was constructed in general accordance with the Contract Documents by specifically fabricating/constructing irregularly-shaped PMMs to abut the outfall pipe.

### **4.2.7 Quality Assurance/Quality Control**

The following subsections summarize the primary QA/QC measures employed.

#### 4.2.7.1 Stability Evaluation

Prior to commencement of any stabilization work, GGE completed a bank stability evaluation to examine the riverbank slope stability during the slope remediation, based on Severson’s proposed means/methods of construction. The stability evaluation confirmed that deployment of construction equipment proposed for use in the bank stabilization would not result in an unacceptably low factor of safety against slope failure.

#### 4.2.7.2 Compaction Testing

During riverbank re-grading activities, Severson collected a composite sample of riverbank subgrade soils. The sample was transported to GGE for geotechnical laboratory testing (modified Proctor).

On May 12, 2006, an SJB technician, working under contract to GGE, conducted in-place field density testing of subgrade fill materials (re-worked riverbank subgrade soils) placed along the northern portion of the riverbank. The reported in-place densities indicated that “compaction” to at least 92% of the reported modified Proctor maximum dry density had been achieved.

#### 4.2.7.3 Interface Friction Testing

A Geosynthetic Research Institute (GRI) certified quality control laboratory, SGI Testing Services LLC (SGI), working under subcontract to Severson, conducted interface friction testing using the specified woven geotextile and site-specific subgrade fill/soils. The interface friction test confirmed compatibility of materials proposed for use in the bank stabilization, i.e. the reported interface friction values exceeded those specified in the Contract Documents.

#### 4.2.7.4 PMM QC

MACTEC personnel “flagged” areas requiring corrective measures to comply with the manufacturer’s quality control guidelines/performance standards for in-place PMMs. Severson subsequently repaired the areas.

## 4.2.8 Site Restoration

Sevenson restored the Bank Stabilization Area within the limits of disturbance as described in the following subsections.

### 4.2.8.1 PMMs

Refer to Subsection 4.2.6.

### 4.2.8.2 Riprap Transition Areas

Exposed riverbank (i.e. above the OHWL) areas immediately adjacent to the PMMs were restored as riprap transition areas, as described below.

#### Upstream End of PMMs

The annulus between the upstream end of the PMMs and the existing concrete retaining wall/footer was filled with stone infill and small riprap materials. The annulus was approximately 2 feet wide.

#### Downstream End of PMMs

Stone infill and riprap materials were placed immediately adjacent to the downstream end of the PMMs to provide for a gradual transition from the 1-foot thick PMMs to the approximately 4-inch thick topsoiled/landscaped area. The riprap transition area was approximately 7 feet wide. The stone infill/riprap materials were underlain by woven geotextile fabric (Mirafi Filterweave 404). The riprap transition detail was not originally included in the Contract Documents. Consequently, details of the as-built construction are provided on Figure 4.2 (Sections A-A' and B-B').

### 4.2.8.3 Topsoil, Seed, Mulch, and/or Erosion Control Blanket

Sevenson imported topsoil/loam from a local supplier. An approximately 4-inch thick layer of topsoil was spread along the crest of the riverbank between the PMMs and the new edge of asphaltic concrete pavement. An approximately 4-inch thick topsoil layer was also utilized to restore disturbed riverbank areas adjacent to the riprap transition area at the downstream end of the PMMs. Subsequently, Sevenson seeded all topsoiled areas with a mix of birdsfoot trefoil, tall

fescue, and perennial ryegrass supplied by Preferred Seed Co. (Buffalo, New York) and proportioned to meet the Standard Specification for Critical Area Seeding (New York Guidelines for Urban Erosion and Sediment Control). Topsoiled and seeded areas along the crest of the riverbank were mulched with hay. An erosion control blanket (ECB) manufactured by Profile Products LLC (Buffalo Grove, Illinois) was placed atop topsoiled/seeded areas along the riverbank at the downstream end of the PMMs. Severson staked/stapled the ECB to the riverbank at regularly-spaced intervals in accordance with the manufacturer's recommendations.

#### 4.2.8.4 Asphaltic Concrete Pavement and Chain-Link Fence

During site preparation activities, the existing asphaltic concrete pavement near the crest of the riverbank was saw-cut as necessary to accommodate riverbank re-grading and anchor trench installation. During construction, the saw-cut edge deteriorated in isolated areas due to equipment traffic. Severson patched/reinstated damaged areas with an asphaltic concrete pavement surface patch. Final grades were restored to match existing grades to the extent practical.

Severson subcontracted the services of Fox Fence to supply and install a new 6-foot tall galvanized chain-link fence along the new edge of asphaltic concrete pavement near the crest of the riverbank. The fence included 3 strands of barbed wire and a lockable 3-foot wide man gate to provide future access to the PMM area.

#### 4.2.9 As-Built Survey

Severson retained CCLS to complete an as-built site survey that included the following tasks:

- Location and elevation (ground surface, top of riser, and top of casing) of the newly installed piezometers, monitoring wells, and extraction wells;
- Location/alignment of below-grade piping from EW-1 to the existing Area D waste water treatment building;
- Location and elevation of soil anchors (each anchor's/CTB's bolted connection at the anchor pipe);
- Limits of PMMs (above the water line);
- Limits of riprap transition areas;
- Final grading/topographic contours along the riverbank (above the water line);

- Location of the new edge of pavement near the top of the riverbank; and
- Location of new chain-link fencing along the top of the riverbank.

The as-built survey data is depicted in Figure 4.2.

#### **4.2.10 Waste Management**

The management of waste materials generated during Area A remedial construction activities is discussed in the following paragraphs.

##### **4.2.10.1 Solid Wastes**

Solid waste materials include, but are not limited to grubblings, excess excavated soils/trench spoils, soil boring cuttings, excess grout, and construction and demolition debris in contact with site soils, including concrete slabs/foundations, fence post anchors/foundations, masonry debris, and asphaltic concrete pavement.

Temporary on-site solid waste staging areas were constructed in the southwestern corner of Area A. The perimeters of the staging areas were bermed with timbers. The area was lined with polyethylene sheeting to prevent solid waste materials from contacting the underlying soils. The stockpile was subsequently covered with tarpaulins and/or plastic sheeting to minimize contact with precipitation/storm water. The covers were anchored with concrete blocks, lumber, and/or clean soil.

##### **4.2.10.2 Wastewater**

Initially, wastewater generated during decontamination of drilling equipment was containerized in 55-gallon drums adjacent to the decontamination pad. Subsequently, the drummed “decon” fluids were transferred/pumped into one of the two 20,000-gallon steel “frac” tanks utilized for the containment of wastewater generated during development of piezometers, monitoring wells, and extraction wells. The tanks were temporarily staged in Area A on existing asphaltic concrete pavement to the river side of Buildings 53 and 54.

#### 4.2.10.3 Sampling, Analysis, Characterization, and Disposal

The following paragraphs describe the sampling, analytical testing/analysis, characterization, and off-site transportation and/or disposal of the solid waste and wastewater materials generated during construction.

##### Solid Waste

Sevenson collected composite samples from on-site solid waste stockpiles, as required. The samples were transported to Waste Stream Technology in Buffalo, New York for analytical testing/analysis and characterization. The testing frequency and parameters were in accordance with the requirements of the off-site disposal facility, Modern Landfill located in Model City, New York. Reports of Analytical Testing are included in Appendix D-2.

Test results indicated that the solid waste materials were non-hazardous. A bucket loader/excavator was utilized to load each stockpiled material and its underlying sheeting/liner into trucks for off-site disposal at Modern Landfill. The trucks were lined with plastic prior to loading and covered with tarpaulins prior to leaving the Site. A total of 684.5 tons of non-hazardous solid waste was disposed off-site. Truck weigh tickets are included in Appendix D-3.

##### Wastewater

Sevenson collected a wastewater sample from each of the 20,000-gallon tanks. Sampling frequency and chemical analyses were in general accordance with the requirements of the site-specific BSA discharge permit. The samples were transported to Waste Stream Technology for analytical testing/analysis and characterization. Reports of Analytical Testing are included in Appendix D-4.

Test results indicated that the wastewater met applicable discharge requirements of the BSA discharge permit. Accordingly, the waste water was pumped from the on-site tank into a nearby BSA sewer manhole. Approximately 15,000 gallons of waste water were discharged from the first tank to the BSA sewer on July 31, 2006. About 20,000 gallons were discharged from the second tank to the BSA sewer on August 1, 2006.

#### **4.2.11 Modifications to ICM Work Plan/Contract Documents**

Modifications to the Contract Documents and/or the ICM Work Plan are noted as follows:

- A riprap transition was constructed at the downstream end of the PMMs to provide for a more gradual transition from the PMM stabilized areas to the natural riverbank soils and grading. Refer to Subsection 4.2.8.2 for additional information. The riprap transition detail is depicted on Figure 4.2 (Sections A-A' and B-B').

## **5.0 SUMMARY AND CONCLUSIONS**

The following subsections present final summaries of the three primary ICM components discussed herein.

### **5.1 AREA A GROUNDWATER EXTRACTION SYSTEM**

The Area A GWES, as constructed, meets the requirements of the design (i.e., the Contract Documents) and the ICM Work Plan.

During initial start-up operations, the mixing of the extracted groundwater from different wells in the common system header pipe resulted in pipe fouling, clogging, and temporary system shut-down. The issues were overcome by re-piping flow from EW-3, EW-4, and EW-5 in order to bypass the header pipe. Currently, the groundwater extracted from EW-1 and EW-2 is conveyed to the existing GWTB, where it is pre-treated prior to discharge to the Central Low Lift Pump Station via above-grade common/header piping. Groundwater extracted from EW-3, EW-4, and EW-5 is presently conveyed directly to the wet well at the Central Low Lift Pump Station. There, all the extracted groundwater is pumped to the BSA sewer system via the new above-grade force main.

Since December 2007, the Area A GWES has been fully operational and is being monitored and adjusted as necessary to optimize the collection of Area A groundwater adjacent to the Buffalo River. System operations data for 2008 will be provided in the annual OM&M report, as specified in the NYSDEC-approved OM&M plan.

### **5.2 AREA E SHEET PILE WALL REPAIR**

The Area E Sheet Pile Wall Repair, as constructed, meets the requirements of the design (i.e., the Contract Documents) and the ICM Work Plan.

The Pre-Construction Site Investigation confirmed the presence, lateral extent, and depth of the breach in the timber sheet pile wall. See Subsection 3.2.2 for additional details. Subsequently, jet grouting operations established a 27.75-foot wide, 11-foot tall, and 3-foot thick repair/barrier that



extends approximately 2 to 3 feet laterally beyond the breach in each direction and extends approximately 4 feet vertically below the breach.

MACTEC and Geo-Con conducted post-repair groundwater monitoring (see Table 3.1). MACTEC generated a series of post-repair groundwater contour maps based on the monitoring data. The groundwater contour maps are included as Figures 5.1, 5.2, and 5.3. The maps indicate that the repair resulted in a significant reduction (flattening of contours) in flow gradient over time and provide evidence that the localized “drain” has been repaired.

### **5.3 AREA A BANK STABILIZATION SYSTEM**

The Area A Bank Stabilization System, as constructed, meets the requirements of the design (i.e., the Contract Documents) and the ICM Work Plan. Specifically, the riverbank was re-graded and subsequently armored (PMMs) to mitigate the potential for erosion.

### **5.4 OTHER ICM COMPONENTS**

Components of the ICM that did not require construction are:

- Area BCE Groundwater Control;
- Institutional Controls; and
- Groundwater Monitoring.

As of the date of this report, the Site sewers remain in place, maintaining any ongoing Area BCE groundwater control. Applications to enroll the Buffalo Color Site in the New York Brownfield Cleanup Program (BCP) have been submitted to NYSDEC. The proposed final remedy for the Site is documented in the “Alternatives Analysis Report” (MACTEC, August 2008) (AAR) which has been submitted to the Department. Remediation of the sewer system is included as part of the final remedy proposed in the AAR.

As part of the final remedy identified in the AAR, an Environmental Easement will be put in place for the parcels that comprise the BCP sites, which includes a NYSDEC-approved Site Management Plan that will be developed and implemented for the Site.

Groundwater monitoring procedures and objectives are discussed in the “Final – Operations, Maintenance, & Monitoring (OM&M) Plan” (MACTEC, March 2006). Results of the ongoing monitoring will be submitted periodically, under separate cover, in accordance with the NYSDEC-approved OM&M Plan.

## 6.0 LIST OF ACRONYMS

ACOE	Army Corps of Engineers
BCC	Buffalo Color Corporation
bgs	Below ground surface
BSA	Buffalo Sewer Authority
CAT	Caterpillar
CCLS	Clear Creek Land Surveying, LLC
CFR	Code of Federal Regulations
CIRCA	Circa Enterprises, Inc.
CRA	Conestoga-Rover & Associates
CS	carbon steel
CTB	continuously-threaded steel rebar
ECB	erosion control blanket
ELITE	Elite Environmental and Petroleum Services, Inc.
FER	Final Engineering Report
Foresight	Foresight Products, LLC
fpm	foot per minute
GE	General Electric Company
Geo-Con	Environmental Barrier Company, LLC
GGE	Glynn Geotechnical Engineering
Golder	Golder Associates Inc.
gpm	Gallons Per Minute
GRI	Geosynthetic Research Institute
GWES	Groundwater Extraction System
GWTB	groundwater treatment building
HASP	Health and Safety Plan
HDPE	high density polyethylene
Honeywell	Honeywell International Inc.
HP	horsepower
HSA	hollow-stem auger
HSO	Health and Safety Officer
ICM	Interim Corrective Measures
LTDS	long-term design strength
MACTEC	MACTEC Engineering and Consulting, Inc.
MCS	Migration Control System

NCI	Nussbaumer and Clarke, Inc.
NYSDEC	New York State Department of Environmental Conservation
OHWL	ordinary high water line
OM&M	Operation, Maintenance, and Monitoring
OSHA	Occupational Safety and Health Administration
Pace	Pace Analytical Services, Inc.
P&ID	Piping & Instrumentation Diagram
PID	photo-ionization detector
plf	per linear foot
PMM	polymeric marine mattress
PPE	Personal Protective Equipment
psi	pounds per square inch
PVC	polyvinyl chloride
QA/QC	Quality Assurance / Quality Control
RCRA	Resource Conservation and Recovery Act
RM	Remediation Manager (Honeywell)
rpm	revolutions per minute
SAMCO	SAMCO Water Technologies
SGI	SGI Testing Services LLC
SJB	SJB Drilling Services, Inc.
SPT	standard penetration test
STL	Severn Trent Laboratories, Inc.
TC	Test Column
TP	Test Pit
VFD	variable frequency pump motor drive
VOC	Volatile Organic Compound

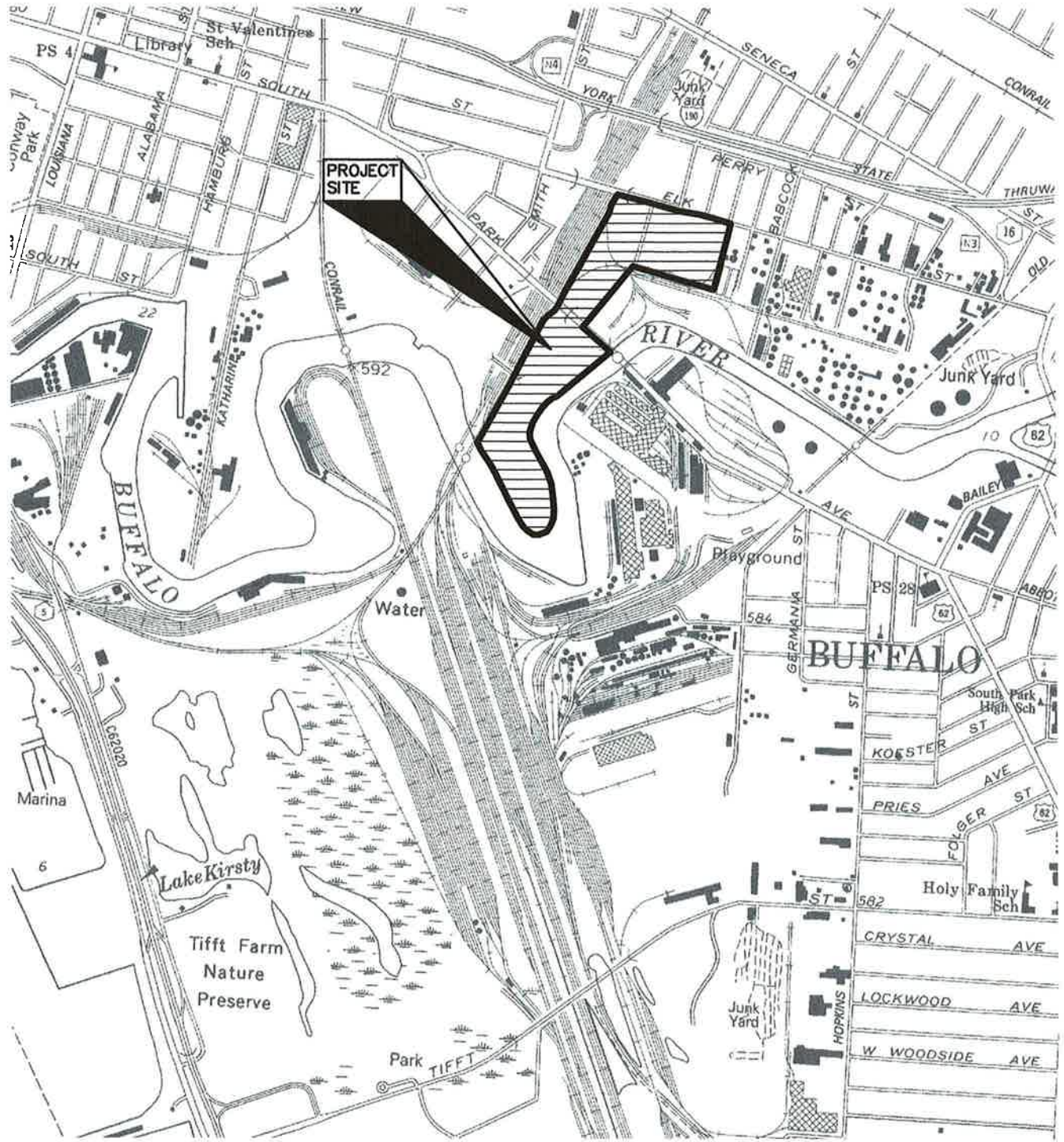
## 7.0 REFERENCES

Reference documents utilized and/or reviewed in conjunction with the preparation of this report are listed as follows (in reverse chronological order):

- “Final Report on RCRA Facility Investigation, Buffalo Color Corporation, Buffalo, New York”, prepared by Golder Associates Inc. (Golder), dated November 1997;
- “Addendum to the Final Report on RCRA Facility Investigation, Buffalo Color Corporation, Buffalo, New York”, prepared by Golder, dated December 1998;
- “Report on Area ABCE, Corrective Measures Study, Buffalo Color Corporation, Buffalo, New York”, prepared by Golder, dated January 2000;
- “Statement of Basis for the Buffalo Color Corporation”, dated November 7, 2001;
- “Proposed Scope of Work/Work Plan for Interim Corrective Measure, Buffalo Color Area ABCE, Buffalo, New York”, prepared by Conestoga-Rovers & Associates, dated August 2003;
- “Order on Consent” (File No. 02-04; Index No. B9-0512-0105), executed by Honeywell and NYSDEC, effective April 4, 2005;
- “Final Work Plan, Interim Corrective Measure, Buffalo Color Area ABCE”, prepared by MACTEC, dated July 2005;
- “100 Percent Basis of Design Report, Interim Corrective Measure, Buffalo Color Area ABCE”, prepared by MACTEC, dated August 2005;
- September 20, 2005 letter responding to NYSDEC comments on the “100 Percent Basis of Design Report”;
- “Remedial Action Lump Sum/Unit Rate Proposal, Request for Proposal No. 37745-1, Interim Corrective Measure Area ABCE, Honeywell International, Buffalo Color Corporation Site, Buffalo, New York, RES Project No. 37745” (Contract Documents), prepared by MACTEC, dated November 2005;
- NYSDEC “NYCRR Part 608: Water Quality Certification Permit” (No. 9-1402-00076/00159), issued November 23, 2005;
- Department of the Army, Corps of Engineers (ACOE), “Nationwide Permit No. 13” [Application No. 96-976-0141 (3)], issued December 14, 2005; and
- “Quality Control Closeout Report, Interim Corrective Measure – Area E, Sheet Pile Wall Repair, Buffalo Color Corporation Site, Buffalo, New York”, prepared by Geo-Con, dated March 13, 2007.

## **FIGURES**

M:\Projects\HONEYWELL\BUFFALO COLOR\CM Certification Report\CM\_CERT\_RPT\_FIG-1.1.dwg Wed, 11 Jun 2008 1:28pm delaware



MAP SOURCE: USGS QUADRANGLE/NYS DOT - BUFFALO SE SCANNED 1990



SCALE IN FEET

PROJECT SITE:  
BUFFALO COLOR CORPORATION  
100 LEE STREET, BUFFALO, NY

Prepared/Date: DEL 06/11/08

Checked/Date: TCC 06/11/08

DEL  
TCC

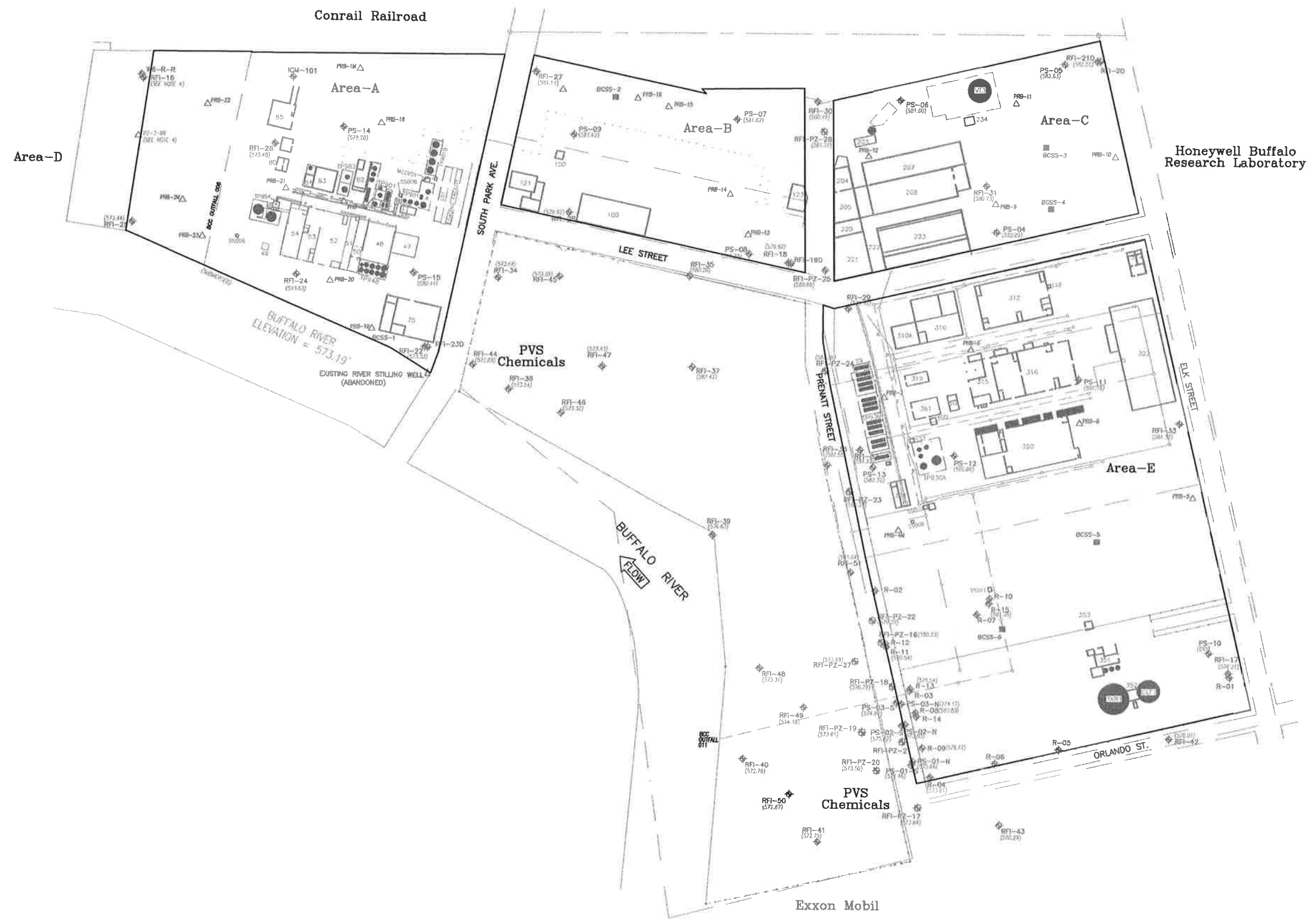
Honeywell  
Buffalo Color Corporation - Area ABCE  
Buffalo, New York  
Honeywell Site ID# 37745



SITE LOCATION MAP

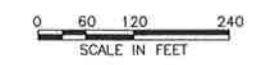
Interim Corrective Measure  
Project 3613-05-3046 Figure 1.1





Honeywell Buffalo  
Research Laboratory

NOTE:  
BASE DATA TAKEN FROM BUFFALO COLOR CORPORATION PLAN  
TITLED "SITE LAYOUT AREA ABCE" BY GOLDER ASSOCIATES.  
FILE 933-9058, DRAWING NO. 8, DATED 2/14/95.



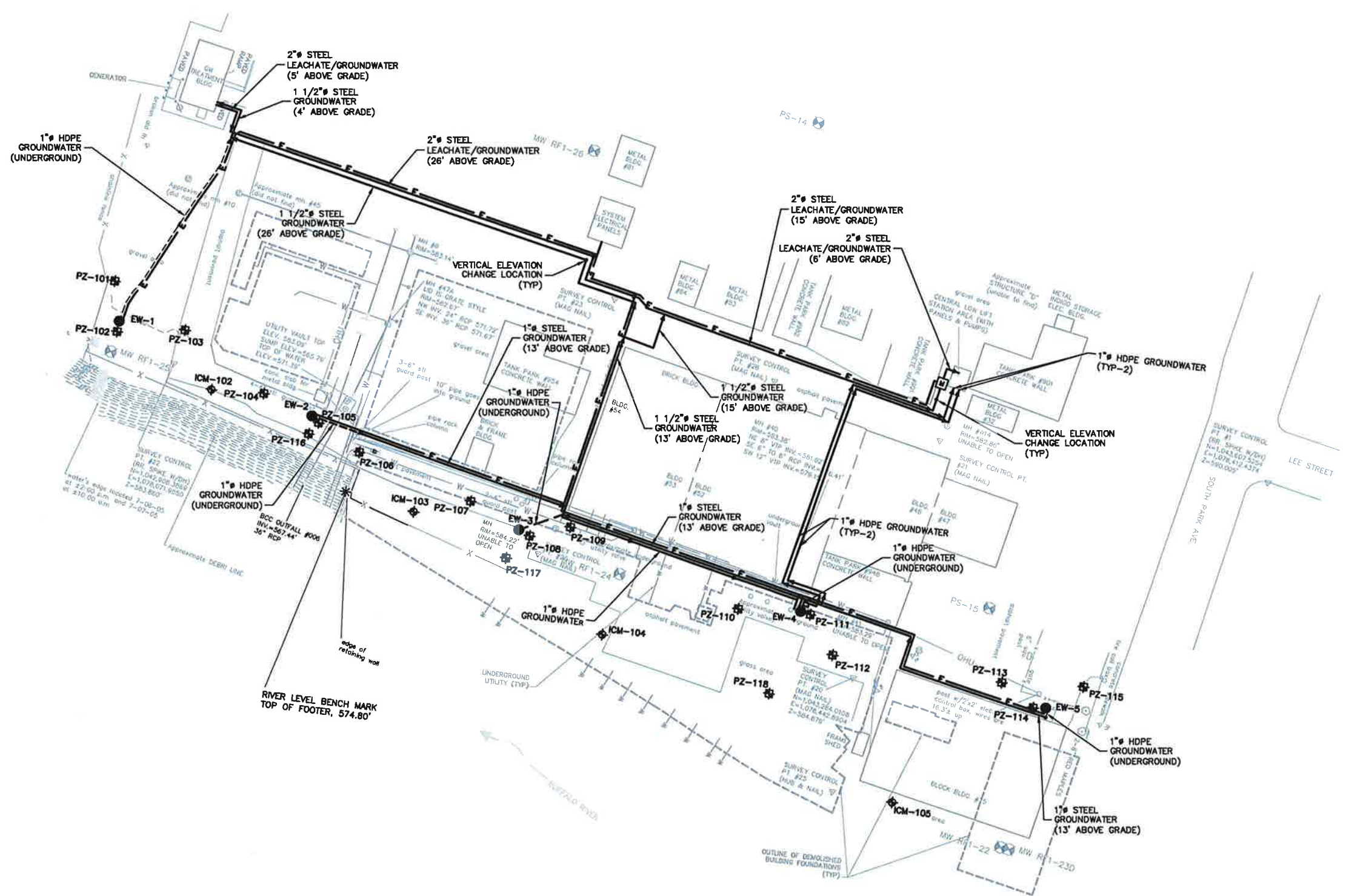
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<p>Honeywell Buffalo Color Corporation - Area ABCE Buffalo, New York Honeywell Site ID# 37745</p>		<p>SITE LAYOUT Interim Corrective Measure Project 3813053048 Figure 1.2</p>
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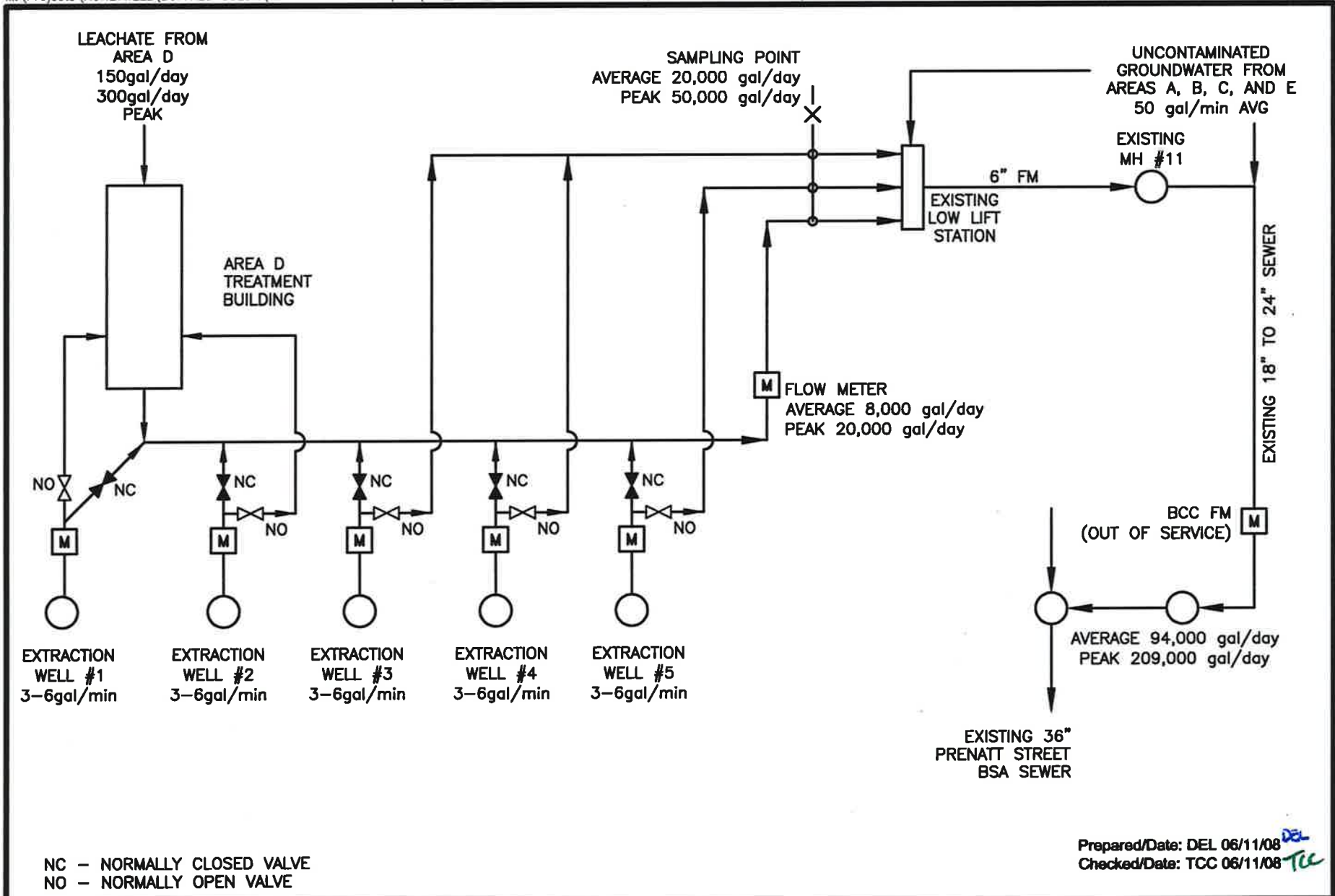


**LEGEND**

- EW-1 ● ICM EXTRACTION WELL
- ICM-101 ◆ ICM MONITORING WELLS
- PZ-106 ⊕ ICM PIEZOMETER
- MW RF1-24 □ PRE-EXISTING MONITORING WELLS
- \* RIVER LEVEL BENCH MARK (RIVER WATER LEVEL MEASUREMENT POINT)
- ABOVE GRADE PIPING
- - - BELOW GRADE PIPING
- E — ELECTRICAL AND INSTRUMENTATION CONDUITS



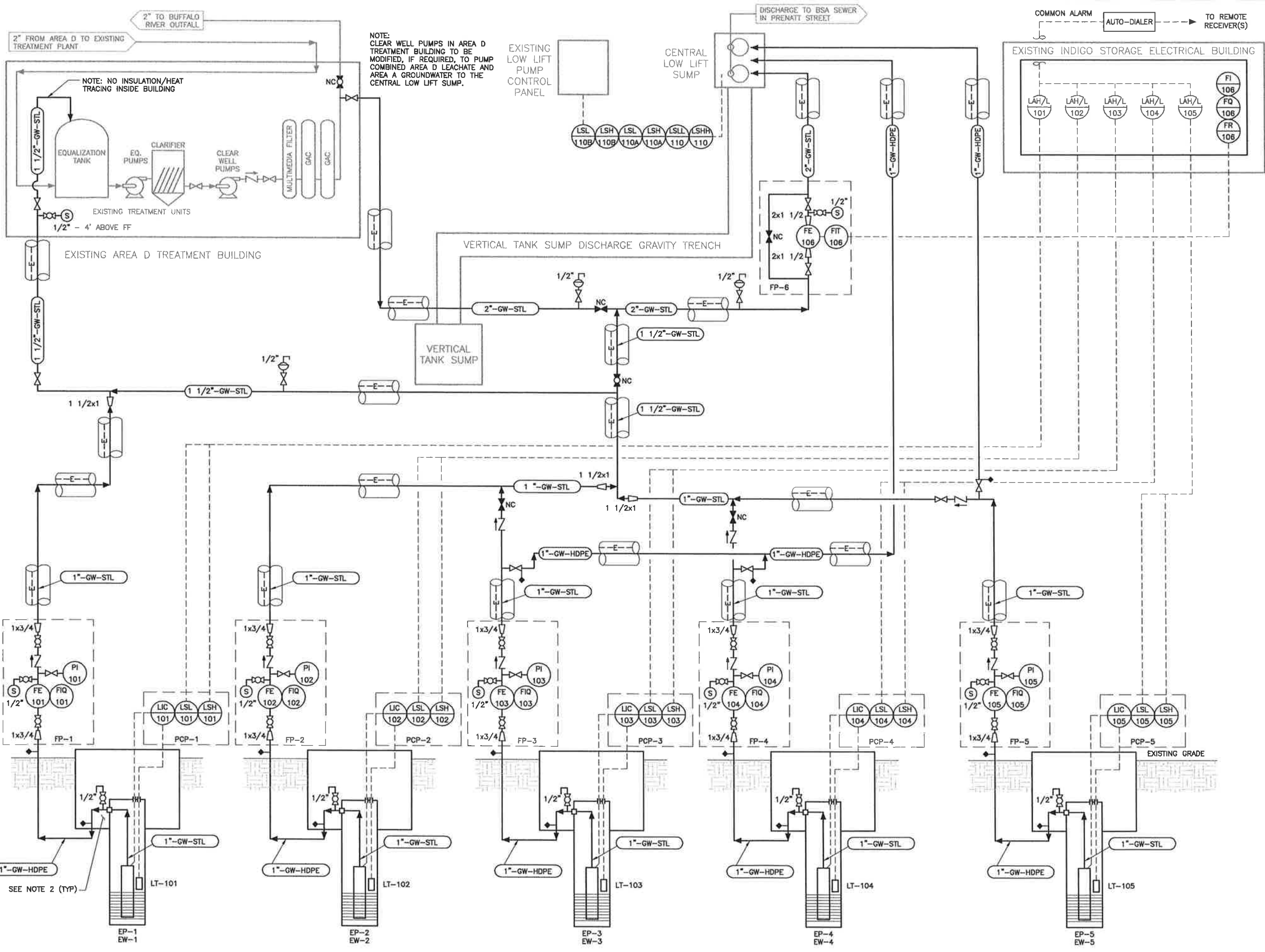
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Honeywell  
Buffalo Color Corporation - Area ABCE  
Buffalo, New York  
Honeywell Site ID# 37745



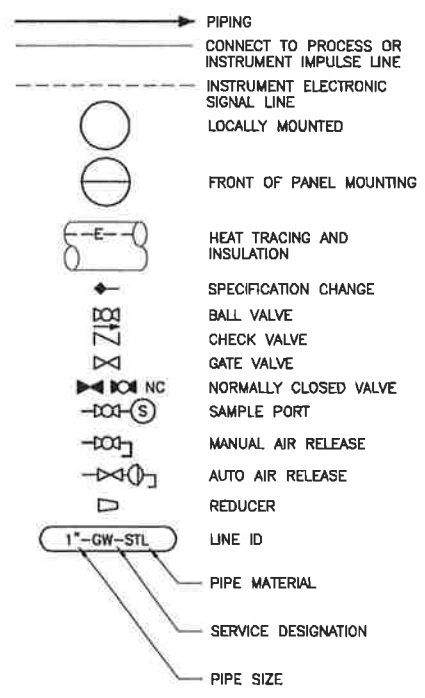
**SCHEMATIC**  
**AREA A - GWES**  
Interim Corrective Measure  
Project 3613-05-3046  
Figure 2.2



- NOTES:**
1. ALL ABOVE GRADE PIPELINES TO BE HEAT TRACED AND INSULATED.
  2. ALL PIPING INSIDE EXTRACTION WELL VAULTS TO BE HEAT TRACED AND INSULATED.
  3. ALARM AND INSTRUMENTATION PANEL FOR GROUNDWATER PUMPS SHALL BE LOCATED IN THE EXISTING INDIGO STORAGE ELECTRICAL BUILDING AT THE CENTRAL LOW LIFT STATION.
  4. POWER SUPPLY FOR THE EXTRACTION WELL PUMPS SHALL BE PROVIDED FROM THE EXISTING POWER PANEL IN THE EXISTING INDIGO STORAGE ELECTRICAL BUILDING AT THE CENTRAL LOW LIFT STATION.
  5. THE PUMP CONTROL PANELS (PCP-1 THRU 5) AND FLOW PANELS (FP-1 THRU 6) SHALL BE MOUNTED ON THE EXISTING VERTICAL SUPPORT OR BUILDING THAT THE VERTICAL GROUNDWATER PIPING IS MOUNTED ON. PROVIDE A MINIMUM OF 3 FEET FROM GRADE TO THE BOTTOM OF THESE PANELS.

BSA	BUFFALO SEWER AUTHORITY	LA	LEVEL ALARM
EP	EXTRACTION PUMP	LAH	HIGH LEVEL ALARM
EW	EXTRACTION WELL	LAL	LOW LEVEL ALARM
EQ	EQUALIZATION TANK	LI	LEVEL INDICATOR
FE	FLOW ELEMENT	LIT	LEVEL INDICATOR TRANSMITTER
FI	FLOW INDICATOR	LSH	LEVEL SWITCH HIGH TOTALIZER
FIQ	FLOW INDICATOR TRANSMITTER	LSL	LEVEL SWITCH LOW TOTALIZER
FT	FLOW TRANSMITTER	LT	LEVEL TRANSMITTER
FP	FLOW PANEL	PCP	POWER CONTROL PANEL
FQ	FLOW TOTALIZER	PI	PRESSURE INDICATOR
FR	FLOW RECORDER	S	SAMPLE PORT
FT	FLOW TRANSMITTER	STL	STEEL
GW	GROUNDWATER		
HDPE	HIGH DENSITY POLYETHYLENE		

**LEGEND**



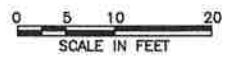
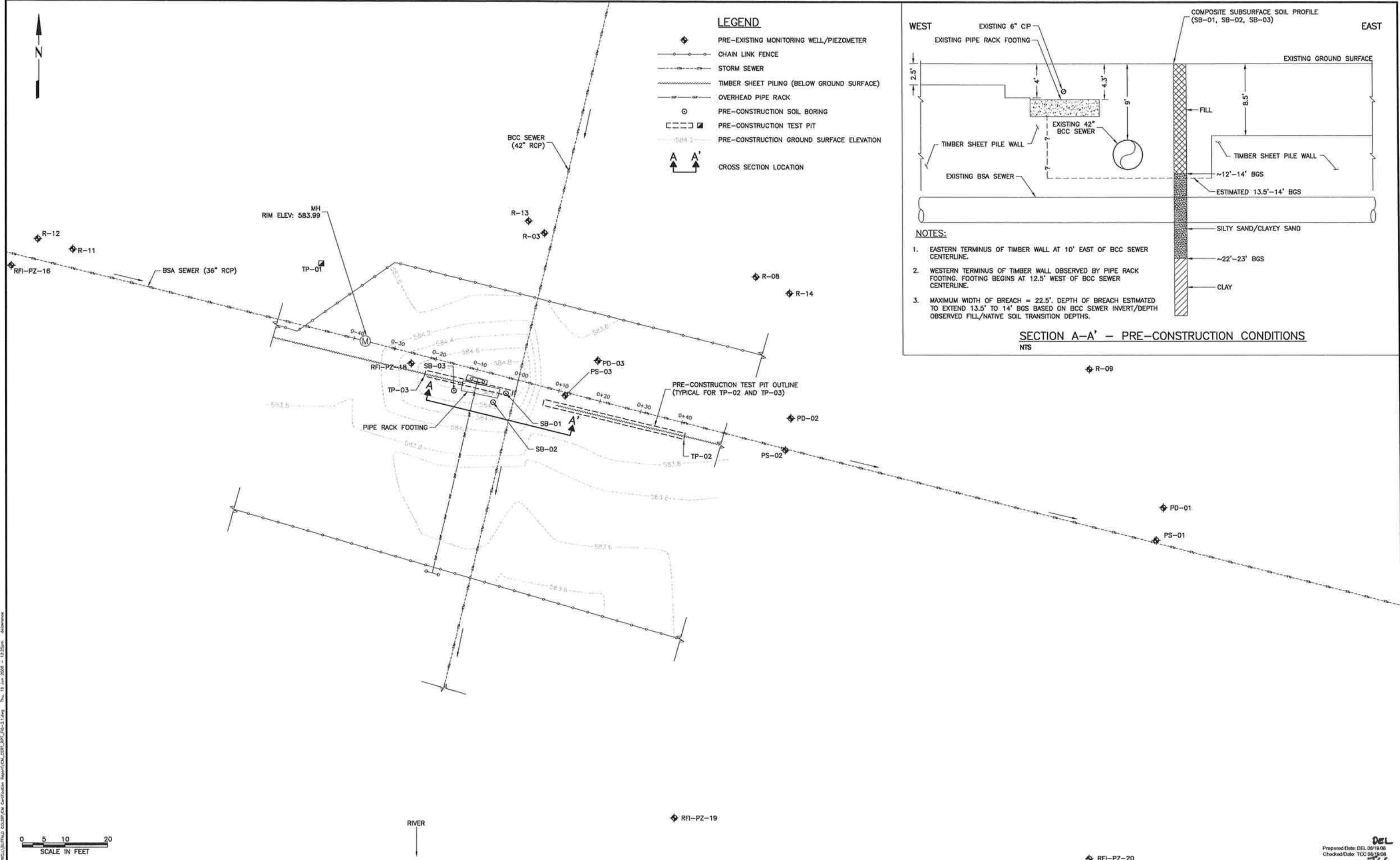
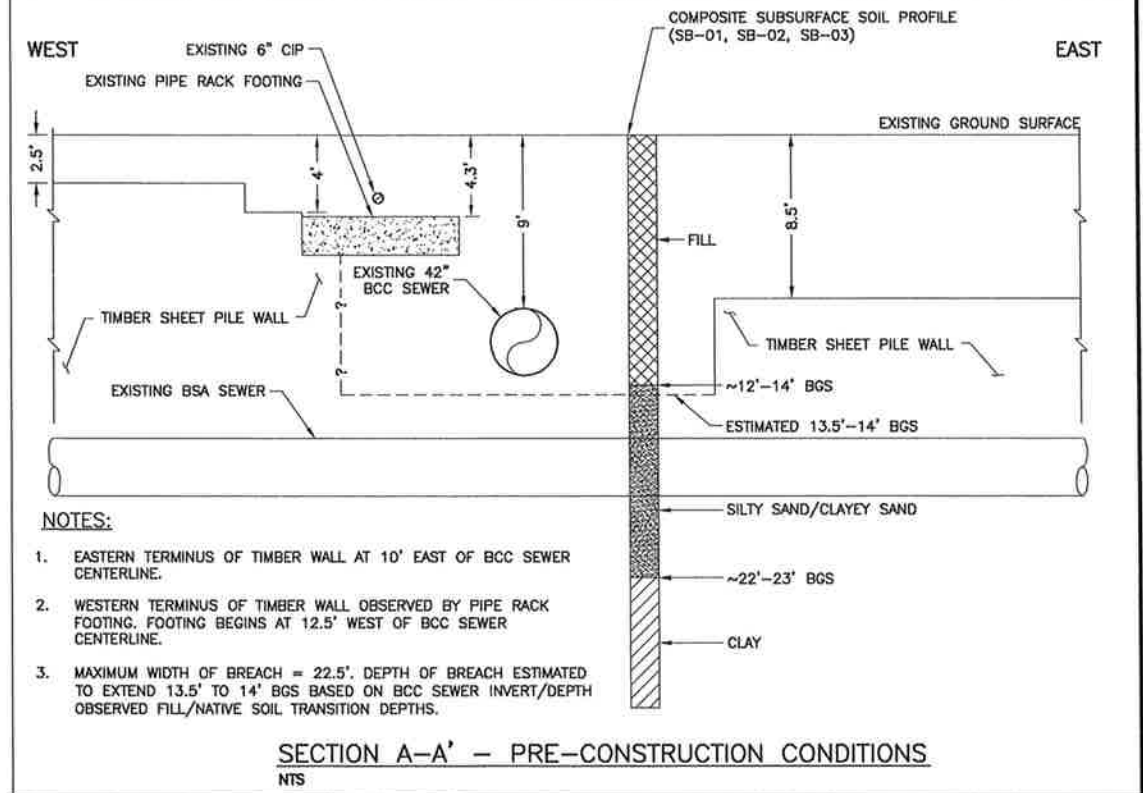
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### LEGEND

- PRE-EXISTING MONITORING WELL/PIEZOMETER
- CHAIN LINK FENCE
- STORM SEWER
- TIMBER SHEET PILING (BELOW GROUND SURFACE)
- OVERHEAD PIPE RACK
- PRE-CONSTRUCTION SOIL BORING
- PRE-CONSTRUCTION TEST PIT
- PRE-CONSTRUCTION GROUND SURFACE ELEVATION
- CROSS SECTION LOCATION



Prepared Date: DEL 06/19/08  
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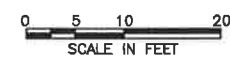
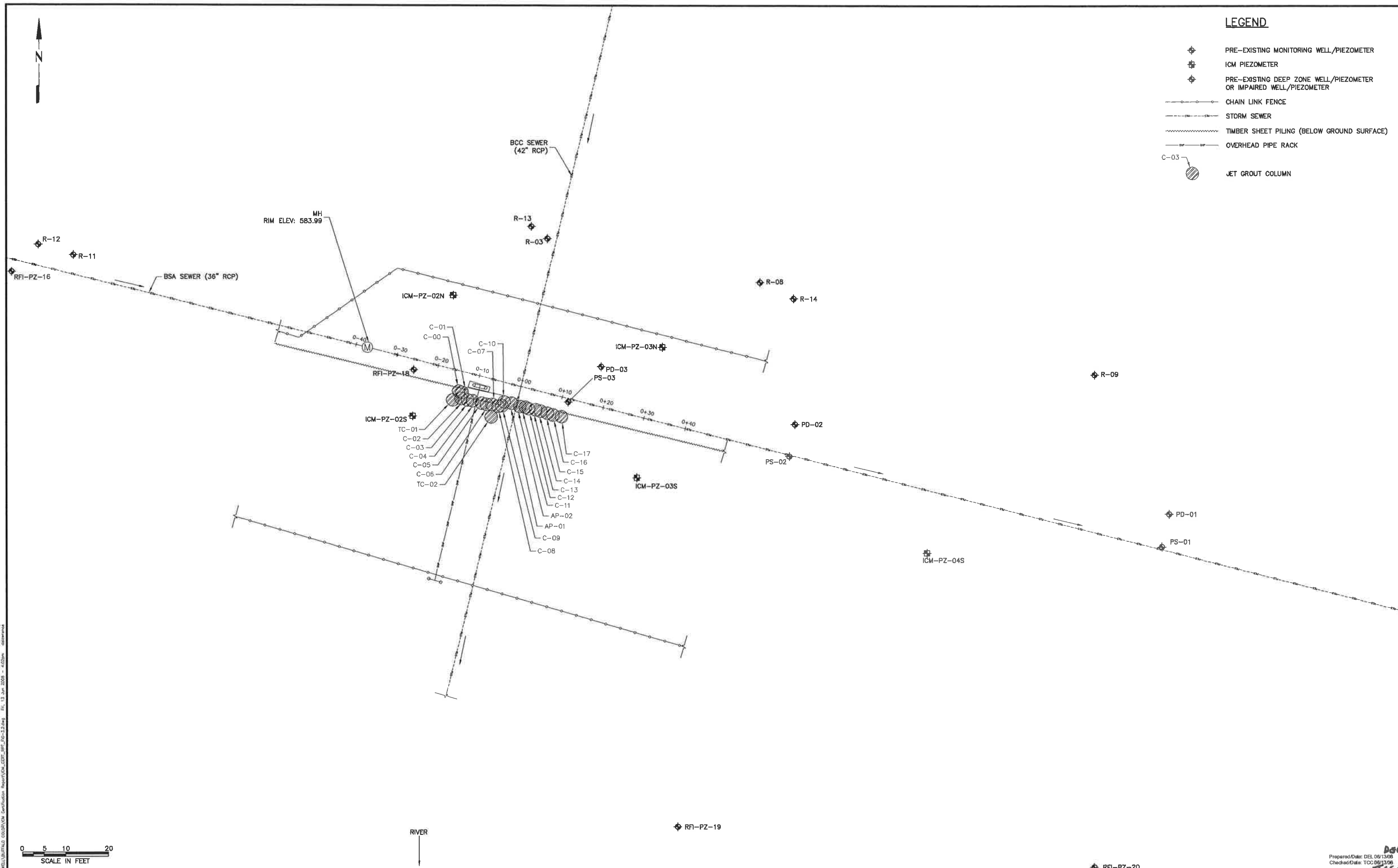
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Honeywell Buffalo Color Corporation - Area ABCE Buffalo, New York Honeywell Site ID# 37745		PRE-CONSTRUCTION CONDITIONS & INVESTIGATION PLAN AREA E - SHEET PILE WALL REPAIR Interim Corrective Measure Project 3813-05-3048 <span style="float: right;">Figure 3.1</span>
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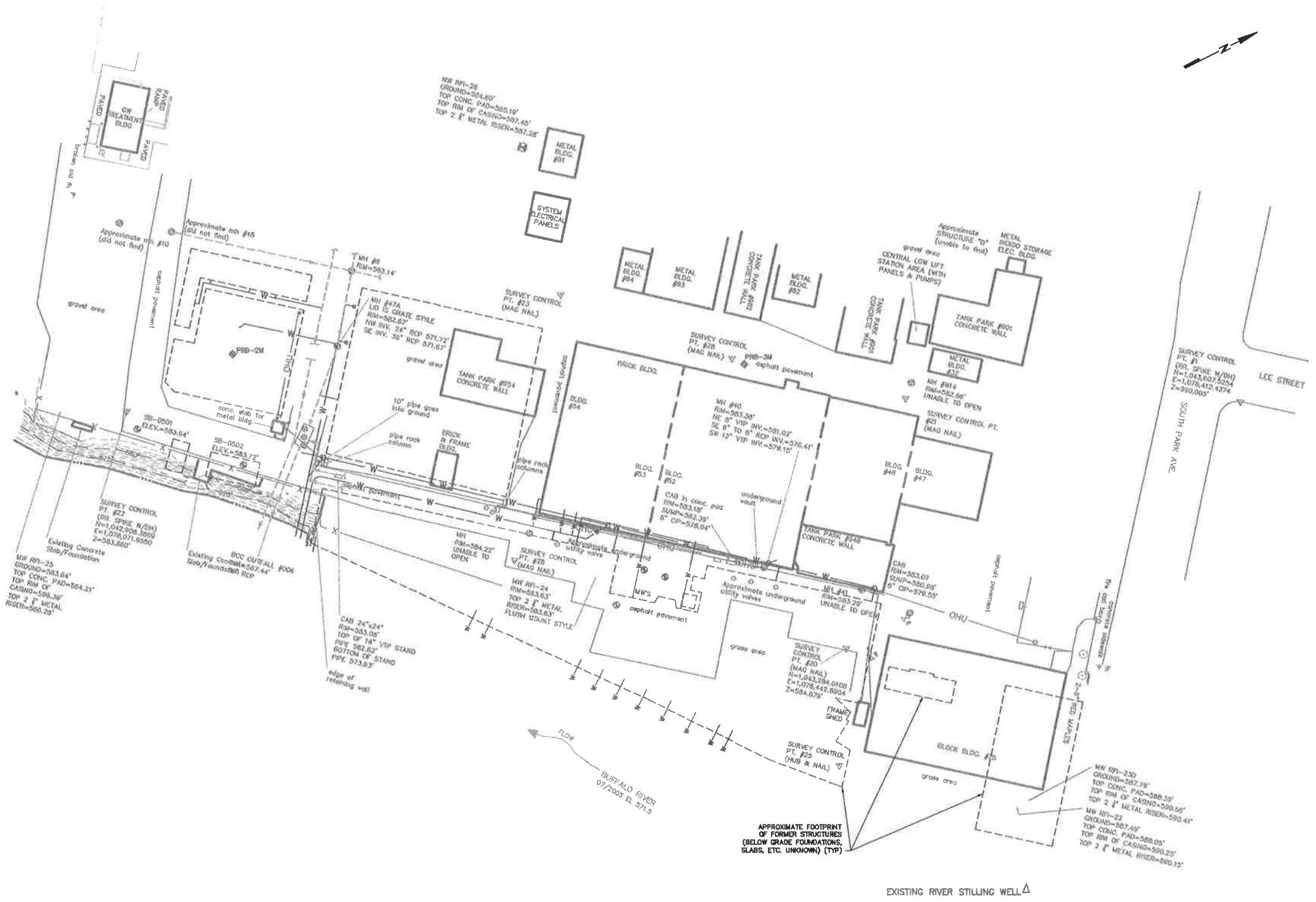
**LEGEND**

- PRE-EXISTING MONITORING WELL/PIEZOMETER
- ICM PIEZOMETER
- PRE-EXISTING DEEP ZONE WELL/PIEZOMETER OR IMPAIRED WELL/PIEZOMETER
- CHAIN LINK FENCE
- STORM SEWER
- TIMBER SHEET PILING (BELOW GROUND SURFACE)
- OVERHEAD PIPE RACK
- JET GROUT COLUMN



RIVER

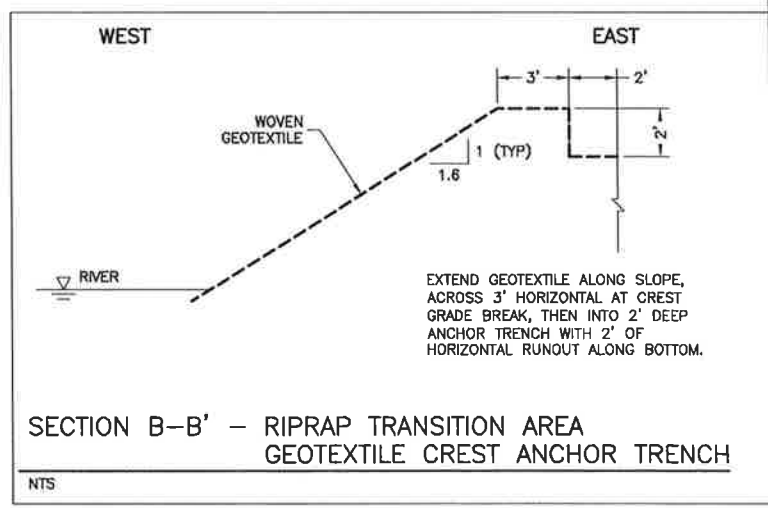
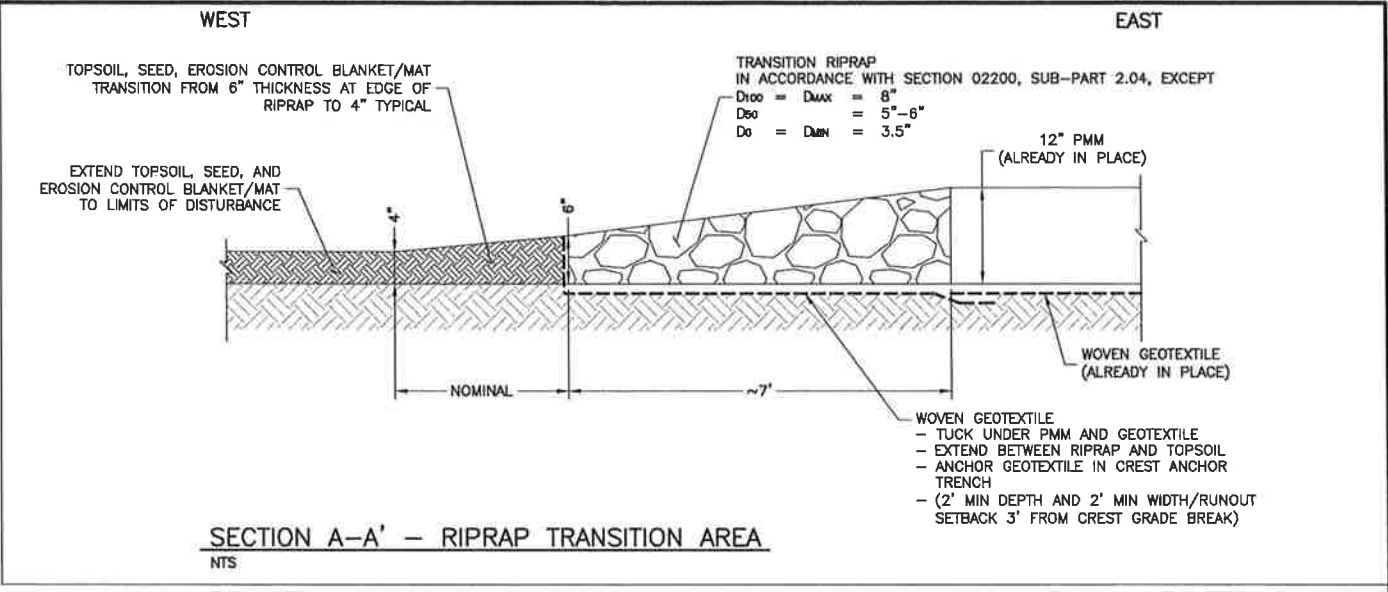
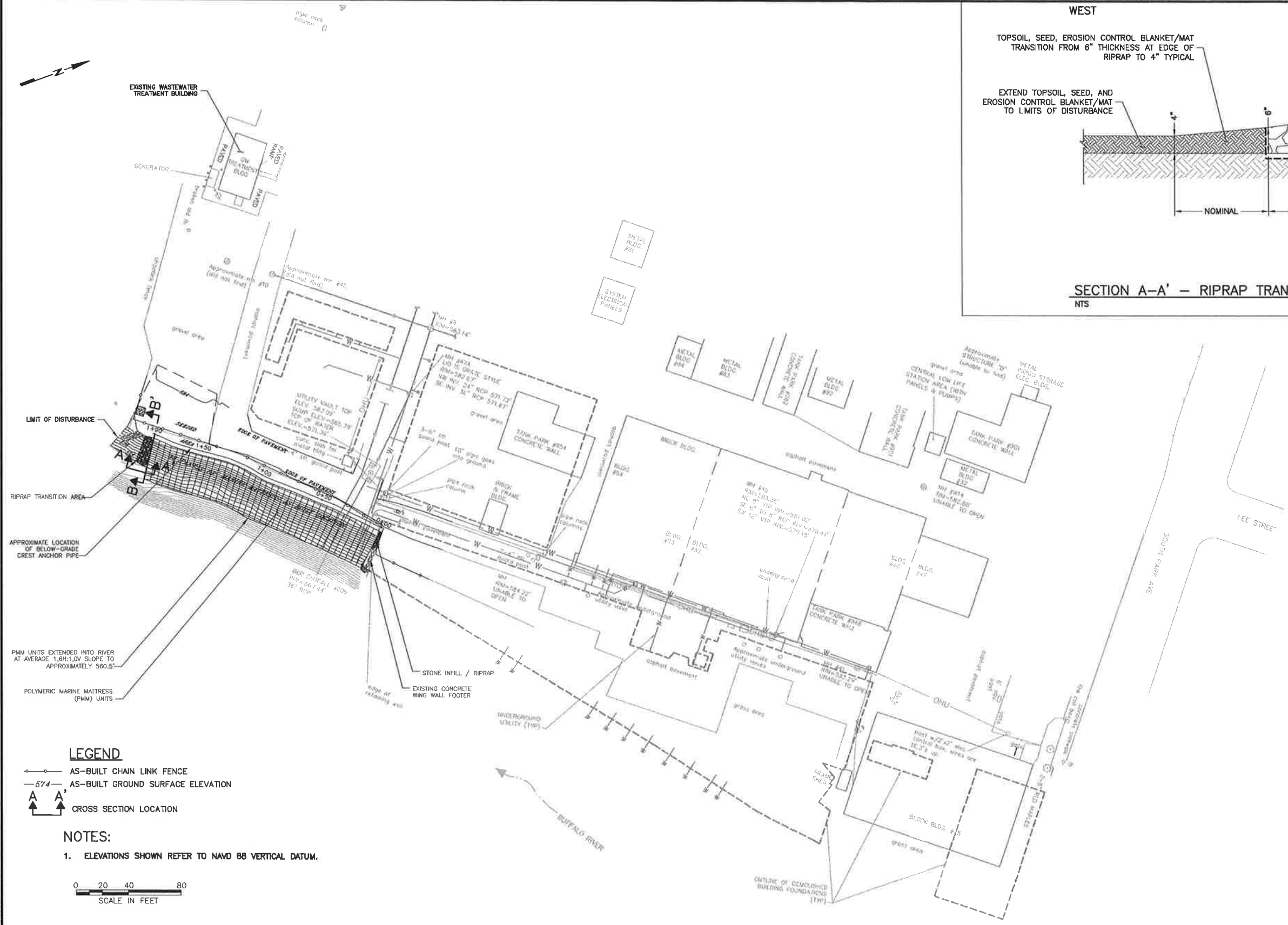
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**NOTES:**

1. ZONE AE IS THE FLOODWAY ZONE WHERE 100-YEAR BASE FLOOD ELEVATIONS WERE DETERMINED FOR THE "FLOOD INSURANCE STUDY - CITY OF BUFFALO, NEW YORK, ERIE COUNTY" BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, REVISED AUGUST 23, 1989.
2. ZONE X IS IDENTIFIED AS AREAS OF 500-YEAR FLOOD; AREAS OF 100-YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN ONE FOOT OR WITH A DRAINAGE AREA OF LESS THAN ONE SQUARE MILE; OR AREAS PROTECTED BY LEVEES FROM THE 100-YEAR FLOOD.





**LEGEND**

- AS-BUILT CHAIN LINK FENCE
- 57.4 — AS-BUILT GROUND SURFACE ELEVATION
- ↑ ↑ CROSS SECTION LOCATION

**NOTES:**

1. ELEVATIONS SHOWN REFER TO NAVD 88 VERTICAL DATUM.



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Honeywell  
 Buffalo Color Corporation - Area ABCE  
 Buffalo, New York  
 Honeywell Site ID# 37745

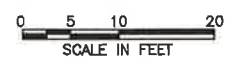
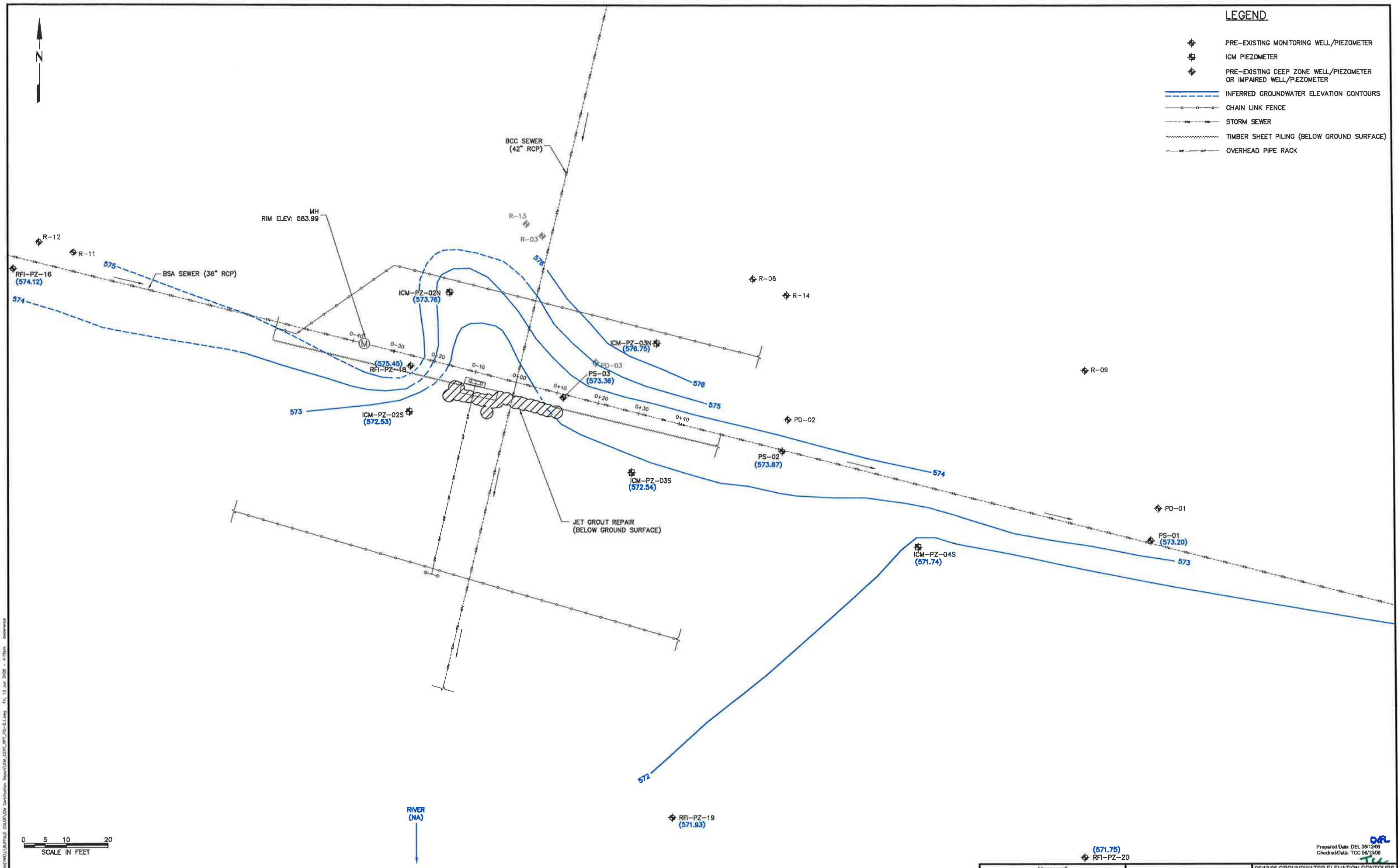


AS-BUILT SURVEY PLAN & DETAILS  
 AREA A - BANK STABILIZATION  
 Interim Corrective Measure  
 Project 3813-05-3046 Figure 4.2



**LEGEND**

- ◆ PRE-EXISTING MONITORING WELL/PIEZOMETER
- ⊕ ICM PIEZOMETER
- ◆ PRE-EXISTING DEEP ZONE WELL/PIEZOMETER OR IMPAIRED WELL/PIEZOMETER
- INFERRED GROUNDWATER ELEVATION CONTOURS
- CHAIN LINK FENCE
- - - STORM SEWER
- ~~~~~ TIMBER SHEET PILING (BELOW GROUND SURFACE)
- OVERHEAD PIPE RACK



RIVER  
(NA)

(571.75)  
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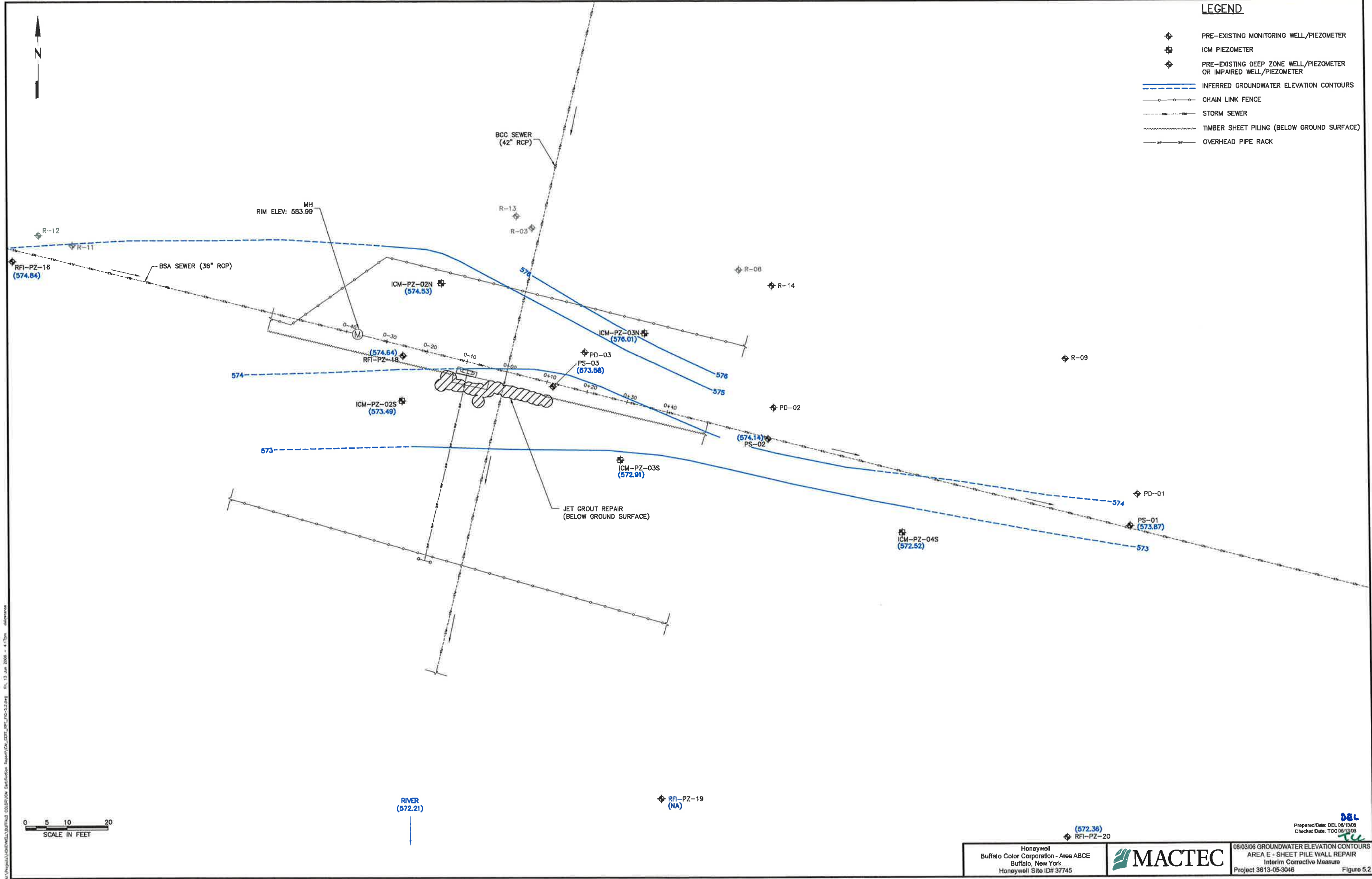
Honeywell Buffalo Color Corporation - Area ABCE Buffalo, New York Honeywell Site ID# 37745	<b>MACTEC</b>	06/13/08 GROUNDWATER ELEVATION CONTOURS AREA E - SHEET PILE WALL REPAIR Interim Corrective Measure Project 3613-05-3046
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Figuro 5.1



**LEGEND**

- ◆ PRE-EXISTING MONITORING WELL/PIEZOMETER
- ⊕ ICM PIEZOMETER
- ◆ PRE-EXISTING DEEP ZONE WELL/PIEZOMETER OR IMPAIRED WELL/PIEZOMETER
- INFERRED GROUNDWATER ELEVATION CONTOURS
- CHAIN LINK FENCE
- STORM SEWER
- TIMBER SHEET PILING (BELOW GROUND SURFACE)
- OVERHEAD PIPE RACK



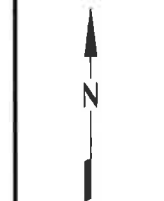
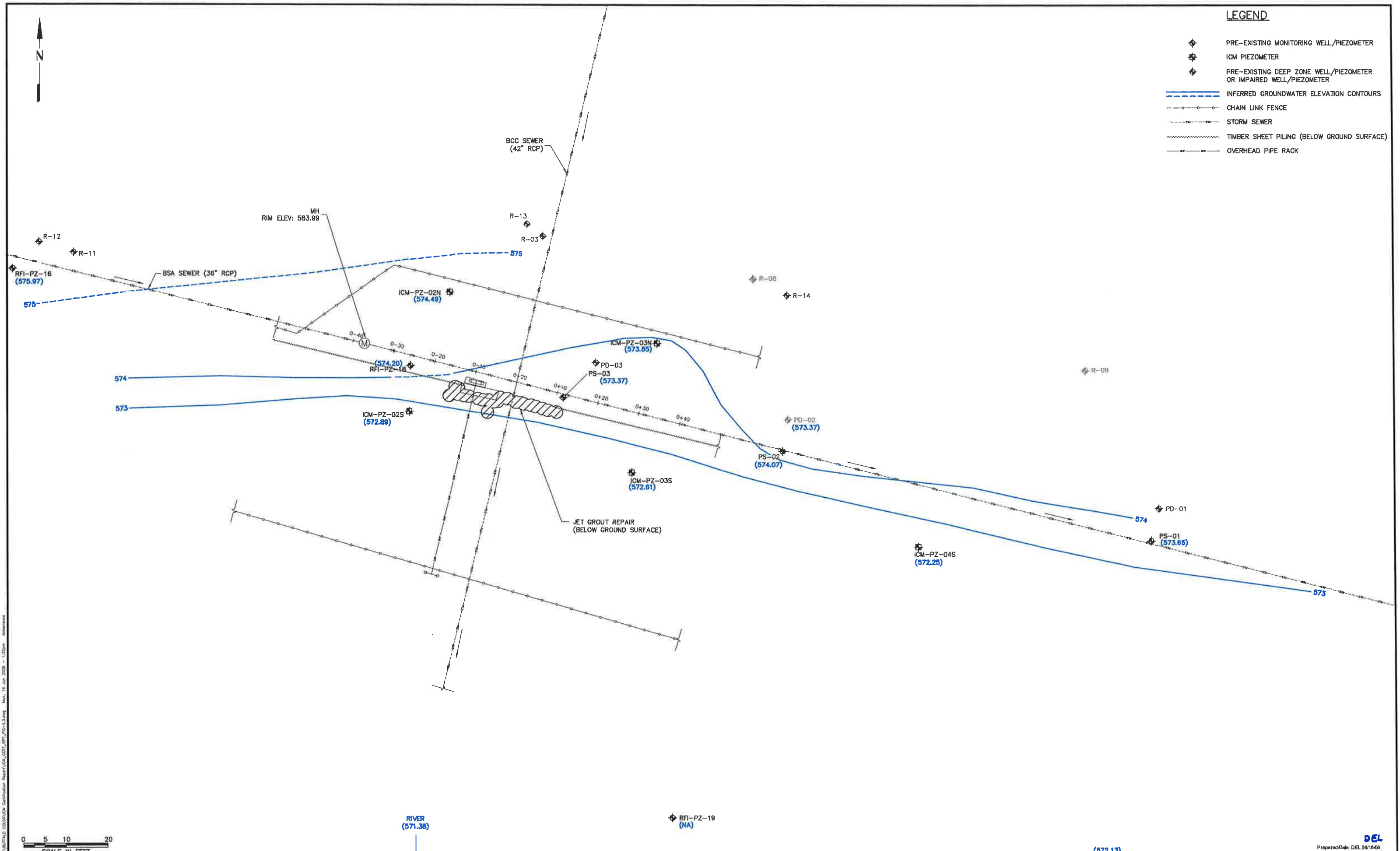
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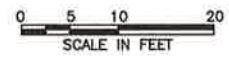
Honeywell Buffalo Color Corporation - Area ABCE Buffalo, New York Honeywell Site ID# 37745		08/03/06 GROUNDWATER ELEVATION CONTOURS AREA E - SHEET PILE WALL REPAIR Interim Corrective Measure Project 3613-05-3046 Figure 5.2
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LEGEND

- ◆ PRE-EXISTING MONITORING WELL/PIEZOMETER
- ◆ ICM PIEZOMETER
- ◆ PRE-EXISTING DEEP ZONE WELL/PIEZOMETER OR IMPAIRED WELL/PIEZOMETER
- INFERRED GROUNDWATER ELEVATION CONTOURS
- - - - CHAIN LINK FENCE
- - - - STORM SEWER
- ~~~~~ TIMBER SHEET PILING (BELOW GROUND SURFACE)
- OVERHEAD PIPE RACK



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Honeywell Buffalo Color Corporation - Area ABCE Buffalo, New York Honeywell Site ID# 37745		08/21/06 GROUNDWATER ELEVATION CONTOURS AREA E - SHEET PILE WALL REPAIR Interim Corrective Measure Project 3613-05-3046 Figure 5.3
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## **TABLES**

Table 3.1: Area E Groundwater Depths/Elevations Summary

Piezometer ID	General Well/Piezometer Information							ICM Groundwater Depth/Elevation Data																								
	Date Installed	Aquifer	Riser Type	Well Depth (ft bgs)	Top of Concrete Pad Elevation (ft)	Stick-Up of Steel Casing (Open) Elevation (ft)	Top of Casing (Open) Elevation (ft)	Geo-Con Round 1 05/10 - 05/11/06		Geo-Con Round 2 05/17/2006		Geo-Con Round 3 05/24/2006		Geo-Con Round 4 06/01 - 06/02/06		Geo-Con Round 5 06/05/2006		Geo-Con Round 6 06/13/2006		Geo-Con Round 7 06/21/2006		MACTEC 06/28/2006		Geo-Con Round 8 06/29/2006		MACTEC 07/25/06		MACTEC 08/03/06		MACTEC 08/21/2006		
								Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)	Elevation (ft)	Depth (ft btoc)
PD-01	04/19/88	Deep	2-inch PVC	30.0	583.78	2.80	586.58	14.50	572.08	14.70	571.88	14.90	571.68	14.80	571.78	14.90	571.68	15.10	571.48	15.10	571.48	-	-	15.00	571.58	14.88	571.70	15.75	570.83	14.69	571.89	
PS-01	04/19/88	Shallow	2-inch PVC	14.7	584.00	3.60	587.60	13.60	574.00	13.70	573.90	14.00	573.60	14.20	573.40	14.20	573.40	14.40	573.20	14.40	573.20	14.35	573.25	14.20	573.40	14.29	573.31	13.73	573.87	13.95	573.65	
PD-02	04/20/88	Deep	2-inch PVC	28.5	583.77	3.30	587.07	15.70	571.37	15.90	571.17	16.10	570.97	16.10	570.97	16.10	570.97	16.30	570.77	16.20	570.87	-	-	16.10	570.97	16.02	571.05	15.62	571.45	15.87	571.20	
PS-02	04/18/88	Shallow	2-inch PVC	13.7	584.67	2.60	587.27	13.00	574.27	13.20	574.07	13.50	573.77	13.30	573.97	13.30	573.97	13.40	573.87	13.50	573.77	-	-	13.40	573.87	13.43	573.84	13.13	574.14	13.20	574.07	
PD-03	04/18/88	Deep	2-inch PVC	27.0	585.21	2.20	587.41	14.80	572.61	15.00	572.41	15.10	572.31	15.00	572.41	15.10	572.31	15.20	572.21	15.20	572.21	-	-	15.00	572.41	14.99	572.42	14.57	572.84	14.86	572.55	
PS-03	04/18/88	Shallow	2-inch PVC	13.3	585.11	2.15	587.26	13.70	573.56	13.80	573.46	13.80	573.46	12.50	574.76	13.40	573.86	13.90	573.36	14.00	573.26	-	-	14.00	573.26	14.08	573.18	13.68	573.58	13.89	573.37	
RFI-PZ-16	05/10/96	Shallow	2-inch PVC	14.0	584.67	2.25	586.92	7.40	579.52	9.30	577.62	13.90	573.02	11.50	575.42	12.20	574.72	12.80	574.12	11.70	575.22	-	-	12.40	574.52	-	-	12.08	574.84	10.95	575.97	
RFI-PZ-17	05/10/96	Shallow	2-inch PVC	14.0	583.92	2.40	586.32	13.80	572.52	11.90	574.42	14.20	572.12	14.20	572.12	14.30	572.02	14.40	571.92	14.40	571.92	14.32	572.00	14.30	572.02	14.20	572.12	13.93	572.39	14.01	572.31	
RFI-PZ-18	05/09/96	Shallow	2-inch PVC	14.0	585.25	2.40	587.65	11.10	576.55	11.80	575.85	12.40	575.25	11.10	576.55	11.80	575.85	12.20	575.45	12.60	575.05	12.96	574.69	12.90	574.75	13.18	574.47	13.01	574.64	13.45	574.20	
RFI-PZ-19	05/15/96	Shallow	2-inch PVC	26.0	584.05	2.18	586.23	13.80	572.43	14.00	572.23	14.20	572.03	14.10	572.13	14.20	572.03	14.30	571.93	14.20	572.03	-	-	14.20	572.03	-	-	-	-	-	-	
RFI-PZ-20	05/14/96	Shallow	2-inch PVC	28.0	583.51	2.74	586.25	13.90	572.35	14.00	572.25	14.30	571.95	14.30	571.95	14.40	571.85	14.50	571.75	14.50	571.75	-	-	14.40	571.85	-	-	13.89	572.36	14.12	572.13	
R-03	06/06/84	Deep	3-inch Galv.	50.5	584.98	2.25	587.23	11.30	575.93	11.20	576.03	11.30	575.93	11.40	575.83	11.50	575.73	11.50	575.73	11.50	575.73	-	-	11.50	575.73	11.48	575.75	11.40	575.83	11.53	575.70	
R-08	10/08/85	Shallow	3-inch Steel	24.0	585.11	4.50	589.61	7.90	581.71	7.70	581.91	7.60	582.01	7.80	581.81	7.60	582.01	7.80	581.81	8.10	581.51	-	-	8.00	581.61	8.30	581.31	7.24	582.37	8.11	581.50	
R-09	10/08/85	Shallow	3-inch Steel	18.0	584.37	4.70	589.07	12.40	576.67	12.30	576.77	12.40	576.67	12.40	576.67	12.50	576.57	12.50	576.57	12.50	576.57	12.57	576.50	12.50	576.57	12.67	576.40	12.52	576.55	12.35	576.72	
R-11	11/23/88	Shallow	3-inch Galv.	17.3	584.69	1.80	586.49	6.20	580.29	6.30	580.19	6.50	579.99	6.60	579.89	6.60	579.89	6.60	579.89	6.80	579.69	-	-	6.70	579.79	-	-	6.07	580.42	6.41	580.08	
R-12	10/12/85	Deep	3-inch Steel	50.0	584.78	3.80	588.58	11.60	576.98	11.80	576.78	11.90	576.68	11.90	576.68	11.90	576.68	12.00	576.58	12.10	576.48	-	-	12.00	576.58	-	-	12.05	576.53	12.11	576.47	
R-13	02/21/86	Shallow	3-inch Galv.	16.0	584.81	2.40	587.21	7.90	579.31	12.10	575.11	12.20	575.01	12.20	575.01	12.20	575.01	12.20	575.01	12.20	575.01	-	-	12.10	575.11	12.02	575.19	11.55	575.66	12.09	575.12	
R-14	04/22/88	Shallow	3-inch Galv.	16.0	585.24	3.90	589.14	16.30	572.84	16.30	572.84	16.70	572.44	16.50	572.64	16.50	572.64	16.70	572.44	16.80	572.34	16.54	572.60	16.70	572.44	16.62	572.52	16.00	573.14	16.33	572.81	
ICM-PZ-02-S	05/31/06	Shallow	2-inch PVC	20.3	583.93	2.10	586.03	-	-	-	-	-	-	13.40	572.63	13.50	572.53	13.50	572.53	13.40	572.63	13.36	572.67	13.20	572.83	13.04	572.99	12.54	573.49	13.14	572.89	
ICM-PZ-02-N	06/01/06	Shallow	2-inch PVC	15.3	583.93	2.33	586.26	-	-	-	-	-	-	15.90	570.36	14.50	571.76	12.50	573.76	12.70	573.56	12.19	574.07	12.20	574.06	11.77	574.49	11.73	574.53	11.77	574.49	
ICM-PZ-03-S	06/01/06	Shallow	2-inch PVC	20.4	583.99	2.25	586.24	-	-	-	-	-	-	13.90	572.34	13.90	572.34	13.70	572.54	14.00	572.24	13.82	572.42	13.80	572.44	-	-	13.33	572.91	13.63	572.61	
ICM-PZ-03-N	06/01/06	Shallow	2-inch PVC	15.2	584.18	2.17	586.35	-	-	-	-	-	-	9.70	576.65	10.80	575.55	9.60	576.75	10.50	575.85	11.35	575.00	11.40	574.95	11.94	574.41	10.34	576.01	12.50	573.85	
ICM-PZ-04-S	05/31/06	Shallow	2-inch PVC	20.1	583.99	2.25	586.24	-	-	-	-	-	-	14.30	571.94	14.30	571.94	14.50	571.74	14.30	571.94	14.25	571.99	14.20	572.04	13.96	572.28	13.72	572.52	13.99	572.25	
River	-	-	-	-	-	-	574.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.05	571.75	2.59	572.21	3.42	571.38

Prepared/Date: TCC 06/2008  
 Checked/Date: RSE 07/2008

Table 3.2: Area E Jet Grout Column Installation Summary

Column No.	Date Installed	Station No.	Offset	Depth		Approximate Elevation		Orientation	Rotation Rate	Lift Rate	Flow Rate	Grout		Comments
				Top	Bottom	Top	Bottom					Pressure	Volume	
				(ft bgs)	(ft bgs)	(ft)	(ft)							
TC-01	05/25/06	0 - 14.50	48" S of sheet pile wall	1.0	11.0	583.0	573.0	Vertical	12	1	37	4500	407	
TC-02	05/25/06	0 - 5.00	66" S of sheet pile wall	1.0	11.0	583.0	573.0	Vertical	12	1	41	5500	410	
C-00	05/30/06	0 - 14.50	12" S of sheet pile wall	7.0	18.0	577.0	566.0	Vertical	5.5	1	36	4500	382	
C-01	05/26/06	0 - 13.00	12" S of sheet pile wall	8.0	18.0	576.0	566.0	Vertical	6	1	35	4500	385	
C-02	05/26/06	0 - 13.00	30" S of sheet pile wall	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	420	
C-03	05/26/06	0 - 11.50	6" S of pipe rack footer	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	385	
C-04	05/30/06	0 - 10.50	6" S of pipe rack footer	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	378	
C-05	05/30/06	0 - 8.00	6" S of pipe rack footer	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	394	
C-06	05/26/06	0 - 7.00	6" S of pipe rack footer	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	385	
C-07	05/30/06	0 - 5.50	3" S of pipe rack footer	7.0	18.0	577.0	566.0	Vertical	6	1	34	4500	387	6 test cylinders cast
C-08	05/26/06	0 - 4.00	6" S of pipe rack footer	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	385	
C-09	05/30/06	0 - 3.25	31" S of sheet pile wall alignment	7.0	18.0	577.0	566.0	Vertical	6	1	34	4500	381	
C-10	05/26/06	0 - 3.00	18" S of sheet pile wall alignment	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	385	
C-10A	05/26/06	0 - 3.00	18" S of sheet pile wall alignment	11.0	20.0	573.0	564.0	4° from vertical; Top to west	6	1	35	4500	315	
C-10B	05/31/06	0 - 3.00	12" S of sheet pile wall alignment	13.0	18.0	571.0	566.0	Vertical	6	0.5	39	5500	404	
C-11	05/30/06	0 + 2.75	12" S of sheet pile wall alignment	7.0	18.0	577.0	566.0	Vertical	6	0.5	35	4500	699	
C-11A	05/30/06	0 + 2.75	12" S of sheet pile wall alignment	12.0	20.0	572.0	564.0	4° from vertical; Top to east	4	1	35	4500	280	
C-11B	05/31/06	0 + 2.50	12" S of sheet pile wall alignment	13.0	18.0	571.0	566.0	Vertical	6	0.5	38	5500	414	Grout return observed at C-10B
C-12	05/30/06	0 + 3.50	12" S of sheet pile wall alignment	7.0	18.0	577.0	566.0	Vertical	4	1	35	4500	387	6 test cylinders cast
C-13	05/30/06	0 + 5.00	12" S of sheet pile wall alignment	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	396	
C-14	05/30/06	0 + 6.50	12" S of sheet pile wall alignment	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	387	
C-15	05/30/06	0 + 8.00	12" S of sheet pile wall alignment	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	380	
C-16	05/30/06	0 + 9.25	12" S of sheet pile wall alignment	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	389	
C-17	05/30/06	0 + 11.75	12" S of sheet pile wall	7.0	18.0	577.0	566.0	Vertical	6	1	35	4500	383	
AP-01	05/30/06	0 - 1.00	12" S of sheet pile wall alignment; Above BCC sewer pipe	7.0	9.0	577.0	575.0	Vertical	6	1	35	4500	92	
AP-02	05/30/06	0 + 1.00	12" S of sheet pile wall alignment; Above BCC sewer pipe	7.0	9.0	577.0	575.0	Vertical	6	1	35	4500	89	

Prepared/Date: TCC 06/2008 *TCC*  
 Checked/Date: RSE 07/01/08 *RSE*

Table 4.1: Area A - Manta-Ray Anchor Installation Summary

Anchor No. (W to E)	Station No.	Date		Anchor					General Notes/Comments
		Installed	Tested	Type	Orientation From Hor. (degrees)	Test Load (kips)	Final Depth Axial (ft)	Witness/ Data Source	
1	1 + 88.8	06/07/06	06/07/06	MR-SR	40 - 50	16.0	10.7	Sevenson/GJB	-
2A	1 + 84.4	06/02/06	06/02/06	MR-SR	40 - 50	6.5	15.6	TCC	Cut-off at bottom of trench. Not used for anchor pipe.
2B	1 + 84.5	06/08/06	06/08/06	MR-SR	70	16.5	10.9	TCC	-
3	1 + 80.8	06/07/06	06/07/06	MR-SR	85	16.0	7.5	Sevenson/GJB	-
4	1 + 78.6	06/07/06	06/07/06	MR-SR	40 - 50	16.0	16.3	Sevenson/GJB	-
5A	1 + 74.1	06/07/06	06/07/06	MR-SR	45	15.0	11.8	Sevenson/GJB	Cut-off at bottom of trench. Not used for anchor pipe.
5B	1 + 73.7	06/08/06	06/08/06	MR-SR	45	16.0	11.4	TCC	-
6	1 + 69.8	06/07/06	06/07/06	MR-SR	40 - 50	16.0	15.8	Sevenson/GJB	-
7	1 + 64.9	06/07/06	06/07/06	MR-SR	80	16.0	14.8	TCC	Re-test (spot check) 6/8/06 = 16+ Kips
8	1 + 60.0	06/07/06	06/07/06	MR-SR	40 - 50	16.0	16.8	Sevenson/GJB	-
9	1 + 55.0	06/07/06	06/07/06	MR-SR	40 - 50	16.0	15.8	Sevenson/GJB	-
10	1 + 50.0	06/07/06	06/07/06	MR-SR	40 - 50	16.0	16.0	Sevenson/GJB	-
11	1 + 44.0	06/02/06	06/02/06	MR-SR	40 - 50	17.0	14.0	TCC	-
12	1 + 38.5	06/05/06	06/05/06	MR-SR	40 - 50	16.0	14.2	Sevenson/GJB	-
13	1 + 34.0	06/05/06	06/05/06	MR-SR	40 - 50	16.0	14.3	Sevenson/GJB	-
14	1 + 29.3	06/05/06	06/05/06	MR-SR	40 - 50	16.0	12.5	Sevenson/GJB	-
15	1 + 24.0	06/05/06	06/05/06	MR-SR	40 - 50	16.0	11.0	Sevenson/GJB	-
16	1 + 19.8	06/05/06	06/05/06	MR-SR	45	15.0	16.5	TCC	Re-test (spot check) 6/8/06 = 15+ Kips.
17	1 + 13.8	06/05/06	06/05/06	MR-SR	40 - 50	16.0	11.0	Sevenson/GJB	-
18	1 + 08.5	06/05/06	06/05/06	MR-SR	40 - 50	16.0	10.9	Sevenson/GJB	-
19	1 + 03.1	06/05/06	06/05/06	MR-SR	40 - 50	16.0	10.6	Sevenson/GJB	-
20	0 + 98.7	06/05/06	06/05/06	MR-SR	40 - 50	16.0	14.8	Sevenson/GJB	-
21	0 + 93.5	06/05/06	06/05/06	MR-SR	40 - 50	16.0	11.7	Sevenson/GJB	-
22	0 + 88.6	06/05/06	06/05/06	MR-SR	40 - 50	16.0	10.5	Sevenson/GJB	-
23	0 + 83.6	06/05/06	06/05/06	MR-SR	40 - 50	16.0	14.3	Sevenson/GJB	-
24	0 + 78.8	06/05/06	06/05/06	MR-SR	40 - 50	16.0	14.2	Sevenson/GJB	-
25	0 + 74.0	06/07/06	06/07/06	MR-SR	40 - 50	16.0	14.8	Sevenson/GJB	-
26	0 + 68.6	06/06/06	06/07/06	MR-SR	40 - 50	16.0	14.8	Sevenson/GJB	-
27	0 + 63.6	06/06/06	06/07/06	MR-SR	40 - 50	16.0	16.0	Sevenson/GJB	-
28	0 + 58.9	06/06/06	06/07/06	MR-SR	40 - 50	16.0	15.7	Sevenson/GJB	-
29	0 + 53.7	06/06/06	06/07/06	MR-SR	40 - 50	16.0	13.2	Sevenson/GJB	-
30	0 + 48.7	06/07/06	06/07/06	MR-SR	40 - 50	16.0	15.0	Sevenson/GJB	-
31	0 + 45.3	05/23/06	05/24/06	MK-B	40 - 50	18.0	12.7	TCC	-
32	0 + 43.3	06/07/06	06/07/06	MR-SR	40 - 50	16.0	11.6	Sevenson/GJB	-
33	0 + 38.4	06/07/06	06/07/06	MR-SR	40 - 50	16.0	13.5	Sevenson/GJB	-
34	0 + 35.2	05/23/06	05/24/06	MK-B	40 - 50	17.0	14.3	TCC	-
35	0 + 31.0	05/23/06	05/24/06	MR-SR	40 - 50	16.5	15.0	TCC	-
36	0 + 23.3	06/07/06	06/07/06	MR-SR	40 - 50	16.0	15.0	Sevenson/GJB	-
37	0 + 20.8	05/16/06	05/16/06	MR-1	40 - 50	7.0	15.3	TCC	-
38	0 + 18.0	06/07/06	06/07/06	MR-SR	40 - 50	16.0	14.7	Sevenson/GJB	-
39	0 + 15.2	05/16/06	05/16/06	MR-1	40 - 50	7.0	15.2	TCC	-
40	0 + 10.3	06/07/06	06/07/06	MR-SR	40 - 50	16.0	13.0	Sevenson/GJB	-
41	0 + 07.5	06/08/06	06/08/06	MR-SR	75	15.0	8.3	Sevenson/GJB	Obstruction at ~ 10' bgs.
42	0 + 05.3	06/07/06	06/07/06	MR-SR	40 - 50	16.0	4.5	Sevenson/GJB	Obstruction at ~ 6' bgs.
43	0 + 02.8	06/07/06	06/07/06	MR-SR	40 - 50	16.0	4.0	Sevenson/GJB	Obstruction at ~ 6' bgs.

Prepared by/Date: TCC 06/2008  
 Checked by/Date: RSE 07/2008



Table 4.2: Area A - Crest Anchor Pipe Installation Summary

Pipe No. (W to E)	Date Installed	Total Length (ft)	Station No.		Total	Anchor Connections			General Notes/Comments		
			Begin (W)	End (E)		To Anchor No. <sup>1</sup>	1 <sup>st</sup> Anchor Capacity (kips)	2 <sup>nd</sup> Anchor Capacity (kips)		3 <sup>rd</sup> Anchor Capacity (kips)	
1	06/09/06	10.3	1 + 89.70	1 + 79.30	3	1, 2B, 3	16.0	16.5	16.0	Anchor No. 2A at STA No. 1+84.4 not used; Cut off. Anchor No. 5A at STA No. 1+74.1 not used; Cut off.	
2	06/09/06	12.3	1 + 79.40	1 + 67.10	3	4, 5B, 6	16.0	16.0	16.0		
3	06/09/06	14.8	1 + 67.70	1 + 52.95	3	7, 8, 9	16.0	16.0	16.0	-	
4	06/12/06	10.7	1 + 52.75	1 + 42.05	2	10, 11	16.0	17.0	-	-	
5	06/12/06	9.7	1 + 41.80	1 + 32.10	2	12, 13	16.0	16.0	-	-	
6	06/12/06	8.9	1 + 32.15	1 + 23.35	2	14, 15	16.0	16.0	-	-	
7	06/12/06	11.5	1 + 23.25	1 + 11.90	2	16, 17	15.0	16.0	-	-	
8	06/12/06	9.6	1 + 11.55	1 + 01.90	2	18, 19	16.0	16.0	-	-	
9	06/12/06	9.9	1 + 00.90	0 + 91.05	2	20, 21	16.0	16.0	-	-	
10	06/12/06	9.7	0 + 90.90	0 + 81.20	2	22, 23	16.0	16.0	-	-	
11	06/12/06	9.9	0 + 81.15	0 + 71.30	2	24, 25	16.0	16.0	-	-	
12	06/12/06	11.1	0 + 71.15	0 + 60.05	2	26, 27	16.0	16.0	-	-	
13	06/12/06	8.6	0 + 60.00	0 + 51.50	2	28, 29	16.0	16.0	-	-	
14	06/12/06	10.7	0 + 51.50	0 + 40.80	3	30, 31, 32	16.0	18.0	16.0	-	
15	06/13/06	7.5	0 + 40.30	0 + 33.00	2	33, 34	16.0	17.0	-	-	
16	06/13/06	12.0	0 + 32.70	0 + 20.80	2	35, 36	16.5	16.0	-	-	
16/17	06/15/06	7.6	0 + 21.80 <sup>2</sup>	0 + 14.20 <sup>2</sup>	2	37, 39	7.0	7.0	-	Anchor No. 37 & 39 are MR-1 anchors; 7 kips each. Pipe 16/17 to support 1 PMM only.	
17	06/13/06	11.7	0 + 20.45	0 + 08.80	2	38, 40	16.0	16.0	-	-	
18	06/13/06	8.0	0 + 08.75	0 + 00.80	3	41, 42, 43	15.0	16.0	16.0	-	
19 Pipes	-	194 Pipe Linear Feet	-	-	43 Connections	-	293.5	299.5	80.0	-	
							Total Anchor Capacity (kips)			673.0	

Notes:

1. Refer to Table 4.1 for anchor numbering scheme/additional information.
2. Estimated based on anchor station numbers.

Prepared by/Date: TCC 06/2008 *TCC*  
 Checked by/Date: RSE 07/2008 *RSE*

**Table 4.2: Area A - Crest Anchor Pipe Installation Summary**

Pipe No. (W to E)	Date Installed	Total Length (ft)	Station No.		Anchor Connections					General Notes/Comments
			Begin	End	Total	To	1 <sup>st</sup> Anchor	2 <sup>nd</sup> Anchor	3 <sup>rd</sup> Anchor	
			(W)	(E)		Anchor No. <sup>1</sup>	Capacity (kips)	Capacity (kips)	Capacity (kips)	
1	06/09/06	10.3	1 + 89.70	1 + 79.30	3	1, 2B, 3	16.0	16.5	16.0	Anchor No. 2A at STA No. 1+84.4 not used; Cut off. Anchor No. 5A at STA No. 1+74.1 not used; Cut off. - - - - - - - - - - - - - - - - - - Anchor No. 37 & 39 are MR-1 anchors; 7 kips each. Pipe 16/17 to support 1 PMM only.
2	06/09/06	12.3	1 + 79.40	1 + 67.10	3	4, 5B, 6	16.0	16.0	16.0	
3	06/09/06	14.8	1 + 67.70	1 + 52.95	3	7, 8, 9	16.0	16.0	16.0	
4	06/12/06	10.7	1 + 52.75	1 + 42.05	2	10, 11	16.0	17.0	-	
5	06/12/06	9.7	1 + 41.80	1 + 32.10	2	12, 13	16.0	16.0	-	
6	06/12/06	8.9	1 + 32.15	1 + 23.35	2	14, 15	16.0	16.0	-	
7	06/12/06	11.5	1 + 23.25	1 + 11.90	2	16, 17	15.0	16.0	-	
8	06/12/06	9.6	1 + 11.55	1 + 01.90	2	18, 19	16.0	16.0	-	
9	06/12/06	9.9	1 + 00.90	0 + 91.05	2	20, 21	16.0	16.0	-	
10	06/12/06	9.7	0 + 90.90	0 + 81.20	2	22, 23	16.0	16.0	-	
11	06/12/06	9.9	0 + 81.15	0 + 71.30	2	24, 25	16.0	16.0	-	
12	06/12/06	11.1	0 + 71.15	0 + 60.05	2	26, 27	16.0	16.0	-	
13	06/12/06	8.6	0 + 60.00	0 + 51.50	2	28, 29	16.0	16.0	-	
14	06/12/06	10.7	0 + 51.50	0 + 40.80	3	30, 31, 32	16.0	18.0	16.0	
15	06/13/06	7.5	0 + 40.30	0 + 33.00	2	33, 34	16.0	17.0	-	
16	06/13/06	12.0	0 + 32.70	0 + 20.80	2	35, 36	16.5	16.0	-	
16/17	06/15/06	7.6	0 + 21.80 <sup>2</sup>	0 + 14.20 <sup>2</sup>	2	37, 39	7.0	7.0	-	
17	06/13/06	11.7	0 + 20.45	0 + 08.80	2	38, 40	16.0	16.0	-	
18	06/13/06	8.0	0 + 08.75	0 + 00.80	3	41, 42, 43	15.0	16.0	16.0	
<b>19 Pipes</b>		<b>194 Pipe Linear Feet</b>			<b>43 Connections</b>		<b>293.5</b>	<b>299.5</b>	<b>80.0</b>	
							<b>Total Anchor Capacity (kips)</b>			
							<b>673.0</b>			

Notes:

1. Refer to Table 4.1 for anchor numbering scheme/additional information.
2. Estimated based on anchor station numbers.

Prepared by/Date: TCC 06/2008 **TCC**  
 Checked by/Date: RSE 07/2008 **RSE**



Table 4.3: Area A - Polymeric Marine Mattress (PMM) Installation Summary

PMM Position		Date	Length	Attached To	General Notes/Comments
Row No. <sup>1</sup>	Unit No. <sup>2</sup> (W to E)	Installed	(ft)	Anchor Pipe No.	
1	1	6/13/2006	22.0	1	Longitudinal Cut in "Tail" for Anchor # 1.
1	2	6/13/2006	22.0	1	Longitudinal Cut in "Tail" for Anchor # 2B.
1	3	6/13/2006	22.0	2	Longitudinal Cut in "Tail" for Anchor # 4.
1	4	6/14/2006	22.0	2	Longitudinal Cut in "Tail" for Anchor # 5B.
1	5	6/14/2006	22.0	2 & 3	Longitudinal Cut in "Tail" for Transition Between Pipe No. 2 & 3.
1	6	6/14/2006	22.0	3	-
1	7	6/14/2006	22.0	3	-
1	8	6/14/2006	22.0	3 & 4	Longitudinal Cut in "Tail" for Transition Between Pipe No. 3 & 4.
1	9	6/14/2006	22.0	4	-
1	10	6/15/2006	22.0	4	Longitudinal Cut in "Tail" for Anchor # 11.
1	11	6/15/2006	22.0	5	Longitudinal Cut in "Tail" for Anchor # 12.
1	12	6/15/2006	22.0	5	Longitudinal Cut in "Tail" for Anchor # 13.
1	13	6/15/2006	22.0	6	Longitudinal Cut in "Tail" for Anchor # 14.
1	14	6/15/2006	22.0	6 & 7	Longitudinal Cut in "Tail" for Anchor # 15. Transition between pipes 6 & 7.
1	15	6/16/2006	22.0	7	Longitudinal Cut in "Tail" for Anchor # 16.
1	16	6/16/2006	22.0	7	Longitudinal Cut in "Tail" for Anchor # 17.
1	17	6/16/2006	22.0	8	Longitudinal Cut in "Tail" for Anchor # 18.
1	18	6/16/2006	22.0	8	Longitudinal Cut in "Tail" for Anchor # 19.
1	19	6/16/2006	22.0	9	Longitudinal Cut in "Tail" for Anchor # 20.
1	20	6/16/2006	22.0	9 & 10	Longitudinal Cut in "Tail" for Anchor # 21. Transition between pipes 9 & 10.
1	21	6/16/2006	22.0	10	-
1	22	6/19/2006	22.0	10 & 11	Longitudinal Cut in "Tail" for Anchor # 23.
1	23	6/19/2006	22.0	11	Longitudinal Cut in "Tail" for Anchor # 24.
1	24	6/19/2006	22.0	11 & 12	Longitudinal Cut in "Tail" for Anchor # 25. Transition between pipes 11 & 12.
1	25	6/19/2006	22.0	12	Longitudinal Cut in "Tail" for Anchor # 26.
1	26	6/19/2006	22.0	12	Longitudinal Cut in "Tail" for Anchor # 27.
1	27	6/20/2006	22.0	12 & 13	Longitudinal Cut in "Tail" for Anchor # 28. Transition between pipes 12 & 13.
1	28	6/20/2006	22.0	13 & 14	Longitudinal Cut in "Tail" for Anchor # 29. Transition between pipes 13 & 14.
1	29	6/20/2006	22.0	14	Longitudinal Cut in "Tail" for Anchor # 30.
1	30	6/20/2006	22.0	14	Longitudinal Cut in "Tail" for Anchor # 32.
1	31	6/20/2006	22.0	15	Longitudinal Cut in "Tail" for Anchor # 33. Also, cut to keep tail tight to pipe.
1	32	6/20/2006	22.0	15 & 16	Longitudinal Cut in "Tail" for Anchor # 34. Transition between pipes 15 & 16.
1	33	6/20/2006	22.0	16	-
1	34	6/20/2006	22.0	16	Longitudinal Cut in "Tail" for Anchor # 36.
1	35	6/21/2006	22.0	16/17	Longitudinal Cut in "Tail" for Anchor # 39.
1	36	6/21/2006	22.0	17	-
1	37	6/21/2006	22.0	17 & 18	Longitudinal Cut in "Tail" for Anchor # 41.
1	38	6/21/2006	18.0	18	Longitudinal Cut in "Tail" for Anchor # 42.

Table 4.3: Area A - Polymeric Marine Mattress (PMM) Installation Summary

PMM Position		Date	Length	Attached To	General Notes/Comments
Row No. <sup>1</sup>	Unit No. <sup>2</sup> (W to E)	Installed	(ft)	Anchor Pipe No.	
2	1	6/27/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	2	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	3	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	4	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	5	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	6	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	7	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	8	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	9	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	10	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	11	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	12	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	13	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	14	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	15	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	16	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	17	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	18	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	19	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	20	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	21	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	22	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	23	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	24	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	25	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	26	6/28/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	27	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	28	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	29	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	30	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	31	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	32	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	33	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	34	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	35	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	36	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	37	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.
2	38	6/29/2006	30.0	--	End-to-end connection filled with stone on 6/30/06.

Notes:

1. PMMs were placed in 2 rows from west to east. Row 1 indicates PMM placed from crest anchor trench (and anchored to a crest anchor pipe) down to the approximate ordinary high water line (OHWL). Row 2 indicates PMM placed from OHWL (and connected to corresponding Row 1 PMM) down to terminus of PMM coverage at approximate final grade elevation of 560.5 feet
2. Unit No. represents PMM in place position on the riverbank, from west to east.

Prepared by/Date: ESW 09/2006  
 Checked by/Date: TCC 06/2008 *TCC*

## **APPENDIX A**

### **SITE DESCRIPTION (METES AND BOUNDS)**

EXHIBIT A

To Purchase Agreement between ALLIED CHEMICAL CORPORATION and BUFFALO COLOR CORPORATION Containing a Description of Real Property to be Conveyed by ALLIED CHEMICAL CORPORATION to BUFFALO COLOR CORPORATION Together With a Listing of Liens, Encumbrances and Other Matters Affecting Title Thereto.

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BOOK 8524 PAGE 448

Tract A

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lots Nos. 177 and 178, Township 10, Range 8 of the Buffalo Creek Reservation and part of The Bed of The Buffalo River, bounded and described as follows:

BEGINNING at the intersection of the southerly line of South Park Avenue with the easterly line of lands of Buffalo Creek Railroad; thence south  $51^{\circ} 04' 00''$  East and along the southerly line of South Park Avenue, 693.64 feet; thence south  $43^{\circ} 22' 10''$  East, 50.02 feet to the Buffalo River Improvement Channel; thence south  $58^{\circ} 17' 30''$  West and along said Channel, 107.28 feet; thence south  $49^{\circ} 51' 37''$  West and still along said Channel, 553.75 feet; thence south  $35^{\circ} 01' 00''$  West and still along said Channel, 1.75 feet to the northerly line of lands of Erie Lackawanna Railroad; thence north  $54^{\circ} 54' 48''$  West and along the northerly line of lands of Erie Lackawanna Railroad, 412.84 feet to the lands of Buffalo Creek Railroad; thence north  $26^{\circ} 20' 52''$  East and along the lands of Buffalo Creek Railroad, 221.63 feet; thence south  $51^{\circ} 04' 00''$  East, 2.05 feet; thence north  $26^{\circ} 20' 52''$  East and along the lands of Buffalo Creek Railroad, 574.81 feet to the point or place of beginning.

Tract B

Parcel 1

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 135, Township 10, Range 8 of the Buffalo Creek Reservation, bounded and described as follows, to-wit:

BEGINNING at the point of intersection of the southwesterly line of Prenatt Street with the northwesterly line of Lee Street; running thence southwesterly and along the northwesterly line of Lee Street 707.81 feet to the northeasterly line of Abbott Road; thence northwesterly along the northeasterly line of Abbott Road; 158 feet to the northwesterly line of Lot No. 135; running thence north-easterly and along the northwesterly line of Lot No. 135, 674.91 feet to the southwesterly line of Prenatt Street thence southeasterly along the southwesterly line of Prenatt Street 161.72 feet to the northwesterly line of Lee Street, at the point or place of beginning.

Parcel 2

ALL THAT OTHER CERTAIN PIECE OR PARCEL OF LAND, situate, lying and being in the City of Buffalo, County of Erie and State of New York, being a part of Lot No. 136, in Township 10, Range 8 of Lovejoy and Emslie's survey of a part of the Buffalo Creek Indian Reservation, bounded and described as follows:

BEGINNING at the intersection of the easterly line of said Lot No. 136 with the southerly line of Prenatt

Street, said intersection being 334.65 feet easterly, measured along said southerly line of Prenatt Street, from the easterly line of the Buffalo Creek Railroad Company's right-of-way; thence southerly along said easterly line of Lot No. 136 to the northerly line of Abbott Road; thence westerly, along said northerly line of said Abbott Road, 190 feet to a point; thence northerly, on a line parallel to the easterly line of Lot No. 136, 400 feet to a point; thence northeasterly, on a line deflecting to the right from the line last described, north  $73^{\circ} 35'$  East, 330.88 feet to the place of beginning.

Parcel 3

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being parts of Lots Nos. 136 and 139, Township 10, Range 8 of the Buffalo Creek Reservation and further bounded and described as follows:

BEGINNING at a point in the south line of former Prenatt Street 161.72 feet westerly from the intersection of the south line of former Prenatt Street with the west line of Lee Street; thence westerly along the south line of former Prenatt Street 255.44 feet; thence southerly along a line making an angle of  $89^{\circ} 37'$  in the southeast quadrant with the last described line 233.71 feet; thence northeasterly in a straight line 345.06 feet to the point of beginning.

Tract C

Parcel 1

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lots Nos. 134 and 137, Township 10, Range 8 of the Buffalo Creek Reservation, bounded and described as follows:

BEGINNING at the point of intersection of the southerly line of Elk Street with the westerly line of Lee Street; thence southerly along the westerly line of Lee Street, 709.59 feet more or less to the northerly line of Prenatt Street; thence westerly along the northerly line of Prenatt Street, 274.39 feet to the northeasterly line of lands conveyed to Buffalo Creek Railroad Company by Deed recorded in Liber 1364 of Deeds at page 538; thence northwesterly along the northeasterly line of lands so conveyed to Buffalo Creek Railroad Company by deed aforesaid, 235.91 feet to lands conveyed to said Buffalo Creek Railroad Company by deed recorded in Liber 250 of Deeds at page 319; thence northerly along said line of Buffalo Creek Railroad Company's land as conveyed by Deed recorded in Liber 250 of Deeds at page 319, 299.93 feet; thence north  $26^{\circ} 34' 36''$  East, 138.99 feet to the southerly line of Elk Street; thence easterly along the southerly line of Elk Street, 365.11 feet more or less to the point or place of beginning.

Parcel II

ALSO ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 137, Township 10, Range 8 of the Buffalo Creek Reservation and further bounded and described as follows:

BEGINNING at a point in the north line of former Prenatt Street 274.39 feet westerly from the intersection of the north line of former Prenatt Street with the west line of Lee Street; thence westerly (First Course) along the north line of former Prenatt Street 5 feet; thence northwesterly (Second Course) along a line curving to the right having a radius of 330 feet a distance of 227.77 feet to a point in the west line of Lot No. 137 distant 155.13 feet northerly from the intersection of the west line of Lot No. 137 with the north line of former Prenatt Street; thence northerly along the west line of Lot No. 137, 10.87 feet; thence southeasterly in a straight line 235.91 feet to the point of beginning.

Parcel III

ALSO ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 137, Township 10, Range 8 of the Buffalo Creek Reservation and further bounded and described as follows:

BEGINNING in the north line of former Prenatt Street 124.45 feet westerly from the intersection of the north line of former Prenatt Street with the west line of Lee Street; thence northwesterly along a line curving to the right having a radius of 350 feet concentric with and 20 feet southwesterly measured radially from the second course of Parcel II above, a distance of 142.17 feet to the west line of Lot No. 137; thence southerly along the west line of Lot No. 137, 95.61 feet to the intersection of the west line of Lot No. 137 with the north line of former Prenatt Street; thence easterly along the north line of former Prenatt Street 84.94 feet to the point of beginning.

Tract D

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 178 Township 10, Range 8 of the Buffalo Creek Reservation and part of the bed of the Buffalo Creek bounded and described as follows:

BOUNDED northerly by the south line of lands conveyed to The New York Lackawanna and Western Railway Company by Deeds recorded in Erie County Clerk's Office in Liber 1416 and 1417 and 1454 of Deeds at pages 531, 540 and 106 respectively; on the northwest by the northwesterly line of lands conveyed to Allied Chemical & Dye Corporation by Deed recorded in Erie County Clerk's Office in Liber 4272 of Deeds at page 527; on the west, south and east by the lands of the Buffalo River Improvement Channel.

TOGETHER with a Right of Way for roadway over the following described premises:

BEGINNING at a point in the north line of lands conveyed by Deed recorded in Liber 1454 of Deeds at page 106, distant 10.5 feet easterly measured at right angles from the westerly line thereof; thence easterly along said northerly line, 30.35 feet to its intersection with a line drawn parallel with the easterly line of lands conveyed by Deed recorded in Liber 1454 of Deeds at page 106 and distant 9.5 feet westerly therefrom measured at right angles; thence southerly along a line drawn parallel with said easterly line, 136.59 feet to the southerly line of the lands conveyed by Deed recorded in Liber 1454 of Deeds at page 106; thence westerly along said southerly line 30.35 feet to a line drawn parallel with said westerly line of the lands conveyed by Deed recorded in Liber 1454 of Deeds at page 106 through the place of beginning; thence northerly along last mentioned parallel line 136.59 feet to the place of beginning.

ALSO ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lot No. 178, Township 10, Range 8 of the Buffalo Creek Reservation, bounded and described as follows:

BEGINNING at the intersection of the southeast line of land conveyed to The Buffalo Creek Railroad Company by deed recorded in Erie County Clerk's Office in Liber 294 of Deeds at page 62 with the northeast channel line of the Buffalo River Improvement, said channel line being parallel with and 328 feet northeast, measured at right angles, from the monumented Base Line for said Improvement; thence northeasterly along said southeast line of land conveyed to The Buffalo Creek Railroad Company 908.54 feet to a point in a prolongation northwesterly of the southwesterly face of a concrete pier supporting the overhead tracks of the Delaware, Lackawanna & Western Railroad Company; thence northwesterly at right angles 18 feet; thence southwesterly parallel with the aforementioned southeast line of The Buffalo Creek Railroad Company 895.94 feet to the aforementioned northeast channel line of the Buffalo River Improvement; thence southeasterly along the said channel line 21.97 feet to the place of beginning.

Tract E

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lots Nos. 133, 195 and 196 of the Buffalo Creek Reservation, and more particularly bounded and described as follows:

BEGINNING at the intersection of the easterly line of Lee Street with the northerly line of former Prenatt Street; thence North  $13^{\circ} 38' 00''$  East and along the easterly line of Lee Street, 722.93 feet to the southerly line of Elk Street; thence South  $76^{\circ} 17' 40''$  East and along the

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southerly line of Elk Street, 1091.47 feet to the westerly line of Orlando Street; thence south  $13^{\circ} 38' 00''$  west and along the westerly line of Orlando Street, 757 feet to the northerly line of former Prenatt Street; thence North  $76^{\circ} 17' 40''$  West and along the northerly line of former Prenatt Street, 918.50 feet to an angle therein; thence North  $63^{\circ} 44' 30''$  West and still along the northerly line of Prenatt Street, 29.60 feet; thence North  $26^{\circ} 15' 30''$  East, 30 feet; thence North  $63^{\circ} 44' 30''$  West, 95.69 feet; thence South  $26^{\circ} 15' 30''$  West, 30 feet to the northerly line of Prenatt Street; thence North  $63^{\circ} 44' 30''$  West and along the northerly line of Prenatt Street, 30.47 feet to the point or place of beginning.

Tract F

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lots Nos. 84 and 86, Township 10, Range 8 of the Buffalo Creek Reservation, and bounded and described as follows:

BEGINNING at a point in the northerly line of Elk Street distant 108.42 feet westerly from the intersection of the northerly line of Elk Street with the westerly line of Peabody Street; thence north  $76^{\circ} 17' 40''$  west and along the northerly line of Elk Street, 617.14 feet to the Buffalo Creek Railroad lands; thence north  $26^{\circ} 19' 10''$  east and along the Buffalo Creek Railroad lands, 73.87 feet; thence south  $76^{\circ} 20' 50''$  east, 347.07 feet; thence north  $13^{\circ} 38' 10''$  east, 43 feet; thence south  $76^{\circ} 20' 50''$  east, 253.50 feet; thence south  $13^{\circ} 28' 10''$  west, 115.65 feet to the point or place of beginning.

Tract G

ALL THAT TRACT OR PARCEL OF LAND, situate in the City of Buffalo, County of Erie and State of New York, being part of Lots Nos. 133-137 inclusive, and Lots Nos. 193-197 inclusive of the Buffalo Creek Reservation designated as that part of Prenatt Street, as a 66 foot street, running west from Babcock Street to lands conveyed to Buffalo Creek Railroad Company by deeds recorded in Erie County Clerk's Office in Liber 250 of Deeds at page 319 and in Liber 290 of Deeds at page 106, the said premises being more particularly bounded and described as follows:

PARCEL A

COMMENCING at the point of intersection of the northerly line of Prenatt Street with the westerly line of Babcock Street; running thence westerly along the northerly line of Prenatt Street to the easterly line of Lee Street; running thence southerly along the easterly line of Lee Street to the point of intersection of the easterly line of Lee Street with the southerly line of Prenatt Street; running thence easterly along the southerly line of Prenatt Street to the point of intersection of the southerly line of Prenatt Street with the westerly line of Babcock Street;

running thence northerly along the westerly line of Babcock Street to the point of place of beginning; and

PARCEL B

COMMENCING at the point of intersection of the northerly line of Prenatt Street with the westerly line of Lee Street; running thence westerly along the northerly line of Prenatt Street to the westerly line of Lot 137 of the Buffalo Creek Reservation; running thence southerly along said westerly line of said lot to the southerly line of said Lot No. 137, said southerly line being also the northerly line of Lot No. 136 of the Buffalo Creek Reservation; thence westerly along said last mentioned line to the westerly line of said Lot No. 136; thence southerly along said westerly line of said Lot No. 136 to the southerly line of Prenatt Street; running thence easterly along the southerly line of Prenatt Street to its intersection with the westerly line of Lee Street; running thence northerly along the westerly line of Lee Street to the point of place of beginning.

EXCEPTING therefrom that portion of the above described premises conveyed to The Buffalo Creek Railroad Company by deed recorded in Liber 6040 of Deeds at page 437.

ALSO EXCEPTING therefrom all lands lying south of the south line of lands conveyed to The Buffalo Creek Railroad Company by deed recorded in Liber 6040 of Deeds at page 437 between the west line of Babcock Street and the east line of Lee Street.

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## **APPENDIX B**

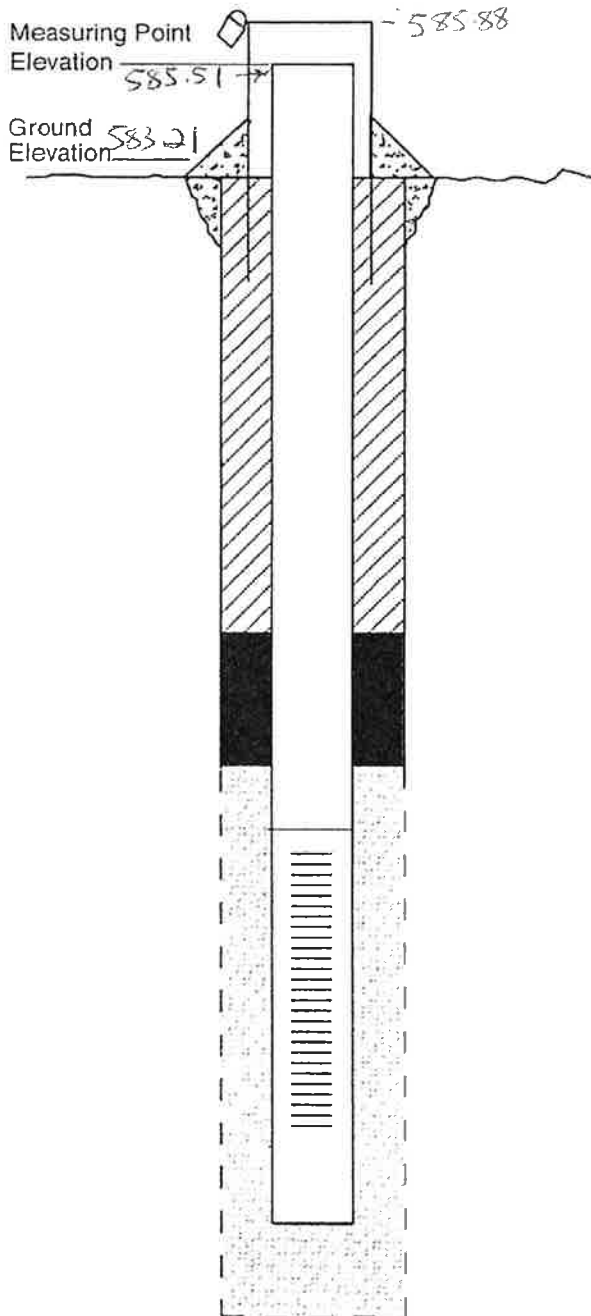
### **AREA A GROUNDWATER EXTRACTION SYSTEM DOCUMENTATION**

## **APPENDIX B-1**

### **Piezometer Construction Diagrams & Soil Boring Logs**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SSB Services  
 Project No. 3613653046 Boring No. PZ-101 Drilling Method Auger  
 Date Installed 6/7/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: AMP

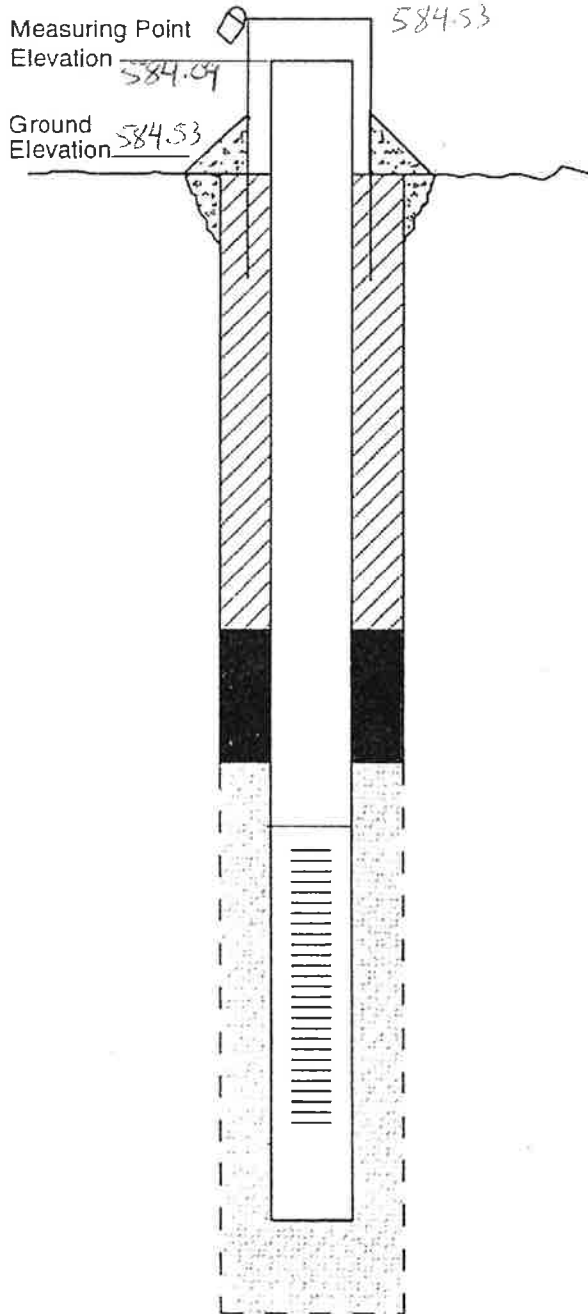


Stick-up of Casing Above Ground Surface: 2.4  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: Stick-up well casing  
 ID of Surface Casing: 4"  
 Diameter of Borehole: 6"  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10"  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613053046 Boring No. P2-102 Drilling Method Auger  
 Date Installed 5/11/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

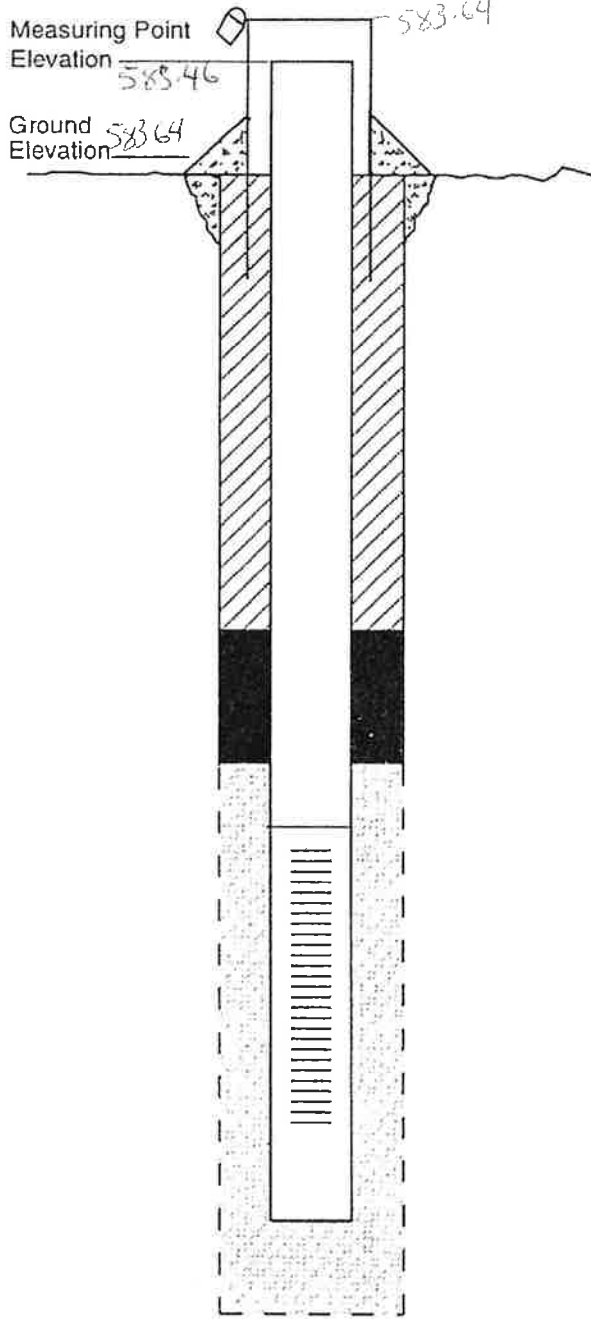


Measuring Point Elevation 584.09 584.53  
 Ground Elevation 584.53  
 Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 4 1/4" - ID, 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: #1 sand, grout  
 Depth of Top of Seal: 15'  
 Type of Seal: Bentonite Chips  
 Depth of Top of Sand: 17'  
 Depth of Top of Screen: 19'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10"  
 ID of Screen: 2"  
 Type of Sandpack: #1 Sand  
 Depth of Bottom of Screen: 29'  
 Depth of Sediment Sump with Plug: -  
 Depth of Bottom of Borehole: 30'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613253046 Boring No. PZ-103 Drilling Method Auger  
 Date Installed 5/18/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

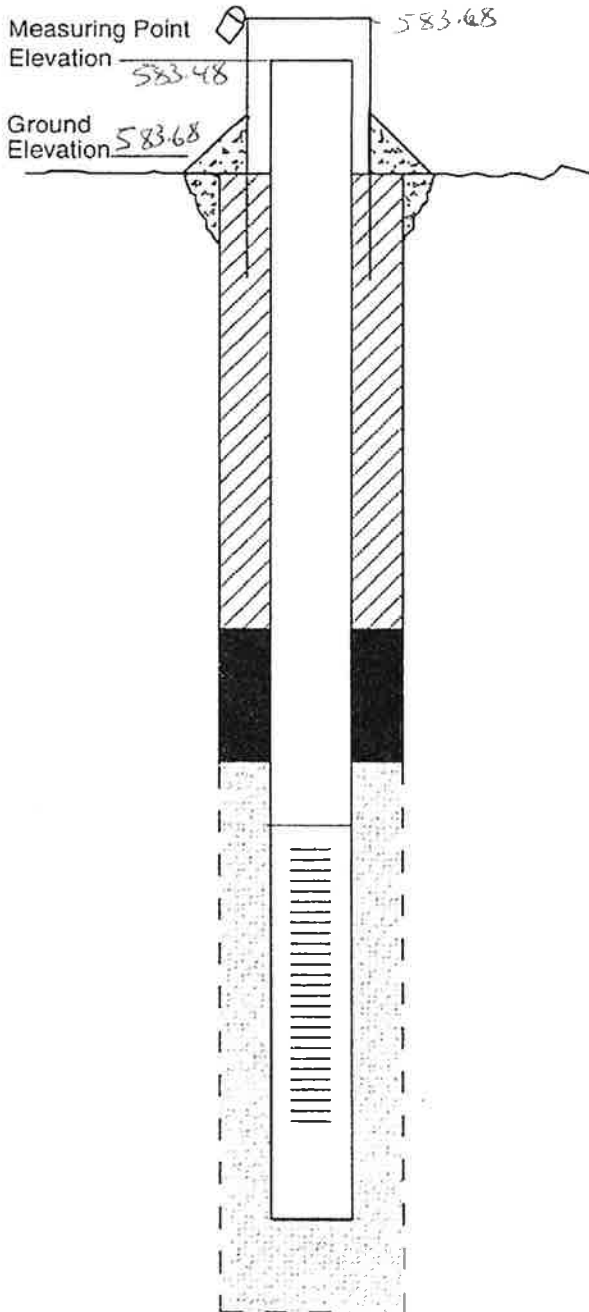


Stick-up of Casing Above Ground Surface: flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6" OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project Hw- Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 363053046 Boring No. P2-104 Drilling Method Auger  
 Date Installed 5/17/06 Development Method Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



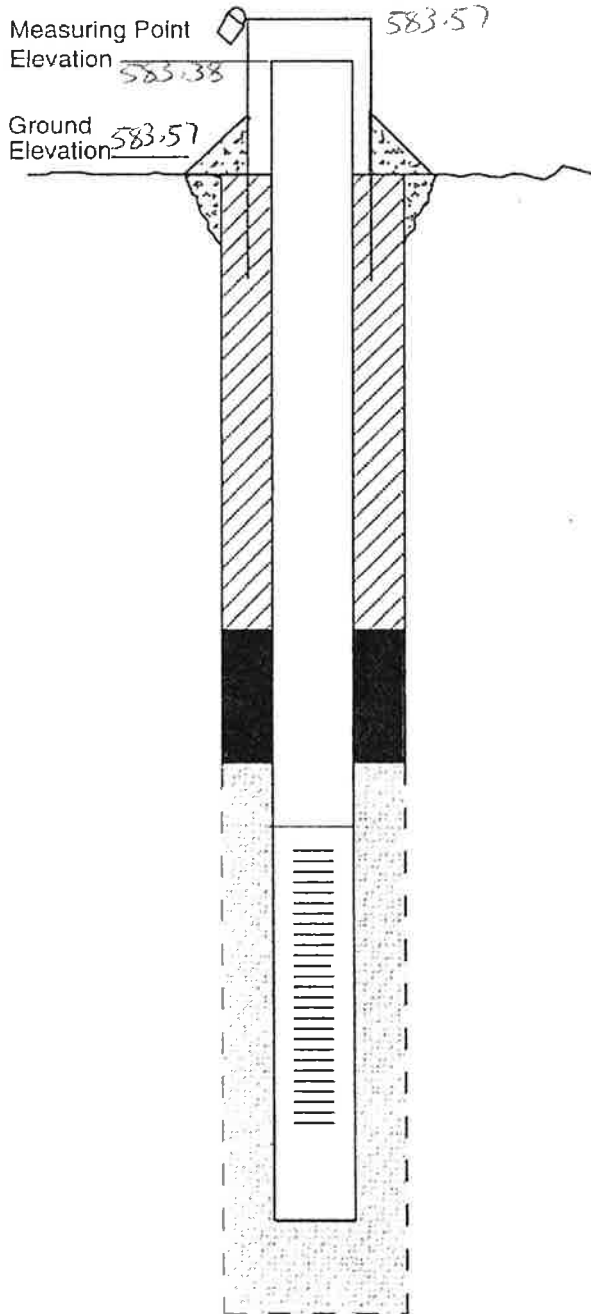
Stick-up of Casing Above Ground Surface: flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6"-OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 8'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 10'  
 Depth of Top of Screen: 11'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 Sand  
 Depth of Bottom of Screen: 21'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 21'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**



# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller STB Services  
 Project No. ~~341053046~~ Boring No. P2-105 Drilling Method Auger  
3613053046 Date Installed 5/11/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

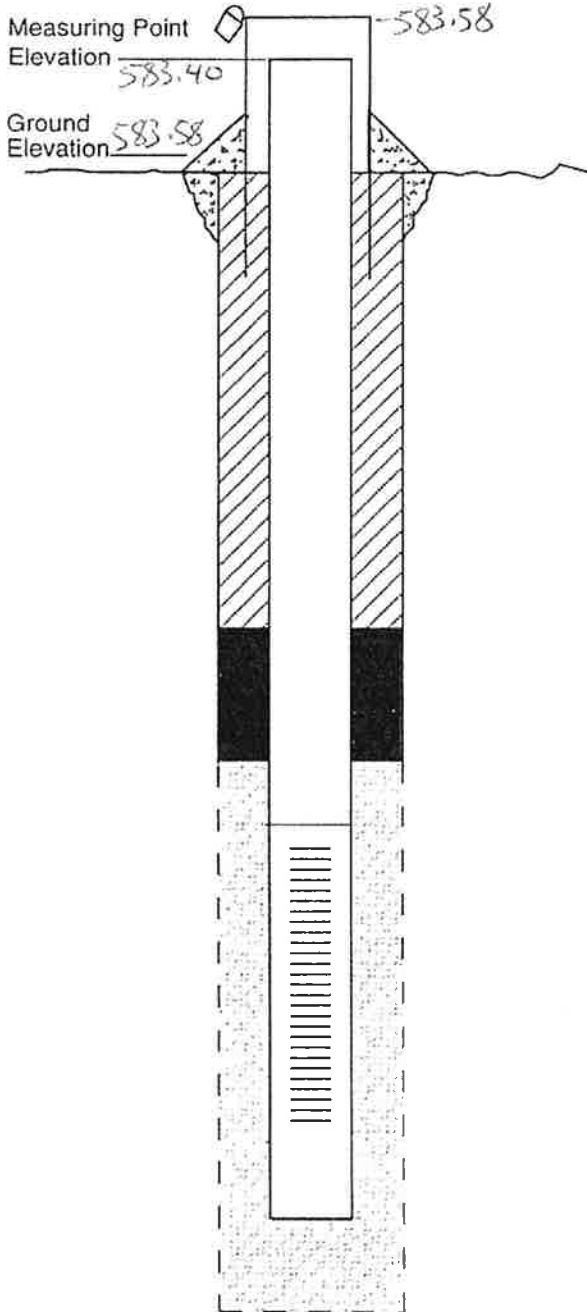


Stick-up of Casing Above Ground Surface: flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 4 1/4" - ID, 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: #1 sand, grout  
 Depth of Top of Seal: 16'  
 Type of Seal: Bentonite chips  
 Depth of Top of Sand: 18'  
 Depth of Top of Screen: 19'  
 Type of Screen: 2" slotted .01" PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 29'  
 Depth of Sediment Sump with Plug: -  
 Depth of Bottom of Borehole: 29'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project Honeywell - Buffalo Color AOC Driller SJB Services  
 Project No. 3613053046 Boring No. PZ-106 Drilling Method Auger  
 Date Installed 5/17/06 Development Method Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: EWB

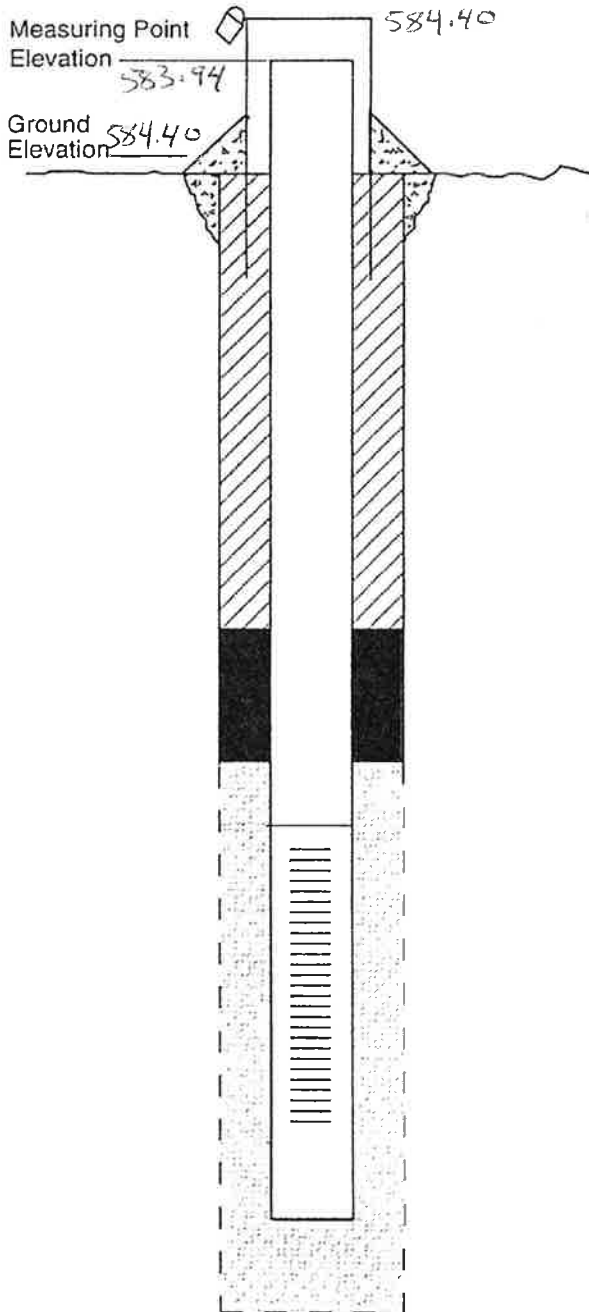


Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 8'  
 Type of Seal: Bentonite Chips  
 Depth of Top of Sand: 10'  
 Depth of Top of Screen: 11'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 Sand  
 Depth of Bottom of Screen: 21'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 21'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project Hw-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613053046 Boring No. PZ-107 Drilling Method Auger / roller bit  
 Date Installed 5/17/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

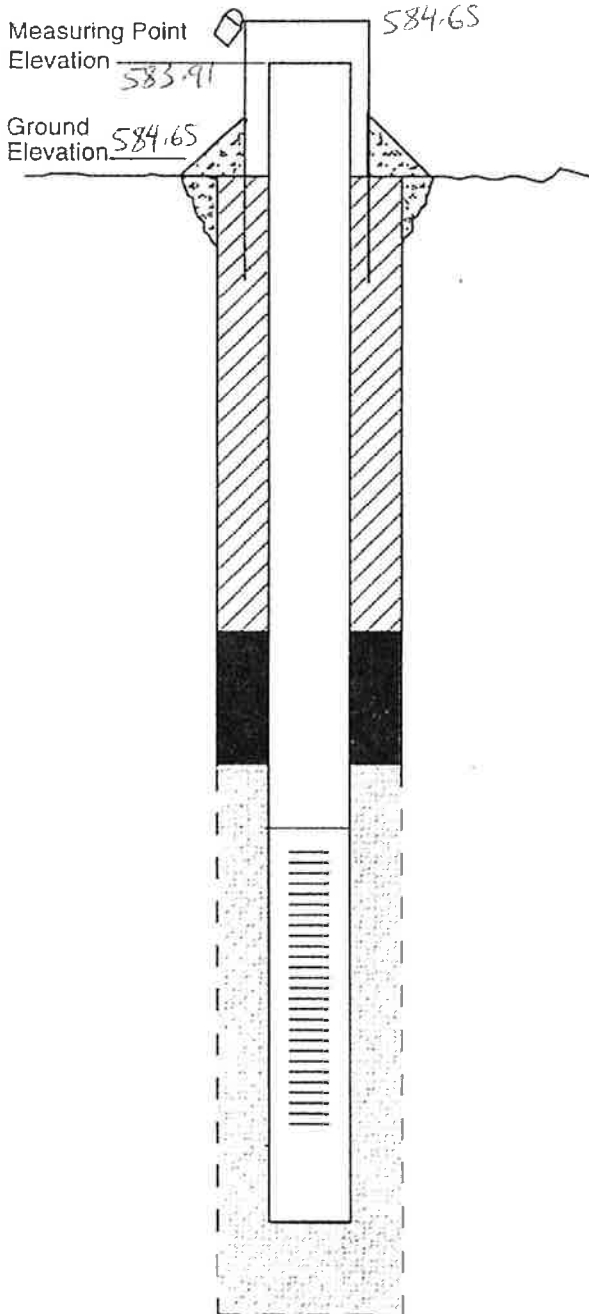


Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: Flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 10'  
 Type of Seal: Bentonite Chips  
 Depth of Top of Sand: 12'  
 Depth of Top of Screen: 13'  
 Type of Screen: PVC slotted  
 Slot Size x Length: .01" X 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 Sand  
 Depth of Bottom of Screen: 23'  
 Depth of Sediment Sump with Plug: -  
 Depth of Bottom of Borehole: 23'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services.  
 Project No. 3613053046 Boring No. P2-108 Drilling Method Auger  
 Date Installed 5/10/06 Development Method Submersible pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



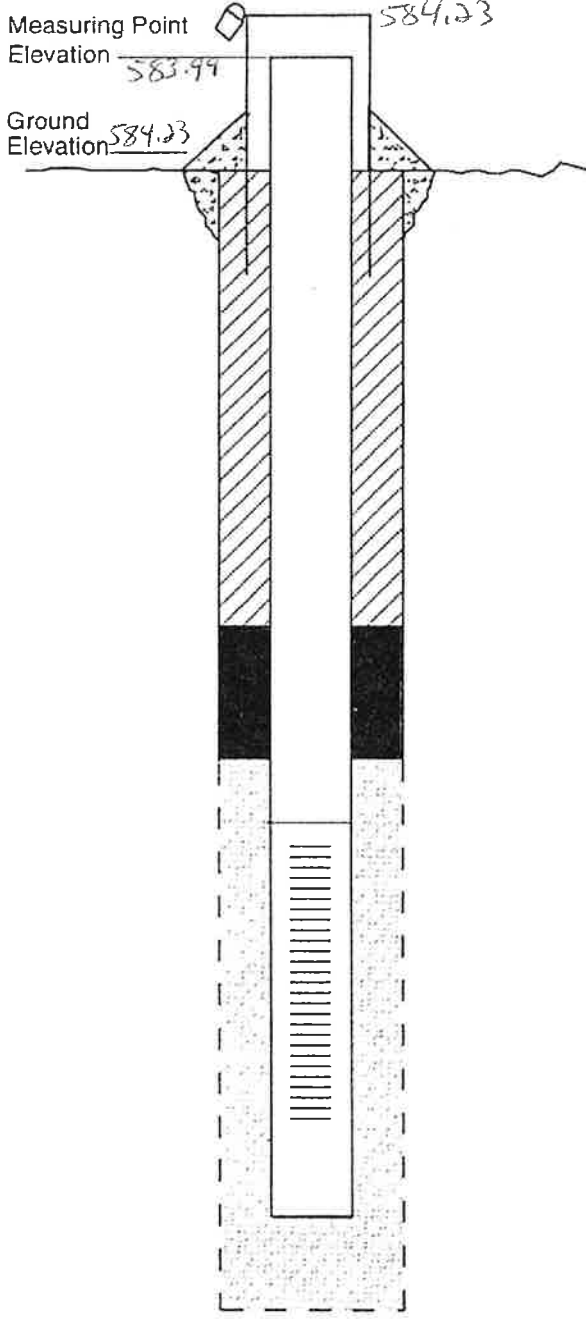
Measuring Point Elevation 583.91  
 Ground Elevation 584.65  
 Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 4 1/4" - ID, 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: #1 sand, grout  
 Depth of Top of Seal: 19'  
 Type of Seal: Bentonite chips  
 Depth of Top of Sand: 15'  
 Depth of Top of Screen: 16'  
 Type of Screen: .01" slotted PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 26'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 26'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

MACTEC, Inc.

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW- Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613653046 Boring No. PZ-109 Drilling Method Auger  
 Date Installed 6/6/06 Development Method Sub. Pump  
 Field Technician: Eric Weller Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

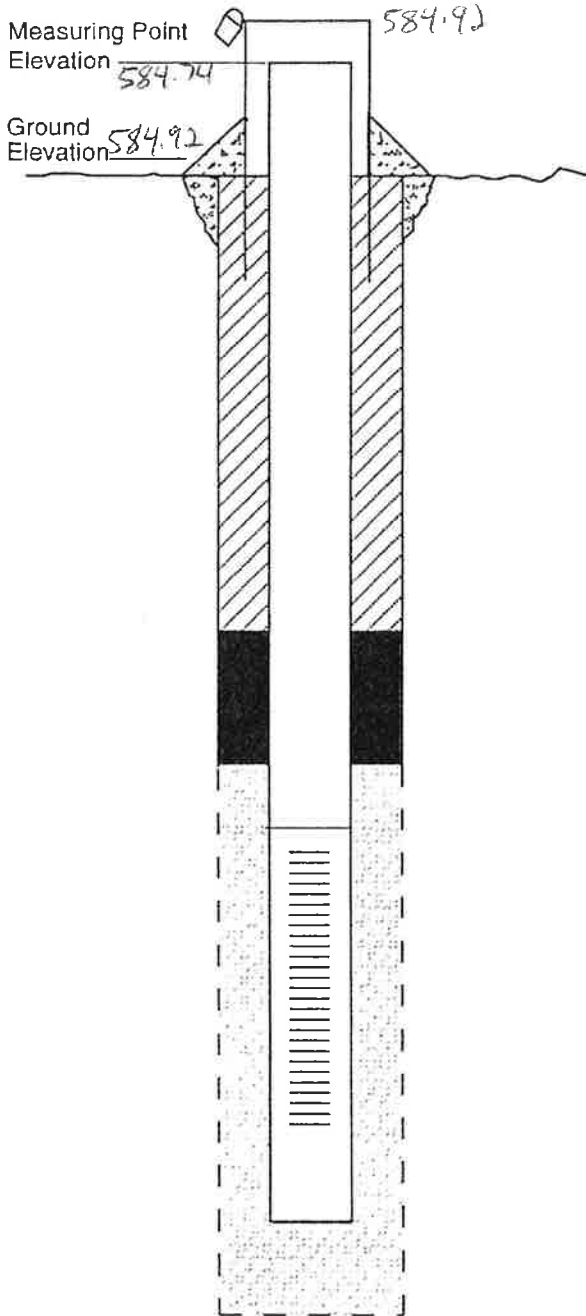


Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: GROUT  
 Depth of Top of Seal: 9"  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project Hw- Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613653046 Boring No. P2-100 Drilling Method Auger / Roller bit  
 Date Installed 5/15/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: AMD

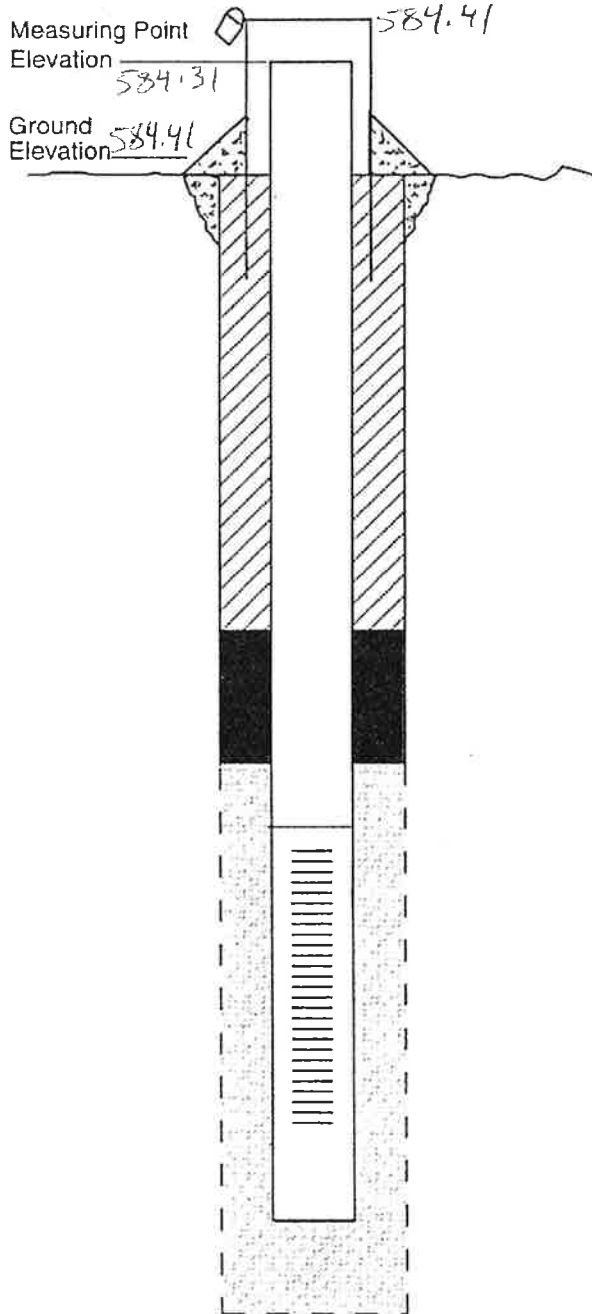


Measuring Point Elevation 584.92  
 Ground Elevation 584.92  
 Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 4 1/4" - ID, 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 8'  
 Type of Seal: Bentonite Chips  
 Depth of Top of Sand: 10'  
 Depth of Top of Screen: 12'  
 Type of Screen: PVC  
 Slot Size x Length: 1/8" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 Sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613653046 Boring No. P2-111 Drilling Method Hollow stem Auger  
 Date Installed 5/9/06 Development Method submersible pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



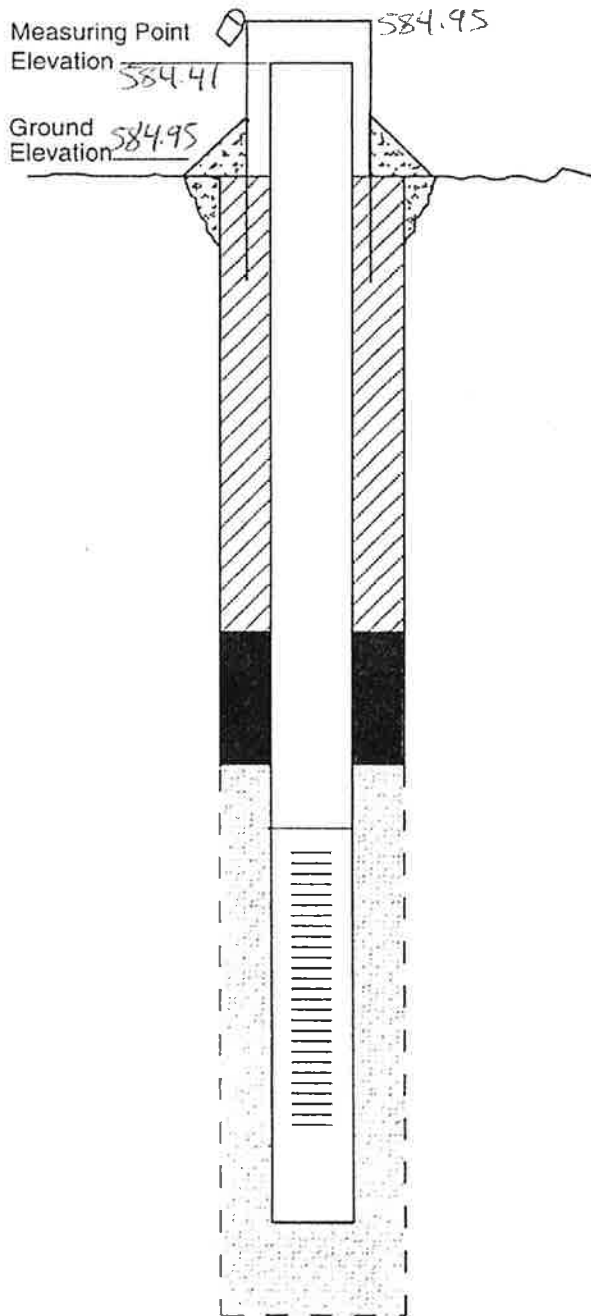
Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 4 1/4" ID, 6" OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: #1 sand, grout  
 Depth of Top of Seal: 16'  
 Type of Seal: Bentonite Chips  
 Depth of Top of Sand: 18'  
 Depth of Top of Screen: 19'  
 Type of Screen: .01" slotted PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 29'  
 Depth of Sediment Sump with Plug: -  
 Depth of Bottom of Borehole: 29'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

-MACTEC, Inc.

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC Driller SJB Services  
 Project No. 3613052046 Boring No. PZ-112 Drilling Method Auger/Roller bit  
 Date Installed 5/16/06 Development Method Submersible Pump  
 Field Technician: Eric Weiker Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



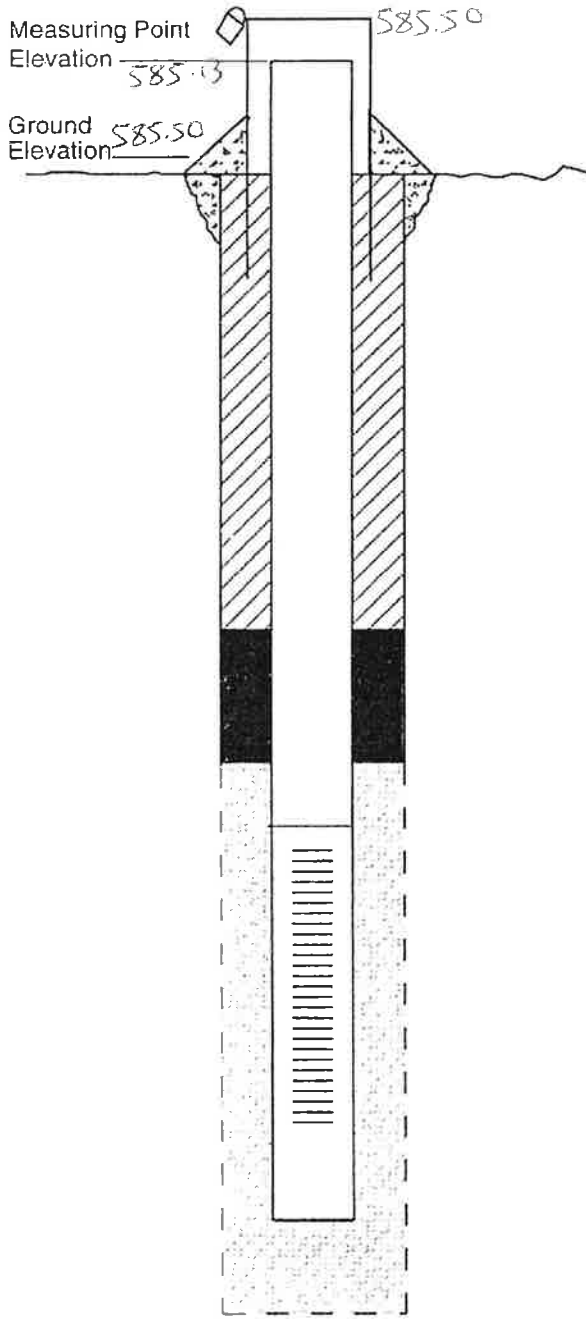
Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: Concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 4 1/4" - ID, 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal:  Bentonite Chips   
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'6"  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'6"  
 Depth of Sediment Sump with Plug: -  
 Depth of Bottom of Borehole: 22'6"

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**



# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-B, Palo Color AOC Driller SJB Services  
 Project No. 3613053046 Boring No. PZ-113 Drilling Method Auger  
 Date Installed 5/18/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



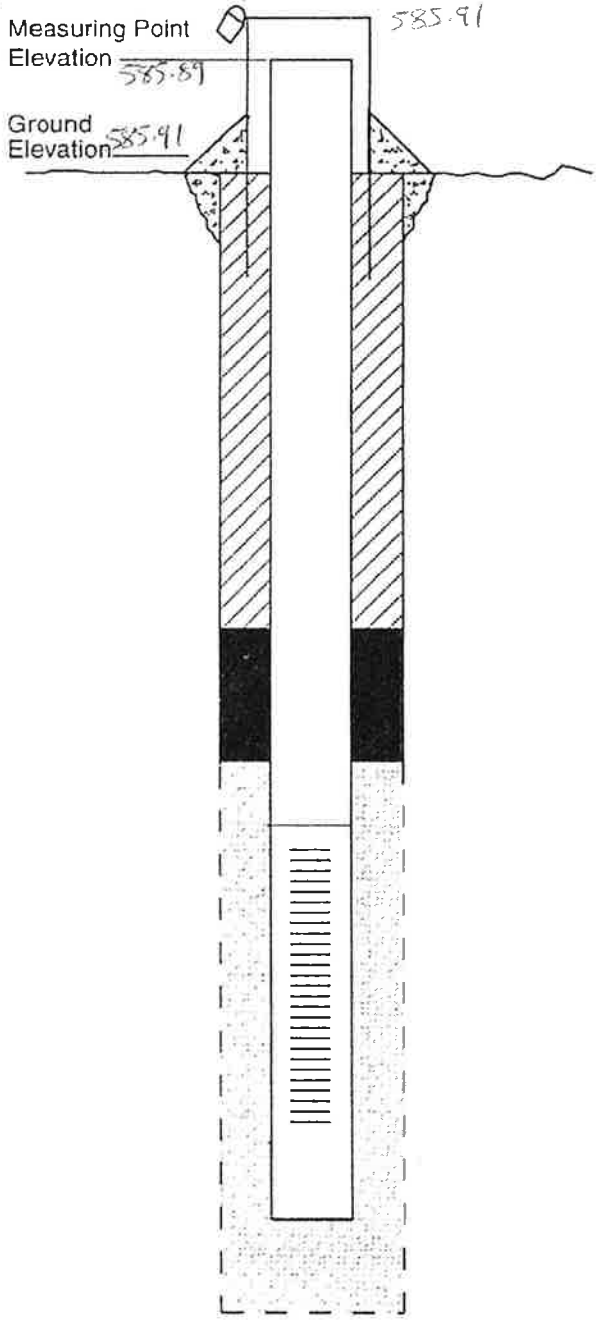
Stick-up of Casing Above Ground Surface: flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6" OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 7'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 9'  
 Depth of Top of Screen: 10'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 20'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 20'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

MACTEC, Inc.

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project 311W-Buffer Color AOC \_\_\_\_\_ Driller SSB Services  
 Project No. 3613053046 Boring No. P2-114 Drilling Method Auger  
 Date Installed 5/12/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

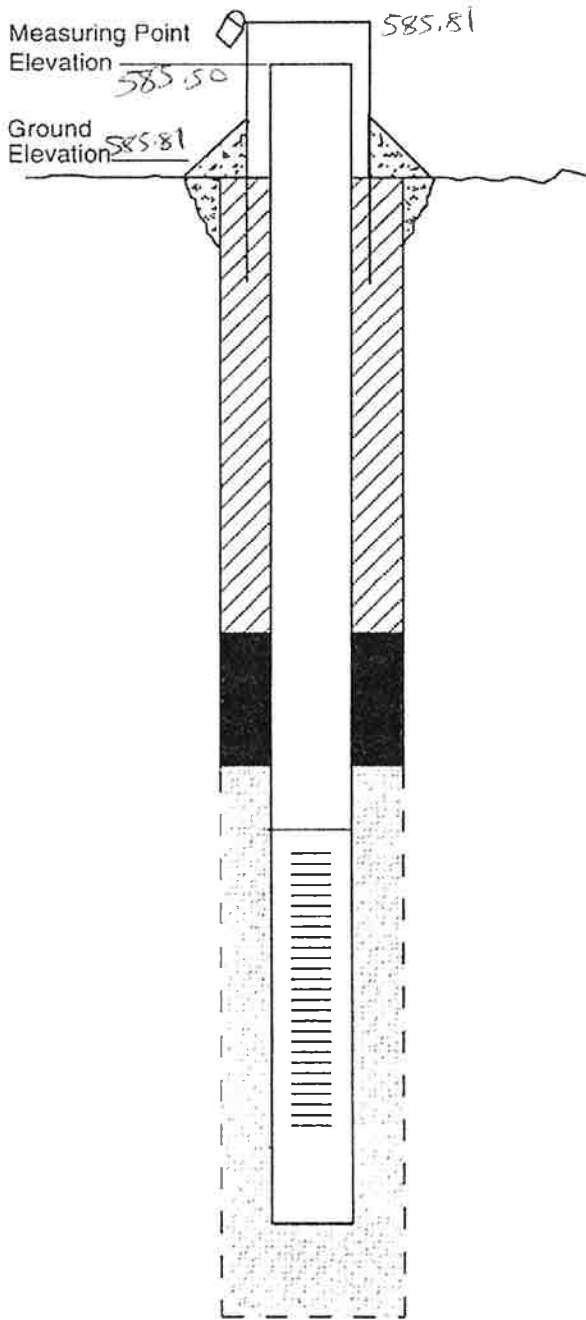


Measuring Point Elevation 585.89  
 Ground Elevation 585.91  
 Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 4 1/4" - ID, 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 16'  
 Type of Seal: Bentonite Chips  
 Depth of Top of Sand: 18'  
 Depth of Top of Screen: 19'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 29'  
 Depth of Sediment Sump with Plug: -  
 Depth of Bottom of Borehole: 36'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC Driller SSB Services  
 Project No. 3613053046 Boring No. PZ-115 Drilling Method Auger  
 Date Installed 6/2/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

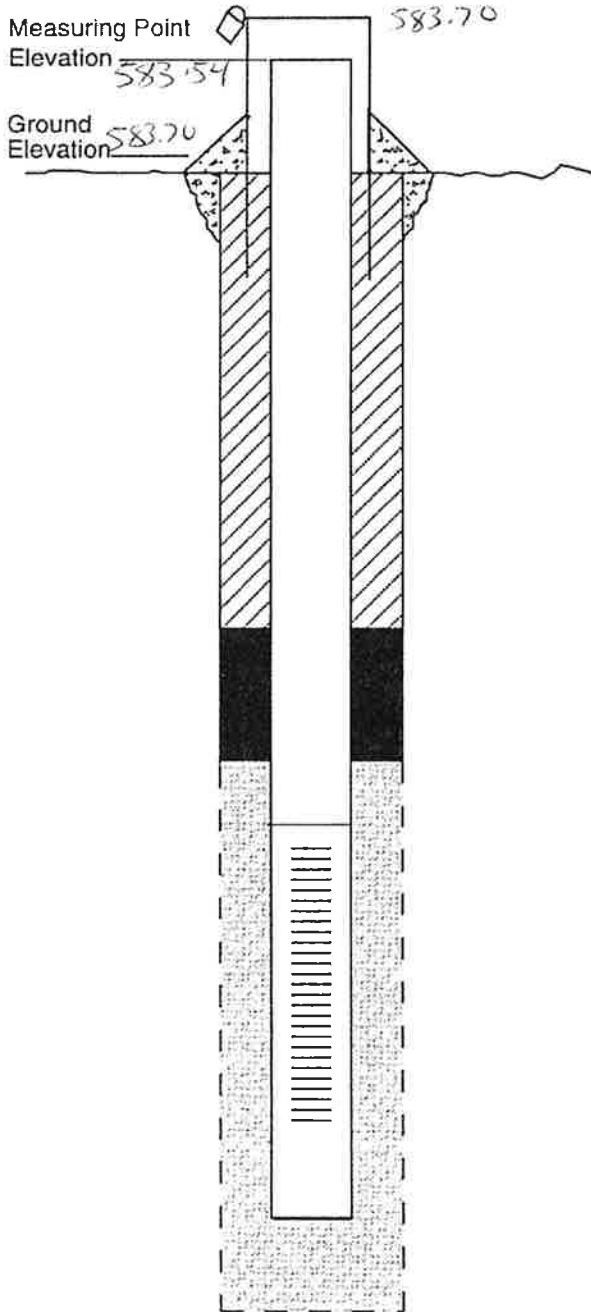


Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 16"  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: -  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SSB Services  
 Project No. 3613053046 Boring No. P2-116 Drilling Method Auger  
 Date Installed 7/25/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

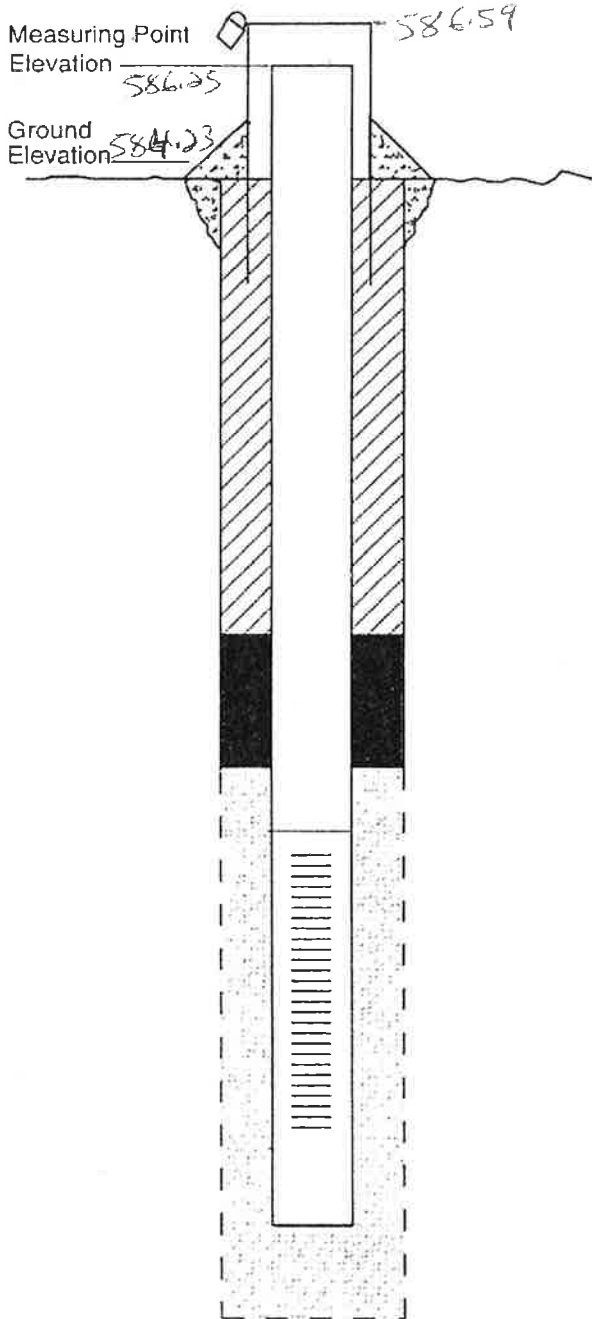


Measuring Point Elevation 583.54 Stick-up of Casing Above Ground Surface: 0.0  
 Ground Elevation 583.70 Type of Surface Seal/Other Protection: Concrete  
 Type of Surface Casing: Flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6"-OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: slotted PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 Sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: -  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SSB Services  
 Project No. 3613053046 Boring No. PZ-117 Drilling Method Auger  
 Date Installed 6/5/06 Development Method Submersible Pump  
 Field Technician: Eric Weller Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NWB

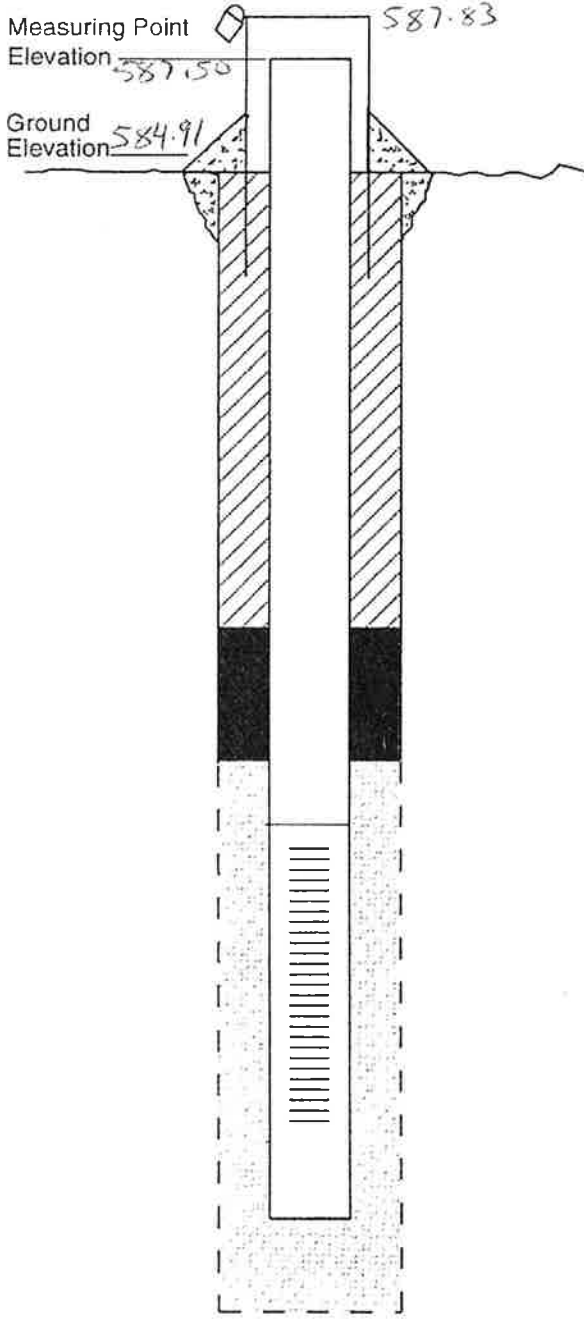


Stick-up of Casing Above Ground Surface: 2.3'  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: stick up well casing  
 ID of Surface Casing: 4"  
 Diameter of Borehole: 6"  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613053046 Boring No. PZ-118 Drilling Method Auger  
 Date Installed 6/2/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



Stick-up of Casing Above Ground Surface: 2.9  
 Type of Surface Seal/Other Protection: Concrete  
 Type of Surface Casing: stick-up well flush mount casing  
 ID of Surface Casing: 4"  
 Diameter of Borehole: 6"-OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10"  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**



# SOIL BORING LOG

AOC:

Boring No.: PZ-101

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/6/06

Completed: 6/7/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 583.2

Soil Drilled:

Total Depth: 22

Logged by: Eric Walter

Checked by: NMB

Below Ground: 15'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2						Brown, dry, sand some rock			
4					0		SW		
6									
8									
10						Dark Brown, moist, silty sand some brick			
12					0		SM		
14									
16						Dark Brown, wet, sand and silt			
18					0		SM		
20									
22						Boring Complete @ 22'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.



# SOIL BORING LOG

AOC:

Boring No.: P2+102

Client: Honeywell - Buffalo Color

Project No. 3613053046

Protection: Tyvek & gloves

Contractor: SJB Services

Date Started: 5/11/06 @ 0915

Completed: 5/11/06 @ 1400

Method: auger/hammer

Casing Size:

PI Meter:

Ground Elev.: 584.53

Soil Drilled:

Total Depth: 30'

Logged by: ESW

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 0 (ft.)

Diam: 2 (ID)

Material: PVC

Page 1 of: 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0-2'			9 50/44	30	0	Brown, dry, sand & rock, brick in bottom of spoon	FI SW		
2-4'			10 55/10 8	20	0	2-4' Brown, dry, sand & gravel (F.II)	FI SW		
4-6'			5 3 2 7	10	0	4-6' Dr. Brown, dry, sand, some gravel some brick, (F.II)	FI SW		
6-8'			11 7 9 10	60	0	6-8' Dr. Brown, moist, sand & small gravel	FI		
8-10'			6 4 3 2	0	0	Rock in bottom of spoon			
10-12'			3 5 7	70	0	10-12' Black, moist, medium sand & some gravel tr. silt	SP		
12-14'			3 3 5 6	70	0	12-14' Black, moist, med. sand, some fine sand & silt	SM		
14-16'			2 4 8 7	40	0	14-16' Black, wet, sand 50% wood odor			
16-18'			4 2 1 2	60	0	16-17' Black, wet, fine sand 17-18' Black, wet, silt, tr. sand, some clay	SM SC		
18-20'			11 7 9 8	30	0	18-20' Black, wet, wood & medium sand	SM		

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-102

Client: Honeywell - Buffalo Color

Project No. 3613053046

Protection: Tyvek & gloves

Contractor: JSB Services

Date Started: 5/10/06 @ 0915

Completed: 5/11/06 @ 1400

Method: auger/hammer

Casing Size:

PI Meter:

Ground Elev.: 584.53

Soil Drilled:

Total Depth: 30'

Logged by: ESW

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 0 (ft.)

Diam: 2 (ID)

Material: PVC

Page 2 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PI/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
20			12						
22	22-22'		14	30	0	20-22' Black, wet, coarse sand some wood pieces			
24	22-24'		8						
26	22-24'		6	40	0	22-24' Black, wet, sand & gravel	SW		
28	24-26'		5						
30	24-26'		2	0	0	No Recovery Running sands flowed out w/ water			
32	26-28'		2						
34	26-28'		5	10	0	Dr. Brown, wet, gravel, some coarse sand	GP		
36	28-30'		6						
38	28-30'		1	60	0	28-30' Grey, wet, clay	CL		
40	28-30'		2						
						Boring Complete @ 30' BGS			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-1003

Client: Honey well

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 5/18/06

Completed: 5/18/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 583.64

Soil Drilled:

Total Depth:

Logged by: Eric Walter

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0-6"						Asphalt			
2					0	Brown, moist, sand, some Brick (fill)	Fill		
4									
6						Brown, moist, sand & silt			
8					0		SM		
10									
12									
14						Brown, wet, sand & silt some gravel			
16							SM		
18					6				
20									
22									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-104

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 5/17/06

Completed: 5/17/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 583.68

Soil Drilled:

Total Depth: 21'

Logged by: Eric Weller

Checked by: NMB

Below Ground: 13'

Screen: 10 (ft.)

Riser: 11 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2						Asphalt Black, dry, sand, some silt & gravel	SM		
4									
6					0				
8									
10									
12									
14						Black, wet, sand, some silt & gravel	SM		
16					0				
18									
20						Bottom of Boring @ 21'			
22									

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: PZ-105

Client: Honeywell - Buffalo Color

Project No. 3613053046

Protection: Tyvek & gloves

Contractor: SJR Services

Date Started: 5/10/06 1400

Completed: 5/11/06 0900

Method: auger / hammer

Casing Size:

PI Meter:

Ground Elev.: 583.57

Soil Drilled:

Total Depth: 32'

Logged by: ESW

Checked by: NMB

Below Ground: 12'

Screen: 10 (ft.)

Riser: 0 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0						0-6" Asphalt			
2'	0-2'		20 29 19	40	0	6-2' Brown, dry, sand some gravel	SW		
4'	2-4'		21 13 17 20	40	0	2-4' Black, dry, med. sand			
6'	4-6'		11 13 14 16	50	6	4-5' Brown & Red, sand some rock, dry 4-5' Black, dry, sand	fill		
8'	6-8'		12 14 14 0	20	6	6-8' Black, & Tan, dry, medium sand			
10'	8-10'		3 N N 3	0	0	Rock in bottom of spec			
12'	10-12'		2 2 2 2	20	0	10-12' Black, wet, sand, some gravel & wood pieces			
14'	12-14'		2 6 2 12	30	0	12-14' Black, wet, sand & small gravel brick in bottom of spec, odor	fill		
16'	14-16'		2 2 1 2	40	0	14-16' Black, wet, sand some gravel brick & wood in bottom of spec strong odor	fill		
18'	16-18'		50 4"	10	0	Black, wet, gravel & wood pieces strong odor			
20'	18-20'		2 8 4 2	20	0	Black, wet, silt, wood pieces strong odor	fill		

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: PZ-105

Client: Honeywell - Buffalo Color

Project No. 3613053046

Protection: Tyvek / gloves

Contractor: SJB services

Date Started: 5/10/06 @ 1400

Completed: 5/11/06 @ 0900

Method: auger / hammer

Casing Size:

PI Meter:

Ground Elev.: 583.57

Soil Drilled:

Total Depth: 32'

Logged by: ESW

Checked by: NMB

Below Ground: 12'

Screen: 10 (ft.)

Riser: 0 (ft.)

Diam: 2 (ID)

Material: PVC

Page 2 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA	
20'										
20-22'			5	0	0	Wood in spoon				
22'			8							
22-24'			5	30	0	22-24' Black, wet, medium sand & gravel strong odor	GP			
24'			6							
24-26'			7	70	0	24-26' Black, wet, med. gravel some sand, strong odor				
26'			5							
26-28'			8							
28'			11	60	0	26-28' Black, wet, gravel, some sand strong odor				
28-30'			16							
30'			11							
28-29'			7	90	0	28-29' Black, wet, sand & gravel				
29-30'			8			29-30' Greyish Brown, wet clay	CL			
30-32'			2							
30-32'			4	80	0	30-32' Grey, wet, clay				
32'			1							
			2							
						Boring complete @ 32'				

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-106

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 5/17/06

Completed: 5/17/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 583.58

Soil Drilled:

Total Depth: 21

Logged by: Eric Walter

Checked by: NMB

▽ Below Ground: 13'

Screen: 10 (ft.)

Riser: 11 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0						0.6" Asphalt			
2						Dark Brown & Black, sand, some gravel & silt, dry	Sm		
4									
6					0				
8									
10									
12									
14						Dark Brown & Black, wet, sand, some gravel & silt	Sm		
16					0				
18									
20						Bottom of Boring @ 21'			
22									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-107

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 5/17/06

Completed: 5/17/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 584.40

Soil Drilled:

Total Depth: 23

Logged by: Eric Weiler

Checked by: NMB

Below Ground: 13'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
					0	0-6" Asphalt			
					0	6"-1.5' Concrete			
2						Brown, moist, sand, some gravel fill			
4							fill		
6					0				
8									
10					0	Concrete			
12					0	Wood			
14						Brown & Black, wet, sands some silt & gravel			
16									
18					0			SM	
20									
22									
23						Bottom of Boring @ 23'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.



# SOIL BORING LOG

AOC:

Boring No.: PZ-108

Client: Honeywell - Buffalo Color

Project No. 3613058046

Protection: Tyvek/gloves

Contractor: SSB Services

Date Started: 5/10/06 @ 1030

Completed: 5/10/06 1345

Method: auger / hammer

Casing Size:

PI Meter:

Ground Elev.: 584.65

Soil Drilled:

Total Depth: 38'

Logged by: FSW

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 0 (ft.)

Diam: 2 (ID)

Material: PVC

Page 1 of: 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0-2'			12 11 11	40	0	0-2' Brown, dry, sand (f. 11)			
2-4'			5 5 4	30	0	2-4' Brown, dry, sand & brick (f. 11)			
4-6'			5 3 4	20	0	4-6' Brown, dry, sand & brick (f. 11)	f. 11		
6-8'			3 3 3	20	0	↓			
8-10'			8 11 11	30	0				
10-12'			5 5 5	10	6				
12-14'			3 3 4	30	0				
14-16'			8 3 7	10	0	Brown, wet, concrete & small rock pieces			
16-18'			5 4	5	0	Black, wet, concrete, wood pieces odor	f. 11		
18-20'			10 1 1	5	0	Black, wet, wood & brick, some sand odor			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: PZ-108

Client: Honeywell - Buffalo Color

Project No. 3613053046

Protection: Tyvek & gloves

Contractor: SJB Services

Date Started: 5/10/06 @ 1030

Completed: 5/11/06 @ 1345

Method: Auger / hammer

Casing Size:

PI Meter:

Ground Elev.: 584.65

Soil Drilled:

Total Depth: 38'

Logged by: ESW

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 0 (ft.)

Diam: 2 (ID)

Material: PVC

Page 2 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
20'	20-22'	1 WH	1 WH	50	0	20-22' Black, wet, fine sand & silt, tr. clay strong odor	SM		
22'	22-24'	6 2 9 9		70	0	22-24' Black, wet, <del>med</del> sand some wood 40% silt, 40% coarse sand	SM		
24'	24-26'	2 17 15		20	0	24-26' Black, wet, med. & fine sand, 1.4% silt, wood pieces	SM		
26'	26-28'	17 7 7			0	26-27' Black, wet, coarse sand 27-28' Black, wet, medium sand			
28'	28-30'	10 8 13 14		10	0	28-30' Black, wet, medium & coarse sand odor			
30'	30-32'	4 8 15 17		70	0	30-32' Black, wet, coarse & medium sand, gravel some running sands	SW		
32'	32-34'	9 3 5 5		80	0	32-34' Black, wet, med. & coarse sand, some clay in bottom of spoon			
34'	34-36'	1 1 1		20	0	34-36' Running sand Black, wet, sand some small gravel			
36'	36-38'			80	0	36-37' Running sands 37-38' Brown, wet clay	CL		
38'						Boring complete @ 38'			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-109

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/6/06

Completed: 6/6/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 584.23

Soil Drilled:

Total Depth: 22

Logged by: Eric Weller

Checked by: MMB

Below Ground: 12'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
						Asphalt			
						Concrete			
2						Brown, moist, sand & silt, some brick pieces	fill		
4									
6									
8									
10				0					
12									
14									
16									
18									
20									
22						Boring Completed @ 22'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-110

Client: Honey well

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 5/15/06

Completed: 5/15/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 584.92

Soil Drilled:

Total Depth: 22

Logged by: Eric Weller

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of: 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0-6"						Asphalt			
2					0		fill		
4						Fill, Brick, Brown, dry, silty sand			
6					0		fill		
8						FILL Brown, dry, sand, some brick			
10						Concrete			
12						Brown, sand & gravel			
14					0		Sw		
16									
18									
20									
22						Bottom of Boring @ 22'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-111

Client: Honeywell - Buffalo Color

Project No. 3613053046

Protection: flush mount well casing

Contractor: SJB Services

Date Started: 5/9/06 @ 1045

Completed: 5/10/06 @ 1000

Method: auger/hammer

Casing Size:

PI Meter: none

Ground Elev.: 584.41

Soil Drilled:

Total Depth: 36'

Logged by: ESW

Checked by: NMB

Below Ground: 14' BGS

Screen: 10' (ft.)

Riser: 0 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0-2'			x-x-3-3	-	0	0-1' Asphalt			
2-4'			5-3-3-4	10	0	1-2' Black, dry, fine & medium sand some gravel	SP		
4-6'			5-2-2-2	0	0	2-4' Black, dry fine & medium sand some gravel			
6-8'			6-7-5-33	60	0	Rock in bottom of spoon 6-7' Dr. Brown, wet gravel & sand 7-8' Dr. Brown, moist, sand some gravel			
8-10'			6-7-5-4	80	0	8-9' Black, moist, sand & rock spoon refusal @ 9' augered past			
10-12'			50/4"	10	0	Brown, moist clay & sand Grey, dry rock & sand (fine)	SC		
12-14'			50/4"	10	0	Lt. Grey, dry, rock & dust			
14-16'			1-2-1-1	60	0	14-16' Black, wet, sand some gravel	SW		
16-18'			2-1-1-2	40	0	16-18' Black, wet, sand some gravel Running sands in spoon			
18-20'			1-1-1-1	60	0	18-20' Black, wet, medium sand & silt silty sand	SM		

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: D2-111

Client: Honeywell - Buffalo Color

Project No. 3612053046

Protection:

Contractor: SJR Services

Date Started: 5/9/06 @ 1045

Completed: 5/10/06 1000

Method: auger / hammer

Casing Size:

PI Meter: none

Ground Elev.: 534.41

Soil Drilled:

Total Depth: 36 feet

Logged by: ESCO

Checked by: NMB

Below Ground: 14' BGS

Screen: 10' (ft.)

Riser: 0 (ft.)

Diam: 2" (ID)

Material: PVC

Page 2 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
20'	20-22'				0	same as 18-20'	SM		
22'	22-24'		WH-1-1	80	0	22-23' Black, wet, medium sand 23-24' Black, wet, peat, mould			
24'	24-26'		WH		0	Weight of the hammer dropped the 22-24' spoon to 26' Retry spoon get running sands			
26'	26-28'		27-SD 1/4"	30	0	26-28' Black, wet, small gravel, sand odor	SW		
28'	28-30'		25-SD 1/4"	80	0	28-30' Black, wet, coarse sand & gravel strong odor			
30'	30-32'		14-SD 1/4"	30	0	30-32' Black, wet, sand & gravel, some rock fragments, strong odor			
32'	32-34'		35-23-11-12	30	0	32-34' Black, wet, medium sand			
34'	34-36'		4-2-2-2	90	0	34-36' Brown, wet, clay	CL		
36'						Boring complete @ 36'			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: PZ-112

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 5/16/06

Completed: 5/16/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 584.95

Soil Drilled:

Total Depth: 22

Logged by: Eric Weller

Checked by: NMB

Below Ground: 13'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page ( of: 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2						0-6" Asphalt			
4					0	Brown, dry, sand and cobbles (f.11)	f.11		
6									
8						concrete			
10									
12									
14					0				
16									
18									
20									
22						Bottom of Boring @ 22'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC: \_\_\_\_\_

Boring No.: P2-113

Client: Honeywell

Project No. 3613053046

Protection: \_\_\_\_\_

Contractor: SJB

Date Started: 5/18/06

Completed: 5/18/06

Method: Auger

Casing Size: \_\_\_\_\_

PI Meter: \_\_\_\_\_

Ground Elev.: 585.50

Soil Drilled: \_\_\_\_\_

Total Depth: 20

Logged by: Eric Walter

Checked by: NMB

Below Ground: 12'

Screen: 10 (ft.)

Riser: 10 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of: 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0					0	0-6" Asphalt wood pieces (Rail Road ties)			
2						Brown, moist, sand & silt, some small gravel			
4									
6					0		SM		
8									
10									
12						Brown, wet, silty sand, some clay			
14									
16					0		SC		
18									
20						Bottom of Boring @ 20'			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.



# SOIL BORING LOG

AOC:

Boring No.: P2-114

Client: Honeywell - Buffalo Color

Project No. 361305046

Protection: Tyvek & gloves

Contractor: SJB Services

Date Started: 5/11/06 @ 1430

Completed: 5/12/06 @ 1100

Method: auger/hammer

Casing Size:

PI Meter:

Ground Elev.: 585.91

Soil Drilled:

Total Depth: 36' BGS

Logged by: ESW

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 0 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 7

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PI/D/ID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0			X			0-6" Asphalt			
0-2'			11	30	0	6"-18" Brown, dry, silt & sand			
			16			18"-24" Brick			
2			42						
2-4'			22	10	0	2-2.5' Brick			
			50 1/2"			2.55' Concrete			
4									
4-6'			50 1/4"	0	0	Concrete			
6									
6-8'			19	10	0	Brown, dry sand & concrete	fill		
			50 1/2"						
8									
8-10'				0	0	Concrete			
10									
10-12'			50 1/3"	5	0	Brown, wet, sand some gravel	fill		
12									
12-14'				0	0	Concrete, wet			
14									
14-16'			5	80	0	14-16' Brown, wet, clay some sand	CL		
			3						
16			3						
16-18'			3	90	0	16-18' Brown, wet, silty clay tr. sand			
			3						
18			3						
18-20'			5						
			2	70	0	18-19' Brown, wet, clay & silt			
20			1						
			2			19-20' Brown, wet, sand & silt	SM		

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Client: Honeywell - Buffalo Color	Project No. 3613053043	Boring No.: PZ-114
Contractor: SJB Services	Date Started: 5/11/06 @ 1430	Protection: Tyvek & gloves
Method: auger/hammer	Casing Size:	Completed: 5/12/06 @ 1100
Ground Elev.: 585.91	Soil Drilled:	PI Meter:
Logged by: ESW	Checked by: NMB	Total Depth: 36' BGS
Screen: 10 (ft.)	Riser: 0 (ft.)	Diam: 2" (ID)
		Material: PVC
		Below Ground: 14'
		Page 2 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
20-22'			3	80	0	20-22' Wet, grey silty sand	SM		
22-24'			5	40	0	22-24' Wet, grey, silty sand			
24-26'			25	30	0	24-25' Grey wet, silty sand			
25-26'			10			25-26' Grey, wet, gravel, some medium sand	SW		
26-28'			16	60	0	26-28' Brown, wet, medium sand some gravel			
28-30'			18	50	0	Running sand 1st 6" Brown, wet, small gravel, med. sand			
30-32'			14	80	0	Running sand 1st 6" Brown, wet, medium sand <del>some</del> little gravel			
32-34'			4	90	0	32-33.5' Brown, wet, med. sand & gravel			
33.5-34'			3			33.5-34' Grey, wet, clay	CL		
34-36'			5	90	0	34-36' Grey, wet, clay			
						Boring complete @ 36'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: PZ-115

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/2/06

Completed: 5/2/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 585.81

Soil Drilled:

Total Depth: 22'

Logged by: Eric Walter

Checked by: NMB

▽ Below Ground: 14"

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0					0	Brown, sand & rock gravel fill	fill		
2						Concrete			
4						Brown, moist, sand & silt			
6									
8					0		SM		
10									
12									
14						Brown, wet, clay some sand			
16									
18					0		CL		
20									
22						Boring Completed @ 22'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2-116

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: STB

Date Started: 7/25/06

Completed: 7/25/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 583.70

Soil Drilled:

Total Depth: 22

Logged by: Eric Weiler

Checked by: NMB

Below Ground: 12'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	P/D/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2						Black, dry, sand, some small rock			
4									
6					0		fill		
8									
10									
12						Brown, wet, silt and sand			
14									
16					0		silt		
18									
20									
22						Boring Complete @ 22'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: P2417

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/5/06

Completed: 6/5/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 584.23

Soil Drilled:

Total Depth: 22'

Logged by: Eric Weller

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2						Brown, dry to damp, sand & gravel, some silt	Fill		
4									
6					0				
8									
10									
12									
14						Brown, wet, sand & silt some large pieces maybe brick or gravel	Sm		
16									
18					0				
20									
22						Boring Complete @ 22'			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: PZ-118

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/2/06

Completed: 6/2/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 584.91

Soil Drilled:

Total Depth: 22

Logged by: Eric Walter

Checked by: NMB

Below Ground: 13'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2					0	Brown, dry, sand & silt (f:ll)	f:ll		
4					0	Brown, dry, sand, silt & Brick (f:ll)	f:ll		
6						Concrete			
8					0	Brown, moist, sand & silt (f:ll)	f:ll		
12					0	Brown, moist to wet, sand and silt, brick & rock pieces (f:ll)	f:ll		
16					0	Brown, wet, sand & silt	Sm		
22						Boring complete @ 22'			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

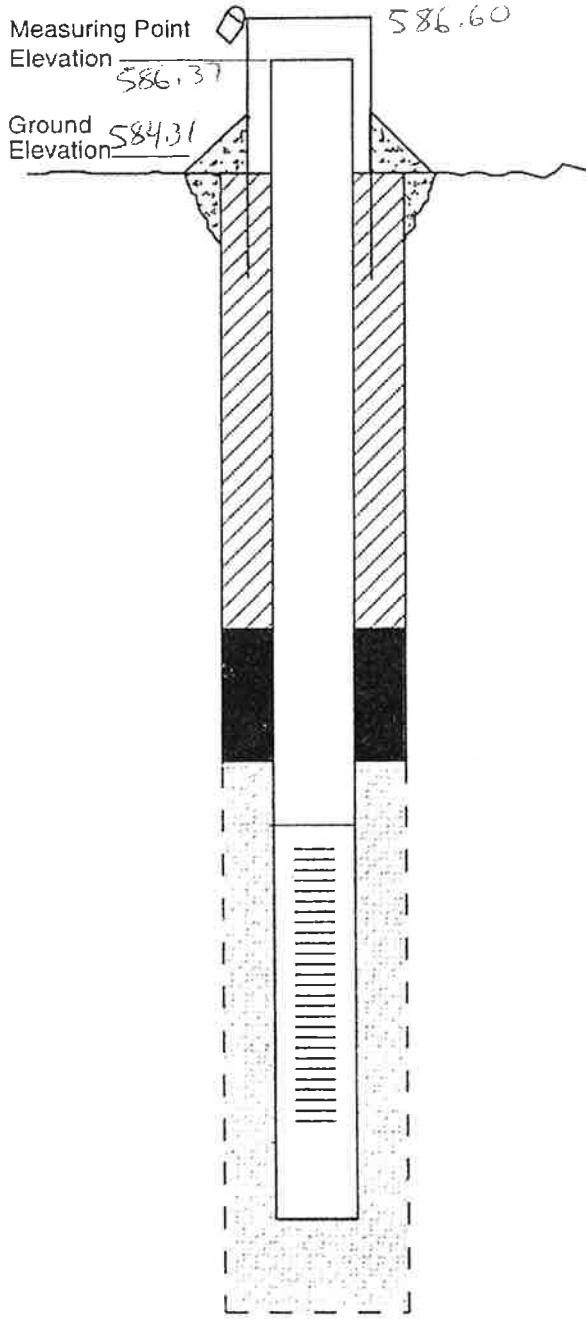
MACTEC, Inc.

## **APPENDIX B-2**

### **Monitoring Well Construction Diagrams & Soil Boring Logs**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613053076 Boring No. ICM-101 Drilling Method Auger  
 Date Installed 6/6/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMD



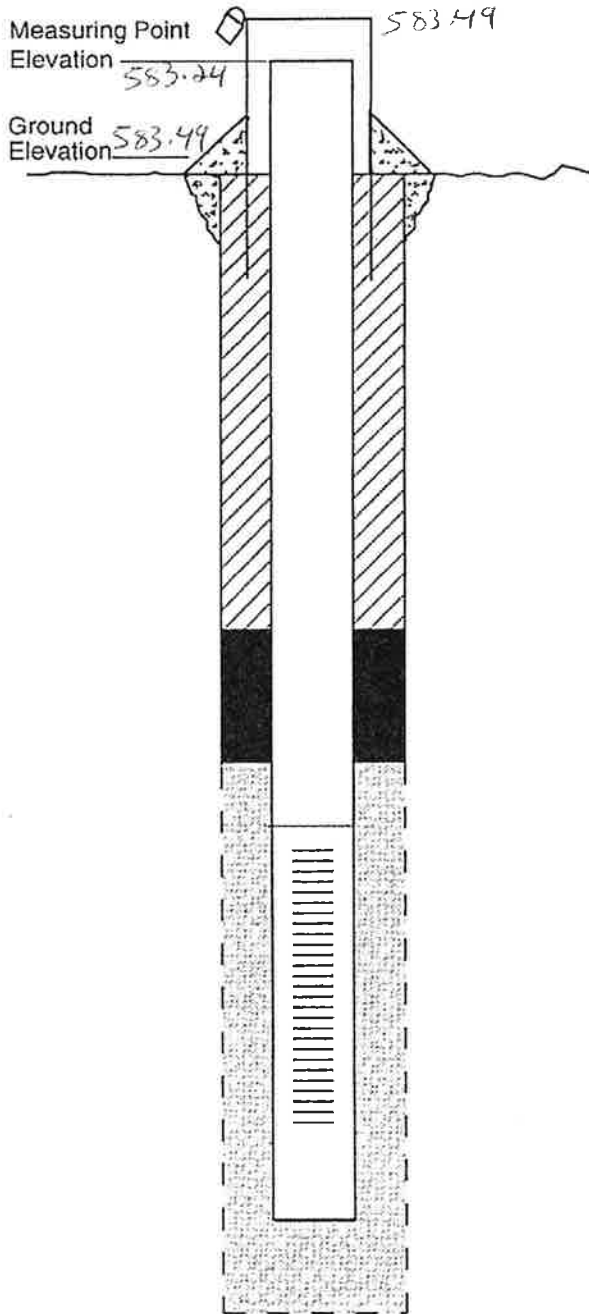
Stick-up of Casing Above Ground Surface: 2.3  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: stick up well casing  
 ID of Surface Casing: 4"  
 Diameter of Borehole: 6"  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 7'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 9'  
 Depth of Top of Screen: 10'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 20'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 20'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**



# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller SSB Services  
 Project No. 3613053046 Boring No. ICM-102 Drilling Method Auger  
 Date Installed \_\_\_\_\_ Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



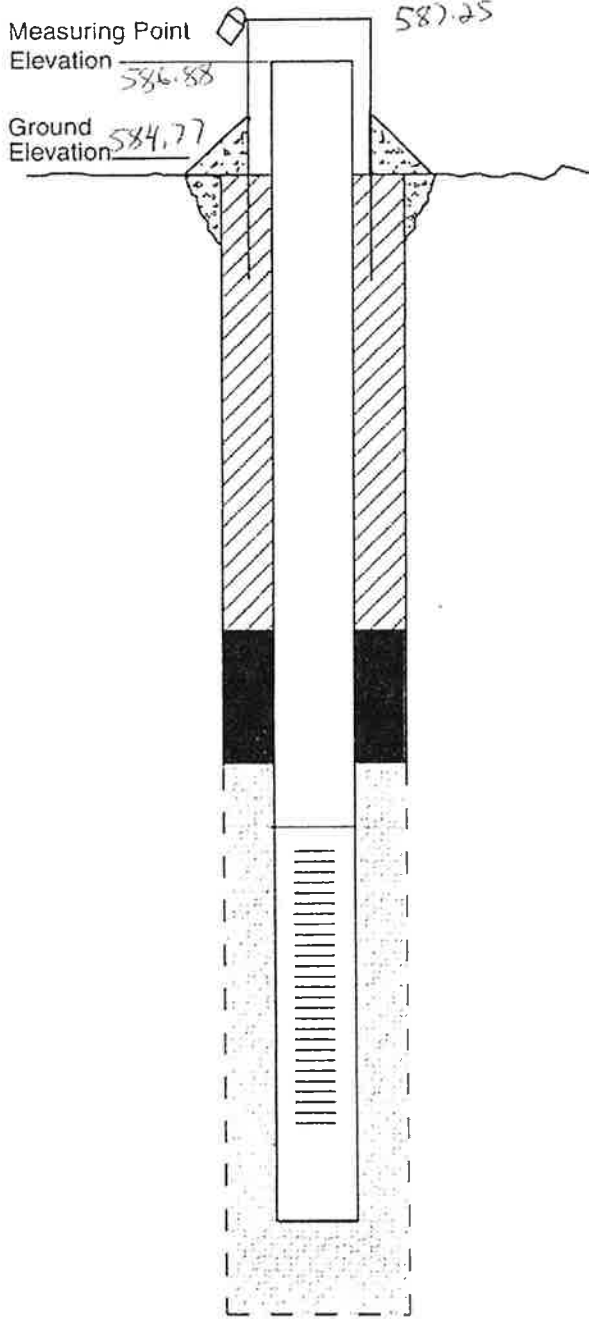
Stick-up of Casing Above Ground Surface: 0.0  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: flush mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 11'  
 Type of Seal: Bentonite Clips  
 Depth of Top of Sand: 13'  
 Depth of Top of Screen: 14'  
 Type of Screen: slotted PVC  
 Slot Size x Length: .01" x 10"  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 24'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 24'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

MACTEC, Inc.

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project Hw-Buffalo Color AOC \_\_\_\_\_ Driller SJB services  
 Project No. 3613053046 Boring No. Icm-103 Drilling Method Auger  
 Date Installed 6/5/06-6/6/06 Development Method Sub. Pump  
 Field Technician: Eric Weller Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

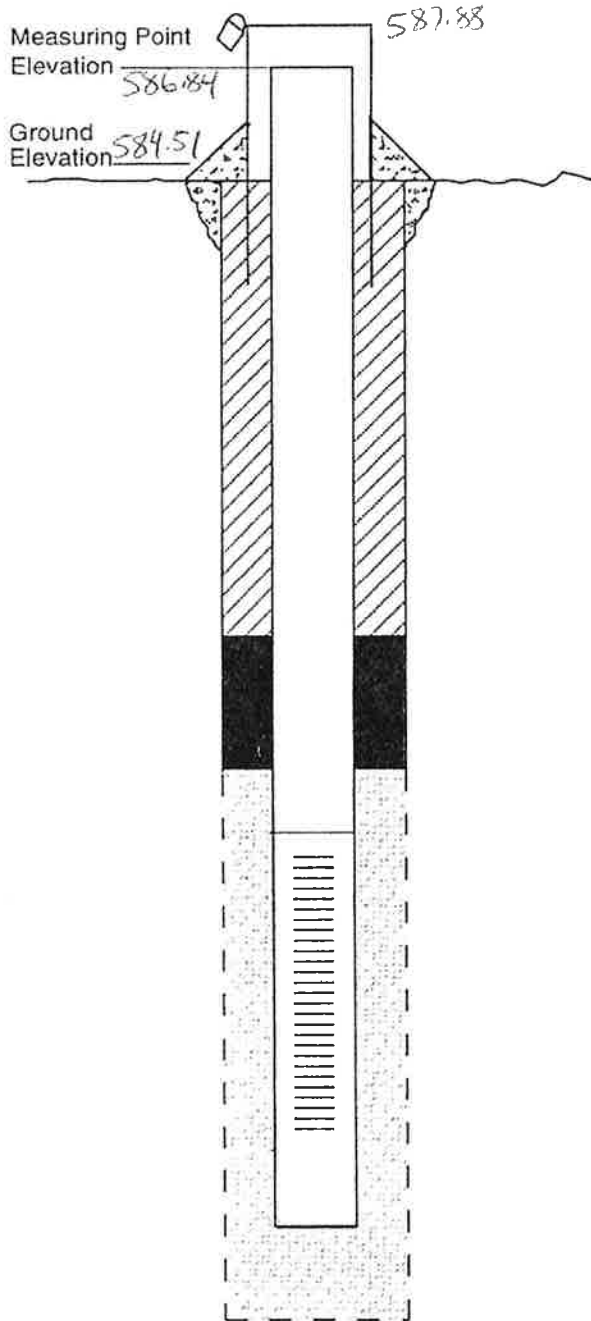


Stick-up of Casing Above Ground Surface: 2.5  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: stick up well casing  
 ID of Surface Casing: 4"  
 Diameter of Borehole: 6" - OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: 2"  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC Driller SJB Services  
 Project No. 3613053046 Boring No. ICM-104 Drilling Method Auger  
 Date Installed 5/19/06 Development Method Submersible Pump  
 Field Technician: ERIC WELER Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



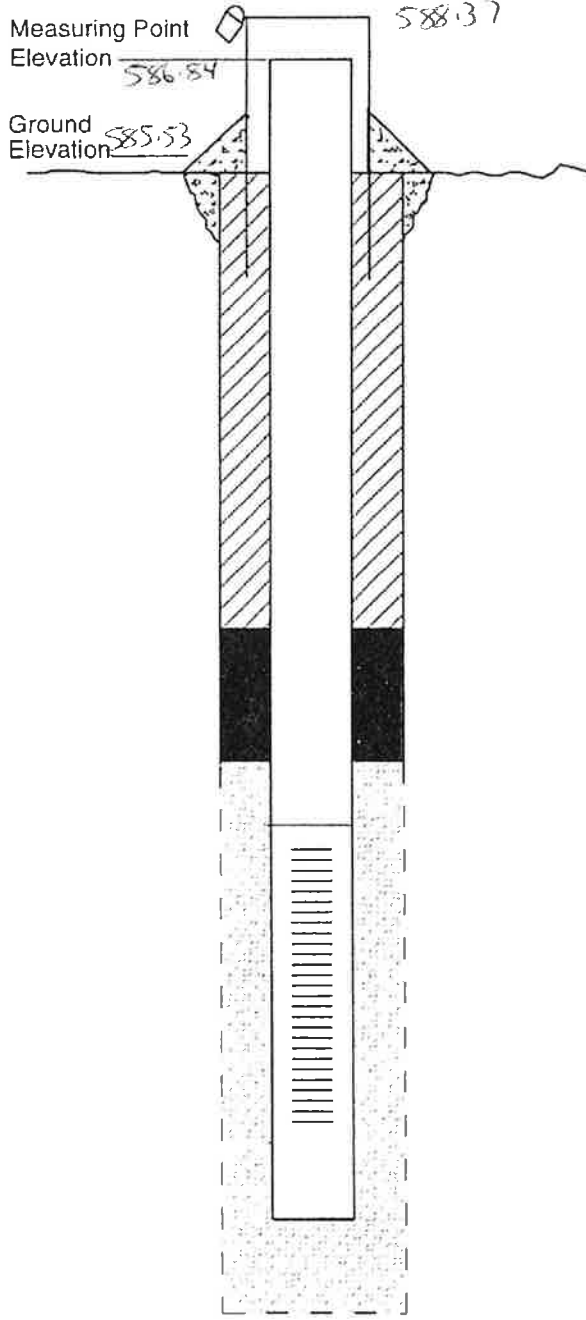
Stick-up of Casing Above Ground Surface: 3.4  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: stick-up well flush-mount casing  
 ID of Surface Casing: 6"  
 Diameter of Borehole: 6 1/8"-OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12.5'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22.5'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22.5'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

MACTEC, Inc.

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project Hw-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 363053046 Boring No. ICM-105 Drilling Method Auger  
 Date Installed 6/5/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



Measuring Point Elevation 588.37  
 Ground Elevation 586.84  
 Stick-up of Casing Above Ground Surface: 2.8  
 Type of Surface Seal/Other Protection: concrete  
 Type of Surface Casing: stick up well casing  
 ID of Surface Casing: 4"  
 Diameter of Borehole: 6"-OD  
 Riser Pipe ID: 2"  
 Type of Riser Pipe: PVC  
 Type of Backfill: Grout  
 Depth of Top of Seal: 9'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 11'  
 Depth of Top of Screen: 12'  
 Type of Screen: PVC  
 Slot Size x Length: .01" x 10'  
 ID of Screen: 2"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 22'  
 Depth of Sediment Sump with Plug: \_\_\_\_\_  
 Depth of Bottom of Borehole: 22'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**



# SOIL BORING LOG

AOC:

Boring No.: TCM-101

Client: Honey well

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/6/06

Completed: 6/6/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 584.31

Soil Drilled:

Total Depth: 20

Logged by: Eric Weller

Checked by: NMB

▽ Below Ground: 8.5'

Screen: 10 (ft.)

Riser: 10 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of: 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2					0	Brown, dark, sand and silt, some brick (fill)	fill		
4									
6					0	Dark Brown to Black, moist to wet sand and silt	SM		
8					0	Concrete			
10						Black, wet, medium & fine sand			
12									
14					0		SP		
16									
18									
20						Boring Completed @ 20'			

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: JCM-102

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 7/25/06

Completed: 7/25/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 583.49

Soil Drilled:

Total Depth: 24'

Logged by: Eric Weiler

Checked by: NMB

▽ Below Ground: 14'

Screen: 10 (ft.)

Riser: 14 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
3'						Brown, damp, sand, some silt and gravel			
6'					0		SM		
9'									
12'									
15'						Black, wet, sand (fine)			
18'							SP		
21'					0				
24'						Boring Completed @ 24'			
27'									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: ICM-103

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/5/06

Completed: 6/5/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 584.77

Soil Drilled:

Total Depth: 22

Logged by: Eric Weiler

Checked by: NMB

Below Ground: 14'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of: 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2						Brown, dry, sand & silt, some brick & concrete fragments			
4									
6					0		fill		
8									
10									
12									
14						Brown, wet, sand & silt some brick & concrete fragments			
16					0		fill		
18									
20									
22						Boring Complete @ 22'			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.



# SOIL BORING LOG

AOC: \_\_\_\_\_

Boring No.: ICM-104

Client: Honeywell

Project No. 3613053046

Protection: \_\_\_\_\_

Contractor: SJB

Date Started: 5/19/06

Completed: 5/19/06

Method: Auger

Casing Size: \_\_\_\_\_

PI Meter: \_\_\_\_\_

Ground Elev.: 584.51

Soil Drilled: \_\_\_\_\_

Total Depth: 22.5'

Logged by: Eric Weller

Checked by: AWB

Below Ground: 11'

Screen: 10 (ft.)

Riser: 12.5 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2					0	Brown, damp, sand & silt some gravel (f.11)	f.11		
4						Concrete			
6					0	Brown, moist, sand & rounded gravel (f.11)	f.11		
8									
10						Concrete			
12									
14									
16					0	Brown, moist, to wet, silt and sand	SM		
18									
20									
22						Boring Completed @ 22.5'			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC: \_\_\_\_\_

Boring No.: ICM-105

Client: Honey well

Project No. 3613053046

Protection: \_\_\_\_\_

Contractor: SJB

Date Started: 6/5/06

Completed: 6/5/06

Method: Auger

Casing Size: \_\_\_\_\_

PI Meter: \_\_\_\_\_

Ground Elev.: 585.53

Soil Drilled: \_\_\_\_\_

Total Depth: 22

Logged by: Eric Weller

Checked by: NMB

Below Ground: 15'

Screen: 10 (ft.)

Riser: 12 (ft.)

Diam: 2" (ID)

Material: PVC

Page 1 of 1

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2					0	Brown, sand, damp, silt, some small gravel	f.11		
4									
6					0	Brick fragments	f.11		
8					0	Weathered concrete			
10									
12					0	Brown, moist, sand, some brick $\frac{1}{2}$ gravel	f.11		
14									
16						Brown, wet, sand, some brick $\frac{1}{2}$ gravel			
18					.9		f.11		
20									
22						Boring complete @ 22'			

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

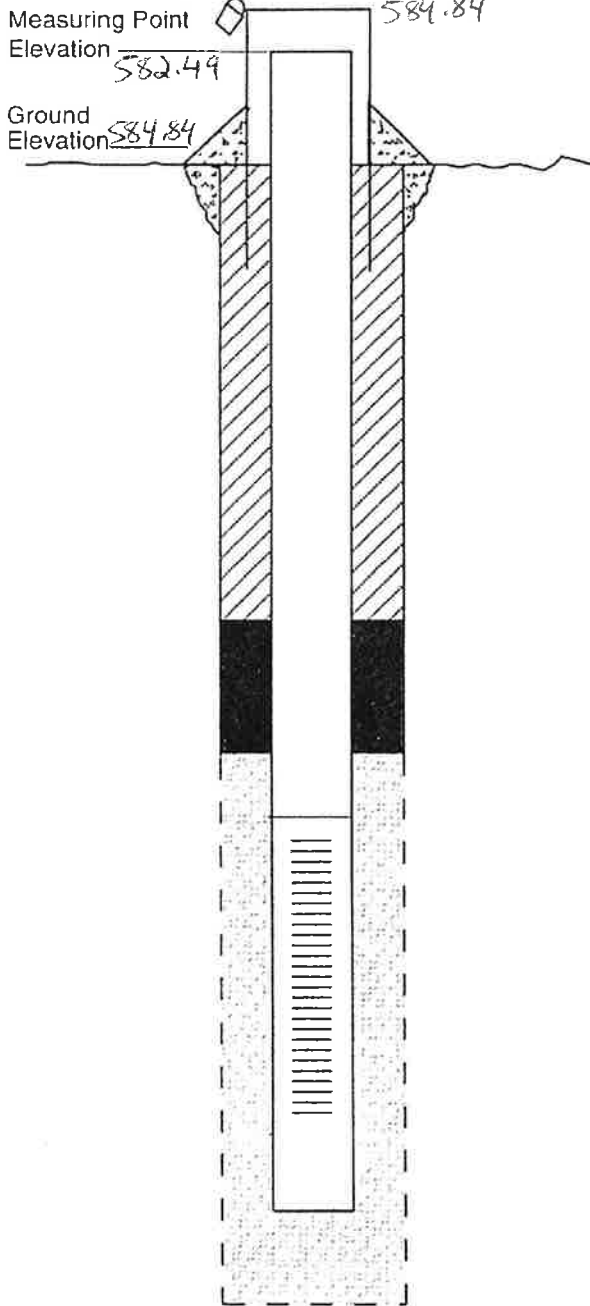
MACTEC, Inc.

## **APPENDIX B-3**

### **Extraction Well Construction Diagrams & Soil Boring Logs**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC Driller SJB Services  
 Project No. 3613053046 Boring No. EW-1 Drilling Method Auger  
 Date Installed 6/8/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



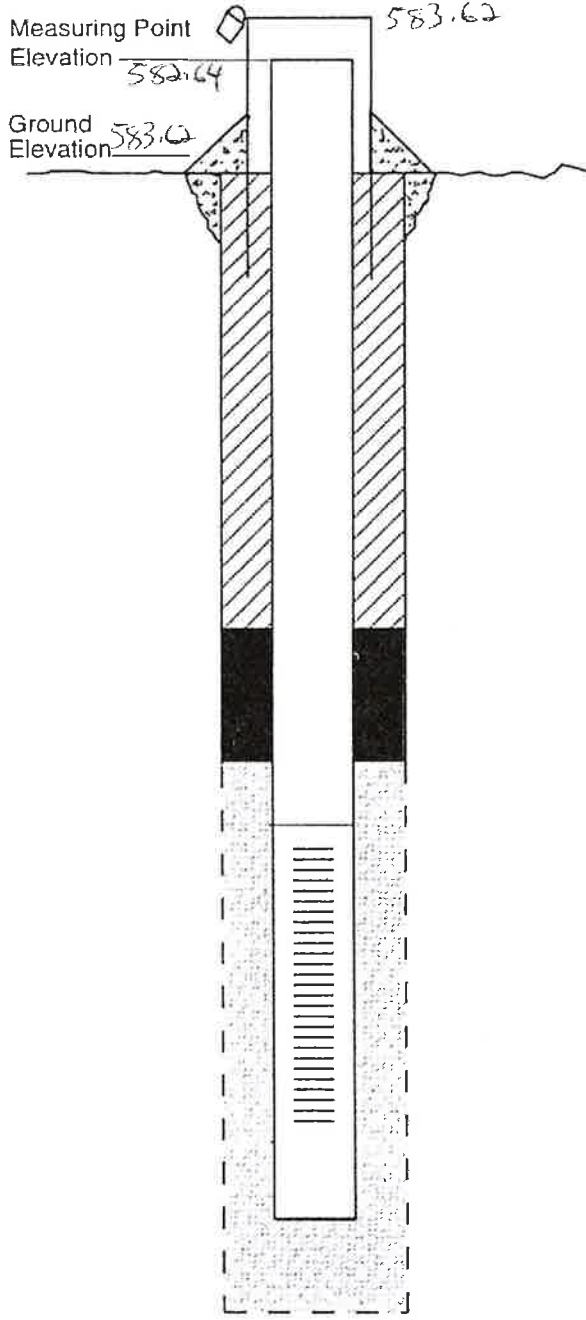
Stick-up of Casing Above Ground Surface: flush  
 Type of Surface Seal/Other Protection: vault, rock  
 Type of Surface Casing: 9' x 9' x 5' vault  
 ID of Surface Casing: \_\_\_\_\_  
 Diameter of Borehole: 6.12"  
 Riser Pipe ID: 6"  
 Type of Riser Pipe: Stainless steel  
 Type of Backfill: Grout  
 Depth of Top of Seal: 12'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 14'  
 Depth of Top of Screen: 22'  
 Type of Screen: Continuous Stainless steel  
 Slot Size x Length: (NMB) 30 mesh x 5'  
 ID of Screen: 6"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 27'  
 Depth of Sediment Sump with Plug: 32'  
 Depth of Bottom of Borehole: 32'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

-MACTEC, Inc.

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project Hw-Buffalo Color AOC \_\_\_\_\_ Driller STB Services  
 Project No. 3613053046 Boring No. EW-2 Drilling Method Auger  
 Date Installed 6/9/06 Development Method Submersible Pump  
 Field Technician: Eric Weller Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

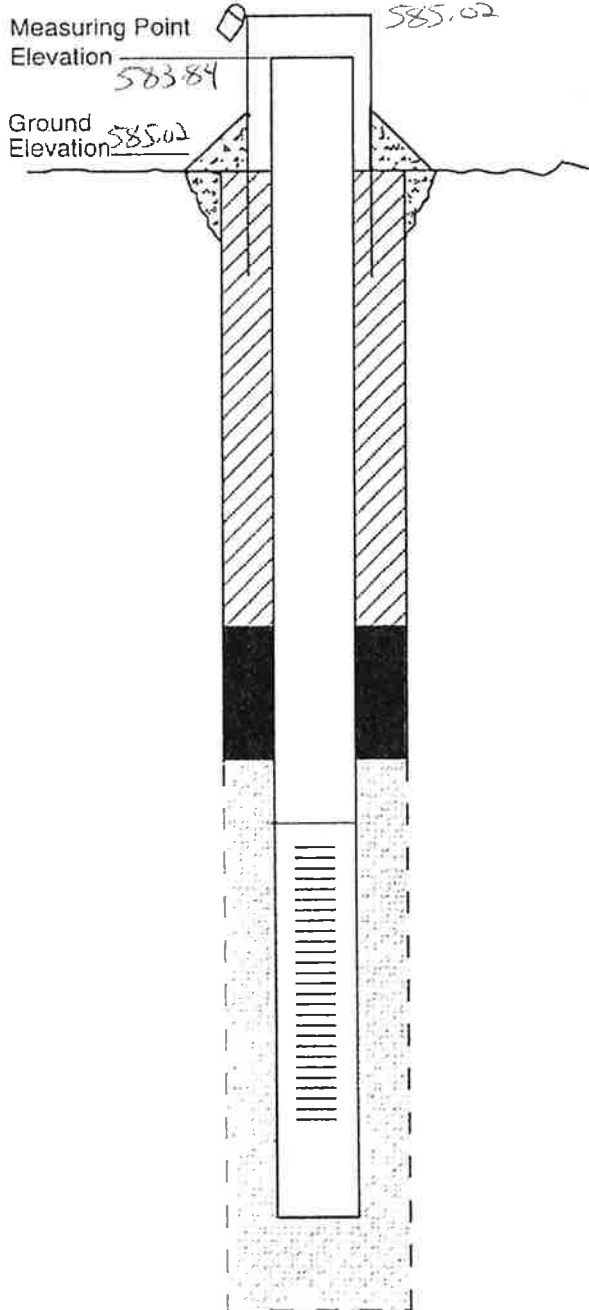


Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: vault, rock  
 Type of Surface Casing: vault  
 ID of Surface Casing: 9' x 9' x 5' deep  
 Diameter of Borehole: 12"  
 Riser Pipe ID: 6"  
 Type of Riser Pipe: stainless steel  
 Type of Backfill: Grout  
 Depth of Top of Seal: 11.5'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 13.5'  
 Depth of Top of Screen: ~~29'~~ 24' - TCC 06/2008  
 Type of Screen: continuous stainless steel  
 Slot Size x Length: 0.03" x 5'  
 ID of Screen: 6"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 29'  
 Depth of Sediment Sump with Plug: 34'  
 Depth of Bottom of Borehole: 34'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project Hw-Buffalo Color AOC \_\_\_\_\_ Driller SJB Services  
 Project No. 3613053046 Boring No. EW-3 Drilling Method Auger  
 Date Installed 6/12/06 Development Method Submersible Pump  
 Field Technician: Eric Weller Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



Stick-up of Casing Above Ground Surface: Flush  
 Type of Surface Seal/Other Protection: vault, crushed rock  
 Type of Surface Casing: vault  
 ID of Surface Casing: 9' x 9' by 5' deep  
 Diameter of Borehole: 12"  
 Riser Pipe ID: 6"  
 Type of Riser Pipe: Stainless Steel  
 Type of Backfill: Grout  
 Depth of Top of Seal: 12'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 14'  
 Depth of Top of Screen: 28'  
 Type of Screen: Continuous Stainless Steel  
 Slot Size x Length: 0.075" x 5'  
 ID of Screen: 6"  
 Type of Sandpack: #1 Sand  
 Depth of Bottom of Screen: 33'  
 Depth of Sediment Sump with Plug: 38'  
 Depth of Bottom of Borehole: 38'

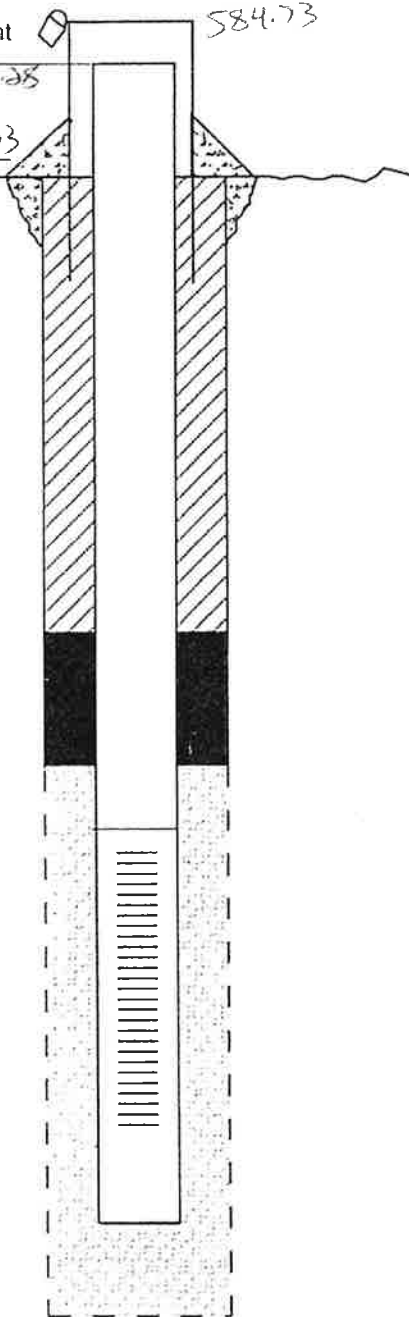
**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC \_\_\_\_\_ Driller STB Services  
 Project No. 3613053046 Boring No. EW-4 Drilling Method Auger  
 Date Installed 6/14/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB

Measuring Point  
Elevation 585.25

Ground  
Elevation 584.73

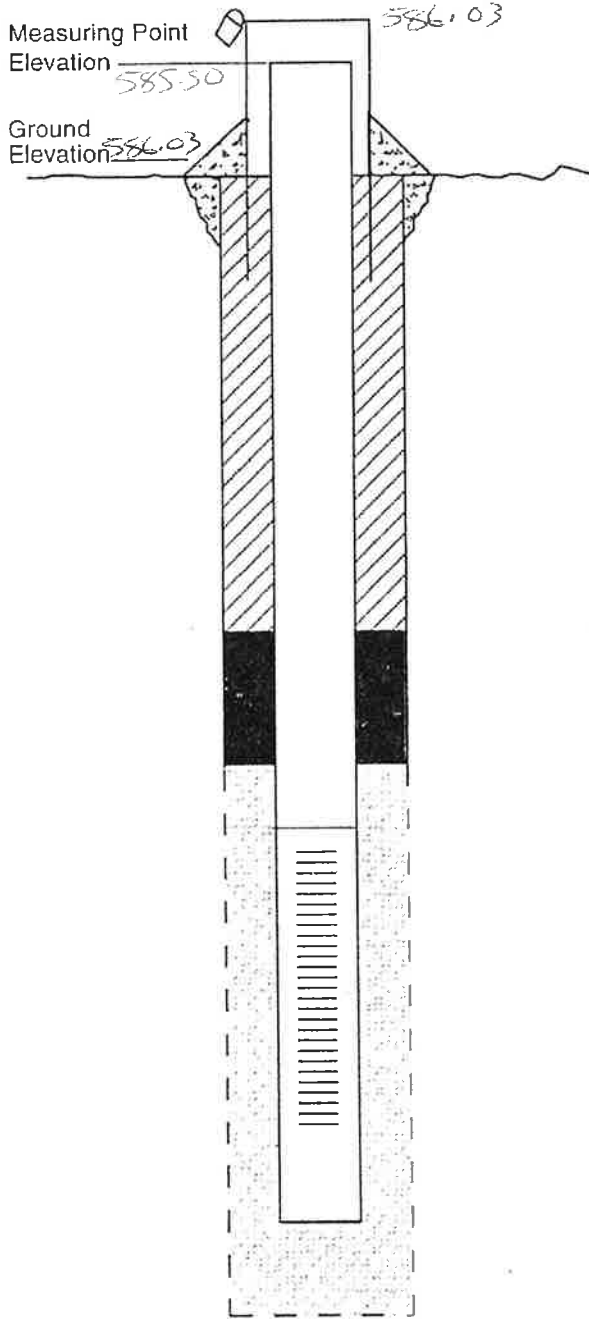


Stick-up of Casing Above Ground Surface: FLUSH  
 Type of Surface Seal/Other Protection: vault, crushed rock  
 Type of Surface Casing: vault  
 ID of Surface Casing: 9' x 9' by 5' deep  
 Diameter of Borehole: 12"  
 Riser Pipe ID: 6"  
 Type of Riser Pipe: stainless steel  
 Type of Backfill: Grout  
 Depth of Top of Seal: 12'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 14'  
 Depth of Top of Screen: 28'  
 Type of Screen: continuous stainless steel  
 Slot Size x Length: 0.03" x 5"  
 ID of Screen: 6"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 33'  
 Depth of Sediment Sump with Plug: 38'  
 Depth of Bottom of Borehole: 38'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

# MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM

Project HW-Buffalo Color AOC Driller SJB Services  
 Project No. 3613653046 Boring No. EW-5 Drilling Method Auger  
 Date Installed 6/15/06 Development Method Submersible Pump  
 Field Technician: Eric Weiler Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
 Checked By: NMB



Stick-up of Casing Above Ground Surface: FLUSH  
 Type of Surface Seal/Other Protection: Vault, crushed rock  
 Type of Surface Casing: Vault  
 ID of Surface Casing: 9' x 9' x 5' deep  
 Diameter of Borehole: 12"  
 Riser Pipe ID: 6"  
 Type of Riser Pipe: stainless steel  
 Type of Backfill: Grout  
 Depth of Top of Seal: 12'  
 Type of Seal: Bentonite  
 Depth of Top of Sand: 14'  
 Depth of Top of Screen: 26.5'  
 Type of Screen: Continuous Stainless Steel  
 Slot Size x Length: .05" x 5'  
 ID of Screen: 6"  
 Type of Sandpack: #1 sand  
 Depth of Bottom of Screen: 31.5'  
 Depth of Sediment Sump with Plug: 36.5'  
 Depth of Bottom of Borehole: 37'

**MONITORING WELL CONSTRUCTION DIAGRAM**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**





# SOIL BORING LOG

AOC:

Boring No.: EW-1

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/7/06

Completed: 6/8/06

Method: Auger

Casing Size: 8 1/4" ID (12" OD)

PI Meter:

Ground Elev.: 584.84

Soil Drilled:

Total Depth: 32'

Logged by: Eric Weiler

Checked by: NMB

Below Ground: 12'

Screen: 5 (ft.)

Riser: 22 (ft.)

Diam: 6" (ID)

Material: steel

Page 1 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2						Brown, dark, moist, sand & silt	SM		
4					0				
6									
8									
10									
12								Black, wet, sand	SP
14									
16									
18					0				
20									
22									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: EW-1

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SJB

Date Started: 6/9/06

Completed: 6/8/06

Method: Auger

Casing Size: 8 1/4" ID (10" OD)

PI Meter:

Ground Elev.: 584.84

Soil Drilled:

Total Depth: 32

Logged by: Eric Weller

Checked by: NMB

∇ Below Ground: 12'

Screen: 5 (ft.)

Riser: 20 (ft.)

Diam: 8" (ID)

Material: steel

Page 2 of: 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
24						Black, wet, sand			
26									
28					0		S7		
30									
32									
34						Boring Completed @ <del>34'</del> 32' - TCC			
36									
38									
40									
42									
44									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: **EW-2**

Client: **Honey well**

Project No. **3613053046**

Protection:

Contractor: **SJB**

Date Started: **6/8/06**

Completed: **6/9/06**

Method: **Auger**

Casing Size: **8 1/4" ID (12" OD)**

PI Meter:

Ground Elev.: **583.62**

Soil Drilled:

Total Depth: **34'**

Logged by: **Eric Weller**

Checked by: **NMB**

Below Ground: **14'**

Screen: **5' (ft.)**

Riser: **24' (ft.)**

Diam: **6" (ID)**

Material: **steel**

Page **1** of: **2**

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2						Brown, dry, sand & silt			
4									
6					0		SM		
8									
10									
12									
14						Brown, wet, sand & silt, wood & clay			
16									
18					0		SM		
20									
22									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC:

Boring No.: EW-2

Client: Honey well

Project No. 3613653046

Protection:

Contractor: SJB

Date Started: 6/8/06

Completed: 6/9/06

Method: Auger

Casing Size:

PI Meter:

Ground Elev.: 583.62

Soil Drilled: 8 1/4" ID 12" OD

Total Depth: 34'

Logged by: Eric Walker

Checked by: NMB

Below Ground: 14'

Screen: 28 (ft.)

Riser: 24 (ft.)

Diam: 6" (ID)

Material: steel

Page 2 of: 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
24						Brown, wet, sand & silt, wood and clay			
26									
28					0		sm		
30									
32									
34						Boring Complete @ 34'			
36									
38									
40									
42									
44									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC: \_\_\_\_\_

Boring No.: EW-3

Client: Honey well

Project No. 3613053046

Protection: \_\_\_\_\_

Contractor: SJB

Date Started: 6/12/06

Completed: 6/12/06

Method: Auger

Casing Size: 8 1/4" ID - 10" OD

PI Meter: \_\_\_\_\_

Ground Elev.: 585.02

Soil Drilled: MB

Total Depth: 38'

Logged by: Eric Weller

Checked by: NMB

▽ Below Ground: 14'

Screen: 5 (ft.)

Riser: 28 (ft.)

Diam: 6" (ID)

Material: steel

Page 1 of: 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PI/D/ID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2					0	Brown, dry, sand	SP		
4					0	Brown, medium rounded gravel, some sand, dry	GP		
6						Brown, dry to damp, sand & 1/2 gravel			
8					0		SW		
10									
12									
14						Brown, wet, sand & 1/2 gravel			
16									
18					0		SW		
20									
22									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

MACTEC, Inc.

SOIL BORING LOG				AOC:	
Client: Honeywell		Project No. 3613053046		Boring No.: EW-3	
Contractor: SJB		Date Started: 6/12/06		Protection:	
Method: Auger		Casing Size: 2 1/4 ID (10" OD)		Completed: 6/12/06	
Ground Elev.: 585.02		Soil Drilled:		PI Meter:	
Logged by: Eric Waker		Checked by:		Total Depth: 38'	
Screen: 5" (l.)		Riser: 28 (ft.)		Diam: 4" (ID)	
		Material: Steel		Below Ground: 14'	
				Page 2 of 2	

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PI/D/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
24						Brown, wet sand & gravel	SW		
26									
28									
30					0				
32									
34									
36									
38						Boring Complete @ 38'			
40									
42									
44									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

# SOIL BORING LOG

AOC: (NMB)  
 Boring No.: EX-4 EW-4  
 Protection:  
 Completed: 6/14/06  
 PI Meter:  
 Total Depth: 38'  
 Below Ground: 14'  
 Page 1 of 2

Client: Honeywell Project No. 3613053046  
 Contractor: SJB Services Date Started: 6/13/06  
 Method: Auger Casing Size: 8 1/4" ID (10" OD)  
 Ground Elev.: 584.73 Soil Drilled:  
 Logged by: Eric Weiler Checked by: NMB  
 Screen: 5 (ft.) Riser: 28 (ft.) Diam: 6" (ID) Material: steel

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PI/D/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
0 - 1						Asphalt			
1 - 2						Concrete			
2 - 14					0	Dark Brown, to Black, dry, sand some gravel & silt	SM		
14 - 18					0	Black, wet, sand & gravel	SW		
18 - 20									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK



SOIL BORING LOG				AOC:	
Client: <i>Howaywell</i>		Project No. <i>3613653646</i>		Boring No.: <i>EW-4</i>	
Contractor: <i>SJB Services</i>		Date Started: <i>6/13/06</i>		Protection:	
Method: <i>Auger</i>		Casing Size: <i>8 1/4" ID (12" OD)</i>		Completed: <i>6/14/06</i>	
Ground Elev.: <i>584.73</i>		Soil Drilled:		PI Meter:	
Logged by: <i>Eric Weller</i>		Checked by: <i>admB</i>		Total Depth: <i>38'</i>	
Screen: <i>5 (ft.)</i>		Riser: <i>28 (ft.)</i>		Diam: <i>6" (ID)</i>	
		Material: <i>steel</i>		Below Ground: <i>14'</i>	
				Page <i>2</i> of: <i>2</i>	

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PID/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
22						<i>Black, wet, sand &amp; gravel</i>			
24									
26									
28					<i>0</i>				
30							<i>SW</i>		
32									
34									
36									
38							<i>Boring Complete @ 38'</i>		
40									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

# SOIL BORING LOG

AOC:

Boring No.: EW-5

Client: Honeywell

Project No. 3613053046

Protection:

Contractor: SSB Services

Date Started: 6/14/06

Completed: 6/05/06

Method: Auger

Casing Size: 8 1/4" ID - 12" OD

PI Meter:

Ground Elev.: 586.03

Soil Drilled:

Total Depth: 37'

Logged by: Eric Weiler

Checked by: NMB

Below Ground: 14'

Screen: 5 (ft.)

Riser: 27 (ft.)

Diam: 6" (ID)

Material: steel

Page 1 of 2

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PI/D/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
2					0	Brown, dry, sand & gravel some brick (fill)	fill		
4						Concrete			
6					0	Brown, moist, sand & silt	SM		
8									
10									
12									
14					0	Brown to Black, wet, sand & silt	SM		
16									
18									
20									

SOIL BORING LOG  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK

MACTEC, Inc.

# SOIL BORING LOG

AOC: \_\_\_\_\_  
 Boring No.: *EW-5*  
 Protection: \_\_\_\_\_  
 Completed: *6/15/06*  
 PI Meter: \_\_\_\_\_  
 Total Depth: *37'*  
 Below Ground: *14'*  
 Page 2 of: 2

Client: *Honeywell* Project No. *3613053046*  
 Contractor: *SSB Services* Date Started: \_\_\_\_\_  
 Method: *Auger* Casing Size: *8 1/4" ID 12" OD*  
 Ground Elev.: *586.03* Soil Drilled: \_\_\_\_\_  
 Logged by: *Eric Walker* Checked by: *NMB*  
 Screen: *5 (ft.)* Riser: *27 (ft.)* Diam: *6" (ID)* Material: *steel*

DEPTH (FT)	SAMPLE NUMBER	SAMPLE DEPTH	BLOW COUNTS	RECOVERY	PI/FID (ppm)	SOIL DESCRIPTION	SOIL CLASS	ANALYTICAL SAMPLE COLLECTED	WELL DATA
22						Brown to Black, sand & silt wet	SM		
24									
26					0				
28									
30									
32									
34						clay, Brown, wet	CL		
36					0				
37						Boring Complete @ 37'			
38									
40									

SOIL BORING LOG  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK

## **APPENDIX B-4**

### **Well Development Records & Specific Capacity Test Forms**

# WELL DEVELOPMENT RECORD

Project: <u>Buffalo Color</u>	Well Installation Date: <u>6/6/06</u>	Project No. <u>3613653446</u>
Client: <u>Honeywell</u>	Well Development Date: <u>6/29/06</u>	Logged by: <u>ESW</u> Checked by: <u>NMB</u>
Well/Site I.D.: <u>PZ-109</u>	Weather:	Start Date: <u>6/29/06</u> Finish Date: <u>6/29/06</u>

Well Construction Record Data:		Well Diameter: <u>2</u> in.	Start Time: <u>1106</u>	Finish Time: <u>1236</u>
Bottom of Screen	<u>22</u> ft.	From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>0</u> ft.			
Screen Length	<u>10</u> ft.			
		Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up: <u>0</u> ft.	Protective Casing/Well Diff.: <u>        </u> ft.	PID Readings:
		Ambient Air <u>        </u> ppm
		Well Mouth <u>        </u> ppm

Well Levels:		Sediment:	
Initial	<u>10.7</u> ft.	Well Depth before Development	<u>        </u> ft. (from top of PVC)
End of Development	<u>13.8</u> ft.	Well Depth after Development	<u>        </u> ft.
24 Hours after Development	<u>        </u> ft.	Sediment Depth Removed	<u>        </u> ft.
HT of Water Column	<u>        </u> ft.	x <input type="checkbox"/> 1.68* gal./ft. = <u>        </u> gal./vol. <input type="checkbox"/> _____ *for 4" HSA Installed Wells	

Equipment:		Approximate Recharge Rate	<u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump		Total Gallons Removed	<u>        </u> gal.
<input checked="" type="checkbox"/> Surge Block			
<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____			
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____			

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes	No	
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>	

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>1106</u>	<u>20</u>	<u>20</u>	<u>9.14</u>	<u>61.17</u>	<u>1.318</u>	<u>-</u>	<u>-</u>
<u>1127</u>	<u>20</u>	<u>60</u>	<u>8.68</u>	<u>61.00</u>	<u>1.312</u>	<u>-</u>	<u>-</u>
<u>1138</u>	<u>20</u>	<u>80</u>	<u>8.20</u>	<u>60.85</u>	<u>1.312</u>	<u>-</u>	<u>-</u>
<u>1236</u>	<u>20</u>	<u>120</u>	<u>8.64</u>	<u>61.12</u>	<u>1.317</u>	<u>-</u>	<u>-</u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

## WELL DEVELOPMENT RECORD

Project: <u>Buffalo Color</u>	Well Installation Date: <u>5/15/06</u>	Project No. <u>3613052046</u>
Client: <u>Honey Well</u>	Well Development Date: <u>6/29/06</u>	Logged by: <u>ESW</u> Checked by: <u>NMB</u>
Well/Site I.D.: <u>PZ-110</u>	Weather: <u>65°F sunny</u>	Start Date: <u>6/29/06</u> Finish Date: <u>6/29/06</u>

<b>Well Construction Record Data:</b>		Well Diameter: <u>2</u> in.	Start Time: <u>0850</u>	Finish Time: <u>1000</u>
Bottom of Screen	<u>28</u> ft.	] From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>0</u> ft.			
Screen Length	<u>10</u> ft.			
		Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up: <u>0</u> ft.	Protective Casing/Well Diff.: <u>        </u> ft.	PID Readings:	Ambient Air: <u>        </u> ppm
			Well Mouth: <u>        </u> ppm

<b>Well Levels:</b>	<b>Sediment:</b>	
Initial: <u>12.52</u> ft.	Well Depth before Development: <u>        </u> ft.	(from top of PVC)
End of Development: <u>15.0</u> ft.	Well Depth after Development: <u>        </u> ft.	
24 Hours after Development: <u>        </u> ft.	Sediment Depth Removed: <u>        </u> ft.	
HT of Water Column: <u>        </u> ft.	<input type="checkbox"/> 1.68* gal./ft.      = <u>        </u> gal./vol. <input type="checkbox"/> _____	*for 4" HSA Installed Wells

<b>Equipment:</b>	Approximate Recharge Rate: <u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump <input checked="" type="checkbox"/> Surge Block <input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____ <input type="checkbox"/> Grundfos Pump 2" _____ 4" _____	Total Gallons Removed: <u>        </u> gal.

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes    No
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/> <input type="checkbox"/>

End of Well Development Sample (1 pint) Collected?    Yes     No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>0850</u>	<u>20</u>	<u>20</u>	<u>11.73</u>	<u>60.40</u>	<u>3.14</u>	<u>-</u>	<u>-</u>
<u>0907</u>	<u>20</u>	<u>40</u>	<u>11.75</u>	<u>60.54</u>	<u>3.29</u>	<u>-</u>	<u>-</u>
<u>0949</u>	<u>20</u>	<u>80</u>	<u>11.75</u>	<u>60.37</u>	<u>3.134</u>	<u>-</u>	<u>-</u>
<u>1000</u>	<u>20</u>	<u>100</u>	<u>11.73</u>	<u>60.44</u>	<u>3.12</u>	<u>-</u>	<u>-</u>

Well Developer's Signature: \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

# WELL DEVELOPMENT RECORD

Project: <u>Buffalo Color</u>	Well Installation Date: <u>5/9/06</u>	Project No. <u>563653046</u>
Client: <u>Honeywell</u>	Well Development Date: <u>6/28/06</u>	Logged by: <u>ESW</u> Checked by: <u>NMB</u>
Well/Site I.D.: <u>PZ-111</u>	Weather: <u>75°F cloudy</u>	Start Date: <u>6/28/06</u> Finish Date: <u>6/28/06</u>

Well Construction Record Data:		Well Diameter: <u>2</u> in.	Start Time: <u>1245</u>	Finish Time: <u>1431</u>
Bottom of Screen	<u>29</u> ft.	From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>0</u> ft.			
Screen Length	<u>10</u> ft.			
		Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Slick-up	<u>0</u> ft.	Protective Casing/Well Diff.	<u>        </u> ft.	PID Readings:	Ambient Air <u>        </u> ppm
					Well Mouth <u>        </u> ppm

Well Levels:		Sediment:	
Initial	<u>12.03</u> ft.	Well Depth before Development	<u>        </u> ft. (from top of PVC)
End of Development	<u>12.56</u> ft.	Well Depth after Development	<u>        </u> ft.
24 Hours after Development	<u>        </u> ft.	Sediment Depth Removed	<u>        </u> ft.
HT of Water Column	<u>        </u> ft.	x <input type="checkbox"/> 1.68* gal./ft. = <u>        </u> gal./vol. <input type="checkbox"/> _____ *for 4" HSA Installed Wells	

Equipment:	Approximate Recharge Rate	<u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump <input checked="" type="checkbox"/> Surge Block <input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____ <input type="checkbox"/> Grundfos Pump 2" _____ 4" _____	Total Gallons Removed	<u>        </u> gal.

Well Development Criteria Met:

Notes: \_\_\_\_\_

	Yes	No	
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>	

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>1327</u>	<u>20</u>	<u>        </u>	<u>11.6</u>	<u>63</u>	<u>3.2</u>	<u>41000</u>	<u>        </u>
<u>1347</u>	<u>20</u>	<u>        </u>	<u>11.6</u>	<u>63</u>	<u>3.9</u>	<u>3500</u>	<u>        </u>
<u>1417</u>	<u>20</u>	<u>        </u>	<u>11.4</u>	<u>64</u>	<u>4.3</u>	<u>        </u>	<u>        </u>
<u>1431</u>	<u>20</u>	<u>        </u>	<u>11.6</u>	<u>64</u>	<u>4.3</u>	<u>        </u>	<u>        </u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

# WELL DEVELOPMENT RECORD

Project: <u>Honeywell</u>	Well Installation Date: <u>5/16/06</u>	Project No. <u>3613053046</u>
Client: <u>Buffalo Color</u>	Well Development Date: <u>6/28/06</u>	Logged by: <u>ESW</u> Checked by: <u>NMB</u>
Well/Site I.D.: <u>PZ-112</u>	Weather: <u>75°F cloudy</u>	Start Date: <u>6/28/06</u> Finish Date: <u>6/28/06</u>

<b>Well Construction Record Data:</b>		Well Diameter: <u>2" in.</u>	Start Time: <u>1121</u>	Finish Time: <u>1240</u>
Bottom of Screen	<u>22' 6" ft.</u>	From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>0 ft.</u>			
Screen Length	<u>10 ft.</u>	Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up: <u>0 ft.</u>	Protective Casing/Well Diff.: <u>        </u> ft.	PID Readings:	Ambient Air: <u>        </u> ppm
			Well Mouth: <u>        </u> ppm

<b>Well Levels:</b>	<b>Sediment:</b>	
Initial: <u>11.65 ft.</u>	Well Depth before Development: <u>        </u> ft.	(from top of PVC)
End of Development: <u>13.21 ft.</u>	Well Depth after Development: <u>        </u> ft.	
24 Hours after Development: <u>        </u> ft.	Sediment Depth Removed: <u>        </u> ft.	
HT of Water Column: <u>        </u> ft.	<input type="checkbox"/> 1.68 gal./ft. = <u>        </u> gal./vol.	*for 4" HSA Installed Wells
	<input type="checkbox"/> _____	

<b>Equipment:</b>	Approximate Recharge Rate: <u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump	Total Gallons Removed: <u>        </u> gal.
<input checked="" type="checkbox"/> Surge Block	
<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____	
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____	

**Well Development Criteria Met:**

Notes: _____	<table border="0"> <tr> <td></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;">No</td> </tr> <tr> <td><input checked="" type="checkbox"/> Well water clear to unaided eye</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Sediment thickness remaining in well is &lt;1.0% of screen length</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> Turbidity &lt; 5NTUs</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> 10% change in field parameters</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		Yes	No	<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No																	
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>																	
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>																	
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>																	
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>																	
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>																	
End of Well Development Sample (1 pint) Collected?	<input type="checkbox"/> Yes <input type="checkbox"/> No																		

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>1130</u>	<u>20</u>	<u>20</u>	<u>9.8</u>	<u>60</u>	<u>2.0</u>	<u>-</u>	<u>-</u>
<u>1141</u>	<u>20</u>	<u>40</u>	<u>10.0</u>	<u>60</u>	<u>1.9</u>	<u>-</u>	<u>-</u>
<u>1149</u>	<u>20</u>	<u>60</u>	<u>10.0</u>	<u>60</u>	<u>1.9</u>	<u>-</u>	<u>-</u>
<u>1200</u>	<u>20</u>	<u>80</u>	<u>10.0</u>	<u>60</u>	<u>1.9</u>	<u>-</u>	<u>-</u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

MACTEC, Inc.



# WELL DEVELOPMENT RECORD

Project: <u>Honeywell</u>	Well Installation Date: <u>5/18/06</u>	Project No. <u>3613053076</u>
Client: <u>Buffalo Color</u>	Well Development Date: <u>6/28/06</u>	Logged by: <u>ESC</u> / Checked by: <u>KMB</u>
Well/Site I.D.: <u>PZ-113</u>	Weather: <u>75°F cloudy</u>	Start Date: <u>6/28/06</u> / Finish Date: <u>6/28/06</u>

Well Construction Record Data:		Well Diameter: <u>2</u> in.	Start Time: <u>1012</u>	Finish Time: <u>1112</u>
Bottom of Screen	<u>26'</u> ft.	From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>0</u> ft.			
Screen Length	<u>16'</u> ft.	Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up: <u>0</u> ft.	Protective Casing/Well Diff.: <u>        </u> ft.	PID Readings:	Ambient Air <u>        </u> ppm
			Well Mouth <u>        </u> ppm

Well Levels:		Sediment:	
Initial	<u>11.75</u> ft.	Well Depth before Development	<u>        </u> ft. (from top of PVC)
End of Development	<u>dry</u> ft.	Well Depth after Development	<u>        </u> ft.
24 Hours after Development	<u>        </u> ft.	Sediment Depth Removed	<u>        </u> ft.
HT of Water Column	<u>        </u> ft.	<input type="checkbox"/> 1.68" gal./ft. = <u>        </u> gal./vol. <input type="checkbox"/> _____ *for 4" HSA Installed Wells	

Equipment:		Approximate Recharge Rate	<u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump		Total Gallons Removed	<u>        </u> gal.
<input checked="" type="checkbox"/> Surge Block			
<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____			
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____			

**Well Development Criteria Met:**

Notes: _____		Yes	No	
_____	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Well water clear to unaided eye
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment thickness remaining in well is <1.0% of screen length
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Turbidity < 5NTUs
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10% change in field parameters

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**  
Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>purged</u>	<u>dry</u>	<u>with 10 gallons</u>					
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD**  
**BUFFALO COLOR SITE**  
**BUFFALO, NEW YORK**

— MACTEC, Inc. —

# WELL DEVELOPMENT RECORD

Project: <u>Buffalo Color</u>	Well Installation Date: <u>5/12/06</u>	Project No. <u>3613653246</u>
Client: <u>Honeywell</u>	Well Development Date: <u>6/28/06</u>	Logged by: <u>ESW</u> Checked by: <u>WMB</u>
Well/Site I.D.: <u>P2-114</u>	Weather: <u>75°F cloudy</u>	Start Date: <u>6/28/06</u> Finish Date: <u>6/28/06</u>

Well Construction Record Data:		Well Diameter: <u>2" in.</u>	Start Time: <u>0815</u>	Finish Time: <u>0930</u>
Bottom of Screen	<u>29</u> ft.	} From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>0</u> ft.			
Screen Length	<u>10</u> ft.			
		Fluids Lost during Drilling	gal.	

Protective Casing Stick-up	<u>0</u> ft.	Protective Casing/Well Diff.	ft.	PID Readings:	Ambient Air ppm
					Well Mouth ppm

Well Levels:		Sediment:	
Initial	<u>13.61</u> ft.	Well Depth before Development	ft. (from top of PVC)
End of Development	<u>14.02</u> ft.	Well Depth after Development	ft.
24 Hours after Development	ft.	Sediment Depth Removed	ft.
HT of Water Column	ft.	x <input type="checkbox"/> 1.68* gal./ft. = <span style="border: 1px solid black; text-align: center;">gal./vol.</span> <input type="checkbox"/> _____ *for 4" HSA Installed Wells	

Equipment:		Approximate Recharge Rate	gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump	<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____	Total Gallons Removed	gal.
<input checked="" type="checkbox"/> Surge Block	<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____		

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes No
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/> <input type="checkbox"/>

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>0815</u>	<u>20</u>	<u>20</u>	<u>6.23</u>	<u>-</u>	<u>6.34</u>	<u>650</u>	<u>-</u>
<u>0850</u>	<u>-</u>	<u>60</u>	<u>6.71</u>	<u>-</u>	<u>3.87</u>	<u>300</u>	<u>-</u>
<u>0905</u>	<u>-</u>	<u>80</u>	<u>6.79</u>	<u>-</u>	<u>3.80</u>	<u>292</u>	<u>-</u>
<u>0930</u>	<u>-</u>	<u>110</u>	<u>6.80</u>	<u>58°</u>	<u>3.9</u>	<u>-</u>	<u>-</u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

# WELL DEVELOPMENT RECORD

Project: <u>Honeywell - Buffalo Color</u>	Well Installation Date: <u>6/30/06</u>	Project No. <u>3613053016</u>
Client: <u>Honeywell</u>	Well Development Date: <u>6/30/06</u>	Logged by: <u>ESW</u> Checked by: <u>NMB</u>
Well/Site I.D.: <u>P2-117</u>	Weather: <u>75° F sunny</u>	Start Date: <u>6/30/06</u> Finish Date: <u>6/30/06</u>

<b>Well Construction Record Data:</b>		Well Diameter: <u>2</u> in.	Start Time: <u>1300</u>	Finish Time: <u>1335</u>
Bottom of Screen	<u>22</u> ft.	<input type="checkbox"/> From Ground Surface <input type="checkbox"/> From Top of Riser		
Sediment Sump/Plug	<u>0</u> ft.			
Screen Length	<u>10</u> ft.			
		Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up: <u>        </u> ft.	Protective Casing/Well Diff.: <u>        </u> ft.	PID Readings:	Ambient Air <u>        </u> ppm
			Well Mouth <u>        </u> ppm

<b>Well Levels:</b>	<b>Sediment:</b>	
Initial	Well Depth before Development	<u>        </u> ft. (from top of PVC)
End of Development	Well Depth after Development	<u>        </u> ft.
24 Hours after Development	Sediment Depth Removed	<u>        </u> ft.
HT of Water Column	<input type="checkbox"/> 1.68* gal./ft. = <u>        </u> gal./vol. <input type="checkbox"/> _____ *for 4" HSA Installed Wells	

<b>Equipment:</b>	Approximate Recharge Rate	<u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump <input type="checkbox"/> Surge Block <input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____ <input type="checkbox"/> Grundfos Pump 2" _____ 4" _____	Total Gallons Removed	<u>        </u> gal.

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes	No	
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>	

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>1300</u>	<u>25</u>	<u>25</u>	<u>8.95</u>	<u>72</u>	<u>.595</u>	<u>-</u>	<u>-</u>
<u>1310</u>	<u>20</u>	<u>55</u>	<u>8.90</u>	<u>71.9</u>	<u>.588</u>	<u>-</u>	<u>-</u>
<u>1330</u>	<u>20</u>	<u>85</u>	<u>8.77</u>	<u>71.5</u>	<u>.582</u>	<u>-</u>	<u>-</u>
<u>1335</u>	<u>20</u>	<u>105</u>	<u>8.74</u>	<u>71.4</u>	<u>.575</u>	<u>-</u>	<u>-</u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

# WELL DEVELOPMENT RECORD

Project: <u>Buffalo Color</u>	Well Installation Date: <u>6/2/06</u>	Project No. <u>3613053046</u>
Client: <u>Honeywell</u>	Well Development Date: <u>6/30/06</u>	Logged by: <u>ESW</u> Checked by: <u>NMB</u>
Well/Site I.D.: <u>PZ-118</u>	Weather: <u>75°F sunny</u>	Start Date: <u>6/30/06</u> Finish Date: <u>6/30/06</u>

<b>Well Construction Record Data:</b>		Well Diameter: <u>2 in.</u>	Start Time: <u>0724</u>	Finish Time: <u>0815</u>
Bottom of Screen	<u>22 ft.</u>	<input type="checkbox"/> From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>0 ft.</u>			
Screen Length	<u>10 ft.</u>			
		Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up: <u>        </u> ft.	Protective Casing/Well Diff.: <u>        </u> ft.	PID Readings:	Ambient Air <u>        </u> ppm
			Well Mouth <u>        </u> ppm

<b>Well Levels:</b>	<b>Sediment:</b>	
Initial: <u>12.6</u> ft.	Well Depth before Development: <u>        </u> ft.	(from top of PVC)
End of Development: <u>dry</u> ft.	Well Depth after Development: <u>        </u> ft.	
24 Hours after Development: <u>        </u> ft.	Sediment Depth Removed: <u>        </u> ft.	
HT of Water Column: <u>        </u> ft.	<input type="checkbox"/> 1.68* gal./ft. = <u>        </u> gal./vol. <input type="checkbox"/> _____	*for 4" HSA Installed Wells

<b>Equipment:</b>	Approximate Recharge Rate: <u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump <input checked="" type="checkbox"/> Surge Block <input type="checkbox"/> Bailor <input type="checkbox"/> 2" <input type="checkbox"/> _____ <input type="checkbox"/> Grundfos Pump 2" _____ 4" _____	Total Gallons Removed: <u>        </u> gal.

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes	No	
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>	

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>0724</u>	<u>20</u>	<u>20</u>	<u>11.39</u>	<u>56.63</u>	<u>1.856</u>	<u>-</u>	<u>-</u>
<u>0732</u>	<u>20</u>	<u>40</u>	<u>11.27</u>	<u>56.27</u>	<u>1.770</u>	<u>-</u>	<u>-</u>
<u>0755</u>	<u>20</u>	<u>60</u>	<u>11.22</u>	<u>56.36</u>	<u>1.743</u>	<u>-</u>	<u>-</u>
<u>0815</u>	<u>20</u>	<u>80</u>	<u>11.17</u>	<u>56.43</u>	<u>1.726</u>	<u>-</u>	<u>-</u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

MACTEC, Inc.

# WELL DEVELOPMENT RECORD

Project: <u>Buffalo Color</u>	Well Installation Date: <u>5/15/06</u>	Project No. <u>3613053046</u>
Client: <u>Honeywell</u>	Well Development Date: <u>6/29/06</u>	Logged by: <u>ESW</u> Checked by: <u>NMB</u>
Well/Site I.D.: <u>ICM-104</u>	Weather: <u>65°F sunny</u>	Start Date: <u>6/29/06</u> Finish Date: <u>6/29/06</u>

<b>Well Construction Record Data:</b>		Well Diameter: <u>2 in.</u>	Start Time: <u>1337</u>	Finish Time: <u>1430</u>
Bottom of Screen	<u>22.5 ft.</u>	From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>0 ft.</u>			
Screen Length	<u>10' ft.</u>	Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up <u>        </u> ft.	Protective Casing/Well Diff. <u>        </u> ft.	PID Readings:	Ambient Air <u>        </u> ppm
			Well Mouth <u>        </u> ppm

<b>Well Levels:</b>	<b>Sediment:</b>	
Initial <u>12.6 ft.</u>	Well Depth before Development <u>        </u> ft.	(from top of PVC)
End of Development <u>dry ft.</u>	Well Depth after Development <u>        </u> ft.	
24 Hours after Development <u>        </u> ft.	Sediment Depth Removed <u>        </u> ft.	
HT of Water Column <u>        </u> ft.	<input type="checkbox"/> 1.68* gal./ft. = <u>        </u> gal./vol. <input type="checkbox"/> _____	*for 4" HSA Installed Wells

<b>Equipment:</b>	Approximate Recharge Rate <u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump	Total Gallons Removed <u>        </u> gal.
<input checked="" type="checkbox"/> Surge Block	
<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____	
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____	

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes	No	
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>	

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>1337</u>	<u>20</u>	<u>20</u>	<u>11.69</u>	<u>66.88</u>	<u>1.927</u>	<u>-</u>	<u>-</u>
<u>1358</u>	<u>20</u>	<u>40</u>	<u>11.69</u>	<u>60.61</u>	<u>2.142</u>	<u>-</u>	<u>-</u>
<u>1412</u>	<u>20</u>	<u>60</u>	<u>11.75</u>	<u>60.83</u>	<u>2.181</u>	<u>-</u>	<u>-</u>
<u>1430</u>	<u>20</u>	<u>80</u>	<u>11.72</u>	<u>60.98</u>	<u>2.188</u>	<u>-</u>	<u>-</u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

# WELL DEVELOPMENT RECORD

Project: <b>Buffalo Color</b>	Well Installation Date: <b>6/5/06</b>	Project No. <b>3613053046</b>
Client: <b>Honeywell</b>	Well Development Date: <b>6/30/06</b>	Logged by: <b>ESW</b> Checked by: <b>NMB</b>
Well/Site I.D.: <b>ICM-105</b>	Weather: <b>75°F sunny</b>	Start Date: <b>6/30/06</b> Finish Date: <b>6/30/06</b>

<b>Well Construction Record Data:</b>		Well Diameter	<input type="text" value=""/>	Start Time: <b>0900</b>	Finish Time: <b>1130</b>
Bottom of Screen	<input type="text" value="22"/> ft.	From Ground Surface <input type="checkbox"/> From Top of Riser <input type="checkbox"/>			
Sediment Sump/Plug	<input type="text" value="0"/> ft.				
Screen Length	<input type="text" value="10"/> ft.	Fluids Lost during Drilling	<input type="text" value=""/>		

Protective Casing Stick-up	<input type="text" value=""/>	Protective Casing/Well Diff.	<input type="text" value=""/>	PID Readings:	Ambient Air <input type="text" value=""/> ppm
					Well Mouth <input type="text" value=""/> ppm

<b>Well Levels:</b>	<b>Sediment:</b>		
Initial	<input type="text" value="12.7"/> ft.	Well Depth before Development	<input type="text" value=""/> ft. (from top of PVC)
End of Development	<input type="text" value="dry"/> ft.	Well Depth after Development	<input type="text" value=""/> ft.
24 Hours after Development	<input type="text" value=""/> ft.	Sediment Depth Removed	<input type="text" value=""/> ft.
HT of Water Column	<input type="text" value=""/> ft.	<input type="checkbox"/> 1.68* gal./ft. = <input type="text" value=""/> gal./vol. <input type="checkbox"/> _____	*for 4" HSA Installed Wells

<b>Equipment:</b>	Approximate Recharge Rate	<input type="text" value=""/> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump <input checked="" type="checkbox"/> Surge Block <input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____ <input type="checkbox"/> Grundfos Pump 2" _____ 4" _____	Total Gallons Removed	<input type="text" value=""/> gal.

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes	No	
<input type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>	

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<b>0900</b>	<b>30</b>	<b>30</b>	<b>8.59</b>	<b>62.07</b>	<b>1.336</b>	<b>-</b>	<b>-</b>
<b>1130</b>	<b>20</b>	<b>50</b>	<b>8.62</b>	<b>65.20</b>	<b>1.391</b>	<b>-</b>	<b>-</b>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

# WELL DEVELOPMENT RECORD

Project: <u>Honeywell-Buffalo Color</u>	Well Installation Date: <u>6/7/06</u>	Project No. <u>3613053046</u>
Client: <u>Honeywell</u>	Well Development Date:	Logged by: <u>ESW</u>
Well/Site I.D.: <u>EW-1</u>	Weather: <u>75°F overcast</u>	Checked by: <u>NMB</u>
		Start Date: <u>6/23/06</u>
		Finish Date: <u>6/26/06</u>

Well Construction Record Data:		Well Diameter: <u>6</u> in.	Start Time: <u>-</u>	Finish Time: <u>1050</u>
Bottom of Screen	<u>27</u> ft.	} From Ground Surface <input checked="" type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>32</u> ft.			
Screen Length	<u>5</u> ft.			
		Fluids Lost during Drilling: <u>0</u> gal.		

Protective Casing Stick-up: <u>0</u> ft.	Protective Casing/Well Diff.: <u>    </u> ft.	PID Readings:
		Ambient Air <u>    </u> ppm
		Well Mouth <u>    </u> ppm

Well Levels:		Sediment:	
Initial	<u>17</u> ft.	Well Depth before Development	<u>    </u> ft. (from top of PVC)
End of Development	<u>14.34</u> ft.	Well Depth after Development	<u>    </u> ft.
24 Hours after Development	<u>    </u> ft.	Sediment Depth Removed	<u>    </u> ft.
HT of Water Column	<u>    </u> ft.	<input type="checkbox"/> 1.68* gal./ft. = <u>    </u> gal./vol. <input type="checkbox"/> _____ *for 4" HSA Installed Wells	

Equipment:		Approximate Recharge Rate: <u>15</u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump		Total Gallons Removed: <u>    </u> gal.
<input checked="" type="checkbox"/> Surge Block		
<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____		
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____		

Well Development Criteria Met:

Notes: \_\_\_\_\_

	Yes No
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/> <input type="checkbox"/>

End of Well Development Sample (1 pint) Collected?  Yes  No

Water Parameter Measurements							
Record at start, twice during and at the end of development (minimum):							
Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>0845</u>	<u>-</u>	<u>-</u>	<u>7.48</u>	<u>13.6</u>	<u>2.36</u>	<u>15</u>	<u>15 gpm</u>
<u>0930</u>	<u>-</u>	<u>-</u>	<u>7.42</u>	<u>14.1</u>	<u>2.37</u>	<u>5</u>	<u>15 gpm</u>
<u>1005</u>	<u>-</u>	<u>-</u>	<u>7.39</u>	<u>14.3</u>	<u>2.34</u>	<u>92</u>	<u>"</u>
<u>1050</u>	<u>-</u>	<u>-</u>	<u>7.34</u>	<u>14.3</u>	<u>2.34</u>	<u>13</u>	<u>"</u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

-MACTEC. Inc.

# WELL DEVELOPMENT RECORD

Project: <b>Buffalo Color</b>	Well Installation Date: <b>6/9/06</b>	Project No. <b>3613053046</b>
Client: <b>Honeywell</b>	Well Development Date: <b>6/26/06</b>	Logged by: <b>ESW</b> Checked by: <b>NMB</b>
Well/Site I.D.: <b>EW-2</b>	Weather: <b>750 F overcast</b>	Start Date: <b>6/26/06</b> Finish Date: <b>6/27/06</b>

<b>Well Construction Record Data:</b>		Well Diameter: <input type="text"/> in.	Start Time: <b>1200</b>	Finish Time: <b>1115</b>
Bottom of Screen	<input type="text" value="29"/> ft.	From Ground Surface <input checked="" type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<input type="text" value="34"/> ft.			
Screen Length	<input type="text" value="5"/> ft.	Fluids Lost during Drilling	<input type="text" value=""/> gal.	

Protective Casing Stick-up: <input type="text" value="0"/> ft.	Protective Casing/Well Diff.: <input type="text" value="0"/> ft.	PID Readings:	Ambient Air <input type="text"/> ppm
			Well Mouth <input type="text"/> ppm

<b>Well Levels:</b>	<b>Sediment:</b>	
Initial	Well Depth before Development	<input type="text" value="11.86"/> ft. (from top of PVC)
End of Development	Well Depth after Development	<input type="text" value="16.42"/> ft.
24 Hours after Development	Sediment Depth Removed	<input type="text"/> ft.
HT of Water Column	<input type="text"/> ft.	x <input type="checkbox"/> 1.68* gal./ft. = <input type="text"/> gal./vol.
	x <input type="checkbox"/> _____	*for 4" HSA Installed Wells

<b>Equipment:</b>	Approximate Recharge Rate	<input type="text"/> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump	Total Gallons Removed	<input type="text"/> gal.
<input checked="" type="checkbox"/> Surge Block		
<input type="checkbox"/> Bailor <input type="checkbox"/> 2" <input type="checkbox"/> _____		
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____		

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes	No
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<b>1230</b>	-	-	<b>7.19</b>	<b>14.3</b>	<b>2.83</b>	<b>310</b>	<b>10 gal/min</b>
<b>1420</b>	-	-	<b>7.59</b>	<b>14.3</b>	<b>2.37</b>	<b>28</b>	"
<b>1515</b>	-	-	<b>7.62</b>	<b>14.1</b>	<b>2.20</b>	<b>71</b>	"
<b>0915</b>	-	-	<b>4.65</b>	<b>14.0</b>	<b>2.70</b>	<b>25</b>	<b>11 gpm</b>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**



# WELL DEVELOPMENT RECORD

Project: <i>Honeywell - Buffalo Color</i>	Well Installation Date:	Project No. <i>3613653046</i>
Client: <i>Honeywell</i>	Well Development Date: <i>6/19/06 - 6/20/06</i>	Logged by: <i>ESW</i>
Well/Site I.D.: <i>EX-3</i>	Weather: <i>70° F sunny</i>	Start Date: <i>6/19/06</i>
Well Construction Record Data:		Finish Date:

Well Diameter <input type="text"/> in.	Start Time:
Bottom of Screen <input style="width: 50px;" type="text" value="33"/> ft.	Finish Time:
Sediment Sump/Plug <input style="width: 50px;" type="text" value="5"/> ft.	
Screen Length <input style="width: 50px;" type="text" value="5"/> ft.	
Fluids Lost during Drilling <input style="width: 100px;" type="text"/> gal.	

Protective Casing Stick-up <input style="width: 50px;" type="text" value="—"/> ft.	Protective Casing/Well Diff. <input style="width: 50px;" type="text" value="—"/> ft.	PID Readings:
		Ambient Air <input style="width: 50px;" type="text"/> ppm
		Well Mouth <input style="width: 50px;" type="text"/> ppm

Well Levels:	Sediment:	
Initial <input style="width: 50px;" type="text" value="11.37"/> ft.	Well Depth before Development <input style="width: 50px;" type="text"/> ft.	(from top of PVC)
End of Development <input style="width: 50px;" type="text"/> ft.	Well Depth after Development <input style="width: 50px;" type="text"/> ft.	
24 Hours after Development <input style="width: 50px;" type="text"/> ft.	Sediment Depth Removed <input style="width: 50px;" type="text"/> ft.	
HT of Water Column <input style="width: 50px;" type="text"/> ft.	<input type="checkbox"/> 1.68* gal./ft. = <input style="width: 50px;" type="text"/> gal./vol. <input type="checkbox"/> _____	*for 4" HSA Installed Wells

Equipment:	Approximate Recharge Rate <input style="width: 50px;" type="text"/> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump	Total Gallons Removed <input style="width: 50px;" type="text"/> gal.
<input checked="" type="checkbox"/> Surge Block	
<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____	
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____	

Well Development Criteria Met:

Notes: _____	Yes No
_____	<input type="checkbox"/> <input type="checkbox"/>
_____	<input type="checkbox"/> <input type="checkbox"/>
_____	<input type="checkbox"/> <input type="checkbox"/>
_____	<input type="checkbox"/> <input type="checkbox"/>
_____	<input type="checkbox"/> <input type="checkbox"/>
End of Well Development Sample (1 pint) Collected? <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> <input type="checkbox"/>

Water Parameter Measurements

Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<i>1040</i>	—	—	<i>5.75</i>	<i>18.3</i>	—	<i>252</i>	<i>9.7 gal/min</i>
<i>1110</i>	—	—	<i>5.84</i>	<i>17.9</i>	<i>9.1</i>	<i>173</i>	"
<i>1145</i>	—	—	<i>6.25</i>	<i>18.1</i>	<i>6.94</i>	<i>165</i>	"
<i>1330</i>	—	—	<i>6.76</i>	<i>17.9</i>	<i>7.10</i>	<i>83</i>	"

water received @ 1030 on 6/20/06

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

# WELL DEVELOPMENT RECORD

Project: <u>Buffalo Color</u>	Well Installation Date:	Project No.
Client: <u>Honeywell</u>	Well Development Date: <u>6/20/06 - 6/21/06</u>	Logged by: <u>ESW</u> / Checked by: <u>NMB</u>
Well/Site I.D.: <u>EW-4</u>	Weather: <u>75°F sunny</u>	Start Date: <u>6/20/06</u> / Finish Date:

Well Construction Record Data:		Well Diameter: <u>6</u> in.	Start Time: <u>1430</u>	Finish Time:
Bottom of Screen	<u>32</u> ft.	From Ground Surface <input checked="" type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>5</u> ft.			
Screen Length	<u>5</u> ft.			
		Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up: <u>none</u> ft.	Protective Casing/Well Diff.: <u>none</u> ft.	PID Readings:	Ambient Air: <u>        </u> ppm
			Well Mouth: <u>        </u> ppm

Well Levels:		Sediment:	
Initial	<u>12.3</u> ft.	Well Depth before Development	<u>        </u> ft. (from top of PVC)
End of Development	<u>        </u> ft.	Well Depth after Development	<u>        </u> ft.
24 Hours after Development	<u>        </u> ft.	Sediment Depth Removed	<u>        </u> ft.
HT of Water Column	<u>        </u> ft.	<input type="checkbox"/> 1.68* gal./ft. = <u>        </u> gal./vol. <input type="checkbox"/> _____ *for 4" HSA Installed Wells	

Equipment:		Approximate Recharge Rate	<u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump		Total Gallons Removed	<u>        </u> gal.
<input checked="" type="checkbox"/> Surge Block			
<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____			
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____			

Well Development Criteria Met:

Notes: \_\_\_\_\_

	Yes	No	
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/> 10% change in field parameters	<input type="checkbox"/>	<input type="checkbox"/>	

End of Well Development Sample (1 pint) Collected?  Yes  No

Water Parameter Measurements								
Record at start, twice during and at the end of development (minimum):								
Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate	
<u>1430</u>	<u>-</u>	<u>-</u>	<u>6.74</u>	<u>19.1</u>	<u>6.12</u>	<u>unrecordable</u>	<u>9.4 gal/min</u>	<u>14.72</u>
<u>0900</u>	<u>-</u>	<u>-</u>	<u>7.29</u>	<u>19.1</u>	<u>6.16</u>	<u>14</u>	<u>9.4 gal/min</u>	<u>14.26</u>
<u>1200</u>	<u>-</u>	<u>-</u>	<u>7.15</u>	<u>21.1</u>	<u>5.79</u>	<u>unrecordable</u>	<u>9.2 gal/min</u>	<u>12.40</u>
<u>1430</u>	<u>-</u>	<u>-</u>	<u>7.39</u>	<u>18.9</u>	<u>6.07</u>	<u>40</u>	<u>9 gal/min</u>	

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**

MACTEC, Inc.

# WELL DEVELOPMENT RECORD

Project: <u>Honeywell - Buffalo Color</u>	Well Installation Date:	Project No. <u>3613053046</u>
Client: <u>Honeywell</u>	Well Development Date: <u>6/22/06</u>	Logged by: <u>ESW</u> Checked by: <u>NMB</u>
Well/Site I.D.: <u>EW-5</u>	Weather: <u>70°F cloudy windy</u>	Start Date: <u>6/22/06</u> Finish Date: <u>6/22/06</u>

Well Construction Record Data:		Well Diameter: <u>6</u> in.	Start Time: <u>0745</u>	Finish Time: <u><del>0800</del></u>
Bottom of Screen	<u>31.5</u> ft.	From Ground Surface <input checked="" type="checkbox"/> From Top of Riser <input type="checkbox"/>		
Sediment Sump/Plug	<u>5</u> ft.			
Screen Length	<u>5</u> ft.	Fluids Lost during Drilling	<u>        </u> gal.	

Protective Casing Stick-up <u>        </u> ft.	Protective Casing/Well Diff. <u>        </u> ft.	PID Readings:	Ambient Air <u>        </u> ppm
			Well Mouth <u>        </u> ppm

Well Levels:		Sediment:	
Initial	<u>14.87</u> ft.	Well Depth before Development	<u>        </u> ft. (from top of PVC)
End of Development	<u>21.10</u> ft.	Well Depth after Development	<u>        </u> ft.
24 Hours after Development	<u>        </u> ft.	Sediment Depth Removed	<u>        </u> ft.
HT of Water Column	<u>        </u> ft.	<input type="checkbox"/> 1.68* gal./ft. = <u>        </u> gal./vol. <input type="checkbox"/> _____ *for 4" HSA Installed Wells	

Equipment:		Approximate Recharge Rate	<u>        </u> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump		Total Gallons Removed	<u>        </u> gal.
<input checked="" type="checkbox"/> Surge Block			
<input type="checkbox"/> Bailer <input type="checkbox"/> 2" <input type="checkbox"/> _____			
<input type="checkbox"/> Grundfos Pump 2" _____ 4" _____			

**Well Development Criteria Met:**

Notes: \_\_\_\_\_

	Yes No
<input checked="" type="checkbox"/> Well water clear to unaided eye	<input checked="" type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> Sediment thickness remaining in well is <1.0% of screen length	<input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> Total water removed = a minimum of 5x calculated well volume plus 5x drilling fluid lost	<input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> Turbidity < 5NTUs	<input type="checkbox"/> <input type="checkbox"/>
<input checked="" type="checkbox"/> 10% change in field parameters	<input checked="" type="checkbox"/> <input type="checkbox"/>

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**  
Record at start, twice during and at the end of development (minimum):

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
<u>0800</u>	<u>-</u>	<u>-</u>	<u>7.17</u>	<u>15.5</u>	<u>4.74</u>	<u>unrecordable</u>	<u>8.1 gal/min</u>
<u>1230</u>	<u>-</u>	<u>-</u>	<u>6.75</u>	<u>18.3</u>	<u>4.78</u>	<u>93</u>	<u>5 gal/min</u>
<u>1450</u>	<u>-</u>	<u>-</u>	<u>6.68</u>	<u>19.0</u>	<u>4.87</u>	<u>52</u>	<u>5 gal/min</u>
<u>needed by her on 123/06</u> <u>1030</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5 gal/min</u>

Well Developer's Signature \_\_\_\_\_

**WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK**



# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <u>PZ-109</u>
CLIENT: <u>Honeywell, Inc.</u>		DATE: <u>6/29/06</u>
LOCATION: <u>Buffalo Color</u>		PROJECT NO.: <u>3613053046</u>
CONSULTANT: <u>MACTEC</u>		

STARTING WATER LEVEL (NON-PUMPING)(TOC): ~~1106~~ 10.7  
 TIME PUMPING BEGAN: 1106

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
<u>1106</u>			<u>20 gal</u>	<u>14.4</u>	
<u>1119</u>			<u>20</u>	<u>15.5</u>	
<u>1127</u>			<u>20</u>	<u>15.5</u>	
<u>1138</u>			<u>20</u>	<u>15.4</u>	
<u>1147</u>			<u>20</u>	<u>15.6</u>	
<u>1236</u>			<u>20</u>	<u>13.8</u>	

TIME PUMPING STOPPED: 1236  
 TOTAL VOLUME PUMPED: 120 gal

COMMENTS: Surge for 20 minutes Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <u>PZ-110</u>
CLIENT: <u>Honeywell, Inc.</u>		DATE: <u>6/29/06</u>
LOCATION: <u>Buffalo Color</u>		PROJECT NO.: <u>3613653046</u>
CONSULTANT: <u>MACTEC</u>		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 12.52  
 TIME PUMPING BEGAN: ~~1000~~ 0850

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0850			20 gal	19.9	
0907			20	15.8	
0938			20	14.7	
0949			20	14.5	
1000			20	15.0	

TIME PUMPING STOPPED: 1000  
 TOTAL VOLUME PUMPED: 100 gal

COMMENTS: Surge 20 min first Logged By: CSW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <u>P2-111</u>
CLIENT: <u>Honeywell, Inc.</u>		DATE: <u>6/28/06</u>
LOCATION: <u>Buffalo Color</u>		PROJECT NO.: <u>3613053046</u>
CONSULTANT: <u>MACTEC</u>		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 12.03

TIME PUMPING BEGAN: 1327

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
<u>1327</u>			<u>20 gal</u>	<u>12.36</u>	
<u>1337</u>			<u>20</u>	<u>12.61</u>	
<u>1347</u>			<u>20</u>	<u>12.55</u>	
<u>1357</u>			<u>20</u>	<u>12.55</u>	
<u>1417</u>			<u>20</u>	<u>12.56</u>	
<u>1431</u>			<u>20</u>	<u>12.56</u>	

TIME PUMPING STOPPED: 1431

TOTAL VOLUME PUMPED: 120 gal

COMMENTS: Surge - 15 minutes first

Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

WELL #: PZ-112

CLIENT: Honeywell, Inc.  
LOCATION: Buffalo Color  
CONSULTANT: MACTEC

DATE: 6/28/06

PROJECT NO.: 3613053046

STARTING WATER LEVEL (NON-PUMPING)(TOC): 11.65

TIME PUMPING BEGAN: 1121

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
1130			20	-	
1141			20	13.02	
1149			20	13.17	
1200			20	13.21	
1240			20	-	

TIME PUMPING STOPPED: \_\_\_\_\_

TOTAL VOLUME PUMPED: \_\_\_\_\_

COMMENTS: Surge 20 min. first

Logged By: ESW  
Checked By: NMB



# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <u>P2-113</u>
CLIENT: <u>Honeywell, Inc.</u>		DATE: <u>6/28/06</u>
LOCATION: <u>Buffalo Color</u>		PROJECT NO.: <u>3613653046</u>
CONSULTANT: <u>MACTEC</u>		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 11.75  
 TIME PUMPING BEGAN: ~~0950~~ 1012

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
1017			10 gal		well dry
1112			.2 gal		purge till dry again

TIME PUMPING STOPPED: 1017  
 TOTAL VOLUME PUMPED: 10 gal

COMMENTS: \_\_\_\_\_  
 Logged By: ESW  
 Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <u>PZ-114</u>
CLIENT: <u>Honeywell, Inc.</u>		DATE: <u>6/28/06</u>
LOCATION: <u>Buffalo Color</u>		PROJECT NO.: <u>3613053046</u>
CONSULTANT: <u>MACTEC</u>		

STARTING WATER LEVEL (NON-PUMPING)(TOC): \_\_\_\_\_  
 TIME PUMPING BEGAN: 0800

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0815	<u>~ 2 gpm</u>		20	13.97	
0830			20	14.03	
0850			20	14.00	
0905			20	13.99	
0916			20	14.02	
0923			-	-	
0930	<u>↙</u>		10	-	

TIME PUMPING STOPPED: 0930  
 TOTAL VOLUME PUMPED: 110

COMMENTS: Surge 20 min. first Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <u>PZ-117</u>	
CLIENT:	<u>Honeywell, Inc.</u>	DATE:	<u>6/30/06</u>
LOCATION:	<u>Buffalo, Color</u>	PROJECT NO.:	<u>3613653046</u>
CONSULTANT:	<u>MACTEC</u>		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 14.2  
 TIME PUMPING BEGAN: 1300

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
1300			25 gal	14.11	
1310			20	14.13	
1320			20	14.12	
1330			20	14.13	
1335			20	14.16	

TIME PUMPING STOPPED: 1335  
 TOTAL VOLUME PUMPED: 105 gal

COMMENTS: Surge well for 20 minutes first Logged By: ESW  
Checked By: NWB

# WELL SPECIFIC CAPACITY TEST FORM

WELL #: PZ-118

CLIENT: Honeywell, Inc.  
LOCATION: Buffalo Color  
CONSULTANT: MACTEC

DATE: 6/30/06  
PROJECT NO.: 3613053046

STARTING WATER LEVEL (NON-PUMPING)(TOC): 12.6  
TIME PUMPING BEGAN: 0724

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0724			20 gal	21.9	
0732			20	bottom	
0755			30	of	
0815			20	well	

TIME PUMPING STOPPED: 0815  
TOTAL VOLUME PUMPED: 90 gal

COMMENTS: Surge well for 20 min. first

Logged By: ESW  
Checked By: WMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <u>ICM-104</u>
CLIENT: <u>Honeywell, Inc.</u>		DATE: <u>6/29/06</u>
LOCATION: <u>Buffalo Color</u>		PROJECT NO.: <u>3613053046</u>
CONSULTANT: <u>MACTEC</u>		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 12.6

TIME PUMPING BEGAN: 1337

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
1337			20 gal	—	water level remained
1358			20	—	low and well dried up
1412			20	—	so water level was
1430			20	—	below the pump

TIME PUMPING STOPPED: 1430

TOTAL VOLUME PUMPED: 80 gal

COMMENTS: Surge for 20 minutes Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <u>TCM-105</u>
CLIENT: <u>Honeywell, Inc.</u>	DATE: <u>6/30/06</u>	
LOCATION: <u>Buffalo Color</u>	PROJECT NO.: <u>3613053046</u>	
CONSULTANT: <u>MACTEC</u>		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 12.7  
TIME PUMPING BEGAN: 0900

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0900			30 gal	dry	
1130			30	dry	

TIME PUMPING STOPPED: 1130  
TOTAL VOLUME PUMPED: 60 gal

COMMENTS: Surge well for 20 minutes first  
Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

			WELL #: <del>EX-1</del> EW-1 <sup>(JMB)</sup>
CLIENT:	Honeywell, Inc.		DATE: 6/23/06
LOCATION:	Buffalo, Color		PROJECT NO.: 3613053046
CONSULTANT:	MACTEC		

STARTING WATER LEVEL (NON-PUMPING)(TOC): \_\_\_\_\_

TIME PUMPING BEGAN: 1315

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
1315	12.4 gpm		-	13.6	28' - 27'
1330				13.6	↓
1345				13.7	
1400	15 gpm			14.6	
1415				14.7	
1430				14.7	
1445				14.7	27' - 20'
1500				-	↓

TIME PUMPING STOPPED: 1500

TOTAL VOLUME PUMPED: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

NMB

CLIENT:	Honeywell, Inc.	WELL #:	<del>EX-1</del> EW-1
LOCATION:	Buffalo Color	DATE:	6/26/06
CONSULTANT:	MACTEC	PROJECT NO.:	3613053096

STARTING WATER LEVEL (NON-PUMPING)(TOC): 12.26  
TIME PUMPING BEGAN: 0815

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0815	15.3 <sup>2</sup> / <sub>min</sub>		—	12.26	27' to 26'
0830	"			14.21	↓
0845	"			14.26	↓
0900	"			14.34	↓
0900	"			14.34	26' to 25'
0915	"			14.37	↓
0930	"			14.41	↓
0950	"			14.43	25' to 24'
1005	"			14.35	↓
1020	"			14.35	↓
1035	"			14.33	↓
1050	"			14.34	↓

TIME PUMPING STOPPED: 1050  
TOTAL VOLUME PUMPED: —

COMMENTS: Water greenish in bucket w/ very strong odor (photos taken)

Logged By: ESW  
Checked By: NMB



# WELL SPECIFIC CAPACITY TEST FORM

	WELL #: <u>EX-2 EW-2</u> <span style="float: right; border: 1px solid black; border-radius: 50%; padding: 2px;">NMB</span>
CLIENT: <u>Honeywell, Inc.</u>	DATE: <u>6/26/06</u>
LOCATION: <u>Buffalo Color</u>	PROJECT NO.: <u>3613053046</u>
CONSULTANT: <u>MACTEC</u>	

STARTING WATER LEVEL (NON-PUMPING)(TOC): 11.86

TIME PUMPING BEGAN: 1200

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
1200	10.3 <sup>gal</sup> /min			11.86	29' to 28' well surged
1230				16.24	
1245				16.30	
1300				16.58	
1315				16.62	
1330				16.75	
1345				16.82	↓
1350				17.29	28 to 27'
1405				17.92	
1420				17.95	↓
1430				11.95	27 to 26' well surged
1445				15.18	
1500				15.34	
1515				15.42	

TIME PUMPING STOPPED: 1515

TOTAL VOLUME PUMPED: \_\_\_\_\_

COMMENTS: Water never cleared always maintained dark Brown to Black

Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <sup>NMB</sup> <del>EX-2</del> EW2
CLIENT: Honeywell, Inc.	DATE: 6/27/06	
LOCATION: Buffalo Color	PROJECT NO.: 3613053046	
CONSULTANT: MACTEC		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 11.62  
TIME PUMPING BEGAN: 0730

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0730	11.5 <sup>gpm</sup> <sub>min</sub>			11.62	27' to 26'
0745	↓			16.74	
0800				15.95	
0815				16.08	
0830				16.12	
0845				16.15	↓
0845				16.12	26' to 25'
0900				16.18	↓
0915				16.18	↓
1045				16.08	25' to 27'
1100				16.35	↓
1115		↓			16.42

TIME PUMPING STOPPED: 1115  
TOTAL VOLUME PUMPED: \_\_\_\_\_

COMMENTS: water never cleared entirely water maintained  
Dark Brown to Black color. Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

NMB

WELL #: ~~EX-3~~ EW-3

CLIENT: Honeywell, Inc.

DATE: 6/19/06

LOCATION: Buffalo Color

PROJECT NO.: 3613053046

CONSULTANT: MACTEC

STARTING WATER LEVEL (NON-PUMPING)(TOC): unknown

TIME PUMPING BEGAN: 1300

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
1300	11.5 gal/min			21.74	33' to 32'
1355	11.5			20.96	33' to 32'
1410					ran out of gas
1416	11.5			20.48	33' to 32'
1430	11.5			21.18	33' to 32'

TIME PUMPING STOPPED: 1430

TOTAL VOLUME PUMPED: unknown

COMMENTS: Water never clear maintained a Dark Brown to Black Color

Logged By: ESW  
Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <del>EX-3</del> <sup>CAMB</sup> EW-3
CLIENT: Honeywell, Inc.		DATE: 6/20/06 <del>EX-3</del>
LOCATION: Buffalo Color		PROJECT NO.: 3613653046
CONSULTANT: MACTEC		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 11.99  
 TIME PUMPING BEGAN: 17.7

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0750	NONE		NONE	11.99	Not pumping
0800	9.4 gal/min		—	17.88	32' to 31'
0820				17.78	↓
0830				17.64	↓
0840				17.78	31' to 30'
0850				17.54	↓
0900				17.57	↓
0910				17.76	↓
0920				17.78	↓
1015				15.18	30' to 29'
1025				15.58	↓
1040				16.02	meter arrived
1110				16.12	↓
1125				16.32	↓
1150				15.86	29' to 28'
1200				15.85	↓
1235				15.88	↓
1250				16.00	↓
1305				16.01	↓
1330				15.90	↓

TIME PUMPING STOPPED: 1330  
 TOTAL VOLUME PUMPED: —

COMMENTS: Water never clear maintained a Dark Brown to black color

Logged By: ESW  
 Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

NMB

	WELL #: <del>EX-4</del> EW-4
CLIENT: Honeywell, Inc.	DATE: 6/21/06
LOCATION: Buffalo Color	PROJECT NO.: 3613053046
CONSULTANT: MACTEC	

STARTING WATER LEVEL (NON-PUMPING)(TOC): 12.18  
 TIME PUMPING BEGAN: 0730

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0730	9.45 gpm		-	12.18	32' to 31'
0800				14.20	↓
0815				14.22	
0830				14.24	↓
0840				14.25	
0845				14.18	31' to 30'
0900				14.26	↓
0915				14.28	
0955				12.30	30' to 29'
1010				14.18	↓
1025				14.22	
1045				14.28	↓
1100				14.32	
1115				14.33	↓
1130				14.32	
1200	9.5 gpm			12.40	29' to 28'
1235				14.23	↓
1245				14.24	
1300				14.24	↓
1315				14.24	
1320				13.98	28' to 27'
1330				14.13	↓
1345				14.17	
1400				14.15	↓
1415				14.20	
1430				14.21	↓

TIME PUMPING STOPPED: 1430  
 TOTAL VOLUME PUMPED: unknown

COMMENTS: Water never cleared maintained a Dark Brown to Black  
 Logged By: ESLW  
 Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

NMB

	WELL #: <u>EX-5 EW-5</u>
CLIENT: <u>Honeywell, Inc.</u>	DATE: <u>6/22/06</u>
LOCATION: <u>Buffalo Color</u>	PROJECT NO.: <u>36.3053046</u>
CONSULTANT: <u>MACTEC</u>	

STARTING WATER LEVEL (NON-PUMPING)(TOC): 24.87  
 TIME PUMPING BEGAN: 0745

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0745	9.1 gal/min			14.87	31.5' to 30.5'
0800	↓			23.34	↓
0815	↓			23.04	↓
0830	↓			23.73	↓
0845	↓			23.93	↓
0900	↓			24.87	↓
0915	3.6			18.20	↓
0930	↓			17.81	↓
0945	↓			17.88	↓
1000	↓			17.52	↓
1015	↓			17.52	↓
1030	↓			17.52	30.5' to 29.5'
1035	↓			17.52	↓
1045	↓			17.50	↓
1105	5 gal/min			17.97	29.5 to 28.5'
1120	↓			18.68	↓
1135	↓			18.75	↓
1150	↓			19.22	↓
1205	↓			19.53	↓
1230	↓			19.77	↓
1245	↓			19.97	↓
1300	↓			20.02	↓
1315	↓			20.10	↓

TIME PUMPING STOPPED: cont'd on next page  
 TOTAL VOLUME PUMPED: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
 Logged By: ESW  
 Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

*(NMB)*

WELL #: EX-5 EW-5

CLIENT: Honeywell, Inc.  
 LOCATION: Buffalo Color  
 CONSULTANT: MACTEC

DATE: 6/22/06

PROJECT NO.: 3613053046

STARTING WATER LEVEL (NON-PUMPING)(TOC): 14.87

TIME PUMPING BEGAN: continued from previous page

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
1320	5 <sup>3</sup> / <sub>4</sub> min			20.19	28.5 to 27.5'
1335	↓			20.24	↓
1350				20.37	
1405				20.50	
1420				20.55	
1435				20.97	
1450				21.10	
1505				—	

TIME PUMPING STOPPED: 1505

TOTAL VOLUME PUMPED: \_\_\_\_\_

COMMENTS:

Logged By: ESW  
 Checked By: NMB

# WELL SPECIFIC CAPACITY TEST FORM

		WELL #: <sup>NMB</sup> <del>EX-5</del> EW-5
CLIENT: Honeywell, Inc.		DATE: 6/23/06
LOCATION: Buffalo Color		PROJECT NO.: 3613053046
CONSULTANT: MACTEC		

STARTING WATER LEVEL (NON-PUMPING)(TOC): 14'  
 TIME PUMPING BEGAN: 0745

TIME	MEASURED PUMPING RATE	or	VOLUME PUMPED SINCE LAST MEASUREMENT	DEPTH TO WATER	OBSERVATIONS
0745				18.2	
0800				18.6	
0815				19.2	
0830				19.6	
0845				19.7	
0900				19.2	
0915				19.1	
0930				20.5	
0945				20.8	
1000				20.9	
1015				21.0	
1030				21.4	
1045				-	

TIME PUMPING STOPPED: 1045  
 TOTAL VOLUME PUMPED: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
 Logged By: ESW  
 Checked By: NMB



**APPENDIX B-5**

**NYSDEC Trench Sampling Report, Dated August 2006**

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Division of Environmental Remediation

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# Trench Sampling Report



**Area A between EW-1 and Pipe Gallery  
Buffalo Color Plant Site  
Erie County, New York  
SITE NO. 9-15-184**

---

August 2006

New York State Department of Environmental Conservation  
Region 9  
270 Michigan Avenue  
Buffalo, New York 14203-2999

# Trench Sampling report

**Area A between EW-1 and Pipe Gallery  
Buffalo Color Plant Site  
Erie County, New York  
SITE NO. 9-15-184**



Prepared by:

New York State Department of Environmental Conservation  
Division of Environmental Remediation  
270 Michigan Ave  
Buffalo, New York 14203-2999

Linda Ross, C.P.G.  
Engineering Geologist I

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Sampling Summary .....	1
Conclusions Recommendations .....	2

Figure 1: Site Location Map

Table 1: Volatile Organic Compound Trench Sampling

Table 2: Semi-Volatile Organic Compound Trench Sampling

Table 3: Metals Trench Sampling

Appendix A: Laboratory Results

Appendix B: Tentatively Identified Compound (TIC) Laboratory Results

## **Sampling Summary**

The New York State Department of Environmental Conservation (NYSDEC) sampled the trench which ran from the Pipe Gallery to Extraction Well Number 1 (EW-1) on July 6, 2006 (see attached Figure) on the Buffalo Color Plant Site (hw915184) in Area A.

The trench was excavated on July 5, 2006 by Honeywell Inc's contractor Severson under the supervision of MACTEC. NYSDEC's Project Manager Linda Ross asked MACTEC on July 5, 2006, to sample soil which was discolored purple along the sidewall of the trench (TSW-1 and TSW-2), soil in the base of the trench (TB-1 and TB-2) and soil adjacent to EW-1 which was stained black (TSW-3).

On July 5, 2006 MACTEC declined to sample the soil, and so NYSDEC personnel Linda Ross and David Szymanski sampled the soil in the morning of July 6, 2006.

Five samples were taken, as shown on the attached Figure. TSW-1 and TSW-2 were stained purple and were found approximately 6 inches below the surface along the sidewall of the trench. Samples TB-1 and TB-2 were taken from the bottom of the trench approximately 5 feet from the surface. It should be noted that the base of the trench was dry. TSW-3 was taken approximately 1 foot below the surface adjacent to EW-1. TSW-1 was located between EW-1 and the Buffalo River.

The samples were analyzed by Severn Trent Laboratory (STL) Buffalo. The samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260, Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270 and Metals by EPA Methods 6010 and 7471.

The Tables of detections are found on Tables 1 through 3. Samples which exceed TAGM 4046 are shaded.

## **Conclusions and Recommendation**

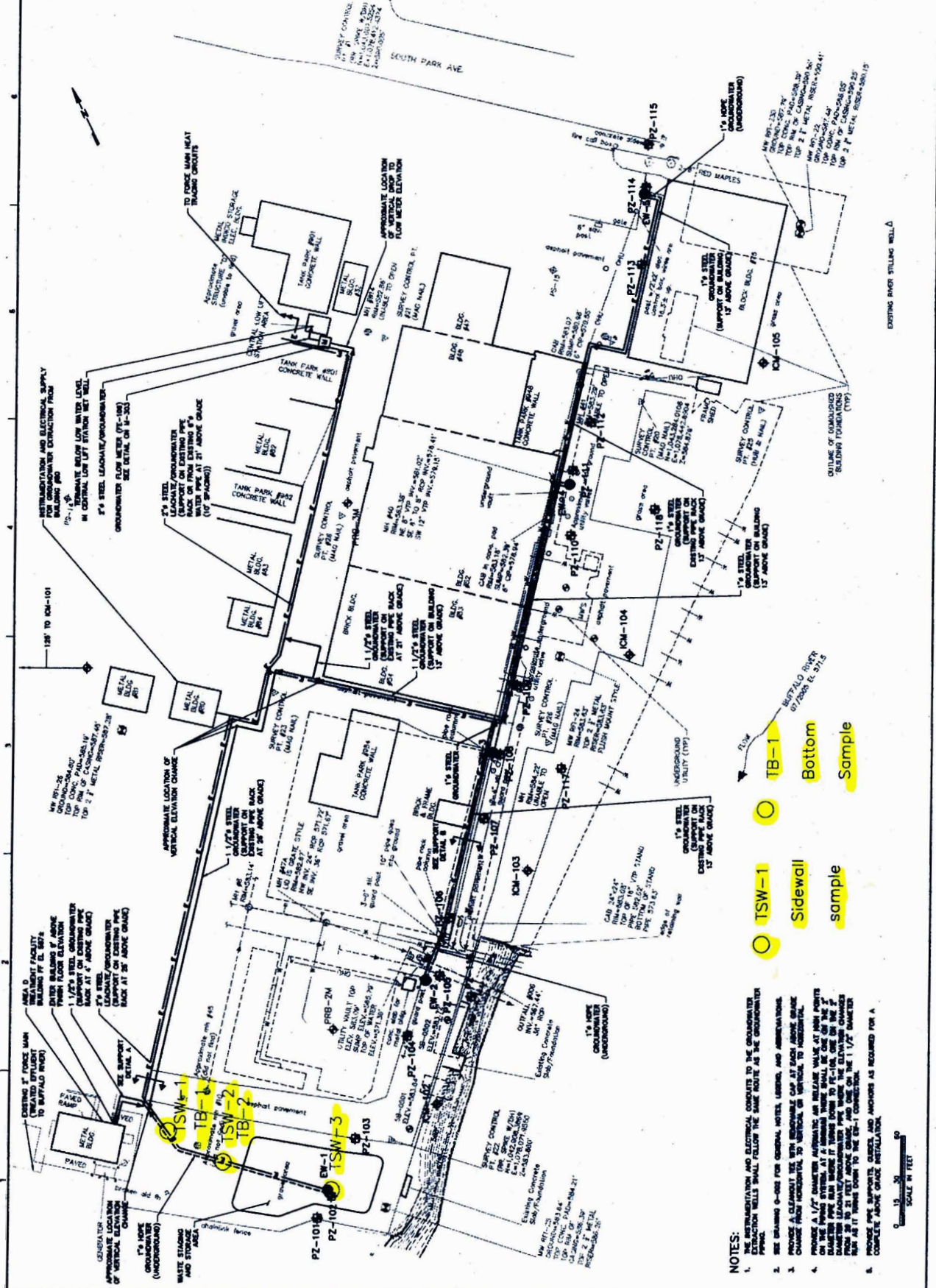
Based on the July 6, 2006 sampling, VOCs were not a concern, however SVOCs and Metals are of concern and may require remediation. It should be noted that SVOC Tentatively Identified Compounds (TICs) were elevated for TSW-1, TB-1, TSW-2 and TSW-3. The soil samples were analyzed for 20 SVOC TICs. TSW-1 and TB-1 had 20 TICs listed and there may have been more compounds which could have been quantified. It is recommended that during the upcoming Remedial Investigation that at least 30 TICs should be run for the SVOC samples. VOCs should have TICs reported, as well.

# FIGURE

DATE	07/20/05
PROJ	361343010
DWG	C-104
SHEET	6 OF 17

NO.	1	01/20/05	ISSUED FOR BID
NO.	2	02/10/05	ISSUED FOR CLIENT REVIEW AND COMMENT
NO.	3	03/10/05	ISSUED FOR CLIENT REVIEW AND COMMENT
NO.	4	04/10/05	ISSUED FOR CLIENT REVIEW AND COMMENT
NO.	5	05/10/05	ISSUED FOR CLIENT REVIEW AND COMMENT

DATE	07/20/05
PROJ	361343010
DWG	C-104
SHEET	6 OF 17



SCALE IN FEET: 0' 10' 20'

LEGEND:

- TSW-1 Sidewall sample
- TB-1 Bottom Sample

NOTES:



# TABLES

Table 1

Table of Detections VOCs Buffalo Color Area A Trench Samples from Pipe Gallery to EW-1

Sample Point	TSW-1	TB-1	TSW-2	TB-2	TSW-3	TAGM 4046
<b>Analyte</b>						
Acetone	3 BJ	ND	ND	ND	ND	200
Methylene Chloride	10 B	6 B	7 B	4 BJ	7B	100
Trichlorofluoromethane	2 BJ	2 BJ	2 BJ	2 BJ	2 BJ	NVG
Total Tentatively Identified Compounds	6	ND	6	6	ND	10,000

Notes:

Sample results are in ug/kg

Samples collected July 6, 2006

Shaded results exceed TAGM 4046

B=The analyte was found in the associated blank

J=Indicates an estimated value

NVG=No value given

ND=Not detected

Table 2

Table of Detection SVOCs Buffalo Color Area A Trench Samples from Pipe Gallery to EW-1

Sample Point	TSW-1	TB-1	TSW-2	TB-2	TSW-3	TAGM 4046
<b>Analyte</b>						
2,4- Dimethylphenol	ND	1600 J	ND	ND	ND	NVG
2,4-Dinitrotoluene	ND	14000	ND	ND	ND	NVG
2,6-Dinitrotoluene	ND	13000	ND	ND	ND	1000
2-Methylnaphthalene	1800 J	670 J	ND	ND	ND	36,400
Acenaphthene	5200 J	400 J	ND	630 J	4000 J	50,000
Acenaphthylene	1600 J	6300 J	ND	230 J	ND	41,000
Anthracene	9800	4100 J	ND	1400 J	10000 J	50,000
Benzo(a)anthracene	22000	17000	1400 J	4400	22000 J	224
Benzo(a)pyrene	21000	19000	2000 J	4000	22000 J	61
Benzo(b)fluoranthene	22000	27000	2700 J	4300	26000 J	1,100
Benzo(ghi) perylene	13000	17000	1600 J	3200 J	16000 J	50,000
Benzo(k)fluoranthene	9000	6900 J	900 J	1500 J	7800 J	1,100
Carbazole	4500 J	950 J	ND	600 J	3800 J	NVG
Chrysene	19000	17000	1200 J	4100	19000 J	400
Dibenzo(a,h) anthracene	4200 J	6200 J	520 J	800 J	4400 J	14
Dibenzofuran	4400 J	720 J	ND	370 J	2800 J	6,200
Fluoranthene	39000	26000	1500 J	7100	40000	50,000
Fluorene	5000 J	1100 J	ND	600 J	4800 J	50,000
Indeno (1,2,3-cd) pyrene	12000	16000	1500 J	2400 J	14000 J	3,200
N-nitrosodiphenylamine	1800 J	510 J	ND	ND	ND	NVG
Naphthalene	3400 J	1300 J	ND	ND	3900 J	13,000
Phenanthrene	38000	14000	520 J	5500	38000	50,000
Pyrene	35000	22000	1500 J	7700	36000 J	50,000
Total Tentatively Identified Compounds	359,200	101,900	297,900	16,600	ND	
Total	630,900	334,650	313,240	65,430	274,500	500,000

## Notes:

Sample results are in ug/kg

Samples collected July 6, 2006

Shaded results exceed TAGM 4046

ND=Non detect

J=Indicates an estimated value

NVG=No value given

Table 3

Table of Detections for Metals Buffalo Color Area A Trench Samples from Pipe Gallery to EW-1

Sample Point	TSW-1	TB-1	TSW-2	TB-2	TSW-3	TAGM 4046
<b>Analyte</b>						
Aluminum	6310	11500	6000	4350	4960	SB
Arsenic	324	34.4	29.4	85.1	49.6	7.5
Barium	71.1	363	75.1	64.6	265	300
Beryllium	0.54	2	0.69	0.5	0.6	0.16
Cadmium	3.5	1.1	1	1	2.3	1
Calcium	48200	82800	130000	74600	29400	SB
Chromium	190	119	169	40.6	122	10
Cobalt	7.4	6	5.5	4.6	7.3	30
Copper	293	193	14100	132	224	25
Iron	41000	36700	48100	20300	66600	2000
Lead	646	428	9200	320	884	500
Magnesium	10100	9100	10600	4940	4960	SB
Manganese	439	636	2880	270	533	SB
Mercury	5.5	4	3.2	2.1	2.2	0.1
Nickel	36.6	19	86.8	18.4	31.5	13
Potassium	840	1760	1180	537	878	SB
Silver	ND	ND	ND	ND	0.93	SB
Sodium	638	2050	190	ND	293	SB
Vanadium	19.1	17.8	69.9	20.5	16	150
Zinc	9250	849	458	283	1780	20

## Note:

Sample results are in mg/kg

Samples collected July 6, 2006

Shaded results exceed TAGM 4046

ND=Non detect

SB=Site Background

# APPENDIX A

**STL Buffalo**10 Hazelwood Drive, Suite 106  
Amherst, NY 14228Tel: 716 691 2600 Fax: 716 691 7991  
www.stl-inc.com

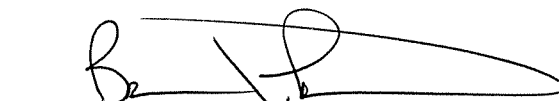
## ANALYTICAL REPORT

Job#: A06-7724

STL Project#: NY5A946109

Site Name: NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACTTask: NYSDEC Spills - Buffalo Color: Site 915184Mr. David Szymanski  
NYSDEC - Region 9  
270 Michigan Ave  
Buffalo, NY 14203

STL Buffalo

Brian J. Fischer  
Project Manager

07/31/2006

## STL Buffalo Current Certifications

As of 4/10/2006

<b>STATE</b>	<b>Program</b>	<b>Cert # / Lab ID</b>
<b>AFCEE</b>	AFCEE	
<b>Arkansas</b>	SDWA, CWA, RCRA, SOIL	03-054-D/88-0686
<b>California</b>	NELAP CWA, RCRA	01169CA
<b>Connecticut</b>	SDWA, CWA, RCRA, SOIL	PH-0568
<b>Florida</b>	NELAP CWA, RCRA	E87672
<b>Georgia</b>	SDWA	956
<b>Illinois</b>	NELAP SDWA, CWA, RCRA	200003
<b>Iowa</b>	SW/CS	374
<b>Kansas</b>	NELAP SDWA, CWA, RCRA	E-10187
<b>Kentucky</b>	SDWA	90029
<b>Kentucky UST</b>	UST	30
<b>Louisiana</b>	NELAP CWA, RCRA	2031
<b>Maine</b>	SDWA, CWA	NY044
<b>Maryland</b>	SDWA	294
<b>Massachusetts</b>	SDWA, CWA	M-NY044
<b>Michigan</b>	SDWA	9937
<b>Minnesota</b>	SDWA, CWA, RCRA	036-999-337
<b>New Hampshire</b>	NELAP SDWA, CWA	233701
<b>New Jersey</b>	SDWA, CWA, RCRA, CLP	NY455
<b>New York</b>	NELAP, AIR, SDWA, CWA, RCRA, ASP	10026
<b>Oklahoma</b>	CWA, RCRA	9421
<b>Pennsylvania</b>	Env. Lab Reg.	68-281
<b>South Carolina</b>	RCRA	91013
<b>Tennessee</b>	SDWA	02970
<b>USACE</b>	USACE	
<b>USDA</b>	FOREIGN SOIL PERMIT	S-41579
<b>USDOE</b>	Department of Energy	DOECAP-STB
<b>Virginia</b>	SDWA	278
<b>Washington</b>	CWA, RCRA	C1677
<b>West Virginia</b>	CWA, RCRA	252
<b>Wisconsin</b>	CWA	998310390

## SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>MATRIX</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
			<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A6772404	TB-1	SOIL	07/06/2006	11:00	07/07/2006	15:00
A6772403	TB-2	SOIL	07/06/2006	10:50	07/07/2006	15:00
A6772401	TSW-1	SOIL	07/06/2006	10:30	07/07/2006	15:00
A6772402	TSW-2	SOIL	07/06/2006	10:40	07/07/2006	15:00
A6772405	TSW-3	SOIL	07/06/2006	11:15	07/07/2006	15:00



## METHODS SUMMARY

Job#: A06-7724STL Project#: NY5A946109Site Name: NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>
NYSDEC-SPILLS-SOIL- 8260 - TCL VOA (4.2)	SW8463 8260
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS+ANILINE	SW8463 8270
Aluminum - Total	SW8463 6010
Antimony - Total	SW8463 6010
Arsenic - Total	SW8463 6010
Barium - Total	SW8463 6010
Beryllium - Total	SW8463 6010
Cadmium - Total	SW8463 6010
Calcium - Total	SW8463 6010
Chromium - Total	SW8463 6010
Cobalt - Total	SW8463 6010
Copper - Total	SW8463 6010
Iron - Total	SW8463 6010
Lead - Total	SW8463 6010
Magnesium - Total	SW8463 6010
Manganese - Total	SW8463 6010
Mercury - Total	SW8463 7471
Nickel - Total	SW8463 6010
Potassium - Total	SW8463 6010
Selenium - Total	SW8463 6010
Silver - Total	SW8463 6010
Sodium - Total	SW8463 6010
Thallium - Total	SW8463 6010
Vanadium - Total	SW8463 6010
Zinc - Total	SW8463 6010

SW8463 "Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW846), Third Edition, 9/86; Update I, 7/92; Update IIA, 8/93; Update II, 9/94; Update IIB, 1/95; Update III, 12/96.

## NON-CONFORMANCE SUMMARY

Job#: A06-7724STL Project#: NY5A946109Site Name: NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACTGeneral Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

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

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-7724

Sample Cooler(s) were received at the following temperature(s); 2@4.8 °C  
All samples were received in good condition.

GC/MS Volatile Data

The analytes Acetone and Trichlorofluoromethane were detected in the Method Blank (A6B2302202) at a level below the project established reporting limit. No corrective action is necessary for any values in Method Blanks that are below the requested reporting limits.

The analyte Methylene chloride was detected in the Method Blank (A6B2302202) at a level above the project established reporting limit. Samples had levels of Methylene chloride less than ten times that of the Method Blank value. All sample detections for Methylene chloride may potentially be due to laboratory contamination and should be evaluated accordingly. All associated sample detections were qualified with a "B".

GC/MS Semivolatile Data

All surrogate concentrations were diluted below the linear range of the calibration curve in samples TSW-1, TSW-2 and TSW-3.

Metals Data

The LCS (Lot D051-540) recovery for Iron fell outside of the quality control limits, however, the LCS CLP (A6B2262301) value was within the manufacturer's recommended acceptance limits. No corrective action was taken.

The recoveries of sample TSW-1 Matrix Spike exhibited results below the quality control limits for Antimony and above the quality control limits for Aluminum and Barium. The recovery of sample TSW-1 Matrix Spike Duplicate exhibited results below the quality control limits for Antimony. Sample matrix is suspect. The RPD of sample TSW-1 Matrix Spike and Matrix Spike Duplicate exceeded quality control limits for Aluminum and Barium. However, the LCS CLP (A6B2262301) was acceptable.

The recovery of sample TSW-1 Matrix Spike exhibited results below the quality control limits for Arsenic, Chromium, and Iron and above the quality control limits for Calcium, Lead, Magnesium, Manganese, and Zinc. The recovery of sample TSW-1 Matrix Spike Duplicate exhibited results below the quality control limits for Magnesium, Manganese, Iron, Calcium and Chromium and above the quality control limits for Arsenic, Copper, Lead, and Zinc. The sample results are more than four times greater than the spikes added. The RPD of sample TSW-1 Matrix Spike and Matrix Spike Duplicate exceeded quality control limits for Arsenic, Calcium, Chromium, Copper, Iron, Magnesium, Manganese, and Zinc. The LCS CLP (A6B2262301) is acceptable.

\*\*\*\*\*

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."



Brian J. Fischer  
Project Manager

8-1-06

Date

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Parameter (Inorganic)/Method (Organic)</u>	<u>Dilution</u>	<u>Code</u>
TSW-1	A6772401	8270	20.00	008
TSW-1	A6772401	Mercury - Total	10.00	008
TSW-1	A6772401	Zinc - Total	20.00	008
TSW-1	A6772401MS	Calcium - Total	20.00	008
TSW-1	A6772401MS	Zinc - Total	20.00	008
TSW-1	A6772401SD	Zinc - Total	20.00	008
TSW-2	A6772402	8270	20.00	012
TSW-2	A6772402	Calcium - Total	10.00	008
TSW-2	A6772402	Copper - Total	10.00	008
TSW-2	A6772402	Lead - Total	10.00	008
TSW-2	A6772402	Manganese - Total	10.00	008
TSW-2	A6772402	Mercury - Total	10.00	008
TB-2	A6772403	8270	10.00	008
TB-2	A6772403	Calcium - Total	5.00	008
TB-2	A6772403	Mercury - Total	10.00	008
TB-1	A6772404	8270	20.00	008
TB-1	A6772404	Calcium - Total	5.00	008
TB-1	A6772404	Mercury - Total	10.00	008
TB-1	A6772404	Zinc - Total	5.00	008
TSW-3	A6772405	8270	10.00	008
TSW-3	A6772405	Mercury - Total	10.00	008
TSW-3	A6772405	Zinc - Total	5.00	008

Dilution Code Definition:

- 002 - sample matrix effects
- 003 - excessive foaming
- 004 - high levels of non-target compounds
- 005 - sample matrix resulted in method non-compliance for an Internal Standard
- 006 - sample matrix resulted in method non-compliance for Surrogate
- 007 - nature of the TCLP matrix
- 008 - high concentration of target analyte(s)
- 009 - sample turbidity
- 010 - sample color
- 011 - insufficient volume for lower dilution
- 012 - sample viscosity
- 013 - other



## DATA QUALIFIER PAGE

*These definitions are provided in the event the data in this report requires the use of one or more of the qualifiers. Not all qualifiers defined below are necessarily used in the accompanying data package.*

### ORGANIC DATA QUALIFIERS

- ND or U Indicates compound was analyzed for, but not detected.
- J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- C This flag applies to pesticide results where the identification has been confirmed by GC/MS.
- B This flag is used when the analyte is found in the associated blank, as well as in the sample.
- E This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
- D This flag identifies all compounds identified in an analysis at the secondary dilution factor.
- N Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on the Mass Spectral library search. It is applied to all TIC results.
- P This flag is used for CLP methodology only. For Pesticide/Aroclor target analytes, when a difference for detected concentrations between the two GC columns is greater than 25%, the lower of the two values is reported on the data page and flagged with a "P".
- A This flag indicates that a TIC is a suspected aldol-condensation product.
- <sup>1</sup> Indicates coelution.
- \* Indicates analysis is not within the quality control limits.

### INORGANIC DATA QUALIFIERS

- ND or U Indicates element was analyzed for, but not detected. Report with the detection limit value.
- J or B Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.
- N Indicates spike sample recovery is not within the quality control limits.
- S Indicates value determined by the Method of Standard Addition.
- E Indicates a value estimated or not reported due to the presence of interferences.
- H Indicates analytical holding time exceedance. The value obtained should be considered an estimate.
- \* Indicates the spike or duplicate analysis is not within the quality control limits.
- + Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995.

Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo Color: site 915184

9/24 Page: 1  
 Rept: AN1178

Sample ID: TB-1  
 Lab Sample ID: A6772404  
 Date Collected: 07/06/2006  
 Time Collected: 11:00

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SPILLS-SOIL-SW8463 8260 - TCL VOA (4.2)								
1,1,1-Trichloroethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,1,2,2-Tetrachloroethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,1,2-Trichloroethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,1-Dichloroethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,1-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,2,4-Trichlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,2-Dibromo-3-chloropropane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,2-Dibromoethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,2-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,2-Dichloroethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,2-Dichloroethene (Total)	ND		11	UG/KG	8260	07/18/2006	14:53	TRB
1,2-Dichloropropane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,3-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
1,4-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
2-Butanone	ND		28	UG/KG	8260	07/18/2006	14:53	TRB
2-Hexanone	ND		28	UG/KG	8260	07/18/2006	14:53	TRB
4-Methyl-2-pentanone	ND		28	UG/KG	8260	07/18/2006	14:53	TRB
Acetone	ND		28	UG/KG	8260	07/18/2006	14:53	TRB
Benzene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Bromodichloromethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Bromoform	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Bromomethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Carbon Disulfide	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Carbon Tetrachloride	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Chlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Chloroethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Chloroform	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Chloromethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
cis-1,2-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
cis-1,3-Dichloropropene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Cyclohexane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Dibromochloromethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Dichlorodifluoromethane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Ethylbenzene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Isopropylbenzene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Methyl acetate	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Methyl-t-Butyl Ether (MTBE)	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Methylcyclohexane	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Methylene chloride	6	B	6	UG/KG	8260	07/18/2006	14:53	TRB
Styrene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Tetrachloroethene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Toluene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Total Xylenes	ND		17	UG/KG	8260	07/18/2006	14:53	TRB
trans-1,2-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
trans-1,3-Dichloropropene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Trichloroethene	ND		6	UG/KG	8260	07/18/2006	14:53	TRB
Trichlorofluoromethane	2	BJ	6	UG/KG	8260	07/18/2006	14:53	TRB
Vinyl chloride	ND		11	UG/KG	8260	07/18/2006	14:53	TRB

Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo color: site 915184

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 Rept: AN1178

Sample ID: TB-1  
 Lab Sample ID: A6772404  
 Date Collected: 07/06/2006  
 Time Collected: 11:00

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
2,2'-Oxybis(1-Chloropropane)	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
2,4,5-Trichlorophenol	ND		19000	UG/KG	8270	07/12/2006	20:56	PM
2,4,6-Trichlorophenol	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
2,4-Dichlorophenol	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
2,4-Dimethylphenol	1600	J	7700	UG/KG	8270	07/12/2006	20:56	PM
2,4-Dinitrophenol	ND		37000	UG/KG	8270	07/12/2006	20:56	PM
2,4-Dinitrotoluene	14000		7700	UG/KG	8270	07/12/2006	20:56	PM
2,6-Dinitrotoluene	13000		7700	UG/KG	8270	07/12/2006	20:56	PM
2-Chloronaphthalene	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
2-Chlorophenol	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
2-Methylnaphthalene	670	J	7700	UG/KG	8270	07/12/2006	20:56	PM
2-Methylphenol	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
2-Nitroaniline	ND		37000	UG/KG	8270	07/12/2006	20:56	PM
2-Nitrophenol	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
3,3'-Dichlorobenzidine	ND		37000	UG/KG	8270	07/12/2006	20:56	PM
3-Nitroaniline	ND		37000	UG/KG	8270	07/12/2006	20:56	PM
4,6-Dinitro-2-methylphenol	ND		37000	UG/KG	8270	07/12/2006	20:56	PM
4-Bromophenyl phenyl ether	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
4-Chloro-3-methylphenol	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
4-Chloroaniline	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
4-Chlorophenyl phenyl ether	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
4-Methylphenol	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
4-Nitroaniline	ND		37000	UG/KG	8270	07/12/2006	20:56	PM
4-Nitrophenol	ND		37000	UG/KG	8270	07/12/2006	20:56	PM
Acenaphthene	400	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Acenaphthylene	6300	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Acetophenone	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Aniline	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Anthracene	4100	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Atrazine	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Benzaldehyde	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Benzo(a)anthracene	17000		7700	UG/KG	8270	07/12/2006	20:56	PM
Benzo(a)pyrene	19000		7700	UG/KG	8270	07/12/2006	20:56	PM
Benzo(b)fluoranthene	27000		7700	UG/KG	8270	07/12/2006	20:56	PM
Benzo(ghi)perylene	17000		7700	UG/KG	8270	07/12/2006	20:56	PM
Benzo(k)fluoranthene	6900	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Biphenyl	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Bis(2-chloroethoxy) methane	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Bis(2-chloroethyl) ether	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Bis(2-ethylhexyl) phthalate	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Butyl benzyl phthalate	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Caprolactam	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Carbazole	950	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Chrysene	17000		7700	UG/KG	8270	07/12/2006	20:56	PM
Di-n-butyl phthalate	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Di-n-octyl phthalate	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Dibenzo(a,h)anthracene	6200	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Dibenzofuran	720	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Diethyl phthalate	ND		7700	UG/KG	8270	07/12/2006	20:56	PM

Sample ID: TB-1  
 Lab Sample ID: A6772404  
 Date Collected: 07/06/2006  
 Time Collected: 11:00

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection			Date/Time		Analyst
			Limit	Units	Method	Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
Dimethyl phthalate	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Fluoranthene	26000		7700	UG/KG	8270	07/12/2006	20:56	PM
Fluorene	1100	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Hexachlorobenzene	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Hexachlorobutadiene	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Hexachlorocyclopentadiene	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Hexachloroethane	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Indeno(1,2,3-cd)pyrene	16000		7700	UG/KG	8270	07/12/2006	20:56	PM
Isophorone	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
N-Nitroso-Di-n-propylamine	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
N-nitrosodiphenylamine	510	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Naphthalene	1300	J	7700	UG/KG	8270	07/12/2006	20:56	PM
Nitrobenzene	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Pentachlorophenol	ND		37000	UG/KG	8270	07/12/2006	20:56	PM
Phenanthrene	14000		7700	UG/KG	8270	07/12/2006	20:56	PM
Phenol	ND		7700	UG/KG	8270	07/12/2006	20:56	PM
Pyrene	22000		7700	UG/KG	8270	07/12/2006	20:56	PM
Metals Analysis								
Aluminum - Total	11500		12.1	MG/KG	6010	07/14/2006	02:15	TWS
Antimony - Total	ND		18.2	MG/KG	6010	07/14/2006	02:15	TWS
Arsenic - Total	34.4		2.4	MG/KG	6010	07/14/2006	02:15	TWS
Barium - Total	363		0.60	MG/KG	6010	07/14/2006	02:15	TWS
Beryllium - Total	2.0		0.24	MG/KG	6010	07/14/2006	02:15	TWS
Cadmium - Total	1.1		0.24	MG/KG	6010	07/14/2006	02:15	TWS
Calcium - Total	82800		302	MG/KG	6010	07/14/2006	14:44	TWS
Chromium - Total	119		0.60	MG/KG	6010	07/14/2006	02:15	TWS
Cobalt - Total	6.0		0.60	MG/KG	6010	07/14/2006	02:15	TWS
Copper - Total	193		1.2	MG/KG	6010	07/14/2006	02:15	TWS
Iron - Total	36700		12.1	MG/KG	6010	07/14/2006	02:15	TWS
Lead - Total	428		1.2	MG/KG	6010	07/14/2006	02:15	TWS
Magnesium - Total	9100		24.2	MG/KG	6010	07/14/2006	02:15	TWS
Manganese - Total	636		0.24	MG/KG	6010	07/14/2006	02:15	TWS
Mercury - Total	4.0		0.22	MG/KG	7471	07/11/2006	17:36	MM
Nickel - Total	19.0		0.60	MG/KG	6010	07/14/2006	02:15	TWS
Potassium - Total	1760		36.3	MG/KG	6010	07/14/2006	02:15	TWS
Selenium - Total	ND		4.8	MG/KG	6010	07/14/2006	02:15	TWS
Silver - Total	ND		0.60	MG/KG	6010	07/14/2006	02:15	TWS
Sodium - Total	2050		169	MG/KG	6010	07/14/2006	02:15	TWS
Thallium - Total	ND		7.3	MG/KG	6010	07/14/2006	11:58	TWS
Vanadium - Total	17.8		0.60	MG/KG	6010	07/14/2006	02:15	TWS
Zinc - Total	849		6.0	MG/KG	6010	07/14/2006	14:44	TWS



Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo color: site 915184

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 Rept: AN1178

Sample ID: TB-2  
 Lab Sample ID: A6772403  
 Date Collected: 07/06/2006  
 Time Collected: 10:50

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SPILLS-SOIL-SW8463 8260 - TCL VOA (4.2)								
1,1,1-Trichloroethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,1,2,2-Tetrachloroethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,1,2-Trichloroethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,1-Dichloroethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,1-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,2,4-Trichlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,2-Dibromo-3-chloropropane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,2-Dibromoethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,2-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,2-Dichloroethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,2-Dichloroethene (Total)	ND		12	UG/KG	8260	07/18/2006	14:23	TRB
1,2-Dichloropropane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,3-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
1,4-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
2-Butanone	ND		30	UG/KG	8260	07/18/2006	14:23	TRB
2-Hexanone	ND		30	UG/KG	8260	07/18/2006	14:23	TRB
4-Methyl-2-pentanone	ND		30	UG/KG	8260	07/18/2006	14:23	TRB
Acetone	ND		30	UG/KG	8260	07/18/2006	14:23	TRB
Benzene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Bromodichloromethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Bromoform	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Bromomethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Carbon Disulfide	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Carbon Tetrachloride	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Chlorobenzene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Chloroethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Chloroform	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Chloromethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
cis-1,2-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
cis-1,3-Dichloropropene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Cyclohexane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Dibromochloromethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Dichlorodifluoromethane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Ethylbenzene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Isopropylbenzene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Methyl acetate	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Methyl-t-Butyl Ether (MTBE)	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Methylcyclohexane	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Methylene chloride	4	BJ	6	UG/KG	8260	07/18/2006	14:23	TRB
Styrene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Tetrachloroethene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Toluene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Total Xylenes	ND		18	UG/KG	8260	07/18/2006	14:23	TRB
trans-1,2-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
trans-1,3-Dichloropropene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Trichloroethene	ND		6	UG/KG	8260	07/18/2006	14:23	TRB
Trichlorofluoromethane	2	BJ	6	UG/KG	8260	07/18/2006	14:23	TRB
Vinyl chloride	ND		12	UG/KG	8260	07/18/2006	14:23	TRB

Sample ID: TB-2  
 Lab Sample ID: A6772403  
 Date Collected: 07/06/2006  
 Time Collected: 10:50

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection			Date/Time		Analyst
			Limit	Units	Method	Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
2,2'-Oxybis(1-Chloropropane)	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2,4,5-Trichlorophenol	ND		9500	UG/KG	8270	07/12/2006	20:31	PM
2,4,6-Trichlorophenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2,4-Dichlorophenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2,4-Dimethylphenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2,4-Dinitrophenol	ND		19000	UG/KG	8270	07/12/2006	20:31	PM
2,4-Dinitrotoluene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2,6-Dinitrotoluene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2-Chloronaphthalene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2-Chlorophenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2-Methylnaphthalene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2-Methylphenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
2-Nitroaniline	ND		19000	UG/KG	8270	07/12/2006	20:31	PM
2-Nitrophenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
3,3'-Dichlorobenzidine	ND		19000	UG/KG	8270	07/12/2006	20:31	PM
3-Nitroaniline	ND		19000	UG/KG	8270	07/12/2006	20:31	PM
4,6-Dinitro-2-methylphenol	ND		19000	UG/KG	8270	07/12/2006	20:31	PM
4-Bromophenyl phenyl ether	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
4-Chloro-3-methylphenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
4-Chloroaniline	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
4-Chlorophenyl phenyl ether	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
4-Methylphenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
4-Nitroaniline	ND		19000	UG/KG	8270	07/12/2006	20:31	PM
4-Nitrophenol	ND		19000	UG/KG	8270	07/12/2006	20:31	PM
Acenaphthene	630	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Acenaphthylene	230	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Acetophenone	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Aniline	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Anthracene	1400	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Atrazine	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Benzaldehyde	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Benzo(a)anthracene	4400		3900	UG/KG	8270	07/12/2006	20:31	PM
Benzo(a)pyrene	4000		3900	UG/KG	8270	07/12/2006	20:31	PM
Benzo(b)fluoranthene	4300		3900	UG/KG	8270	07/12/2006	20:31	PM
Benzo(ghi)perylene	3200	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Benzo(k)fluoranthene	1500	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Biphenyl	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Bis(2-chloroethoxy) methane	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Bis(2-chloroethyl) ether	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Bis(2-ethylhexyl) phthalate	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Butyl benzyl phthalate	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Caprolactam	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Carbazole	600	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Chrysene	4100		3900	UG/KG	8270	07/12/2006	20:31	PM
Di-n-butyl phthalate	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Di-n-octyl phthalate	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Dibenzo(a,h)anthracene	800	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Dibenzofuran	370	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Diethyl phthalate	ND		3900	UG/KG	8270	07/12/2006	20:31	PM

Sample ID: TB-2  
 Lab Sample ID: A6772403  
 Date Collected: 07/06/2006  
 Time Collected: 10:50

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
Dimethyl phthalate	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Fluoranthene	7100		3900	UG/KG	8270	07/12/2006	20:31	PM
Fluorene	600	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Hexachlorobenzene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Hexachlorobutadiene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Hexachlorocyclopentadiene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Hexachloroethane	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Indeno(1,2,3-cd)pyrene	2400	J	3900	UG/KG	8270	07/12/2006	20:31	PM
Isophorone	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
N-Nitroso-Di-n-propylamine	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
N-nitrosodiphenylamine	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Naphthalene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Nitrobenzene	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Pentachlorophenol	ND		19000	UG/KG	8270	07/12/2006	20:31	PM
Phenanthrene	5500		3900	UG/KG	8270	07/12/2006	20:31	PM
Phenol	ND		3900	UG/KG	8270	07/12/2006	20:31	PM
Pyrene	7700		3900	UG/KG	8270	07/12/2006	20:31	PM

Metals Analysis

Aluminum - Total	4350		11.9	MG/KG	6010	07/14/2006	02:10	TWS
Antimony - Total	ND		17.9	MG/KG	6010	07/14/2006	02:10	TWS
Arsenic - Total	85.1		2.4	MG/KG	6010	07/14/2006	02:10	TWS
Barium - Total	64.6		0.60	MG/KG	6010	07/14/2006	02:10	TWS
Beryllium - Total	0.50		0.24	MG/KG	6010	07/14/2006	02:10	TWS
Cadmium - Total	1.0		0.24	MG/KG	6010	07/14/2006	02:10	TWS
Calcium - Total	74600		298	MG/KG	6010	07/14/2006	14:39	TWS
Chromium - Total	40.6		0.60	MG/KG	6010	07/14/2006	02:10	TWS
Cobalt - Total	4.6		0.60	MG/KG	6010	07/14/2006	02:10	TWS
Copper - Total	132		1.2	MG/KG	6010	07/14/2006	02:10	TWS
Iron - Total	20300		11.9	MG/KG	6010	07/14/2006	02:10	TWS
Lead - Total	320		1.2	MG/KG	6010	07/14/2006	02:10	TWS
Magnesium - Total	4940		23.9	MG/KG	6010	07/14/2006	02:10	TWS
Manganese - Total	270		0.24	MG/KG	6010	07/14/2006	02:10	TWS
Mercury - Total	2.1		0.24	MG/KG	7471	07/11/2006	17:35	MM
Nickel - Total	18.4		0.60	MG/KG	6010	07/14/2006	02:10	TWS
Potassium - Total	537		35.8	MG/KG	6010	07/14/2006	02:10	TWS
Selenium - Total	ND		4.8	MG/KG	6010	07/14/2006	02:10	TWS
Silver - Total	ND		0.60	MG/KG	6010	07/14/2006	02:10	TWS
Sodium - Total	ND		167	MG/KG	6010	07/14/2006	02:10	TWS
Thallium - Total	ND		7.2	MG/KG	6010	07/14/2006	11:53	TWS
Vanadium - Total	20.5		0.60	MG/KG	6010	07/14/2006	02:10	TWS
Zinc - Total	283		1.2	MG/KG	6010	07/14/2006	02:10	TWS

Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo Color: Site 915184

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 Rept: AN1178

Sample ID: TSW-1  
 Lab Sample ID: A6772401  
 Date Collected: 07/06/2006  
 Time Collected: 10:30

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SPILLS-SOIL-SW8463 8260 - TCL VOA (4.2)								
1,1,1-Trichloroethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,1,2,2-Tetrachloroethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,1,2-Trichloroethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,1-Dichloroethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,1-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,2,4-Trichlorobenzene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,2-Dibromo-3-chloropropane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,2-Dibromoethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,2-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,2-Dichloroethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,2-Dichloroethene (Total)	ND		11	UG/KG	8260	07/18/2006	13:23	TRB
1,2-Dichloropropane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,3-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
1,4-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
2-Butanone	ND		28	UG/KG	8260	07/18/2006	13:23	TRB
2-Hexanone	ND		28	UG/KG	8260	07/18/2006	13:23	TRB
4-Methyl-2-pentanone	ND		28	UG/KG	8260	07/18/2006	13:23	TRB
Acetone	3	BJ	28	UG/KG	8260	07/18/2006	13:23	TRB
Benzene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Bromodichloromethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Bromoform	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Bromomethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Carbon Disulfide	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Carbon Tetrachloride	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Chlorobenzene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Chloroethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Chloroform	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Chloromethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
cis-1,2-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
cis-1,3-Dichloropropene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Cyclohexane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Dibromochloromethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Dichlorodifluoromethane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Ethylbenzene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Isopropylbenzene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Methyl acetate	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Methyl-t-Butyl Ether (MTBE)	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Methylcyclohexane	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Methylene chloride	10	B	6	UG/KG	8260	07/18/2006	13:23	TRB
Styrene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Tetrachloroethene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Toluene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Total Xylenes	ND		17	UG/KG	8260	07/18/2006	13:23	TRB
trans-1,2-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
trans-1,3-Dichloropropene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Trichloroethene	ND		6	UG/KG	8260	07/18/2006	13:23	TRB
Trichlorofluoromethane	2	BJ	6	UG/KG	8260	07/18/2006	13:23	TRB
Vinyl chloride	ND		11	UG/KG	8260	07/18/2006	13:23	TRB

Date: 07/31/2006  
Time: 17:15:44

NYSDEC  
NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
NYSDEC Spills - Buffalo color: site 915184

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Rept: AN1178

Sample ID: TSW-1  
Lab Sample ID: A6772401  
Date Collected: 07/06/2006  
Time Collected: 10:30

Date Received: 07/07/2006  
Project No: NY5A946109  
Client No: L10190  
Site No:

Parameter	Result	Flag	Detection			Date/Time		Analyst
			Limit	Units	Method	Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
2,2'-Oxybis(1-Chloropropane)	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2,4,5-Trichlorophenol	ND		18000	UG/KG	8270	07/12/2006	19:41	PM
2,4,6-Trichlorophenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2,4-Dichlorophenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2,4-Dimethylphenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2,4-Dinitrophenol	ND		37000	UG/KG	8270	07/12/2006	19:41	PM
2,4-Dinitrotoluene	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2,6-Dinitrotoluene	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2-Chloronaphthalene	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2-Chlorophenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2-Methylnaphthalene	1800	J	7600	UG/KG	8270	07/12/2006	19:41	PM
2-Methylphenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
2-Nitroaniline	ND		37000	UG/KG	8270	07/12/2006	19:41	PM
2-Nitrophenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
3,3'-Dichlorobenzidine	ND		37000	UG/KG	8270	07/12/2006	19:41	PM
3-Nitroaniline	ND		37000	UG/KG	8270	07/12/2006	19:41	PM
4,6-Dinitro-2-methylphenol	ND		37000	UG/KG	8270	07/12/2006	19:41	PM
4-Bromophenyl phenyl ether	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
4-Chloro-3-methylphenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
4-Chloroaniline	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
4-Chlorophenyl phenyl ether	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
4-Methylphenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
4-Nitroaniline	ND		37000	UG/KG	8270	07/12/2006	19:41	PM
4-Nitrophenol	ND		37000	UG/KG	8270	07/12/2006	19:41	PM
Acenaphthene	5200	J	7600	UG/KG	8270	07/12/2006	19:41	PM
Acenaphthylene	1600	J	7600	UG/KG	8270	07/12/2006	19:41	PM
Acetophenone	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Aniline	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Anthracene	9800		7600	UG/KG	8270	07/12/2006	19:41	PM
Atrazine	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Benzaldehyde	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Benzo(a)anthracene	22000		7600	UG/KG	8270	07/12/2006	19:41	PM
Benzo(a)pyrene	21000		7600	UG/KG	8270	07/12/2006	19:41	PM
Benzo(b)fluoranthene	22000		7600	UG/KG	8270	07/12/2006	19:41	PM
Benzo(ghi)perylene	13000		7600	UG/KG	8270	07/12/2006	19:41	PM
Benzo(k)fluoranthene	9000		7600	UG/KG	8270	07/12/2006	19:41	PM
Biphenyl	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Bis(2-chloroethoxy) methane	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Bis(2-chloroethyl) ether	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Bis(2-ethylhexyl) phthalate	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Butyl benzyl phthalate	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Caprolactam	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Carbazole	4500	J	7600	UG/KG	8270	07/12/2006	19:41	PM
Chrysene	19000		7600	UG/KG	8270	07/12/2006	19:41	PM
Di-n-butyl phthalate	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Di-n-octyl phthalate	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Dibenzo(a,h)anthracene	4200	J	7600	UG/KG	8270	07/12/2006	19:41	PM
Dibenzofuran	4400	J	7600	UG/KG	8270	07/12/2006	19:41	PM
Diethyl phthalate	ND		7600	UG/KG	8270	07/12/2006	19:41	PM

Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo Color: Site 915184

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 Rept: AN1178

Sample ID: TSW-1  
 Lab Sample ID: A6772401  
 Date Collected: 07/06/2006  
 Time Collected: 10:30

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
Dimethyl phthalate	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Fluoranthene	39000		7600	UG/KG	8270	07/12/2006	19:41	PM
Fluorene	5000	J	7600	UG/KG	8270	07/12/2006	19:41	PM
Hexachlorobenzene	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Hexachlorobutadiene	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Hexachlorocyclopentadiene	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Hexachloroethane	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Indeno(1,2,3-cd)pyrene	12000		7600	UG/KG	8270	07/12/2006	19:41	PM
Isophorone	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
N-Nitroso-Di-n-propylamine	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
N-nitrosodiphenylamine	1800	J	7600	UG/KG	8270	07/12/2006	19:41	PM
Naphthalene	3400	J	7600	UG/KG	8270	07/12/2006	19:41	PM
Nitrobenzene	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Pentachlorophenol	ND		37000	UG/KG	8270	07/12/2006	19:41	PM
Phenanthrene	38000		7600	UG/KG	8270	07/12/2006	19:41	PM
Phenol	ND		7600	UG/KG	8270	07/12/2006	19:41	PM
Pyrene	35000		7600	UG/KG	8270	07/12/2006	19:41	PM
Metals Analysis								
Aluminum - Total	6310		12.1	MG/KG	6010	07/14/2006	01:42	TWS
Antimony - Total	ND		18.1	MG/KG	6010	07/14/2006	01:42	TWS
Arsenic - Total	324		2.4	MG/KG	6010	07/14/2006	01:42	TWS
Barium - Total	71.1		0.60	MG/KG	6010	07/14/2006	01:42	TWS
Beryllium - Total	0.54		0.24	MG/KG	6010	07/14/2006	01:42	TWS
Cadmium - Total	3.5		0.24	MG/KG	6010	07/14/2006	01:42	TWS
Calcium - Total	48200		60.4	MG/KG	6010	07/14/2006	01:42	TWS
Chromium - Total	190		0.60	MG/KG	6010	07/14/2006	01:42	TWS
Cobalt - Total	7.4		0.60	MG/KG	6010	07/14/2006	01:42	TWS
Copper - Total	293		1.2	MG/KG	6010	07/14/2006	01:42	TWS
Iron - Total	41000		12.1	MG/KG	6010	07/14/2006	01:42	TWS
Lead - Total	646		1.2	MG/KG	6010	07/14/2006	01:42	TWS
Magnesium - Total	10100		24.2	MG/KG	6010	07/14/2006	01:42	TWS
Manganese - Total	439		0.24	MG/KG	6010	07/14/2006	01:42	TWS
Mercury - Total	5.5		0.23	MG/KG	7471	07/11/2006	17:32	MM
Nickel - Total	36.6		0.60	MG/KG	6010	07/14/2006	01:42	TWS
Potassium - Total	840		36.3	MG/KG	6010	07/14/2006	01:42	TWS
Selenium - Total	ND		4.8	MG/KG	6010	07/14/2006	01:42	TWS
Silver - Total	ND		0.60	MG/KG	6010	07/14/2006	01:42	TWS
Sodium - Total	638		169	MG/KG	6010	07/14/2006	01:42	TWS
Thallium - Total	ND		7.2	MG/KG	6010	07/14/2006	11:24	TWS
Vanadium - Total	19.1		0.60	MG/KG	6010	07/14/2006	01:42	TWS
Zinc - Total	9250		24.2	MG/KG	6010	07/14/2006	13:57	TWS

Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo Color: Site 915184

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 Rept: AN1178

Sample ID: TSW-2  
 Lab Sample ID: A6772402  
 Date Collected: 07/06/2006  
 Time Collected: 10:40

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SPILLS-SOIL-SW8463 8260 - TCL VOA (4.2)								
1,1,1-Trichloroethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,1,2,2-Tetrachloroethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,1,2-Trichloroethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,1-Dichloroethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,1-Dichloroethene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,2,4-Trichlorobenzene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,2-Dibromo-3-chloropropane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,2-Dibromoethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,2-Dichlorobenzene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,2-Dichloroethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,2-Dichloroethene (Total)	ND		11	UG/KG	8260	07/18/2006	13:53	TRB
1,2-Dichloropropane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,3-Dichlorobenzene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
1,4-Dichlorobenzene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
2-Butanone	ND		27	UG/KG	8260	07/18/2006	13:53	TRB
2-Hexanone	ND		27	UG/KG	8260	07/18/2006	13:53	TRB
4-Methyl-2-pentanone	ND		27	UG/KG	8260	07/18/2006	13:53	TRB
Acetone	ND		27	UG/KG	8260	07/18/2006	13:53	TRB
Benzene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Bromodichloromethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Bromoform	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Bromomethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Carbon Disulfide	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Carbon Tetrachloride	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Chlorobenzene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Chloroethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Chloroform	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Chloromethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
cis-1,2-Dichloroethene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
cis-1,3-Dichloropropene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Cyclohexane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Dibromochloromethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Dichlorodifluoromethane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Ethylbenzene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Isopropylbenzene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Methyl acetate	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Methyl-t-Butyl Ether (MTBE)	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Methylcyclohexane	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Methylene chloride	7	B	5	UG/KG	8260	07/18/2006	13:53	TRB
Styrene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Tetrachloroethene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Toluene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Total Xylenes	ND		16	UG/KG	8260	07/18/2006	13:53	TRB
trans-1,2-Dichloroethene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
trans-1,3-Dichloropropene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Trichloroethene	ND		5	UG/KG	8260	07/18/2006	13:53	TRB
Trichlorofluoromethane	2	BJ	5	UG/KG	8260	07/18/2006	13:53	TRB
Vinyl chloride	ND		11	UG/KG	8260	07/18/2006	13:53	TRB

Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo color: site 915184

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 Rept: AN1178

Sample ID: TSW-2  
 Lab Sample ID: A6772402  
 Date Collected: 07/06/2006  
 Time Collected: 10:40

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
2,2'-Oxybis(1-Chloropropane)	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2,4,5-Trichlorophenol	ND		17000	UG/KG	8270	07/12/2006	20:06	PM
2,4,6-Trichlorophenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2,4-Dichlorophenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2,4-Dimethylphenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2,4-Dinitrophenol	ND		33000	UG/KG	8270	07/12/2006	20:06	PM
2,4-Dinitrotoluene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2,6-Dinitrotoluene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2-Chloronaphthalene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2-Chlorophenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2-Methylnaphthalene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2-Methylphenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
2-Nitroaniline	ND		33000	UG/KG	8270	07/12/2006	20:06	PM
2-Nitrophenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
3,3'-Dichlorobenzidine	ND		33000	UG/KG	8270	07/12/2006	20:06	PM
3-Nitroaniline	ND		33000	UG/KG	8270	07/12/2006	20:06	PM
4,6-Dinitro-2-methylphenol	ND		33000	UG/KG	8270	07/12/2006	20:06	PM
4-Bromophenyl phenyl ether	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
4-Chloro-3-methylphenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
4-Chloroaniline	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
4-Chlorophenyl phenyl ether	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
4-Methylphenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
4-Nitroaniline	ND		33000	UG/KG	8270	07/12/2006	20:06	PM
4-Nitrophenol	ND		33000	UG/KG	8270	07/12/2006	20:06	PM
Acenaphthene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Acenaphthylene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Acetophenone	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Aniline	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Anthracene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Atrazine	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Benzaldehyde	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Benzo(a)anthracene	1400	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Benzo(a)pyrene	2000	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Benzo(b)fluoranthene	2700	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Benzo(ghi)perylene	1600	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Benzo(k)fluoranthene	900	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Biphenyl	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Bis(2-chloroethoxy) methane	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Bis(2-chloroethyl) ether	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Bis(2-ethylhexyl) phthalate	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Butyl benzyl phthalate	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Caprolactam	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Carbazole	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Chrysene	1200	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Di-n-butyl phthalate	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Di-n-octyl phthalate	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Dibenzo(a,h)anthracene	520	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Dibenzofuran	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Diethyl phthalate	ND		6900	UG/KG	8270	07/12/2006	20:06	PM



Date: 07/31/2006  
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NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo Color: Site 915184

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 Rept: AN1178

Sample ID: TSW-2  
 Lab Sample ID: A6772402  
 Date Collected: 07/06/2006  
 Time Collected: 10:40

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection			Date/Time		Analyst
			Limit	Units	Method	Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
Dimethyl phthalate	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Fluoranthene	1500	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Fluorene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Hexachlorobenzene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Hexachlorobutadiene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Hexachlorocyclopentadiene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Hexachloroethane	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Indeno(1,2,3-cd)pyrene	1500	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Isophorone	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
N-Nitroso-Di-n-propylamine	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
N-nitrosodiphenylamine	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Naphthalene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Nitrobenzene	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Pentachlorophenol	ND		33000	UG/KG	8270	07/12/2006	20:06	PM
Phenanthrene	520	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Phenol	ND		6900	UG/KG	8270	07/12/2006	20:06	PM
Pyrene	1500	J	6900	UG/KG	8270	07/12/2006	20:06	PM
Metals Analysis								
Aluminum - Total	6000		10.4	MG/KG	6010	07/14/2006	02:06	TWS
Antimony - Total	ND		15.6	MG/KG	6010	07/14/2006	02:06	TWS
Arsenic - Total	29.4		2.1	MG/KG	6010	07/14/2006	02:06	TWS
Barium - Total	75.1		0.52	MG/KG	6010	07/14/2006	02:06	TWS
Beryllium - Total	0.69		0.21	MG/KG	6010	07/14/2006	02:06	TWS
Cadmium - Total	1.0		0.21	MG/KG	6010	07/14/2006	02:06	TWS
Calcium - Total	130000		522	MG/KG	6010	07/14/2006	14:34	TWS
Chromium - Total	169		0.52	MG/KG	6010	07/14/2006	02:06	TWS
Cobalt - Total	5.5		0.52	MG/KG	6010	07/14/2006	02:06	TWS
Copper - Total	14100		10.4	MG/KG	6010	07/14/2006	14:34	TWS
Iron - Total	48100		10.4	MG/KG	6010	07/14/2006	02:06	TWS
Lead - Total	9200		10.4	MG/KG	6010	07/14/2006	14:34	TWS
Magnesium - Total	10600		20.9	MG/KG	6010	07/14/2006	02:06	TWS
Manganese - Total	2880		2.1	MG/KG	6010	07/14/2006	14:34	TWS
Mercury - Total	3.2		0.20	MG/KG	7471	07/11/2006	17:34	MM
Nickel - Total	86.8		0.52	MG/KG	6010	07/14/2006	02:06	TWS
Potassium - Total	1180		31.3	MG/KG	6010	07/14/2006	02:06	TWS
Selenium - Total	ND		4.2	MG/KG	6010	07/14/2006	02:06	TWS
Silver - Total	ND		0.52	MG/KG	6010	07/14/2006	02:06	TWS
Sodium - Total	190		146	MG/KG	6010	07/14/2006	02:06	TWS
Thallium - Total	ND		6.3	MG/KG	6010	07/14/2006	11:48	TWS
Vanadium - Total	69.9		0.52	MG/KG	6010	07/14/2006	02:06	TWS
Zinc - Total	458		1.0	MG/KG	6010	07/14/2006	02:06	TWS

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 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo Color: Site 915184

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 Rept: AN1178

Sample ID: TSW-3  
 Lab Sample ID: A6772405  
 Date Collected: 07/06/2006  
 Time Collected: 11:15

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SPILLS-SOIL-SW8463 8260 - TCL VOA (4.2)								
1,1,1-Trichloroethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,1,2,2-Tetrachloroethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,1,2-Trichloroethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,1-Dichloroethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,1-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,2,4-Trichlorobenzene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,2-Dibromo-3-chloropropane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,2-Dibromoethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,2-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,2-Dichloroethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,2-Dichloroethene (Total)	ND		12	UG/KG	8260	07/18/2006	15:24	TRB
1,2-Dichloropropane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,3-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
1,4-Dichlorobenzene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
2-Butanone	ND		29	UG/KG	8260	07/18/2006	15:24	TRB
2-Hexanone	ND		29	UG/KG	8260	07/18/2006	15:24	TRB
4-Methyl-2-pentanone	ND		29	UG/KG	8260	07/18/2006	15:24	TRB
Acetone	ND		29	UG/KG	8260	07/18/2006	15:24	TRB
Benzene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Bromodichloromethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Bromoform	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Bromomethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Carbon Disulfide	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Carbon Tetrachloride	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Chlorobenzene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Chloroethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Chloroform	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Chloromethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
cis-1,2-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
cis-1,3-Dichloropropene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Cyclohexane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Dibromochloromethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Dichlorodifluoromethane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Ethylbenzene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Isopropylbenzene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Methyl acetate	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Methyl-t-Butyl Ether (MTBE)	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Methylcyclohexane	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Methylene chloride	7	B	6	UG/KG	8260	07/18/2006	15:24	TRB
Styrene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Tetrachloroethene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Toluene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Total Xylenes	ND		17	UG/KG	8260	07/18/2006	15:24	TRB
trans-1,2-Dichloroethene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
trans-1,3-Dichloropropene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Trichloroethene	ND		6	UG/KG	8260	07/18/2006	15:24	TRB
Trichlorofluoromethane	2	BJ	6	UG/KG	8260	07/18/2006	15:24	TRB
Vinyl chloride	ND		12	UG/KG	8260	07/18/2006	15:24	TRB

Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo color: Site 915184

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 Rept: AN1178

Sample ID: TSW-3  
 Lab Sample ID: A6772405  
 Date Collected: 07/06/2006  
 Time Collected: 11:15

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection		Method	Date/Time		Analyst
			Limit	Units		Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
2,2'-Oxybis(1-Chloropropane)	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2,4,5-Trichlorophenol	ND		89000	UG/KG	8270	07/12/2006	21:21	PM
2,4,6-Trichlorophenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2,4-Dichlorophenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2,4-Dimethylphenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2,4-Dinitrophenol	ND		180000	UG/KG	8270	07/12/2006	21:21	PM
2,4-Dinitrotoluene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2,6-Dinitrotoluene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2-Chloronaphthalene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2-Chlorophenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2-Methylnaphthalene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2-Methylphenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
2-Nitroaniline	ND		180000	UG/KG	8270	07/12/2006	21:21	PM
2-Nitrophenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
3,3'-Dichlorobenzidine	ND		180000	UG/KG	8270	07/12/2006	21:21	PM
3-Nitroaniline	ND		180000	UG/KG	8270	07/12/2006	21:21	PM
4,6-Dinitro-2-methylphenol	ND		180000	UG/KG	8270	07/12/2006	21:21	PM
4-Bromophenyl phenyl ether	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
4-Chloro-3-methylphenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
4-Chloroaniline	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
4-Chlorophenyl phenyl ether	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
4-Methylphenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
4-Nitroaniline	ND		180000	UG/KG	8270	07/12/2006	21:21	PM
4-Nitrophenol	ND		180000	UG/KG	8270	07/12/2006	21:21	PM
Acenaphthene	4000	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Acenaphthylene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Acetophenone	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Aniline	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Anthracene	10000	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Atrazine	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Benzaldehyde	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Benzo(a)anthracene	22000	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Benzo(a)pyrene	22000	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Benzo(b)fluoranthene	26000	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Benzo(ghi)perylene	16000	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Benzo(k)fluoranthene	7800	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Biphenyl	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Bis(2-chloroethoxy) methane	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Bis(2-chloroethyl) ether	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Bis(2-ethylhexyl) phthalate	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Butyl benzyl phthalate	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Caprolactam	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Carbazole	3800	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Chrysene	19000	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Di-n-butyl phthalate	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Di-n-octyl phthalate	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Dibenzo(a,h)anthracene	4400	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Dibenzofuran	2800	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Diethyl phthalate	ND		37000	UG/KG	8270	07/12/2006	21:21	PM

Date: 07/31/2006  
 Time: 17:15:44

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC Spills - Buffalo Color: Site 915184

23/24 Page: 15  
 Rept: AN1178

Sample ID: TSW-3  
 Lab Sample ID: A6772405  
 Date Collected: 07/06/2006  
 Time Collected: 11:15

Date Received: 07/07/2006  
 Project No: NY5A946109  
 Client No: L10190  
 Site No:

Parameter	Result	Flag	Detection			Date/Time		Analyst
			Limit	Units	Method	Analyzed		
NYSDEC-SOIL-SW8463 8270-TCL SVOA ORGANICS+ANI								
Dimethyl phthalate	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Fluoranthene	40000		37000	UG/KG	8270	07/12/2006	21:21	PM
Fluorene	4800	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Hexachlorobenzene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Hexachlorobutadiene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Hexachlorocyclopentadiene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Hexachloroethane	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Indeno(1,2,3-cd)pyrene	14000	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Isophorone	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
N-Nitroso-Di-n-propylamine	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
N-nitrosodiphenylamine	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Naphthalene	3900	J	37000	UG/KG	8270	07/12/2006	21:21	PM
Nitrobenzene	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Pentachlorophenol	ND		180000	UG/KG	8270	07/12/2006	21:21	PM
Phenanthrene	38000		37000	UG/KG	8270	07/12/2006	21:21	PM
Phenol	ND		37000	UG/KG	8270	07/12/2006	21:21	PM
Pyrene	36000	J	37000	UG/KG	8270	07/12/2006	21:21	PM

Metals Analysis

Aluminum - Total	4960		11.1	MG/KG	6010	07/14/2006	02:20	TWS
Antimony - Total	ND		16.6	MG/KG	6010	07/14/2006	02:20	TWS
Arsenic - Total	49.6		2.2	MG/KG	6010	07/14/2006	02:20	TWS
Barium - Total	265		0.55	MG/KG	6010	07/14/2006	02:20	TWS
Beryllium - Total	0.60		0.22	MG/KG	6010	07/14/2006	02:20	TWS
Cadmium - Total	2.3		0.22	MG/KG	6010	07/14/2006	02:20	TWS
Calcium - Total	29400		55.4	MG/KG	6010	07/14/2006	02:20	TWS
Chromium - Total	122		0.55	MG/KG	6010	07/14/2006	02:20	TWS
Cobalt - Total	7.3		0.55	MG/KG	6010	07/14/2006	02:20	TWS
Copper - Total	224		1.1	MG/KG	6010	07/14/2006	02:20	TWS
Iron - Total	66600		11.1	MG/KG	6010	07/14/2006	02:20	TWS
Lead - Total	884		1.1	MG/KG	6010	07/14/2006	02:20	TWS
Magnesium - Total	4960		22.2	MG/KG	6010	07/14/2006	02:20	TWS
Manganese - Total	533		0.22	MG/KG	6010	07/14/2006	02:20	TWS
Mercury - Total	2.2		0.21	MG/KG	7471	07/11/2006	17:37	MM
Nickel - Total	31.5		0.55	MG/KG	6010	07/14/2006	02:20	TWS
Potassium - Total	878		33.2	MG/KG	6010	07/14/2006	02:20	TWS
Selenium - Total	ND		4.4	MG/KG	6010	07/14/2006	02:20	TWS
Silver - Total	0.93		0.55	MG/KG	6010	07/14/2006	02:20	TWS
Sodium - Total	293		155	MG/KG	6010	07/14/2006	02:20	TWS
Thallium - Total	ND		6.6	MG/KG	6010	07/14/2006	12:15	TWS
Vanadium - Total	16.0		0.55	MG/KG	6010	07/14/2006	02:20	TWS
Zinc - Total	1780		5.5	MG/KG	6010	07/14/2006	14:49	TWS

**Chain of Custody Record**

STL-4124 (0901)

Client <b>NYSDEC REGION 9 DER</b>		Project Manager <b>LINDA ROOS</b>		Date <b>07-06-06</b>	Chain of Custody Number <b>169278</b>
Address <b>270 Michigan Ave</b>		Telephone Number (Area Code)/Fax Number <b>716-851-7220 / 851-7226</b>		Lab Number	Page <u>1</u> of <u>1</u>

City <b>BUFFALO</b>	State <b>NY</b>	Zip Code <b>14203-2999</b>	Site Contact <b>David Symonds</b>	Lab Contact <b>B. Fischer</b>	Analysis (Attach list if more space is needed)
Project Name and Location (State) <b>BUFFALO Canal #915184</b>			Carrier/Waybill Number		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives							Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sed	Soil	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH			
TSW-1	7-6-06	1030				✓	✓								TEL SVC 8220 ANALYSIS to include ANILINE DS
TSW-2		1040				✓	✓								
TB-2		1050				✓	✓								
TB-1		1100				✓	✓								
TSW-3		1115				✓	✓								

Possible Hazard Identification			Sample Disposal			(A fee may be assessed if samples are retained longer than 1 month)	
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For _____ Months

Turn Around Time Required	QC Requirements (Specify)
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input checked="" type="checkbox"/> Other <u>30 days NYSDEC</u>	<u>7/7/06</u>

1. Relinquished By <b>[Signature]</b>	Date <b>7-7-06</b>	Time <b>1503 hrs</b>	1. Received By <b>[Signature]</b>	Date <b>7/7/06</b>	Time <b>1500</b>
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

24/24

# Appendix B

**STL Buffalo**

10 Hazelwood Drive, Suite 106  
Amherst, NY 14228

Tel: 716 691 2600 Fax: 716 691 7991  
www.stl-inc.com

ANALYTICAL REPORT

Job#: A06-9283

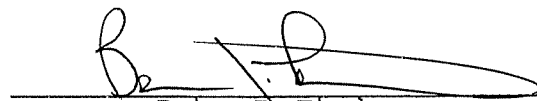
STL Project#: NY5A946109

Site Name: NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT

Task: NYSDEC Spills - Buffalo Color: Site 915184

Ms. Linda Ross  
NYSDEC - Region 9  
270 Michigan Ave  
Buffalo, NY 14203

STL Buffalo

  
Brian J. Fischer  
Project Manager

08/22/2006

## NON-CONFORMANCE SUMMARY

Job#: A06-9283STL Project#: NY5A946109Site Name: NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACTGeneral Comments

The enclosed data may or may not have been reported utilizing data qualifiers (Q) as defined on the Data Comment Page.

Soil, sediment and sludge sample results are reported on "dry weight" basis unless otherwise noted in this data package.

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

Sample dilutions were performed as indicated on the attached Dilution Log. The rationale for dilution is specified by the 3-digit code and definition.

Sample Receipt Comments

A06-9283

Sample Cooler(s) were received at the following temperature(s); 2@4.8 °C  
Analytical report includes library search for tentatively identified compounds (TICS) requested by the client.

GC/MS Volatile Data

No deviations from protocol were encountered during the analytical procedures.

GC/MS Semivolatile Data

No deviations from protocol were encountered during the analytical procedures.

Wet Chemistry Data

No deviations from protocol were encountered during the analytical procedures.



\*\*\*\*\*

The results presented in this report relate only to the analytical testing and condition of the sample at receipt. This report pertains to only those samples actually tested. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."



\_\_\_\_\_  
Brian J. Fischer  
Project Manager

8-23-06

\_\_\_\_\_  
Date

## SAMPLE SUMMARY

<u>LAB SAMPLE ID</u>	<u>CLIENT SAMPLE ID</u>	<u>MATRIX</u>	<u>SAMPLED</u>		<u>RECEIVED</u>	
			<u>DATE</u>	<u>TIME</u>	<u>DATE</u>	<u>TIME</u>
A6772404	TB-1	SOIL	07/06/2006	11:00	07/07/2006	15:00
A6772403	TB-2	SOIL	07/06/2006	10:50	07/07/2006	15:00
A6772401	TSW-1	SOIL	07/06/2006	10:30	07/07/2006	15:00
A6772402	TSW-2	SOIL	07/06/2006	10:40	07/07/2006	15:00
A6772405	TSW-3	SOIL	07/06/2006	11:15	07/07/2006	15:00

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC-SPILLS-SOIL- 8260 - TCL VOA (4.2)  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TB-1
------

Lab Name: STL Buffalo Contract: C200305Lab Code: RECN Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix: (soil/water) SOIL Lab Sample ID: A6772404Sample wt/vol: 5.14 (g/mL) G Lab File ID: F1150.RRLevel: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006% Moisture: not dec. 13.1 Date Analyzed: 07/18/2006GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0
 CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 METHOD 8270 - TCL SEMI-VOLATILE ORGANICS+ANILINE  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TB-1

Lab Name: STL Buffalo Contract: C200305Lab Code: RECNV Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix: (soil/water) SOIL Lab Sample ID: A6772404Sample wt/vol: 30.32 (g/mL) G Lab File ID: V15819.RRLevel: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006% Moisture: 15.0 decanted: (Y/N) N Date Extracted: 07/10/2006Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/12/2006Injection Volume: 1.00 (uL) Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Number TICs found: 20

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. 99-98-9	N,N-DIMETHYL-1,4-BENZENEDIAM	10.04	9000	JN
2.	UNKNOWN BENZENAMINE DERIVATI	13.32	4400	J
3.	UNKNOWN PAH DERIVATIVE	13.70	4400	J
4.	UNKNOWN PAH DERIVATIVE	13.78	4800	J
5.	UNKNOWN PAH DERIVATIVE	14.25	4100	J
6.	UNKNOWN	16.04	3300	J
7.	UNKNOWN PAH DERIVATIVE	16.07	3900	J
8.	UNKNOWN	16.37	3800	J
9.	UNKNOWN	16.41	5900	J
10.	UNKNOWN PAH DERIVATIVE	16.72	4800	J
11.	UNKNOWN	17.23	7600	J
12. 42211-34-7	1-BENZYLPIRENE	17.41	5400	JN
13.	UNKNOWN PAH DERIVATIVE	17.44	3600	J
14.	UNKNOWN PAH DERIVATIVE	17.48	7400	J
15.	UNKNOWN PAH DERIVATIVE	17.83	5500	J
16.	UNKNOWN	17.93	5700	J
17. 215-58-7	BENZO [B] TRIPHENYLENE	18.16	5000	JN
18.	UNKNOWN PAH DERIVATIVE	18.19	3700	J
19.	UNKNOWN PAH DERIVATIVE	18.23	3900	J
20.	UNKNOWN PAH DERIVATIVE	18.50	5700	J

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC-SPILLS-SOIL- 8260 - TCL VOA (4.2)  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TB-2
------

Lab Name: STL Buffalo Contract: C200305Lab Code: RECN Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix: (soil/water) SOIL Lab Sample ID: A6772403Sample wt/vol: 5.00 (g/mL) G Lab File ID: F1149.RRLevel: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006% Moisture: not dec. 17.7 Date Analyzed: 07/18/2006GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1
 CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. 110-54-3	HEXANE	2.82	6	JN

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 METHOD 8270 - TCL SEMI-VOLATILE ORGANICS+ANILINE  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TB-2
------

Lab Name: STL Buffalo Contract: C200305Lab Code: RECN Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix: (soil/water) SOIL Lab Sample ID: A6772403Sample wt/vol: 30.71 (g/mL) G Lab File ID: V15818.RRLevel: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006% Moisture: 17.8 decanted: (Y/N) N Date Extracted: 07/10/2006Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/12/2006Injection Volume: 1.00 (uL) Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Number TICs found: 3

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN PAH DERIVATIVE	13.70	1800	J
2.	UNKNOWN PAH DERIVATIVE	13.78	2800	J
3. 92-77-3	NAPHTHOL AS	16.47	12000	JN

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC-SPILLS-SOIL- 8260 - TCL VOA (4.2)  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TSW-1
-------

Lab Name: STL Buffalo Contract: C200305Lab Code: RECN Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix: (soil/water) SOIL Lab Sample ID: A6772401Sample wt/vol: 5.11 (g/mL) G Lab File ID: F1147.RRLevel: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006% Moisture: not dec. 13.8 Date Analyzed: 07/18/2006GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1
 CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. 110-54-3	HEXANE	2.82	6	JN

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 METHOD 8270 - TCL SEMI-VOLATILE ORGANICS+ANILINE  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TSW-1
-------

Lab Name: STL Buffalo Contract: C200305Lab Code: RECNY Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix: (soil/water) SOIL Lab Sample ID: A6772401Sample wt/vol: 30.30 (g/mL) G Lab File ID: V15816.RRLevel: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006% Moisture: 14.4 decanted: (Y/N) N Date Extracted: 07/10/2006Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/12/2006Injection Volume: 1.00 (uL) Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Number TICs found: 20

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN PAH DERIVATIVE	13.67	5900	J
2.	UNKNOWN PAH DERIVATIVE	13.70	8200	J
3. 203-64-5	4H-CYLCOPENTA [DEF] PHENANTHRE	13.78	8900	JN
4.	UNKNOWN PAH DERIVATIVE	13.81	4900	J
5.	UNKNOWN PAH DERIVATIVE	14.33	4400	J
6.	UNKNOWN PAH DERIVATIVE	16.72	5200	J
7. 30189-60-7	9- (4-AMINO-O-TOLYL) ACRIDINE	17.06	6500	JN
8.	UNKNOWN	17.11	87000	J
9.	UNKNOWN PAH DERIVATIVE	17.26	15000	J
10.	UNKNOWN	17.31	59000	J
11.	UNKNOWN	17.34	11000	J
12.	UNKNOWN	17.40	6600	J
13.	UNKNOWN PAH DERIVATIVE	17.46	5900	J
14.	UNKNOWN PAH DERIVATIVE	17.51	11000	J
15.	UNKNOWN PAH DERIVATIVE	17.55	14000	J
16.	UNKNOWN	17.76	6200	J
17.	UNKNOWN	17.88	7100	J
18.	UNKNOWN	18.18	16000	J
19.	UNKNOWN PAH DERIVATIVE	18.50	6400	J
20.	UNKNOWN AMINE	18.78	70000	J



NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC-SPILLS-SOIL- 8260 - TCL VOA (4.2)  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TSW-2
-------

Lab Name: STL Buffalo Contract: C200305Lab Code: RECN Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix: (soil/water) SOIL Lab Sample ID: A6772402Sample wt/vol: 5.08 (g/mL) G Lab File ID: F1148.RRLevel: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006% Moisture: not dec. 9.7 Date Analyzed: 07/18/2006GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 1

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. 110-54-3	HEXANE	2.82	6	JN

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 METHOD 8270 - TCL SEMI-VOLATILE ORGANICS+ANILINE  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TSW-2
-------

Lab Name: STL Buffalo Contract: C200305Lab Code: RECNY Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_Matrix: (soil/water) SOIL Lab Sample ID: A6772402Sample wt/vol: 30.94 (g/mL) G Lab File ID: V15817.RRLevel: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006% Moisture: 7.0 decanted: (Y/N) N Date Extracted: 07/10/2006Concentrated Extract Volume: 1000 (uL) Date Analyzed: 07/12/2006Injection Volume: 1.00 (uL) Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Number TICs found: 13

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN	14.54	3500	J
2.	UNKNOWN	15.25	4400	J
3.	UNKNOWN	15.96	2800	J
4.	UNKNOWN	16.13	97000	J
5.	UNKNOWN	16.18	6200	J
6.	UNKNOWN	16.45	4600	J
7.	UNKNOWN METHANONE DERIVATIVE	16.77	7200	J
8.	UNKNOWN	17.48	3500	J
9.	UNKNOWN	17.70	7800	J
10.	UNKNOWN	18.39	18000	J
11.	UNKNOWN	18.59	7900	J
12.	UNKNOWN BENZENAMINE DERIVATI	18.78	110000	J
13.	UNKNOWN	18.97	25000	J

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 NYSDEC-SPILLS-SOIL- 8260 - TCL VOA (4.2)  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TSW-3
-------

Lab Name: STL Buffalo Contract: C200305

Lab Code: RECN Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) SOIL Lab Sample ID: A6772405

Sample wt/vol: 5.00 (g/mL) G Lab File ID: F1151.RR

Level: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006

% Moisture: not dec. 13.4 Date Analyzed: 07/18/2006

GC Column: DB-624 ID: 0.18 (mm) Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (uL) Soil Aliquot Volume: \_\_\_\_\_ (uL)

Number TICs found: 0 CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

NYSDEC  
 NYSDEC - REGION 9 REMEDIATION/SPILLS CONTRACT  
 METHOD 8270 - TCL SEMI-VOLATILE ORGANICS+ANILINE  
 TENTATIVELY IDENTIFIED COMPOUNDS

Client No.

TSW-3
-------

Lab Name: STL Buffalo Contract: C200305

Lab Code: RECN Case No.: \_\_\_\_\_ SAS No.: \_\_\_\_\_ SDG No.: \_\_\_\_\_

Matrix: (soil/water) SOIL Lab Sample ID: A6772405

Sample wt/vol: 30.09 (g/mL) G Lab File ID: V15820.RR

Level: (low/med) LOW Date Samp/Recv: 07/06/2006 07/07/2006

% Moisture: 10.5 decanted: (Y/N) N Date Extracted: 07/10/2006

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 07/12/2006

Injection Volume: 1.00 (uL) Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Number TICs found: 0

CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

**Chain of Custody Record**

STL-4124 (0901)

Client <b>NYSDEC REGION 9 DER</b>		Project Manager <b>LINDA ROOS</b>		Date <b>07-06-06</b>	Chain of Custody Number <b>169278</b>
Address <b>250 Michigan Ave</b>		Telephone Number (Area Code)/Fax Number <b>716-851-7220 / 851-7226</b>		Lab Number	
City <b>BUFFALO</b>	State <b>NY</b>	Zip Code <b>14203-2999</b>	Site Contact <b>Rand Lynne</b>	Lab Contact <b>B. Fischer</b>	Page <b>1</b> of <b>1</b>

Project Name and Location (State) <b>BUFFALO Canal #915184</b>		Carrier/Waybill Number		Analysis (Attach list if more space is needed)	
Contract/Purchase Order/Quote No. <b>C240305</b>		Matrix		Containers & Preservatives	

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives						Special Instructions/ Conditions of Receipt	
			Air	Aqueous	Sol.	Sol.	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc		NaOH
TSW-1	7-6-06	1030			✓	✓	✓							<b>TEL SVOC</b> <b>820 ANALYSIS</b> <b>to include</b> <b>ANILINE DS</b>
TSW-2		1040			✓	✓								
TB-2		1050			✓	✓								
TB-1		1100			✓	✓								
TSW-3		1115			✓	✓								

Possible Hazard Identification	Sample Disposal	(A fee may be assessed if samples are retained longer than 1 month)
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input checked="" type="checkbox"/> Unknown	<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	

Turn Around Time Required	QC Requirements (Specify)
<input type="checkbox"/> 24 Hours <input type="checkbox"/> 48 Hours <input type="checkbox"/> 7 Days <input type="checkbox"/> 14 Days <input type="checkbox"/> 21 Days <input checked="" type="checkbox"/> Other: <b>30 Day by NYSDEC</b>	

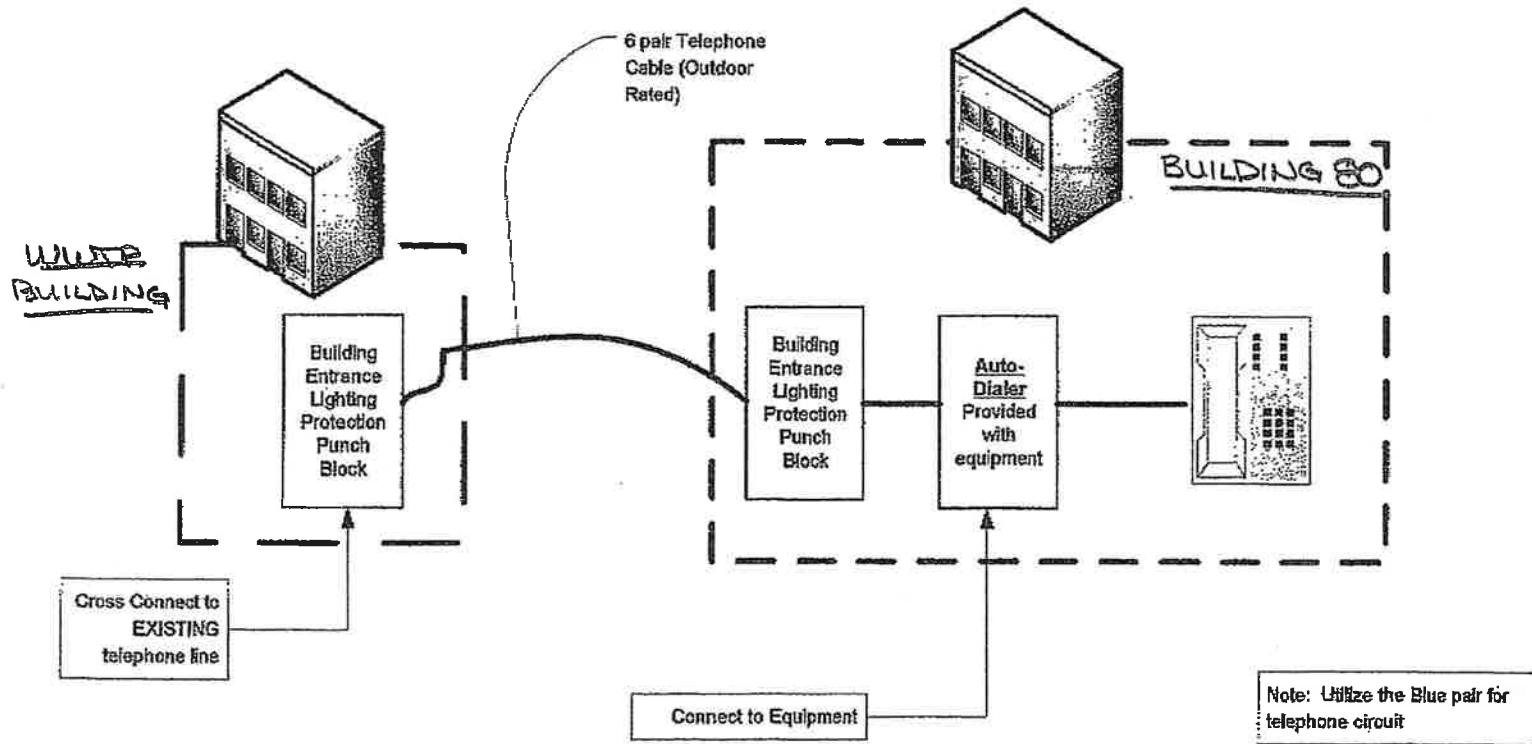
1. Relinquished By <b>[Signature]</b>	Date <b>7-7-06</b>	Time <b>1503 hrs</b>	1. Received By <b>Well STL Buffalo</b>	Date <b>7/7/06</b>	Time <b>1500</b>
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time


Comments

15/15

## **APPENDIX B-6**

### **Schematic Diagram of Alarm/Auto-Dialing System**



 <b>CIR</b> <small>CONSTRUCTION INCORPORATED</small>		SIZE	Project	Title	REV
DRAWN	Steven Maranto RCDD		Buffalo Color	Telephone Hook Up	
ISSUED	8/29/2006	SCALE	none	SHEET	1 OF 1

## **APPENDIX C**

### **AREA E SHEET PILE WALL REPAIR DOCUMENTATION**



## **APPENDIX C-1**

### **Pre-Construction Site Investigation Test Pit Logs & Boring Logs**

# TEST PIT LOG

Page 1 of 1

Project No.: P05-084

Project Name: Former Buffalo Color Site  
Interim Corrective Measure  
Area E

Starting Date: May 10, 2006

Pit Number: TP-01

Location: Buffalo, New York

Completion Date: May 10, 2006

Surface Elevation: 584

Excavation Subcontractor: Geo-Con

Equipment: TD 310 Backhoe/Loader

Geologist/Engineer: B. Benson

Equipment Operator: G. White

Weather: Cloudy

Depth (ft)	Description
0-3.0'	<i>Sand w/some debris (bricks and small cobbles)</i>
3'-6'	<i>Cobbles (1.5"-2") w/some sand. Saturated.</i>
6'-11'	<i>Plastic clay w/some sand</i>
11.5'	<i>Dark brown clay mottled with black clay</i>

Notes

Slight petroleum order  
No organics detected on the PID.

# TEST PIT LOG

Project No.: P05-084

Project Name: Former Buffalo Color Site  
Interim Corrective Measure  
Area E

Starting Date: May 22, 2006

Pit Number: TP-02

Location: Buffalo, New York

Completion Date: May 23, 2006

Surface Elevation: ~584

Excavation Subcontractor: Geo-Con

Equipment: TD 310 Backhoe/Loader

Geologist/Engineer: B. Benson  
Technician

Equipment Operator: G. White

Weather: Partly Cloudy 35-60

Depth (ft)	Description
0'-8"	Fill
8'-10'	Sand, some pieces of clay scattered.

## Notes

Test pitting to locate existing wood sheet pile wall.  
The test pit started 42' east of the 42" BCC sewer and ended 7' east of the 42" BCC sewer.  
The sheet pile wall located 8' below ground. The breach in the wall began 10' east of the BCC sewer.  
TP-02 approximately 35'L x 3'W x 10'D  
OK - TC

# TEST PIT LOG

Project No.: P05-084 Project Name: Former Buffalo Color Site Starting Date: May 23, 2006  
Interim Corrective Measure  
Area E  
Pit Number: TP-3 Location: Buffalo, New York Completion Date: May 23, 2006  
Surface Elevation: NA ~ 584 - TCC Excavation Subcontractor: Geo-Con Equipment: TD 310 Backhoe/Loader  
Geologist/Engineer: B. Benson Equipment Operator: H. Barskite Weather: Partly Cloudy 35-60

Depth (ft)	Description
0' - 8'	Fill
8'-10'	Sand and pipe bedding material. Some clay pieces scattered.

### Notes

Test pitting to locate existing wooden sheet pile and the 42" Buffalo Color sewer line. The wooden  
sheet pile was located 2.5 to 4' below ground and the top of the 42" sewer line was located 9' below  
ground surface. The breach in the sheet pile wall began 2.5' west of the 42" BCC pipe.  
TP-02 was approximately 24'L x 3'W x 6'D on the sheet pile wall and 10'D on the 42" BCC pipe  
  
- no more than  
- TCC



Barron & Associates, P.C. & Buffalo Drilling Company, Inc. 10440 Maine Street Clarence, NY 14031 (716) 759-7821	<b>TEST BORING LOG</b>  Project: <u>Buffalo Color Site</u>  Job No.: 06-143      Boring No.: <u>SB-1</u> <span style="float: right;">-TCC</span>
---	--

Driller: <u>Larry/Charlie</u>	Date Started: <u>5/24/2006</u>
Drill Rig: <u>204/D-50 Truck</u>	Date Completed: <u>5/24/2006</u>
Size & Type of Bit: <u>2 1/4 HSA</u>	Surface Elevation: <u>584.8' -TCC</u>

Depth (ft.)	Blows Per 0.5 ft.		Sample No.	N Value	% Rec <del>(RQD)</del> <span style="float: right;">-TCC</span>	Soil and Rock Description
2-4	1	1	2	3	0	no recovery
	2	2				
4-6	1	2	3	3	5	fill
	1	1				
6-8	1	2	4	3	5	fill
	1	1				
8-10	1	1	5	2	10	fill moist
	1	1				
10-12	1	2	6	3	20	silty sand then sand wet
	1	3				
12-14	4	7	7	9	5	silty sand w/gravel wet
	2	2				
14-16	2	3	8	6	85	silty sand, trace of clay wet
	3	3				
16-18	2	3	9	7	80	sand
	4	7				
18-20	1	2	10	4	50	fine sand wet
	2	1				
20-22	2	2	11	4	80	sand
	2	3				
22-24	1	2	12	4	75	clay
	2	2				
24-26	2	2	13	4	80	clay
	2	2				

Bottom of Hole: <u>26'</u>	Groundwater Depth: <u>21'</u>	Auger Refusal: <u>No</u>
----------------------------	-------------------------------	--------------------------

Notes:

Logged by: \_\_\_\_\_ Date: \_\_\_\_\_



Barron & Associates, P.C. & Buffalo Drilling Company, Inc. 10440 Maine Street Clarence, NY 14031 (716) 759-7821	<b>TEST BORING LOG</b> SB-3
	Project: Buffalo Color Site
	Job No.: 06-143     Boring No. SB-3

Driller: <u>Larry/Charlie</u>	Date Started: <u>5/24/2006</u>
Drill Rig: <u>D-50 Truck</u>	Date Completed: <u>5/24/2006</u>
Size & Type of Bit: <u>2 1/4 HSA</u>	Surface Elevation: <u>584.7'</u>

Depth (ft.)	Blows Per 0.5 ft.	Sample No.	N Value	% Rec <del>(RQD)</del>	<i>-TCL</i>	Soil and Rock Description
14-16	1	1	4	70		silty clay to sand (wet)
	2					
16-18	1	2	3	90		silty sand
	1					
18-20	1	3	3	85		sand
	2					
20-22	1	4	2	60		wet sand
	1					
22-24	1	5	3	60		clay
	2					
24-26	2	6	4	75		clay
	2					

Bottom of Hole:    26'	Groundwater Depth:  14'	Auger Refusal:       No
------------------------	-------------------------	-------------------------

Notes:

Logged by: \_\_\_\_\_ Date: \_\_\_\_\_



## **APPENDIX C-2**

### **Jet Grout Mix Design Laboratory Testing Data**

Mix Design Summary  
 Buffalo Color Corporation Site  
 Sheet Pile Repair - Area E  
 P05-084  
 Buffalo, NY  
 Geo-Con

BORING ID	BORING EL
Test Pit 1	

**CEMENT-BENTONITE GROUT MIX DATA**

DATE MIXED	REAGENTS	% ADDITION BY WEIGHT	WEIGHT OF REAGENT (g)	GROUT DENSITY (pcf)	COMMENTS
5/12/06	WATER	80%	6,523	71	
5/12/06	CEMENT	17%	1,362	71	
5/12/06	BENTONITE	3%	261	71	

**SOIL-MIX DATA**

-TCC

DATE MIXED	TARGET % REPLACEMENT	WEIGHT OF SOIL SAMPLE (g)	WEIGHT OF GROUT (g)	ACTUAL % REPLACEMENT	GROUT DENSITY (pcf)	SOIL-MIX DENSITY (pcf)	COMMENTS
5/12/06	65 75.0%	1,902	2544	65.0%	71.0	79.0	
5/12/06	50.0%	2,818	1960	49.1%	71.0	78.0	
5/12/06	70.0%	1,601	2740	70.4%	71.0	78.0	

**DAYS CURE FOR UCS TESTING**

ACTUAL % REPLACEMENT	3 DAY CURE	7 DAY	28	PERMEABILITY
65.0%				
49.1%				
70.4%				

**PROCEDURE**

- 1) Calculate weight of grout needed for the desired replacement rates
- 2) Measure weight of soil to be used for each sample
- 3) Mix cement-bentonite grout mix
- 4) Record the density of the grout mix
- 5) Blend the soil samples and grout until mixture is homogenous with an electric blender
- 6) Record density of soil mix
- 7) Create three (3) 3"x6" cylinder molds each sample



May 22, 2006

Project No. 2006-183-01

Mr. Bill Buccille  
Geo-Con / EBC  
4075 Monroeville Blvd.  
Corporate One Bldg.  
Monroeville, PA 15146

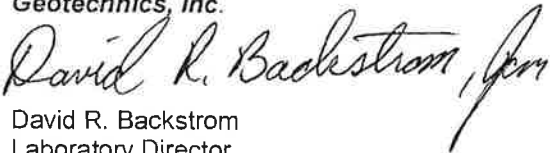
**Transmittal**  
**Laboratory Test Results**  
**BUFFALO COLOR P05-084**

Please find attached the laboratory test results for the above referenced project. The tests were outlined on the Project Verification Form that was faxed to your firm prior to the testing. The testing was performed in general accordance with the methods listed on the enclosed data sheets. The test results are believed to be representative of the samples that were submitted for testing and are indicative only of the specimens which were evaluated. We have no direct knowledge of the origin of the samples and imply no position with regard to the nature of the test results, i.e. pass/fail and no claims as to the suitability of the material for its intended use.

The test data and all associated project information provided shall be held in strict confidence and disclosed to other parties only with authorization by our Client. The test data submitted herein is considered integral with this report and is not to be reproduced except in whole and only with the authorization of the Client and Geotechnics. The remaining sample materials for this project will be retained for a minimum of 90 days as directed by the Geotechnics' Quality Program.

We are pleased to provide these testing services. Should you have any questions or if we may be of further assistance, please contact our office.

Respectively submitted,  
**Geotechnics, Inc.**

  
David R. Backstrom  
Laboratory Director

***We understand that you have a choice in your laboratory services  
and we thank you for choosing Geotechnics.***

DCN: Data Transmittal Letter Date: 1/28/05 Rev: 1



**UNCONFINED COMPRESSIVE STRENGTH**  
 ASTM D2166-00 / AASHTO T208-96 (Modified-Peak Load Only) (SOP S-30)

Client	GEO-CON / EBC	Boring No.	5/12/06
Client Reference	BUFFALO COLOR P05-084	Depth (ft.)	50% REPLACEMENT
Project No.	2006-183-01	Sample No.	3 DAY / HEAT
Lab ID	2006-183-01-01	Visual Description:	BROWN STABILIZED SLUDGE

INITIAL SAMPLE DIMENSIONS			
Length 1(in)	4.984	Top Dia. (in)	3.013
Length 2(in)	4.991	Mid. Dia. (in)	2.997
Length 3(in)	4.981	Bot. Dia. (in)	2.985
Avg.Length(in)	4.985	Area (in.^2)	7.061

WATER CONTENT AFTER TEST	
Tare No.	956
Wt. Tare + WS.(gms)	926.98
Wt. Tare + DS.(gms)	571.51
Wt. of Tare(gms)	103.65
% Moisture	75.98

UNIT WEIGHT			
Wt. Tube & WS.(gms.)	826.01	Sample Volume(cc.)	576.8
Wt. Of Tube(gms.)	0.00	Unit Wet Wt.(gms/cc)	1.43
Wt. Of WS.(gms.)	826.01	Unit Wet Wt.(pcf.)	89.36
Diameter (in.)	3.00	Moisture Content, %	75.98
Length (in.)	4.99	Unit Dry Wt.(pcf.)	50.78
Length (cm.)	12.66		

LOAD (lbs)	STRESS (psi)
89	12.60

\*NOTE: SHORT OUT OF MOLD  
 SAMPLE CHIPPED OFF WHEN TRIMMING, DUE TO LARGE AGGREGATE.



**UNCONFINED COMPRESSIVE STRENGTH**

ASTM D2166-00 / AASHTO T208-96 (Modified-Peak Load Only) (SOP S-30)

Client	GEO-CON / EBC	Boring No.	5/12/06
Client Reference	BUFFALO COLOR P05-084	Depth (ft.)	70% REPLCMNT
Project No.	2006-183-01	Sample No.	3 DAY / HEAT
Lab ID	2006-183-01-02	Visual Description:	BROWN STABILIZED SLUDGE

INITIAL SAMPLE DIMENSIONS			
Length 1(in)	4.820	Top Dia. (in)	3.009
Length 2(in)	4.789	Mid. Dia. (in)	3.005
Length 3(in)	4.784	Bot. Dia. (in)	2.993
Avg.Length(in)	4.798	Area (in.^2)	7.080

WATER CONTENT AFTER TEST	
Tare No.	972
Wt. Tare + WS.(gms)	814.29
Wt. Tare + DS.(gms)	408.94
Wt. of Tare(gms)	103.44
% Moisture	132.68

UNIT WEIGHT			
Wt. Tube & WS.(gms.)	714.62	Sample Volume(cc.)	556.6
Wt. Of Tube(gms.)	0.00	Unit Wet Wt.(gms/cc)	1.28
Wt. Of WS.(gms.)	714.62	Unit Wet Wt.(pcf.)	80.12
Diameter (in.)	3.00	Moisture Content, %	132.68
Length (in.)	4.80	Unit Dry Wt.(pcf.)	34.43
Length (cm.)	12.19		

LOAD (lbs)	STRESS (psi)
92	13.00



**UNCONFINED COMPRESSIVE STRENGTH**

ASTM D2166-00 / AASHTO T208-96 (Modified-Peak Load Only) (SOP S-30)

- TCC

Client	GEO-CON / EBC	Boring No.	5/12/06
Client Reference	BUFFALO COLOR P05-084	Depth (ft.)	65 <del>35%</del> REPLCMNT
Project No.	2006-183-01	Sample No.	3 DAY / HEAT
Lab ID	2006-183-01-03	Visual Description:	BROWN STABILIZED SLUDGE

INITIAL SAMPLE DIMENSIONS			
Length 1(in)	4.691	Top Dia. (in)	3.011
Length 2(in)	4.674	Mid. Dia. (in)	3.007
Length 3(in)	4.682	Bot. Dia. (in)	2.997
Avg.Length(in)	4.682	Area (in.^2)	7.092

WATER CONTENT AFTER TEST	
Tare No.	2332
Wt. Tare + WS.(gms)	838.61
Wt. Tare + DS.(gms)	426.72
Wt. of Tare(gms)	101.77
% Moisture	126.75

UNIT WEIGHT			
Wt. Tube & WS.(gms.)	737.26	Sample Volume(cc.)	544.2
Wt. Of Tube(gms.)	0.00	Unit Wet Wt.(gms/cc)	1.35
Wt. Of WS.(gms.)	737.26	Unit Wet Wt.(pcf.)	84.54
Diameter (in.)	3.01	Moisture Content, %	126.75
Length (in.)	4.68	Unit Dry Wt.(pcf.)	37.28
Length (cm.)	11.89		

LOAD (lbs)	STRESS (psi)
105	14.81

# PERMEABILITY TEST

ASTM D 5084-03  
(SOP-S22A & S22B)



Client  
Client Project  
Project No.  
Lab ID No.

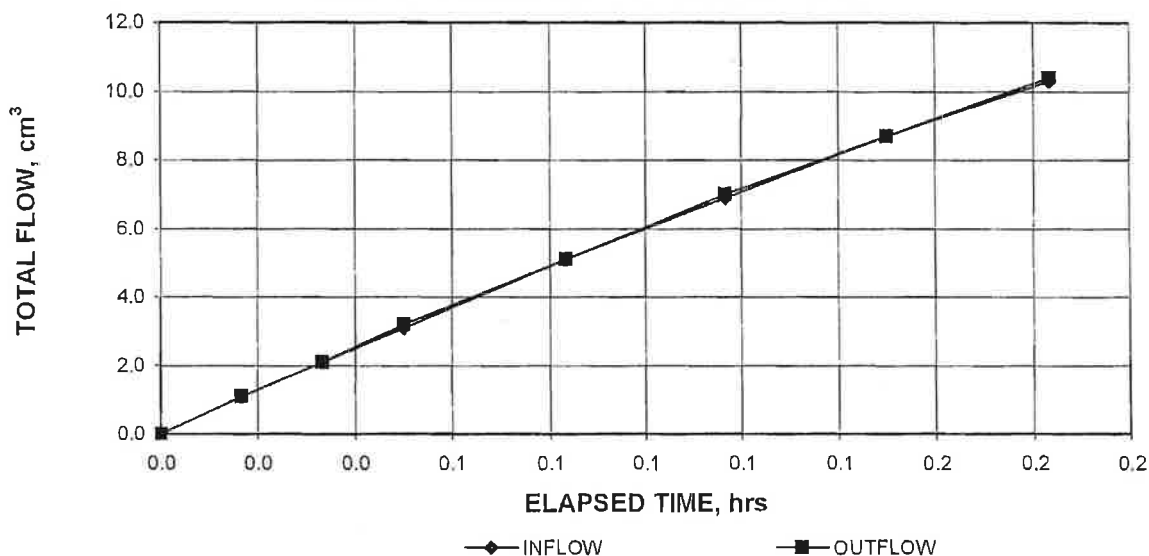
GEO-CON / EBC  
BUFFALO COLOR P05-084  
2006-183-01  
2006-183-01-03

Boring No. 5-12-06  
Depth (ft.) 36% REPLACEMENT  
Sample No. 3 DAY / HEAT

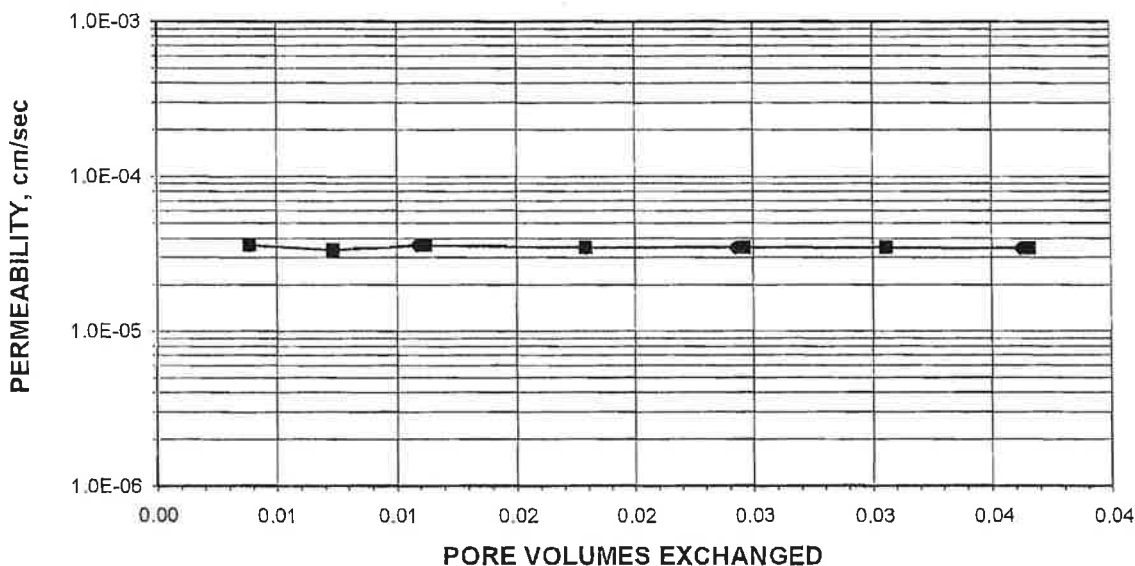
*65% - TCC*

AVERAGE PERMEABILITY =  $3.5E-05$  cm/sec @ 20°C  
AVERAGE PERMEABILITY =  $3.5E-07$  m/sec @ 20°C

## TOTAL FLOW vs. ELAPSED TIME



## PORE VOLUMES EXCHANGED vs. PERMEABILITY



Tested By: JCM

Date: 05/16/06

Checked By: *KUB*

Date: *5-19-06*

# PERMEABILITY TEST

ASTM D 5084-03  
(SOP-S22A & S22B)



Client GEO-CON / EBC  
Client Project BUFFALO COLOR P05-084  
Project No. 2006-183-01  
Lab ID No. 2006-183-01-03

Boring No. 5-12-06 *65% - TCC*  
Depth (ft.) 36% REPLACEMENT  
Sample No. 3 DAY / HEAT

Specific Gravity 2.70 Assumed  
Sample Condition Undisturbed

Visual Description: BROWN STABILIZED SLUDGE

MOISTURE CONTENT:	BEFORE TEST	AFTER TEST
Tare Number	874	1696
Wt. of Tare & WS (gm.)	263.61	387.45
Wt. of Tare & DS (gm.)	167.95	205.95
Wt. of Tare (gm.)	110.41	83.20
Wt. of Water (gm.)	95.66	181.50
Wt. of DS (gm.)	57.54	122.75
Moisture Content (%)	166.2	147.9

SPECIMEN:	BEFORE TEST	AFTER TEST
Wt. of Tube & WS (gm.)	827.27	NA
Wt. of Tube (gm.)	0.00	NA
Wt. of WS (calc.)(gm.)	827.27	770.14
Length 1 (in.)	3.423	3.434
Length 2 (in.)	3.422	3.407
Length 3 (in.)	3.408	3.435
Top Diameter (in.)	3.017	3.014
Middle Diameter (in.)	3.014	3.009
Bottom Diameter (in.)	3.012	3.007
Average Length (in.)	3.42	3.43
Average Area (in. <sup>2</sup> )	7.14	7.12
Sample Volume (cm <sup>3</sup> )	399.67	399.42
Unit Wet Wt. (gm./ cm <sup>3</sup> )	2.07	1.93
Unit Wet Wt. (pcf)	129.2	120.4
Unit Dry Wt. (pcf)	48.5	48.6
Unit Dry Wt. (gm./ cm <sup>3</sup> )	0.78	0.78
Void Ratio, e	2.47	2.47
Porosity, n	0.71	0.71
Pore Volume (cm <sup>3</sup> )	284.6	284.3
Total Wgt. Of Sample After Test		527.0

Tested By: JCM

Date: 05/16/06

Checked By: *YKB*

Date: *5-19-06*



# PERMEABILITY TEST

ASTM D 5084-03  
(SOP-S22A & S22B)



Client GEO-CON / EBC  
Client Project BUFFALO COLOR P05-084  
Project No. 2006-183-01  
Lab ID No. 2006-183-01-03

Boring No. 5-12-06 *65% - TC*  
Depth (ft.) *36% REPLACEMENT*  
Sample No. 3 DAY / HEAT

**Pressure Heads (Constant)**  
Top Cap (psi) 69.0  
Bottom Cap (psi) 70.0  
Cell (psi) 75.0  
Total Pressure Head (cm) 70.3  
Hydraulic Gradient 8.08

**Final Sample Dimensions**  
Sample Length (cm), L 8.70  
Sample Diameter (cm) 7.65  
Sample Area (cm<sup>2</sup>), A 45.91  
Inflow Burette Area (cm<sup>2</sup>), a-in 0.877  
Outflow Burette Area (cm<sup>2</sup>), a-out 0.882  
B Parameter (%) 96

AVERAGE PERMEABILITY = 3.5E-05 cm/sec @ 20°C  
AVERAGE PERMEABILITY = 3.5E-07 m/sec @ 20°C

DATE	TIME		ELAPSED TIME	TOTAL INFLOW	TOTAL OUTFLOW	TOTAL HEAD	FLOW	TEMP.	INCREMENTAL PERMEABILITY
(mm/dd/yy)	(hr)	(min)	t (hr)	(cm <sup>3</sup> )	(cm <sup>3</sup> )	h (cm)	( 0 flow ) ( 1 stop )	( °C )	@ 20°C (cm/sec)
05/18/06	16	52	0.0	0.0	0.0	93.9	0	21.8	NA
05/18/06	16	53	0.0	1.1	1.1	91.4	0	21.8	3.6E-05
05/18/06	16	54	0.0	2.1	2.1	89.1	0	21.8	3.4E-05
05/18/06	16	55	0.1	3.1	3.2	86.7	0	21.8	3.6E-05
05/18/06	16	57	0.1	5.1	5.1	82.3	0	21.8	3.5E-05
05/18/06	16	59	0.1	6.9	7.0	78.1	0	21.8	3.5E-05
05/18/06	17	1	0.1	8.7	8.7	74.1	0	21.8	3.5E-05
05/18/06	17	3	0.2	10.3	10.4	70.3	1	21.8	3.5E-05

Tested By: JCM

Date: 05/16/06

Checked By: *YKB*

Date: *5-19-06*

## **APPENDIX C-3**

### **Quality Control Reports Batch Plant Operations & Jet Grout Operations**



**Batch Plant Quality Control  
Buffalo Color Corporation Site  
Sheet Pile Wall Repair - Area E  
Geo-Con / EBC  
Job # P05-084**

Date: 5/25/2006

**Batch Plant Quality Control**

Batches Mixed	Lbs Cement	Lbs Clay	Gallons Water	Grout Density (PCF)	Time Batched	Comments
1	1034	200	610	73	15:40	
2	517	100	300	72	16:15	
	<b>Total Tons</b>	<b>Total Lbs</b>	<b>Total Gallons</b>			
	0.8	300.0	910.0			
	<b>To Date</b>	<b>To Date</b>	<b>To Date</b>			
	0.8	300.0	910.0			

\_\_\_\_\_

Geo-Con / EBC Date \_\_\_\_\_





Batch Plant Quality Control  
Buffalo Color Corporation Site  
Sheet Pile Wall Repair - Area E  
Geo-Con / EBC  
Job # P05-084

Date: 5/31/2000 - TCC  
#REF!

Batch Plant Quality Control

Batches Mixed	Lbs Cement	Lbs Clay	Gallons Water	Grout Density (PCF)	Time Batched	Comments
1	1081	250	607	73		
2	1081	250	611	73		
	<b>Total Tons</b>	<b>Total Lbs</b>	<b>Total Gallons</b>			
	1.1	500.0	1,218.0			
	<b>To Date</b>	<b>To Date</b>	<b>To Date</b>			
	8.2	3,700.0	9,262.0			



**Jet Grout Quality Control Report  
Buffalo Color Corporation Site  
Sheet Pile Wall Repair - Area E  
Geo-Con / EBC  
Job # P05-084**

Date: 5/25/2006

Project Number: P05-084

**Jet Grout Column Installation**

Column No.	Station #	Depth(s) - Below Ground Surface		Drilling Time		Grouting Time		Rotation Rate	Lift Rate	Flow Rate	Grout Pressure	Grout Use	Comments
		Top	Bottom	Start	Finish	Start	Finish	(Rev/Min)	(Ft/Min)	(GPM)	PSI	Gallons	
TC-01	0-14.5	1'	11'	15:48	15:58	15:58	16:09	12	1	37	4500	407	TC-01 located 4' south of the sheet pile wall alignment.
TC-02	0-5	1'	11'	16:30	16:33	16:33	16:43	12	1	41	5500	410	TC-02 located 5.5' south of the sheet pile wall alignment

Nozzle Size: 2.5 mm                      Rotation Rate : 12 rev/min                      Driller Name: H. Barskite  
 Grout Pressure : See above                      Air Pressure: n/a                      Rig: Davey Kent  
 Water Pressure: n/a                      Grout Mix 4.8W: 1C: 0.2B

**COMMENTS:** Jet grout column stations are determined by measurement from the 42" Buffalo Color Sewer line which is designated as 0+00.

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\_\_\_\_\_  
Geo-Con / EBC

\_\_\_\_\_  
Date



**Jet Grout Quality Control Report  
Buffalo Color Corporation Site  
Sheet Pile Wall Repair - Area E  
Geo-Con / EBC  
Job # P05-084**

Date: 5/26/2006

Project Number: P05-084

**Jet Grout Column Installation**

Column No.	Station #	Depth(s) - Below Ground Surface		Drilling Time		Grouting Time		Rotation Rate	Lift Rate	Flow Rate	Grout Pressure	Grout Use	Comments
		Top	Bottom	Start	Finish	Start	Finish	(Rev/Min)	(Ft/Min)	(GPM)	PSI	Gallons	
01	0-13	8'	18'	12:00	12:04	12:04	12:15	6	1	35	4500	385	Located 12" south of the wooden sheet pile wall
02	0-13	7'	18'	12:18	12:22	12:22	12:34	6	1	35	4500	420	Located 30" south of the wooden sheet pile wall
03	0-11.5	7'	18'	12:43	12:49	12:49	13:00	6	1	35	4500	385	Located 6" south of the pipe rack footer
06	0-7.0	7'	18'	13:12	13:15	13:15	13:26	6	1	35	4500	385	Located 6" south of the pipe rack footer
08	0-4.0	7'	18'	13:30	13:32	13:32	13:43	6	1	35	4500	385	Located 6" south of the pipe rack footer
10	0-3.0	7'	18'	13:45	13:48	13:48	13:59	6	1	35	4500	385	Located 18" south of the assumed wooden sheet pile wall alignment
10A	0-3.0	11'	20'	14:01	14:01	14:01	14:10	6	1	35	4500	315	The top of the drill stems were angled approximately 5 degrees to (top to the west) to jet grout under the 42" Buffalo Color Sewer pipe.

Nozzle Size: 2.5 mm  
 Grout Pressure: See above  
 Water Pressure: n/a

Rotation Rate: 6 rev/min  
 Air Pressure: n/a  
 Grout Mix: 79% W: 17% C: 4% B

Driller Name: H. Barskite  
 Rig: Davey Kent

**COMMENTS:** Jet grout column stations are determined by measurement from the 42" Buffalo Color Sewer line which is designated as 0+00.  
 Jet grout test column TC-01 was exposed and measured to be approximately 3' in diameter.

Geo-Con / EBC

Date

**Jet Grout Quality Control Report  
Buffalo Color Corporation Site  
Sheet Pile Wall Repair - Area E  
Geo-Con / EBC  
Job # P05-084**

Date: 5/30/2006

Project Number: P05-084

Jet Grout Column Installation

Column No.	Station #	Depth(s) - Below Ground Surface		Drilling Time		Grouting Time		Rotation Rate	Lift Rate	Flow Rate	Grout Pressure	Grout Use	Comments
		Top	Bottom	Start	Finish	Start	Finish	(Rev/Min)	(Ft/Min)	(GPM)	PSI	Gallons	
00	0-14.5	7'	18'	8:45	8:47	8:47	8:59	5.5	1	35.5	4500	382	Located 12" south of the wooden sheet pile wall. Grout return observed at station 0-16 and 0-18 approximately 1' north of the sheet pile wall.
04	0-10.5	7'	18'	9:07	9:10	9:10	9:21	6.0	1	34.7	4500	378	Located 6" south of the pipe rack footer. Column 04 was moved 6" west of the proposed location due to the location of the overhead pipe
05	0-8	7'	18'	9:33	9:34	9:34	9:46	6.0	1	34.7	4500	394	Located 6" south of the pipe rack footer
07	0-5.5	7'	18'	9:51	9:53	9:53	10:04	6.0	1	34.3	4500	387	Located 3" south of the pipe rack footer
09	0-3.25	7'	18'	10:09	10:10	10:10	10:22	6.0	1	34.4	4500	381	Located 31" south of the assumed sheet pile wall alignment
11	0+2.75	7'	18'	10:21	10:33	10:33	10:53	6.0	0.5	34.8	4500	699	Located 12" south of the assumed wooden sheet pile wall alignment. The lift rate was slowed to 0.5'/min from 18' - 9'. Lift rate of 1'/min was used from 9' - 7'
11A	0+2.75	12'	20'	11:00	11:04	11:04	11:12	4.0	1	35	4500	280	The top of the drill stems were angled approximately 5 degrees (top to the east) to jet grout under the 42" Buffalo Color Sewer pipe.

Nozzle Size: 2.5 mm  
 Grout Pressure: See above  
 Water Pressure: n/a

Rotation Rate: 6rev/min  
 Air Pressure: n/a  
 Grout Mix: 79% W: 17% C: 4% B

Driller Name: H. Barskite  
 Rig: Davey Kent

**COMMENTS:** Jet grout column stations are determined by measurement from the 42" Buffalo Color Sewer line which is designated as 0+00. Six (6) 3"x6" cylinder molds were created from column 07.

Geo-Con / EBC

Date

**Jet Grout Quality Control Report  
Buffalo Color Corporation Site  
Sheet Pile Wall Repair - Area E  
Geo-Con / EBC  
Job # P05-084**

Date: 5/30/2006

Project Number: P05-084

Jet Grout Column Installation

Column No.	Station #	Depth(s) - Below Ground Surface		Drilling Time		Grouting Time		Rotation Rate	Lift Rate	Flow Rate	Grout Pressure	Grout Use	Comments
		Top	Bottom	Start	Finish	Start	Finish	(Rev/Min)	(Ft/Min)	(GPM)	PSI	Gallons	
12	0+3.5	7'	18'	11:18	11:20	11:20	11:31	4.0	1	34.7	4500	387	Located 12" south of the wooden sheet pile wall.
AP-01	0-1	7'	9'	12:37	12:37	12:38	12:40	6.0	1	34.4	4500	92	AP-01 was installed above the 42" Buffalo Color Sewer and 12" south of the assumed wooden sheet pile wall alignment.
AP-02	0+1	7'	9'	12:43	12:44	12:44	12:16	6.0	1	34.6	4500	89	AP-02 was installed above the 42" Buffalo Color Sewer and 12" south of the assumed wooden sheet pile wall alignment.
13	0+5	7'	18'	14:24	14:25	14:25	14:36	6.0	1	34.6	4500	396	Located 12" south of the sheet pile wall
14	0+6.5	7'	18'	15:51	15:58	15:58	16:09	6.0	1	34.8	4500	387	Located 12" south of the assumed sheet pile wall alignment
15	0+8	7'	18'	16:12	16:13	16:13	16:23	6.0	1	34.6	4500	380	Located 12" south of the assumed wooden sheet pile wall alignment.
16	0+9.25	7'	18'	16:29	16:29	16:31	16:43	6.0	1	34.8	4500	389	Located 12" south of the assumed wooden sheet pile wall alignment.
17	0+11.75	7'	18'	16:46	16:47	16:47	16:58	6.0	1	35.1	4500	383	Located 12" south of the assumed wooden sheet pile wall alignment.

Nozzle Size: 2.5 mm  
 Grout Pressure: See above  
 Water Pressure: n/a

Rotation Rate: 6rev/min  
 Air Pressure: n/a  
 Grout Mix: 79% W: 17% C: 4% B

Driller Name: H. Barskite  
 Rig: Davey Kent

**COMMENTS:** Jet grout column stations are determined by measurement from the 42" Buffalo Color Sewer line which is designated as 0+00.  
 Six (6) 3"x6" cylinder molds were created from column 12.

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Geo-Con / EBC

Date

**Jet Grout Quality Control Report  
Buffalo Color Corporation Site  
Sheet Pile Wall Repair - Area E  
Geo-Con / EBC  
Job # P05-084**

Date: 5/31/2006

Project Number: P05-084

**Jet Grout Column Installation**

Column No.	Station #	Depth(s) - Below Ground Surface		Drilling Time		Grouting Time		Rotation Rate	Lift Rate	Flow Rate	Grout Pressure	Grout Use	Comments
		Top	Bottom	Start	Finish	Start	Finish	(Rev/Min)	(Ft/Min)	(GPM)	PSI	Gallons	
10B	0-3	13'	18'	8:28	8:29	8:30	8:40	6.0	0.5	38.6	5500	404	Located 1' south of the assumed sheet pile wall alignment Grout return observed at column 17 approximately 8.5 feet from column 10B
11B	0+2.5	13'	18'	8:46	8:47	8:47	8:58	6.0	0.5	38.3	5500	414	Located 1' south of the assumed sheet pile wall alignment Grout return observed from column 10B

Nozzle Size: 2.5 mm                      Rotation Rate : 6rev/min                      Driller Name: H. Barskite  
 Grout Pressure : See above                      Air Pressure: n/a                      Rig: Davey Kent  
 Water Pressure: n/a                      Grout Mix 79% W: 17% C: 4% B

COMMENTS: Jet grout column stations are determined by measurement from the 42" Buffalo Color Sewer line which is designated as 0+00.

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Geo-Con / EBC

Date

## **APPENDIX C-4**

### **Material Certifications**



# Premium Gel®

## API Bentonite

**Description:** Premium Gel® is a 200 mesh, 90 bbl. yield sodium bentonite for fresh-water drilling. Complies with API drilling fluid specification 13A.

**Recommended Use:** May be used for all types of fresh water mud rotary drilling where higher solids are desired.

- Characteristics:**
- Mixes quickly and easily.
  - Stabilizes borehole.
  - Removes cuttings.
  - Cools and lubricates bit.
  - Reduces fluid loss into the formation.

**Mixing and Applications:** Mixing ratios are based on the use of fresh water; water purity will affect bentonite performance. For best results, acidic and hard make-up water should be pretreated with soda ash to a pH of 8.5-9.5. Add Premium Gel® slowly through jet/hopper mixer.

*Premium Gel® mixing ratio in pounds per 100 gallons of water:*

- Normal conditions.....30 to 50 lbs.
- Sand and gravel.....50 to 70 lbs.
- Fluid loss control.....70 to 80 lbs.

**Bulk Density :** 54 lbs./ft<sup>3</sup>

**Packaging:** 50 lb. multi-wall, water-resistant bags, 48 bags per pallet; 100 lb. bags, 28 bags per pallet. All pallets are plastic-wrapped.

~~Attn: Jim Macaulay~~



**St Marys Cement  
Great Lakes Region**

250 Jefferson Ave.  
Cleveland, Ohio  
Tel: (216) 579-1911  
Fax: (216) 579-0625

June 19, 2006

**Cement Certification Letter**

Please be informed that the following cementitious materials supplied by St. Marys Cement will be in conformance to ASTM C150 Standard Specification for Cement, AASHTO M85 Standard Specification for Portland Cement, and *NYSDOT Standard Specification 701-01 Portland Cement*:

**St Marys Cement- St. Marys Plant**  
**Type I/II Portland Cement**  
**Type III Portland Cement**

Note: St Marys Cement Type I/II Portland Cement meets the requirements of Type I as well as the requirements of an Type II Portland cement under ASTM C 150 and AASHTO M85.

Please call if I can be of further assistance.

Yours truly,  
ST MARYS CEMENT COMPANY

Shawn Kalyn, B.Eng.  
Technical Services Engineer  
Ohio & W. New York

## **APPENDIX C-5**

### **Quality Control Reports Laboratory Testing Data**





**UNCONFINED COMPRESSIVE STRENGTH**  
 ASTM D2166-00 / AASHTO T208-96 (Modified-Peak Load Only) (SOP S-30)

Client	GEO-CON / EBC	Boring No.	5/30/06
Client Reference	BUFFALO COLOR P05-084	Depth (ft.)	JG-01
Project No.	2006-183-02	Sample No.	14 DAY
Lab ID	2006-183-02-01	Visual Description:	BROWN STABILIZED SLUDGE

INITIAL SAMPLE DIMENSIONS			
Length 1(in)	4.835	Top Dia. (in)	2.999
Length 2(in)	4.838	Mid. Dia. (in)	2.988
Length 3(in)	4.830	Bot. Dia. (in)	2.979
Avg.Length(in)	4.834	Area (in. <sup>2</sup> )	7.015

WATER CONTENT AFTER TEST	
Tare No.	1343
Wt. Tare + WS.(gms)	882.98
Wt. Tare + DS.(gms)	476.44
Wt. of Tare(gms)	97.40
% Moisture	107.26

UNIT WEIGHT			
Wt. Tube & WS.(gms.)	785.94	Sample Volume(cc.)	555.8
Wt. Of Tube(gms.)	0.00	Unit Wet Wt.(gms/cc)	1.41
Wt. Of WS.(gms.)	785.94	Unit Wet Wt.(pcf.)	88.25
Diameter (in.)	2.99	Moisture Content, %	107.26
Length (in.)	4.83	Unit Dry Wt.(pcf.)	42.58
Length (cm.)	12.28		

<b>LOAD (lbs)</b>	<b>STRESS (psi)</b>
79	11.26



**UNCONFINED COMPRESSIVE STRENGTH**  
 ASTM D2166-00 / AASHTO T208-96 (Modified-Peak Load Only) (SOP S-30)

Client	GEO-CON / EBC	Boring No.	5/30/06
Client Reference	BUFFALO COLOR P05-084	Depth (ft.)	JG-01
Project No.	2006-183-02	Sample No.	28 DAY
Lab ID	2006-183-02-02	Visual Description:	BROWN STABILIZED SLUDGE

INITIAL SAMPLE DIMENSIONS			
Length 1(in)	5.860	Top Dia. (in)	2.003
Length 2(in)	5.862	Mid. Dia. (in)	1.994
Length 3(in)	5.841	Bot. Dia. (in)	1.989
Avg.Length(in)	5.854	Area (in. <sup>2</sup> )	3.127

WATER CONTENT AFTER TEST	
Tare No.	2445
Wt. Tare + WS.(gms)	908.16
Wt. Tare + DS.(gms)	493.41
Wt. of Tare(gms)	93.24
% Moisture	103.14

UNIT WEIGHT			
Wt. Tube & WS.(gms.)	963.32	Sample Volume(cc.)	300.0
Wt. Of Tube(gms.)	0.00	Unit Wet Wt.(gms/cc)	3.21
Wt. Of WS.(gms.)	963.32	Unit Wet Wt.(pcf.)	200.38
Diameter (in.)	2.00	Moisture Content, %	103.14
Length (in.)	5.85	Unit Dry Wt.(pcf.)	98.64
Length (cm.)	14.87		

LOAD (lbs)	STRESS (psi)
158	50.53

# PERMEABILITY TEST

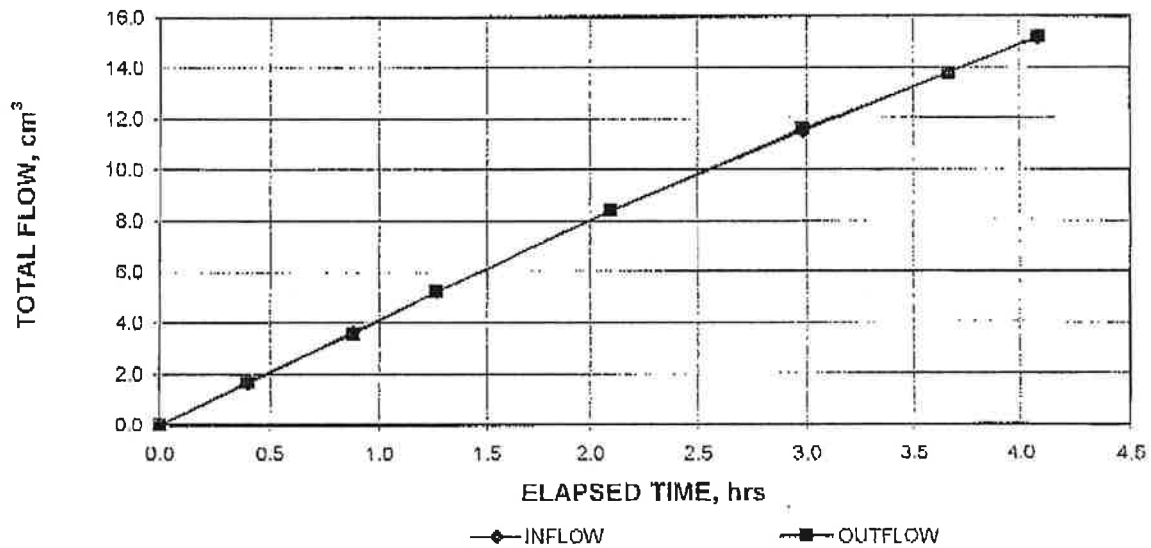
ASTM D 5084-03  
(SOP-S22A & S22B)



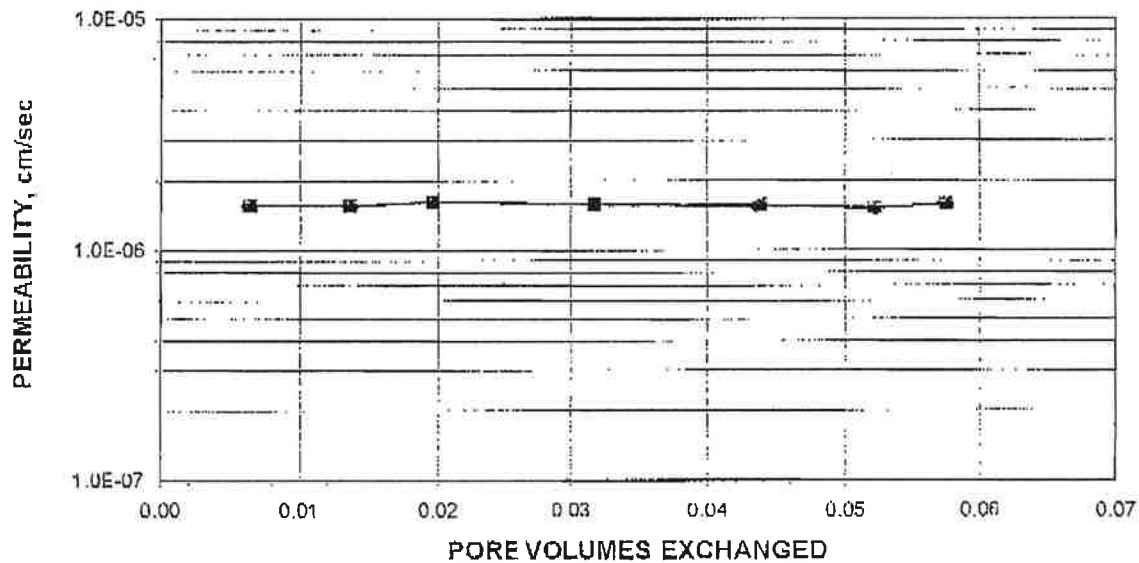
Client	GEO-CON / EBC	Boring No.	05/30/06
Client Project	BUFFALO COLOR	Depth (ft.)	JG-01
Project No.	2006-183-02	Sample No.	28 DAY
Lab ID No.	2006-183-02-02		

AVERAGE PERMEABILITY = 1.6E-06 cm/sec @ 20°C  
 AVERAGE PERMEABILITY = 1.6E-08 m/sec @ 20°C

## TOTAL FLOW vs. ELAPSED TIME



## PORE VOLUMES EXCHANGED vs. PERMEABILITY



Tested By: JCM Date: 06/27/06 Checked By: *KJR* Date: *6-30-06*

# PERMEABILITY TEST

ASTM D 5084-03  
(SOP-S22A & S22B)



Client	GEO-CON / EBC	Boring No.	05/30/06
Client Project	BUFFALO COLOR	Depth (ft.)	JG-01
Project No.	2006-183-02	Sample No.	28 DAY
Lab ID No.	2006-183-02-02		

Specific Gravity	2.70 Assumed
Sample Condition	Undisturbed

Visual Description: DARK BROWN STABILIZED SLUDGE

MOISTURE CONTENT:	BEFORE TEST	AFTER TEST
Tare Number	884	884
Wt. of Tare & WS (gm.)	289.79	423.71
Wt. of Tare & DS (gm.)	203.92	260.00
Wt. of Tare (gm.)	109.93	109.95
Wt. of Water (gm.)	85.87	163.71
Wt. of DS (gm.)	93.99	150.05
Moisture Content (%)	91.4	109.1

SPECIMEN:	BEFORE TEST	AFTER TEST
Wt. of Tube & WS (gm.)	506.96	NA
Wt. of Tube (gm.)	0.00	NA
Wt. of WS (calc.) (gm.)	506.96	553.97
Length 1 (in.)	3.112	3.125
Length 2 (in.)	3.112	3.132
Length 3 (in.)	3.115	3.097
Top Diameter (in.)	3.002	3.000
Middle Diameter (in.)	3.003	3.006
Bottom Diameter (in.)	3.004	3.006
Average Length (in.)	3.11	3.12
Average Area (in. <sup>2</sup> )	7.08	7.09
Sample Volume (cm <sup>3</sup> )	361.31	362.13
Unit Wet Wt. (gm./ cm <sup>3</sup> )	1.40	1.53
Unit Wet Wt. (pcf)	87.6	95.5
Unit Dry Wt. (pcf)	45.8	45.7
Unit Dry Wt. (gm./ cm <sup>3</sup> )	0.73	0.73
Void Ratio, e	2.68	2.69
Porosity, n	0.73	0.73
Pore Volume (cm <sup>3</sup> )	263.2	264.0
Total Wgt. Of Sample After Test		508.8

Tested By: JCM Date: 06/27/06 Checked By: *[Signature]* Date: 6-30-06

# PERMEABILITY TEST

ASTM D 5084-03  
(SOP-S22A & S22B)



Client	GEO-CON / EBC	Boring No.	05/30/06
Client Project	BUFFALO COLOR	Depth (ft.)	JG-01
Project No.	2006-183-02	Sample No.	28 DAY
Lab ID No.	2006-183-02-02		

Pressure Heads (Constant)		Final Sample Dimensions	
Top Cap (psi)	68.5	Sample Length (cm), L	7.92
Bottom Cap (psi)	70.0	Sample Diameter (cm)	7.63
Cell (psi)	75.0	Sample Area (cm <sup>2</sup> ), A	45.73
Total Pressure Head (cm)	105.5	Inflow Burette Area (cm <sup>2</sup> ), a-in	0.900
Hydraulic Gradient	13.32	Outflow Burette Area (cm <sup>2</sup> ), a-out	0.959
		B Parameter (%)	98

AVERAGE PERMEABILITY = 1.6E-06 cm/sec @ 20°C  
 AVERAGE PERMEABILITY = 1.6E-08 m/sec @ 20°C

DATE	TIME		ELAPSED TIME	TOTAL INFLOW	TOTAL OUTFLOW	TOTAL HEAD	FLOW	TEMP.	INCREMENTAL PERMEABILITY
(mm/dd/yy)	(hr)	(min)	t (hr)	(cm <sup>3</sup> )	(cm <sup>3</sup> )	h (cm)	( 0 flow ) ( 1 stop )	(°C)	@ 20°C (cm/sec)
06/29/06	7	39	0.0	0.0	0.0	125.9	0	21.4	NA
06/29/06	8	3	0.4	1.7	1.7	122.3	0	21.4	1.6E-06
06/29/06	8	32	0.9	3.7	3.6	118.1	0	21.4	1.6E-06
06/29/06	8	55	1.3	5.2	5.2	114.8	0	21.5	1.6E-06
06/29/06	9	45	2.1	8.4	8.4	107.9	0	21.9	1.6E-06
06/29/06	10	38	3.0	11.5	11.6	101.1	0	21.9	1.6E-06
06/29/06	11	19	3.7	13.8	13.8	96.3	0	22.0	1.5E-06
06/29/06	11	44	4.1	15.2	15.2	93.4	1	22.0	1.6E-06

Tested By: JCM Date: 06/27/06 Checked By: *YKB* Date: *6-30-06*

## **APPENDIX C-6**

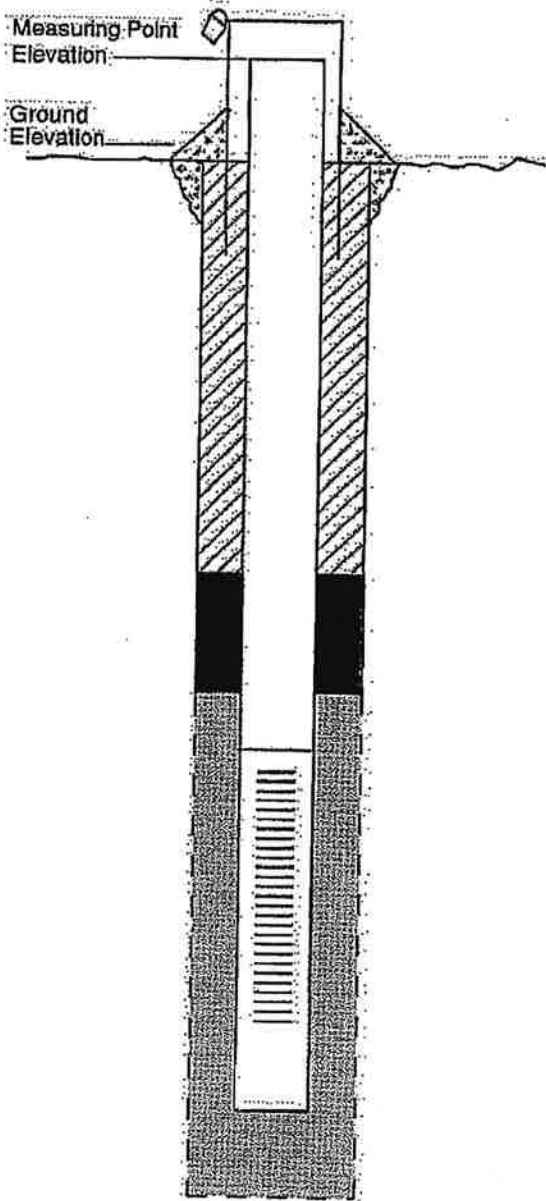
### **Piezometer Construction Diagrams, Development Records, & Boring Logs**

**MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM**

Project: <b>Interim Corrective Measure</b>	AOC	Area E	Driller	SJB Services
Project No. <u>P05-084</u>	Boring No. <u>ICM-PZ-02N</u>		Drilling Method	CFA/Split Spoon Sampling
	Date Installed <u>6/1/2006</u>		Development Method	Surge/Bail/Pump

Field Technician: Brian Benson      Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Checked By: TCC



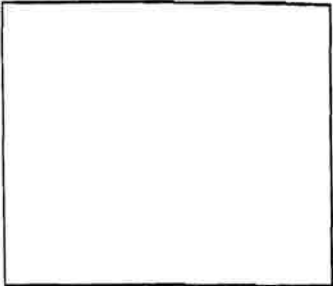
Stick-up of Casing Above Round Surface:	**2.3'
Type of Surface Seal/Other Protection:	Portland Cement
Type of Surface Casing:	Steel
ID of Surface Casing	4" Square
Diameter of Borehole:	4 1/4" ID
Riser Pipe ID:	2"
Type of Riser Pipe:	PVC
Type of Backfill:	Portland Cement
Depth of Top of Seal:	2.1' <del>4.1'</del>
Type of Seal:	Bentonite
Depth of Top of Sand	4.1' <del>6.1'</del>
Depth of Top of Screen:	5.1' <del>7.1'</del>
Type of Screen:	Johnson Well Screen
Slot Size x Length:	0.01" x 10'
ID of Screen:	2"
Type of Sandpack:	Filepro No. 1
Depth from Bottom of Screen	15.1' <del>17.1'</del>
Depth of Sediment Sump with Plug:	15.1' <del>17.1'</del>
Depth of Bottom of Borehole:	15.5' <del>17.6'</del>

\* Geo-Con project number  
 \*\* Top of casing measurement made with the lid open.  
 \*\*\* Top of riser pipe to top of casing is 0.2'

**MONITORING WELL CONSTRUCTION DIAGRAM  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK  
 MACTEC.INC.**

1 WAS BORING OFFSET FROM THE STAKE BORING LOCATIONS:  YES  NO *ICM-PZ-02N*  
 IF YES, HOW FAR \_\_\_\_\_ WHAT DIRECTION \_\_\_\_\_  
 ELEVATION DIFFERENCE \_\_\_\_\_  
 WHY \_\_\_\_\_

2 SURFACE CONDITIONS: THICKNESS: ASPHALT/ CONCRETE  
 TOPSOIL \_\_\_\_\_  
 ASPHALT \_\_\_\_\_  
 CONCRETE \_\_\_\_\_  
 GRAVEL \_\_\_\_\_  
 CRUSHED STONE \_\_\_\_\_  
 OTHER \_\_\_\_\_

DIAMETER OF CORE \_\_\_\_\_ CORE DIAGRAM 

3 GROUNDWATER READINGS:

	TIME/DATE	CASING AT	DEPTH BELOW (GS)
GW WHEN FIRST ENCOUNTERED	_____	_____	_____
GW UPON COMPLETION OF SAMPLING	_____	_____	_____
GW AFTER CORING	_____	_____	_____
GW AFTER AUGER/ CASING OUT OF GROUND	_____	_____	_____

WAS AN OBSERVATION/ MONITORING WELL INSTALLED:  YES  NO

DRAW WELL DETAIL TO SCALE SHOWING ALL DEPTHS AND DIMENSIONS FOR DIFFERENT MATERIALS USED AND HEIGHT OF STICK-UP AND GUARD PIPE

GROUNDWATER READINGS IN WELL:

TIME/DATE	DEPTH (BELOW G.S.)
_____	_____
_____	_____
_____	_____

QUANTITIES/ COMMENTS

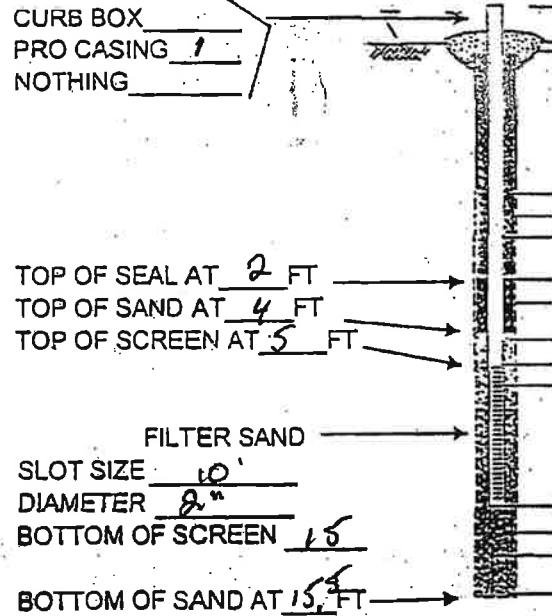
\_\_\_\_\_

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WELL DETAILS



CONSIDERING THE INFORMATION ON THIS LOG IS VERY IMPORTANT, I CERTIFY THIS INFORMATION IS TRUE TO THE BEST OF MY ABILITY AND KNOWLEGE.

SIGNATURE: *[Signature]*

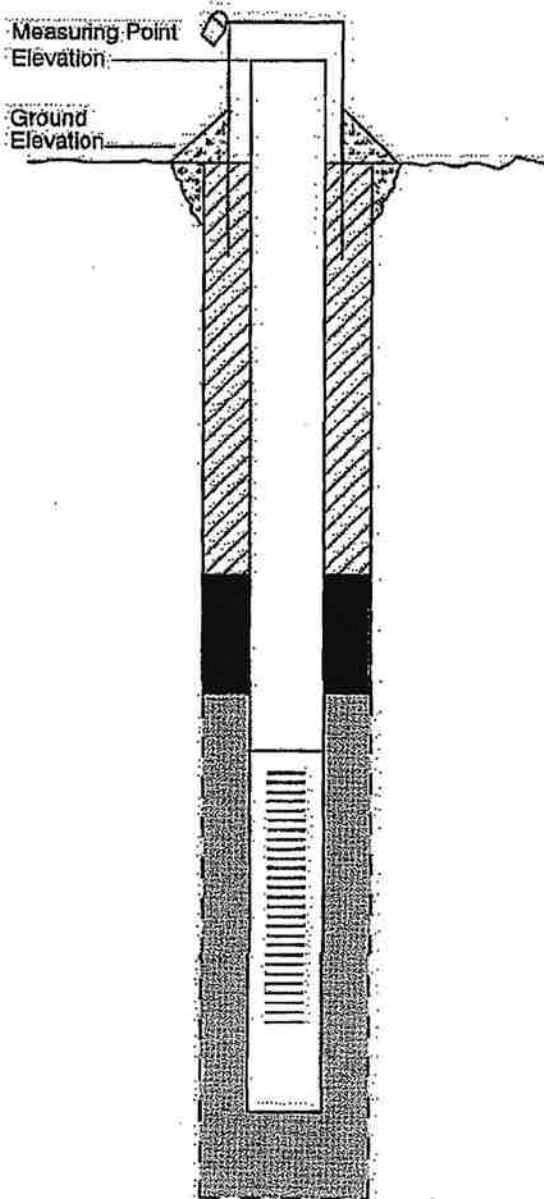


**MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM**

Project: <b>Interim Corrective Measure</b>	AOC	Area E	Driller	SJB Services
Project No. <u>P05-084</u>	Boring No. <u>ICM-PZ-02S</u>	Drilling Method	CFA/Split Spoon Sampling	
	Date Installed <u>5/31/2006</u>	Development Method	Surge/Bail/Pump	

Field Technician: Brian Benson      Latitude: \_\_\_\_\_      Longitude: \_\_\_\_\_

Checked By: TLC



Stick-up of Casing Above Round Surface:	**2.1'
Type of Surface Seal/Other Protection:	Portland Cement
Type of Surface Casing:	Steel
ID of Surface Casing	4" Square
Diameter of Borehole:	4 1/4" ID
Riser Pipe ID:	2"
Type of Riser Pipe:	PVC
Type of Backfill:	Portland Cement
Depth of Top of Seal:	4.9' <del>8.9'</del>
Type of Seal:	Bentonite
Depth of Top of Sand	7.9' <del>9.9'</del>
Depth of Top of Screen:	9.9' <del>11.9'</del>
Type of Screen:	Johnson Well Screen
Slot Size x Length:	0.01" x 10'
ID of Screen:	2"
Type of Sandpack:	Filepro No. 1
Depth from Bottom of Screen	19.9' <del>21.9'</del>
Depth of Sediment Sump with Plug:	19.9' <del>21.9'</del>
Depth of Bottom of Borehole:	20.4' <del>22.4'</del>

\* Geo-Con project number  
 \*\* Top of casing measurement made with the lid open.  
 \*\*\* Top of riser pipe to top of casing is 0.2'

**MONITORING WELL CONSTRUCTION DIAGRAM  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK  
 MACTEC.INC.**

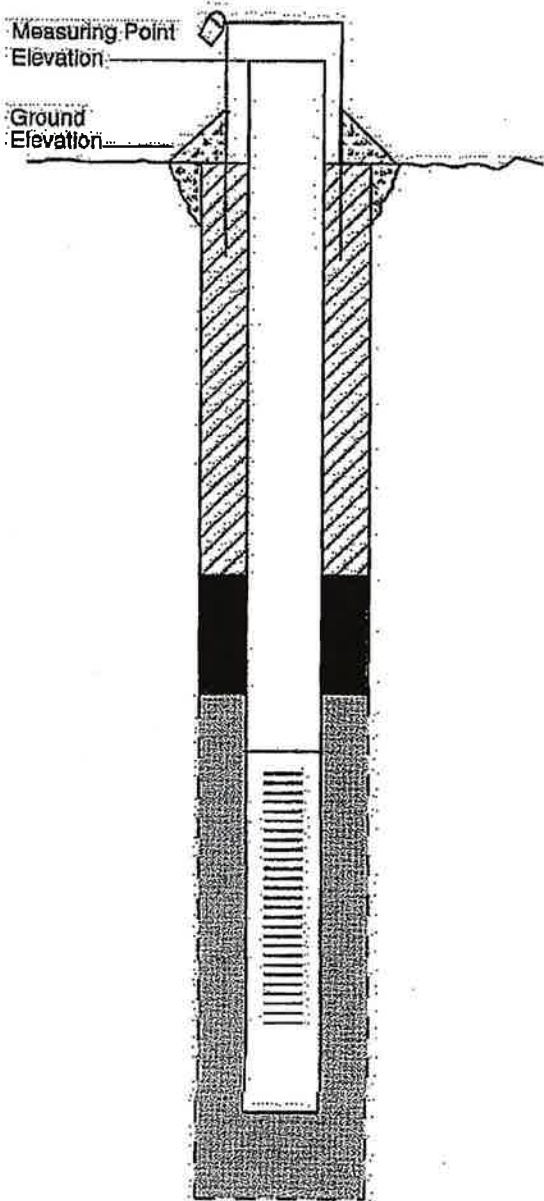


**MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM**

Project: <b>Interim Corrective Measure</b>	AOC	Area E	Driller	SJB Services
Project No. <u>P05-084</u>	Boring No. <u>ICM-PZ-03N</u>	Date Installed <u>6/1/2006</u>	Drilling Method	CFA/Split Spoon Sampling
			Development Method	Surge/Ball/Pump

Field Technician: Brian Benson      Latitude: \_\_\_\_\_      Longitude: \_\_\_\_\_

Checked By: TUC



Stick-up of Casing Above Round Surface:	<u>**2.2'</u>
Type of Surface Seal/Other Protection:	Portland Cement
Type of Surface Casing:	Steel
ID of Surface Casing	4" Square
Diameter of Borehole:	4 1/4" ID
Riser Pipe ID:	2"
Type of Riser Pipe:	PVC
Type of Backfill:	Portland Cement
Depth of Top of Seal:	<u>2' 4</u>
Type of Seal:	Bentonite
Depth of Top of Sand	<u>4' 8</u>
Depth of Top of Screen:	<u>5' 7</u>
Type of Screen:	Johnson Well Screen
Slot Size x Length:	0.01" x 10'
ID of Screen:	2"
Type of Sandpack:	Filepro No. 1
Depth from Bottom of Screen	<u>15' 17</u>
Depth of Sediment Sump with Plug:	<u>15' 17</u>
Depth of Bottom of Borehole:	<u>15' 17</u>

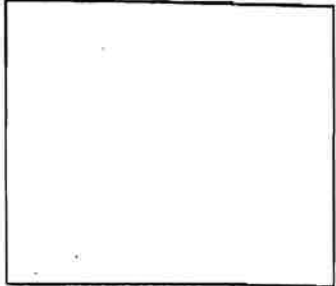
\* Geo-Con project number  
 \*\* Top of casing measurement made with the lid open.  
 \*\*\* Top of riser pipe to top of casing is 0.2'

**MONITORING WELL CONSTRUCTION DIAGRAM  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK  
 MACTEC INC.**

1 WAS BORING OFFSET FROM THE STAKE BORING LOCATIONS:        YES        NO ICM-P2-03N  
 IF YES, HOW FAR        WHAT DIRECTION         
 ELEVATION DIFFERENCE         
 WHY       

2 SURFACE CONDITIONS: THICKNESS:  
 TOPSOIL         
 ASPHALT         
 CONCRETE         
 GRAVEL         
 CRUSHED STONE         
 OTHER       

ASPHALT/ CONCRETE



DIAMETER OF CORE        CORE DIAGRAM

3 GROUNDWATER READINGS:

	TIME/DATE	CASING AT	DEPTH BELOW (GS)
GW WHEN FIRST ENCOUNTERED	<u>      </u>	<u>      </u>	<u>      </u>
GW UPON COMPLETION OF SAMPLING	<u>      </u>	<u>      </u>	<u>      </u>
GW AFTER CORING	<u>      </u>	<u>      </u>	<u>      </u>
GW AFTER AUGER/ CASING OUT OF GROUND	<u>      </u>	<u>      </u>	<u>      </u>

WAS AN OBSERVATION/ MONITORING WELL INSTALLED:        YES        NO

DRAW WELL DETAIL TO SCALE SHOWING ALL DEPTHS AND DIMENSIONS FOR DIFFERENT MATERIALS USED AND HEIGHT OF STICK- UP AND GUARD PIPE

GROUNDWATER READINGS IN WELL:

TIME/DATE	DEPTH (BELOW G.S.)
<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>

QUANTITIES/ COMMENTS

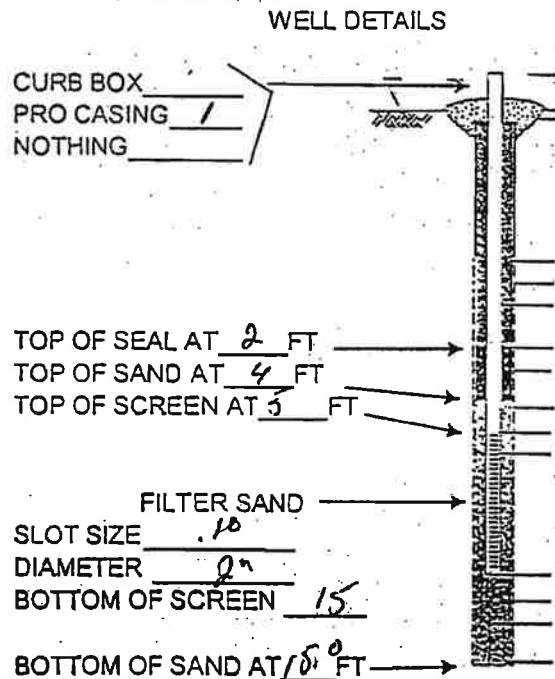
      



CONSIDERING THE INFORMATION ON THIS LOG IS VERY IMPORTANT, I CERTIFY THIS INFORMATION IS TRUE TO THE BEST OF MY ABILITY AND KNOWLEGE.

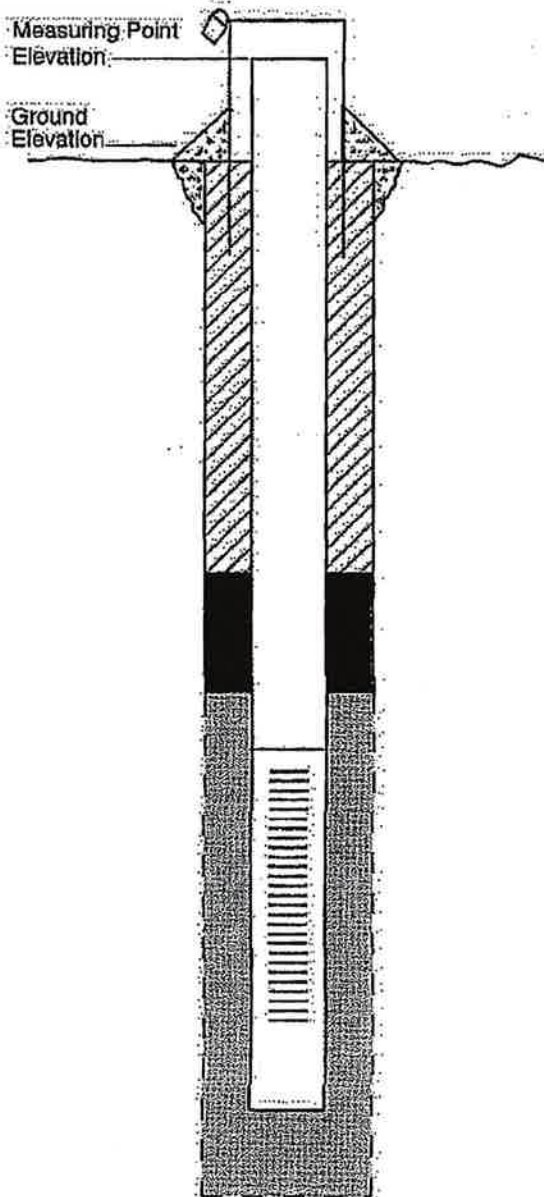
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**MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM**

Project: <b>Interim Corrective Measure</b>	AOC	Area E	Driller	SJB Services
Project No. <u>P05-084</u>	Boring No. <u>ICM-PZ-03S</u>	Date Installed <u>6/1/2006</u>	Drilling Method	CFA/Split Spoon Sampling
			Development Method	Surge/Bail/Pump

Field Technician: Brian Benson      Latitude: \_\_\_\_\_      Longitude: \_\_\_\_\_

Checked By: TCC



Stick-up of Casing Above Round Surface:	<b>**2.2'</b>
Type of Surface Seal/Other Protection:	Portland Cement
Type of Surface Casing:	Steel
ID of Surface Casing	4" Square
Diameter of Borehole:	4 1/4" ID
Riser Pipe ID:	2"
Type of Riser Pipe:	PVC
Type of Backfill:	Portland Cement
Depth of Top of Seal:	<u>4.9'</u> <del>6.9'</del>
Type of Seal:	Bentonite
Depth of Top of Sand	<u>7.9'</u> <del>8.9'</del>
Depth of Top of Screen:	<u>9.9'</u> <del>11.9'</del>
Type of Screen:	Johnson Well Screen
Slot Size x Length:	0.01" x 10'
ID of Screen:	2"
Type of Sandpack:	Filepro No. 1
Depth from Bottom of Screen	<u>19.9'</u> <del>21.9'</del>
Depth of Sediment Sump with Plug:	<u>19.9'</u> <del>21.9'</del>
Depth of Bottom of Borehole:	<u>20.5'</u> <del>22.5'</del>

\* Geo-Con project number  
 \*\* Top of casing measurement made with the lid open.  
 \*\*\* Top of riser pipe to top of casing is 0.2'

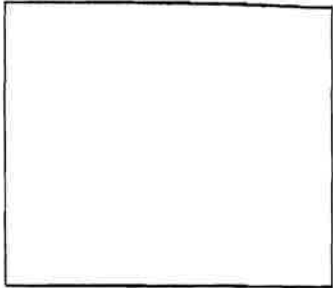
**MONITORING WELL CONSTRUCTION DIAGRAM  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK  
 MACTEC, INC.**



1 WAS BORING OFFSET FROM THE STAKE BORING LOCATIONS:        YES        NO ICM-PZ-035  
 IF YES, HOW FAR        WHAT DIRECTION         
 ELEVATION DIFFERENCE         
 WHY       

2 SURFACE CONDITIONS: THICKNESS: ASPHALT/ CONCRETE  
 TOPSOIL         
 ASPHALT         
 CONCRETE         
 GRAVEL         
 CRUSHED STONE         
 OTHER       

DIAMETER OF CORE        CORE DIAGRAM



3 GROUNDWATER READINGS:

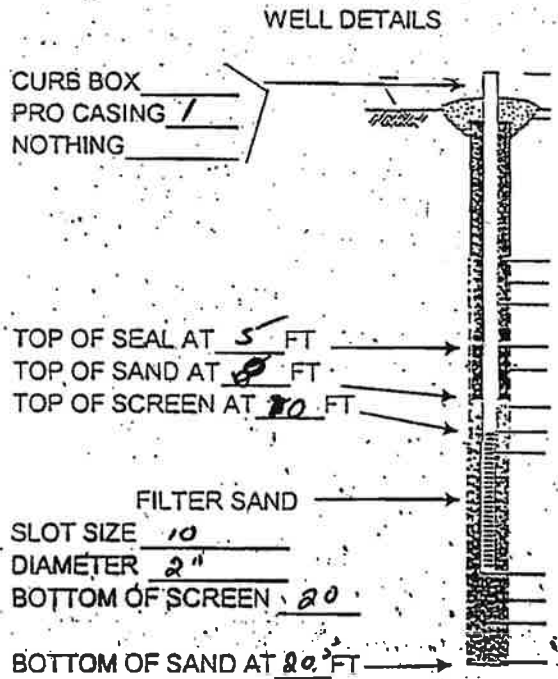
	TIME/DATE	CASING AT	DEPTH BELOW (GS)
GW WHEN FIRST ENCOUNTERED	<u>      </u>	<u>      </u>	<u>      </u>
GW UPON COMPLETION OF SAMPLING	<u>      </u>	<u>      </u>	<u>      </u>
GW AFTER CORING	<u>      </u>	<u>      </u>	<u>      </u>
GW AFTER AUGER/ CASING	<u>      </u>	<u>      </u>	<u>      </u>
OUT OF GROUND	<u>      </u>	<u>      </u>	<u>      </u>

WAS AN OBSERVATION/ MONITORING WELL INSTALLED:        YES        NO

DRAW WELL DETAIL TO SCALE SHOWING ALL DEPTHS AND DIMENSIONS FOR DIFFERENT MATERIALS USED AND HEIGHT OF STICK-UP AND GUARD PIPE

GROUNDWATER READINGS IN WELL:

TIME/DATE	DEPTH (BELOW G.S.)	QUANTITIES/ COMMENTS
<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>
<u>      </u>	<u>      </u>	<u>      </u>



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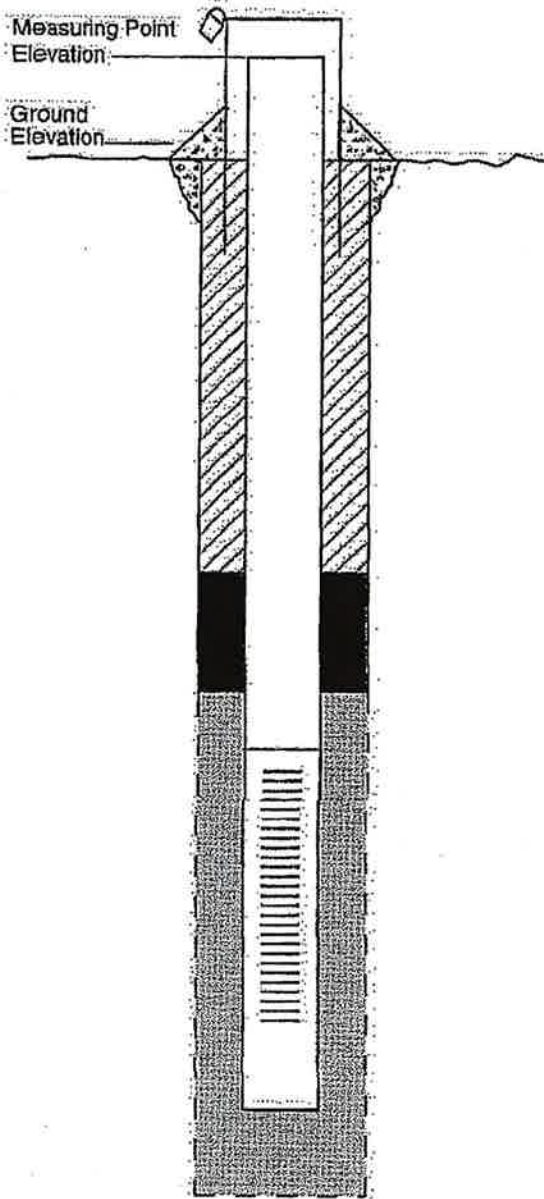
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**MONITORING WELL/PIEZOMETER CONSTRUCTION DIAGRAM**

Project: <b>Interim Corrective Measure</b>	AOC	Area E	Driller	SJB Services
Project No. <u>P05-084</u>	Boring No. _____	ICM-PZ-04S	Drilling Method	CFA/Split Spoon Sampling
	Date Installed <u>6/1/2006</u>		Development Method	Surge/Bail/Pump

Field Technician: Brian Benson      Latitude: \_\_\_\_\_      Longitude: \_\_\_\_\_

Checked By: TLC



Stick-up of Casing Above Round Surface:	<u>** 2.3'</u>
Type of Surface Seal/Other Protection:	Portland Cement
Type of Surface Casing:	Steel
ID of Surface Casing	4" Square
Diameter of Borehole:	4 1/4" ID
Riser Pipe ID:	2"
Type of Riser Pipe:	PVC
Type of Backfill:	Portland Cement
Depth of Top of Seal:	<u>5.3' 7.5'</u>
Type of Seal:	Bentonite
Depth of Top of Sand	<u>8.3' 10.3'</u>
Depth of Top of Screen:	<u>10.3' 12.3'</u>
Type of Screen:	Johnson Well Screen
Slot Size x Length:	0.01" x 10'
ID of Screen:	2"
Type of Sandpack:	Filepro No. 1
Depth from Bottom of Screen	<u>20.3' 22.3'</u>
Depth of Sediment Sump with Plug:	<u>20.3' 22.3'</u>
Depth of Bottom of Borehole:	<u>20.8' 22.8'</u>

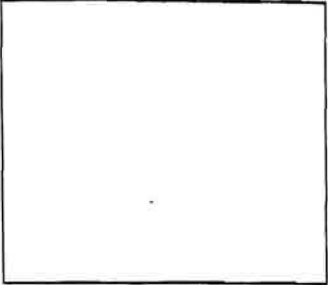
\* Geo-Con project number  
 \*\* Top of casing measurement made with the lid open.  
 \*\*\* Top of riser pipe to top of casing is 0.2'

**MONITORING WELL CONSTRUCTION DIAGRAM  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK  
 MACTEC, INC.**

1 WAS BORING OFFSET FROM THE STAKE BORING LOCATIONS:            YES            NO ICM-PZ-045  
 IF YES, HOW FAR            WHAT DIRECTION             
 ELEVATION DIFFERENCE             
 WHY           

2 SURFACE CONDITIONS: THICKNESS: ASPHALT/ CONCRETE  
 TOPSOIL             
 ASPHALT             
 CONCRETE             
 GRAVEL             
 CRUSHED STONE             
 OTHER           

CORE DIAGRAM



DIAMETER OF CORE           

3 GROUNDWATER READINGS:

	TIME/DATE	CASING AT	DEPTH BELOW (GS)
GW WHEN FIRST ENCOUNTERED	<u>          </u>	<u>          </u>	<u>          </u>
GW UPON COMPLETION OF SAMPLING	<u>          </u>	<u>          </u>	<u>          </u>
GW AFTER CORING	<u>          </u>	<u>          </u>	<u>          </u>
GW AFTER AUGER/ CASING OUT OF GROUND	<u>          </u>	<u>          </u>	<u>          </u>

WAS AN OBSERVATION/ MONITORING WELL INSTALLED:  YES  NO

DRAW WELL DETAIL TO SCALE SHOWING ALL DEPTHS AND DIMENSIONS FOR DIFFERENT MATERIALS USED AND HEIGHT OF STICK-UP AND GUARD PIPE

GROUNDWATER READINGS IN WELL:

TIME/DATE	DEPTH (BELOW G.S.)
<u>          </u>	<u>          </u>
<u>          </u>	<u>          </u>
<u>          </u>	<u>          </u>

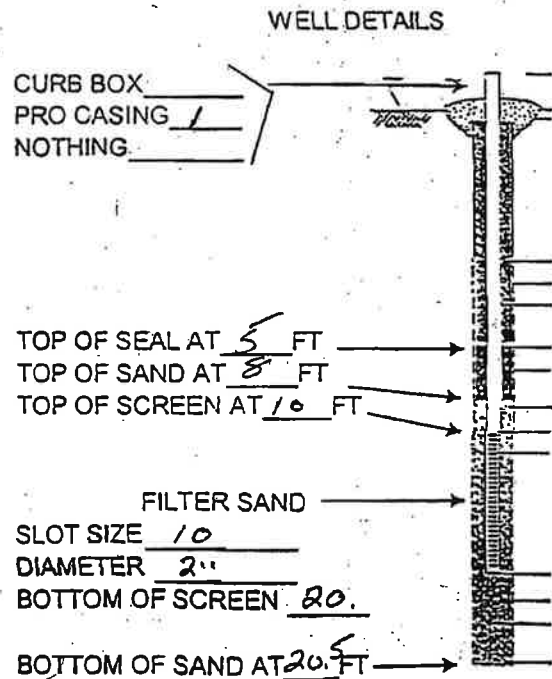
QUANTITIES/ COMMENTS

3 Bags Sand

1 chip



CONSIDERING THE INFORMATION ON THIS LOG IS VERY IMPORTANT, I CERTIFY THIS INFORMATION IS TRUE TO THE BEST OF MY ABILITY AND KNOWLEDGE.

SIGNATURE:





## WELL DEVELOPMENT RECORD

Project: Interim Corrective Measure, Area E	Well Installation Date: 6/1/2006	Project No. P05-084
Client: MACTEC/Honeywell	Well Development Date: 6/13/06 - 6/14/2006	Logged by: B. Benson
Well/Site I.D.: ICM-PZ-02N	Weather: Clear 55-75	Checked by:
	Start Date: 6/13/2006	Finish Date: 6/14/2006

<b>Well Construction Record Data:</b>		Well Diameter: 2 in.	Start Time: 13:17 6/13/06	Finish Time: 16:00 6/13/06
Bottom of Screen: 17.1 ft.	<input type="checkbox"/> From Ground Surface			<input checked="" type="checkbox"/> From Top of Riser
Sediment Sump/Plug: 17.1 ft.				
Screen Length: 10 ft.	Fluids Lost during Drilling: N/A gal.			

Protective Casing Stick-up: 2.3 ft.	Protective Casing/Well Diff.: 0.2 ft.	Ambient Air: - ppm
PID READINGS:		
		Well Mouth: - ppm

<b>Well Levels</b>		<b>Sediment:</b>	
Initial: 14.3 ft.	Well Depth before Development: 17.5 ft. (from top of PVC)		
End of Development: 17.6 ft.	Well Depth after Development: 17.6 ft.		
24 Hours after Development: 16.4 ft.	Sediment Depth Removed: 0.1 ft.		
HT of Water Column: 3.3 ft.	1.68* gal./ft. = 0.5 gal./vol.		*for 4" HAS Installed Wells
	<input checked="" type="checkbox"/> 0.16 gal./ft.		

<b>Equipment:</b>		Approximate Recharge Rate: 8.3 x 10 <sup>-4</sup> gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump		
<input checked="" type="checkbox"/> Surge Block		
<input checked="" type="checkbox"/> Bailer 2" <input type="checkbox"/> 4"	Total Gallons Removed: 12.25 gal.	
<input type="checkbox"/> Grundfos Pump		

Well Development Criteria Met:

	Yes	No
Notes:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Well water clear to unaided eye	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Sediment thickness remaining in well is <1% of screen length	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Total water removed = a minimum of 5x calculated well volume plus 5 x drilling fluid lost	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Turbidity <5NTUs	<input type="checkbox"/>	<input type="checkbox"/>
• 10% change in field parameters	<input type="checkbox"/>	<input checked="" type="checkbox"/>

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum)

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
6/13 14:03	5.5	12.3	6.8	13.4	1.3	N/A	1 GPM
6/13 14:30	8	12.3	7.1	12.2	1.5	N/A	1 GPM
6/13 15:17	9	12.3	7.2	12.5	1.5	N/A	1 GPM
6/13 15:59	9.25	12.3	7.2	12.5	1.5	N/A	1 GPM

Well Developer's Signature: Brian C. Benson

\* Geo-Con Project Number  
 \*\* Measurements are given from the top of the riser pipe

WELL DEVELOPMENT RECORD  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK  
 MACTEC, INC.

## WELL DEVELOPMENT RECORD

Project: Interim Corrective Measure, Area E	Well Installation Date: 5/31/2006	Project No. P05-084
Client: MACTEC/Honeywell	Well Development Date: 6/13/2006	Logged by: B. Benson
Well/Site I.D.: ICM-PZ-02S	Weather: Clear 55-75	Checked by:
	Start Date: 6/13/2006	Finish Date: 6/13/2006

**Well Construction Record Data:**

Well Diameter:  Start Time: 12:00 Finish Time: 14:31

Bottom of Screen:   From Ground Surface  From Top of Riser

Sediment Sump/Plug:

Screen Length:  Fluids Lost during Drilling:

Protective Casing Stick-up:  Protective Casing/Well Diff.:  Ambient Air: - ppm

PID READINGS:

Well Mouth: - ppm

Well Levels	Sediment:
Initial: <input type="text" value="13.3 ft."/>	Well Depth before Development: <input type="text" value="22 ft."/> (from top of PVC)
End of Development: <input type="text" value="22.3 ft."/>	Well Depth after Development: <input type="text" value="22.5 ft."/>
24 Hours after Development: <input type="text" value="13.3 ft."/>	Sediment Depth Removed: <input type="text" value="0.5 ft."/>
HT of Water Column: <input type="text" value="9.0 ft."/> <input checked="" type="checkbox"/>	1.68* gal./ft. = <input type="text" value="1.44"/> gal./vol.
	<input checked="" type="checkbox"/> 0.16 <span style="float: right;">*for 4" HAS Installed Wells</span>

**Equipment:**

Dedicated Submersible Pump Approximate Recharge Rate:

Surge Block

Bailor  2"  4" Total Gallons Removed:

Grundfos Pump

Well Development Criteria Met:

Notes:	Yes	No
Development water is contained in a poly tank. A representative sample was collected following development of all the piezometers.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum)

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
14.08	8	13	6.9	12.8	1.4	N/A	1 GPM
14.16	10	13	7.1	12.1	1.4	N/A	1 GPM
14:24	11.5	13	7.1	12.1	1.4	N/A	1 GPM

Well Developer's Signature: Brian C. Benson

WELL DEVELOPMENT RECORD  
BUFFALO COLOR SITE  
BUFFALO, NEW YORK  
MACTEC, INC.

\* Geo-Con Project Number  
\*\* Measurements are given from the top of the riser pipe

## WELL DEVELOPMENT RECORD

Project: Interim Corrective Measure, Area E	Well Installation Date: 6/1/2006	Project No. P05-084
Client: MACTEC/Honeywell	Well Development Date: 6/13/06 -6/14/06	Logged by: B. Benson
Well/Site I.D.: ICM-PZ-03N	Weather: Clear 55-75	Checked by:
	Start Date: 6/13/2006	Finish Date: 6/14/2006

**Well Construction Record Data:**

Well Diameter: 2 in.      10:20 - 9:00 - 9:40  
 Start Time: 15:56 6/13      Finish Time: 6/14/06

Bottom of Screen: 17.0 ft.  From Ground Surface      From Top of Riser

Sediment Sump/Plug: 17.0 ft.

Screen Length: 10 ft.      Fluids Lost during Drilling: N/A gal.

Protective Casing Stick-up: 2.2 ft.      Protective Casing/Well Diff.: 0.2 ft.      Ambient Air: - ppm

PID READINGS:

Well Mouth: - ppm

<b>Well Levels</b>	<b>Sediment:</b>
Initial: <span style="border: 1px solid black; padding: 2px;">9.6 ft.</span>	Well Depth before Development: <span style="border: 1px solid black; padding: 2px;">17.2 ft.</span> (from top of PVC)
End of Development: <span style="border: 1px solid black; padding: 2px;">17.2 ft.</span>	Well Depth after Development: <span style="border: 1px solid black; padding: 2px;">17.2 ft.</span>
24 Hours after Development: <span style="border: 1px solid black; padding: 2px;">13.5 ft.</span>	Sediment Depth Removed: <span style="border: 1px solid black; padding: 2px;">0.0 ft.</span>
HT of Water Column: <span style="border: 1px solid black; padding: 2px;">7.6 ft.</span> <input type="checkbox"/>	1.68* gal./ft. = <span style="border: 1px solid black; padding: 2px;">1.2</span> gal./vol.
	<input checked="" type="checkbox"/> 0.16 gal./ft. *for 4" HAS Installed Wells

**Equipment:**

Dedicated Submersible Pump      Approximate Recharge Rate: 0.2 gpm

Surge Block

Bailer  2"  4"      Total Gallons Removed: 12.5 gal.

Grundfos Pump

Well Development Criteria Met:

Notes:		Yes	No
Slow recharge rate. Water added to well on 6/13/06. Water in well dropped rapidly shortly after water was added. Sample collected from the poly tank.	• Well water clear to unaided eye	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	• Sediment thickness remaining in well is <1% of screen length	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	• Total water removed = a minimum of 5x calculated well volume plus 5 x drilling fluid lost	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	• Turbidity <5NTUs      N/A	<input type="checkbox"/>	<input type="checkbox"/>
• 10% change in field parameters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

End of Well Development Sample (1 pint) Collected?      Yes       No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum)

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
6/13 15:10	7.5	12.5	7.4	12.7	1.3	N/A	1 GPM
6/13 15:56	8.5	12.5	7.1	12.7	1.3	N/A	1 GPM
6/14 9:37	12.5	12.5	7.3	12.5	1.3	N/A	1 GPM

Well Developer's Signature: \_\_\_\_\_  
 Brian C. Benson

WELL DEVELOPMENT RECORD  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK  
 MACTEC.INC.

\* Geo-Con Project Number  
 \*\* Measurements are given from the top of the riser pipe

## WELL DEVELOPMENT RECORD

Project: Interim Corrective Measure, Area E	Well Installation Date: 6/1/2006	Project No. P05-084
Client: MACTEC/Honeywell	Well Development Date:	Logged by: B. Benson
Well/Site I.D.: ICM-PZ-03S	Weather: Clear 55-75	Start Date: 6/13/2006
		Finish Date: 6/13/2006

**Well Construction Record Data:**

Well Diameter: 2 in. Start Time: 9:03 Finish Time: 11:50

Bottom of Screen: 21.9 ft.  From Ground Surface  From Top of Riser

Sediment Sump/Plug: 21.9 ft.

Screen Length: 10 ft. Fluids Lost during Drilling: N/A gal.

Protective Casing Stick-up: 2.2 ft. Protective Casing/Well Diff.: 0.3 ft. Ambient Air: - ppm

PID READINGS:

Well Mouth: - ppm

Well Levels	Sediment:
Initial: <span style="border: 1px solid black; padding: 2px;">13.7 ft.</span>	Well Depth before Development: <span style="border: 1px solid black; padding: 2px;">22.1 ft.</span> (from top of PVC)
End of Development: <span style="border: 1px solid black; padding: 2px;">22.5 ft.</span>	Well Depth after Development: <span style="border: 1px solid black; padding: 2px;">22.5 ft.</span>
24 Hours after Development: <span style="border: 1px solid black; padding: 2px;">14.0 ft.</span>	Sediment Depth Removed: <span style="border: 1px solid black; padding: 2px;">0.6 ft.</span>
HT of Water Column: <span style="border: 1px solid black; padding: 2px;">7.9 ft.</span> <input type="checkbox"/>	1.68* gal./ft. = <span style="border: 1px solid black; padding: 2px;">1.3</span> gal./vol.
	<input checked="" type="checkbox"/> <span style="border: 1px solid black; padding: 2px;">0.16</span> gal./ft. *for 4" HAS Installed Wells

**Equipment:**

Dedicated Submersible Pump      Approximate Recharge Rate: 0.3 gpm

Surge Block

Bailer  2"  4"      Total Gallons Removed: 33.5 gal.

Grundfos Pump

Well Development Criteria Met:

Notes:	Yes	No
• Well water clear to unaided eye	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Sediment thickness remaining in well is <1% of screen length	<input type="checkbox"/>	<input type="checkbox"/>
• Total water removed = a minimum of 5x calculated well volume plus 5 x drilling fluid lost	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Turbidity <5NTUs      N/A	<input type="checkbox"/>	<input type="checkbox"/>
• 10% change in field parameters	<input type="checkbox"/>	<input checked="" type="checkbox"/>

End of Well Development Sample (1 pint) Collected?  Yes  No

**Water Parameter Measurements**

Record at start, twice during and at the end of development (minimum)

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
10:16	9.6	33.5	6.7	13.1	1.3	N/A	~0.8 GPM
11:24	21	33.5	6.7	12.3	2.7	N/A	~0.8 GPM
11:36	28	33.5	6.7	11.9	2.6	N/A	~0.8 GPM
11:50	33.5	33.5	6.7	12.3	2.6	N/A	~0.8 GPM

Well Developer's Signature: Brian C. Benson

## WELL DEVELOPMENT RECORD

Project: Interim Corrective Measure, Area E	Well Installation Date: 6/1/2006	Project No. P05-084
Client: MACTEC/Honeywell	Well Development Date: 6/13/06 -6/14/06	Logged by: B. Benson
Well/Site I.D.: ICM-PZ-04S	Weather: Clear 55-75	Checked by:
	Start Date: 6/13/2006	Finish Date: 6/14/2006

Well Construction Record Data:	Well Diameter: 2 in.	Start Time: 15:30-16:15 6/13/06	Finish Time: 9:45-11:32 6/14/06
--------------------------------	----------------------	------------------------------------	------------------------------------

Bottom of Screen	22.3 ft.	<input type="checkbox"/>	From Ground Surface	<input type="checkbox"/>	From Top of Riser	<input checked="" type="checkbox"/>
Sediment Sump/Plug	22.3 ft.					
Screen Length	10 ft.		Fluids Lost during Drilling	N/A gal.		

Protective Casing Stick-up	2.3 ft.	Protective Casing/Well Diff.	0.2 ft.	Ambient Air	- ppm
PID READINGS:					
				Well Mouth	- ppm

<b>Well Levels</b>	<b>Sediment:</b>		
Initial	14.3 ft.	Well Depth before Development	22.4 ft. (from top of PVC)
End of Development	22.4 ft.	Well Depth after Development	22.4 ft.
24 Hours after Development	14.4 ft.	Sediment Depth Removed	0.0 ft.
HT of Water Column	8.1 ft.	<input type="checkbox"/> 1.68* gal./ft. =	<input type="checkbox"/> 1.3 gal./vol.
		<input checked="" type="checkbox"/> 0.16 gal./ft.	*for 4" HAS Installed Wells

<b>Equipment:</b>			Approximate Recharge Rate	04. gpm
<input checked="" type="checkbox"/> Dedicated Submersible Pump			Total Gallons Removed	35 gal.
<input checked="" type="checkbox"/> Surge Block				
<input checked="" type="checkbox"/> Baller	<input checked="" type="checkbox"/> 2" <input type="checkbox"/> 4"			
<input type="checkbox"/> Grundfos Pump	2" 4"			

Well Development Criteria Met:

Notes:		Yes	No
Development water is contained in a poly tank. A representative sample was collected from the poly tank after development of all the piezometers.	• Well water clear to unaided eye	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	• Sediment thickness remaining in well is <1% of screen length	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	• Total water removed = a minimum of 5x calculated well volume plus 5 x drilling fluid lost	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	• Turbidity <5NTUs	<input type="checkbox"/>	<input type="checkbox"/>
	• 10% change in field parameters	<input type="checkbox"/>	<input checked="" type="checkbox"/>

End of Well Development Sample (1 pint) Collected?  Yes  No

Water Parameter Measurements

Record at start, twice during and at the end of development (minimum)

Time	Volume	Total Gallons	pH	Temp.	Conductance	Turbidity	Pumping Rate
6/13 15:43	8.5	35	6.4	12.9	2.1	N/A	1 GPM
6/13 16:14	15	35	6.4	12.9	2.1	N/A	1 GPM
6/14 10:35	29	35	6.5	12.8	2.2	N/A	1 GPM
6/14 10:57	31	35	6.5	12.6	2.1	N/A	1 GPM

Well Developer's Signature \_\_\_\_\_  
Brian C. Benson

\* Geo-Con Project Number  
 \*\* Measurements are given from the top of the riser pipe

WELL DEVELOPMENT RECORD  
 BUFFALO COLOR SITE  
 BUFFALO, NEW YORK  
 MACTEC.INC.



DATE	TIME	DRILLED FROM	DRILLED TO	WEATHER	TEMP
6/1/06					

FIELD LOG



HOLE # 2cm-P202N

DRILL RIG: 85 DRILLER'S NAME: Ron Brown

Contract Drilling and Testing

PROJECT & LOCATION: Boffo/0 color / Beacon

SHEET 1 OF 1

DEPTH FT.	SAMPLE #	BLOWS ON SAMPLER						BLOWS ON CASING C	SAMPLE RECOVERY	CLASSIFICATION OF MATERIALS DRILLED (MOISTURE/ COLOR)	OTHER DATA	WELL DETAILS
		0-6	6-12	12-18	18-24	N						
0-2	1	16	3/4					9	Black sands ash cinders fill			
2-4	2	10	5	8	9			14	ash, Brk fill			
4-6	3	9	3	2	2			16	Brk fill, - Sand silt mixture			
6-8	4	3	3	3	3			24	Sands silt			
8-10	5	with	2	3	3			24	Sands silt			
10-12	6	with	with	with	3			24	moist sands silt			
12-14	7	2	3	4	4			24	Sands silt trace clay			
14-16	8											
16-18	9											
18-20	10											

B.O.H-15

SIZE AUGERS/ CASING \_\_\_\_\_  
 SIZE THIN- WALLED TUBE \_\_\_\_\_

SIZE SPOON \_\_\_\_\_  
 SIZE CORE \_\_\_\_\_

N= No. blows to drive \_\_\_\_\_ -spoon \_\_\_\_\_ -with \_\_\_\_\_ lb. pin wt. falling \_\_\_\_\_ -per blow.  
 C= No. blows to drive \_\_\_\_\_ -casing \_\_\_\_\_ -with \_\_\_\_\_ lb. weight falling \_\_\_\_\_ -per blow

OVER...



DATE	TIME	DRILLED FROM	DRILLED TO	WEATHER	TEMP
5/3/06					
DRILL RIG:		DRILLER'S NAME:			
85					
PROJECT & LOCATION: Buffalo Color / Geo-Con					

FIELD LOG



Contract Drilling and Testing

HOLE # ~~JB 1020~~  
JCM-P2-023

SHEET 1 OF 1

DEPTH FT.	SAMPLE #	BLOWS ON SAMPLER					BLOWS ON CASING C	SAMPLE RECOVERY	CLASSIFICATION OF MATERIALS DRILLED (MOISTURE/ COLOR)	OTHER DATA	WELL DETAILS
		0/6	6/12	12/18	18/24	N					
0-2	1	8	6	4	6	10	12	Fill			
2-4	2	7	6	5	5	11	18	Fill			
4-6	3	5	10	6	5	22	10	wet sand & clay			
6-8	4	3	2	3	3	5	0	no rec.			
8-10	5	wt	2	3	2	5	18	silty clay			
10-12	6	wt	1	2	2	3	20+	silt sand			
12-14	7	2	3	3	2	6	19	some organics			
14-16	8	wt	1	1	1	2	22	some			
16-18	9	wt	2	2	3	4	21	some			
18-20	10	1	2	2	2	4	16	sand			

B.O.H.  
20'

SIZE AUGERS/ CASING \_\_\_\_\_ SIZE SPOON \_\_\_\_\_  
 SIZE THIN-WALLED TUBE \_\_\_\_\_ SIZE CORE \_\_\_\_\_

N= No. blows to drive \_\_\_\_\_ -spoon \_\_\_\_\_ -with \_\_\_\_\_ lb. pin wt. falling \_\_\_\_\_ -per blow.  
 C= No. blows to drive \_\_\_\_\_ -casing \_\_\_\_\_ -with \_\_\_\_\_ lb. weight falling \_\_\_\_\_ -per blow

OVER... →



5/31/66	FROM	TO
DRILL RIG: 85	DRILLER'S NAME: Ron Brown	
PROJECT & LOCATION: Buff. clay		

FIELD LOG



HOLE #  
ICM-  
PZ-  
035

Contract Drilling  
and Testing

SHEET 1 OF 1

DEPTH FT.	SAMPLE #	BLOWS ON SAMPLER						BLOWS ON CASING C	SAMPLE RECOVERY	CLASSIFICATION OF MATERIALS DRILLED (MOISTURE/ COLOR)	OTHER DATA	WELL DETAILS
		0-6	6-12	12-18	18-24	N						
0-2	1	5	5	4	4	9		12	Ash cinders Fill			
0-4	2	6	6	6	14	12		14	Same Fill			
4-6	3	4	3	3	4	6		14	Same Fill To 5' To wet Sand			
6-8	4	4	5	4	4	9		12	Wet Sand & organics		water at 7'	
8-10	5	1	2	2	2	4		20	silty sand			
10-12	6	with	3	3				14	silt & organics			
12-14	7	1	2	2	4	4		16	Same & sand			
14-16	8	with filter	3					22	wet sand			
16-18	9	1	2	2	2	4		18	wet sand			
18-20	10	with	1	3	2			22	wet sand			

3.04 - 80.0

SIZE AUGERS/ CASING \_\_\_\_\_  
 SIZE THIN-WALLED TUBE \_\_\_\_\_

SIZE SPOON \_\_\_\_\_  
 SIZE CORE \_\_\_\_\_

N= No. blows to drive \_\_\_\_\_ -spoon \_\_\_\_\_ -with \_\_\_\_\_ lb. pin wt. falling \_\_\_\_\_ -per blow.  
 C= No. blows to drive \_\_\_\_\_ -casing \_\_\_\_\_ -with \_\_\_\_\_ lb. weight falling \_\_\_\_\_ -per blow

OVER...

DATE	TIME	DRILLED FROM	DRILLED TO	WEATHER	TEMP
5/31/06					
DRILL RIG: 85		DRILLER'S NAME: R. Brown			
PROJECT & LOCATION: Buffalo color <del>geo con</del>					

FIELD LOG



HOLE # 22045

Contract Drilling and Testing

SHEET 1 OF 1

DEPTH FT.	SAMPLE #	BLOWS ON SAMPLER						BLOWS ON CASING C	SAMPLE RECOVERY	CLASSIFICATION OF MATERIALS DRILLED (MOISTURE/ COLOR)	OTHER DATA	WELL DETAILS
		0-6	6-12	12-18	18-24	N						
0-2	1	3	4	6	7	10		18	Sand gravel Ash Fill Bricks			
2-4	2	7	6	4	4	10		12	Same Fill to 4'			
4-6	3	3	4	6	6	10		19	sand			
6-8	4	7	6	3	2	9		18	Sand to clay at 7' water at 6.5'			
8-10	5	3	4	4	5	8		8	NO Rec			
10-12	5	1	1	1	2	2		22	wet sandy silt			
12-14	7	wt	3	3	4	6		24	same - organics			
14-16	8	wt Ham	2	2				19	Sand silt			
16-18	9	wt	2	2	3	4		20	Sand & silt			
18-20	10	wt of Ham						21	sand & silt			

2.0.7-20

SIZE AUGERS/ CASING  
SIZE THIN-WALLED TUBE

SIZE SPOON  
SIZE CORE

N= No. blows to drive \_\_\_\_\_ -spoon \_\_\_\_\_ -with \_\_\_\_\_ lb. pin wt. falling \_\_\_\_\_ -per blow.  
C= No. blows to drive \_\_\_\_\_ -casing \_\_\_\_\_ -with \_\_\_\_\_ lb. weight falling \_\_\_\_\_ -per blow

OVER...

## **APPENDIX C-7**

### **Waste Management**

#### **Analytical Testing/Characterization Data**



**Pace Analytical Services, Inc.**  
5203 Triangle Lane  
Export, PA 15632  
Phone: 724.733.1161  
Fax: 724.327.7793

June 20, 2006

Mr. Brian Benson  
GeoCon  
4075 Monroeville Blvd  
Corp. I Building II  
Monroeville, PA 15146

Dear Mr. Benson:

Enclosed are analytical results for samples submitted to Pace Analytical by GeoCon. The samples were received on June 1, 2006. The results reported in this project meet the requirements as specified in Chapter 5 of the NELAC Standards. Any deviations or discrepancies from the NELAC standards are documented in the case narrative(s) of this report. Parameters printed in italics represent Non-NELAC accredited parameters. Please reference Pace project number 06-3194 when inquiring about this report.

Client Site: Buffalo Color  
Client Ref.: P05-084

Pace Sample Identification	Client Sample Identification
0606-0462	001

**General Comments:** Cooler temperature 27 ° C upon receipt. Ice was not present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,

Rachel D. Christner  
Project Manager

RDC: jld

Enclosures

Page 1 of 5

## REPORT OF LABORATORY ANALYSIS

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Mr. Brian Benson  
GeoCon  
4075 Monroeville Blvd  
Corp. I Building II  
Monroeville, PA 15146

Lab Project ID: 06-3194  
Lab Sample ID: 0606-0462  
Client Sample ID: 001  
Sample Matrix: Solid

Date Sampled: 05/30/2006  
Date Received: 06/01/2006

Client Site: Buffalo Color  
Client Ref.: P05-084

**General Chemistry**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Flash Point	1010 <sup>(1)</sup>	>200	1.0	F	BLC	06/05/2006	N/A	N/A
Paint Filter	9095 <sup>(1)</sup>	pass	N/A	n/a	BLC	06/05/2006	N/A	N/A
pH	9045 <sup>(1)</sup>	12.13	1.00	pH	JMT	06/02/2006	0049924-1	6.93
Total Solids @105C	160.3	60	1.0	%	DLH	06/06/2006	0050013-1	<1.0

**Metals**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Mercury, TCLP, CVAAS</b>								
Mercury	7471 <sup>(1)</sup>	<0.010	0.010	mg/l	CS0	06/05/2006	0049933-1	<0.010
<b>Trace Metals, TCLP, ICP</b>								
Arsenic	6010B <sup>(1)</sup>	<0.050	0.050	mg/l	CS0	06/05/2006	0049926-1	<0.050
Barium	6010B <sup>(1)</sup>	<1.0	1.0	mg/l	CS0	06/05/2006	0049926-1	<1.0
Cadmium	6010B <sup>(1)</sup>	<0.050	0.050	mg/l	CS0	06/05/2006	0049926-1	<0.050
Chromium	6010B <sup>(1)</sup>	<0.050	0.050	mg/l	CS0	06/05/2006	0049926-1	<0.050
Lead	6010B <sup>(1)</sup>	<0.050	0.050	mg/l	CS0	06/05/2006	0049926-1	<0.050
Selenium	6010B <sup>(1)</sup>	<0.10	0.10	mg/l	CS0	06/05/2006	0049926-1	<0.10
Silver	6010B <sup>(1)</sup>	<0.050	0.050	mg/l	CS0	06/05/2006	0049926-1	<0.050

**Pesticides/PCB**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Herbicides, TCLP, ECD</b>								
2,4-D	8151A <sup>(1)</sup>	<100	100	ug/l	RDJ	06/07/2006	0049960-1	<100
2,4,5-TP	8151A <sup>(1)</sup>	<10	10	ug/l	RDJ	06/07/2006	0049960-1	<10
<b>Polychlorinated Biphenyls, ECD</b>								
Aroclor-1016	8082 <sup>(1)</sup>	<1.0	1.0	mg/kg	RDJ	06/14/2006	0050203-1	<1.0
Aroclor-1221	8082 <sup>(1)</sup>	<1.0	1.0	mg/kg	RDJ	06/14/2006	0050203-1	<1.0
Aroclor-1232	8082 <sup>(1)</sup>	<1.0	1.0	mg/kg	RDJ	06/14/2006	0050203-1	<1.0
Aroclor-1242	8082 <sup>(1)</sup>	<1.0	1.0	mg/kg	RDJ	06/14/2006	0050203-1	<1.0
Aroclor-1248	8082 <sup>(1)</sup>	<1.0	1.0	mg/kg	RDJ	06/14/2006	0050203-1	<1.0
Aroclor-1254	8082 <sup>(1)</sup>	<1.0	1.0	mg/kg	RDJ	06/14/2006	0050203-1	<1.0

(Continued)

**REPORT OF LABORATORY ANALYSIS**

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Lab Sample ID: 0606-0462  
Client Sample ID: 001

**Pesticides/PCB (Cont.)**

Aroclor-1260	8082 <sup>(1)</sup>	<1.0	1.0	mg/kg	RDJ	06/14/2006	0050203-1	<1.0
PCB Total-TCL	8082 <sup>(1)</sup>	<1.0	1.0	mg/kg	RDJ	06/14/2006	0050203-1	<1.0
<b>Pesticides, TCLP, ECD</b>								
gamma-BHC	8081 <sup>(1)</sup>	<10	10	ug/l	RDJ	06/06/2006	0049959-1	<10
Technical Chlordane	8081 <sup>(1)</sup>	<10	10	ug/l	RDJ	06/06/2006	0049959-1	<10
Endrin	8081 <sup>(1)</sup>	<1.0	1.0	ug/l	RDJ	06/06/2006	0049959-1	<1.0
Heptachlor	8081 <sup>(1)</sup>	<0.50	0.50	ug/l	RDJ	06/06/2006	0049959-1	<0.50
Heptachlor Epoxide	8081 <sup>(1)</sup>	<0.50	0.50	ug/l	RDJ	06/06/2006	0049959-1	<0.50
Methoxychlor	8081 <sup>(1)</sup>	<100	100	ug/l	RDJ	06/06/2006	0049959-1	<100
Toxaphene	8081 <sup>(1)</sup>	<50	50	ug/l	RDJ	06/06/2006	0049959-1	<50

**Semivolatiles**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Semivolatile Organic Compounds, GC/MS</b>								
Pentachlorophenol	8270C <sup>(1)</sup>	<830	830	ug/kg	SPL	06/05/2006	0049916-1	<830
<b>Semivolatile Organic Compounds, TCLP, GC/MS</b>								
Cresol (Total)	8270C <sup>(1)</sup>	<5000	5000	ug/l	SPL	06/05/2006	0049963-1	<5000
1,4-Dichlorobenzene	8270C <sup>(1)</sup>	<500	500	ug/l	SPL	06/05/2006	0049963-1	<500
2,4-Dinitrotoluene	8270C <sup>(1)</sup>	<100	100	ug/l	SPL	06/05/2006	0049963-1	<100
Hexachlorobenzene	8270C <sup>(1)</sup>	<100	100	ug/l	SPL	06/05/2006	0049963-1	<100
Hexachlorobutadiene	8270C <sup>(1)</sup>	<100	100	ug/l	SPL	06/05/2006	0049963-1	<100
Hexachloroethane	8270C <sup>(1)</sup>	<500	500	ug/l	SPL	06/05/2006	0049963-1	<500
Nitrobenzene	8270C <sup>(1)</sup>	<100	100	ug/l	SPL	06/05/2006	0049963-1	<100
Pentachlorophenol	8270C <sup>(1)</sup>	<5000	5000	ug/l	SPL	06/05/2006	0049963-1	<5000
Pyridine	8270C <sup>(1)</sup>	<500	500	ug/l	SPL	06/05/2006	0049963-1	<500
2,4,5-Trichlorophenol	8270C <sup>(1)</sup>	<5000	5000	ug/l	SPL	06/05/2006	0049963-1	<5000
2,4,6-Trichlorophenol	8270C <sup>(1)</sup>	<100	100	ug/l	SPL	06/05/2006	0049963-1	<100

**Volatiles**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, TCLP, MS</b>								
Benzene	8260B <sup>(1)</sup>	<50	50	ug/l	EAC	06/07/2006	0050067-1	<50
2-Butanone	8260B <sup>(1)</sup>	<5000	5000	ug/l	EAC	06/07/2006	0050067-1	<5000
Carbon Tetrachloride	8260B <sup>(1)</sup>	<50	50	ug/l	EAC	06/07/2006	0050067-1	<50
Chlorobenzene	8260B <sup>(1)</sup>	<1000	1000	ug/l	EAC	06/07/2006	0050067-1	<1000

(Continued)

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5/2/06





**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

**Lab Sample ID: 0606-0462**  
**Client Sample ID: 001**

**Volatiles (Cont.)**

Chloroform	8260B <sup>(1)</sup>	<500	500	ug/l	EAC	06/07/2006	0050067-1	<500
1,2-Dichloroethane	8260B <sup>(1)</sup>	<50	50	ug/l	EAC	06/07/2006	0050067-1	<50
1,1-Dichloroethene	8260B <sup>(1)</sup>	<50	50	ug/l	EAC	06/07/2006	0050067-1	<50
Tetrachloroethene	8260B <sup>(1)</sup>	<50	50	ug/l	EAC	06/07/2006	0050067-1	<50
Trichloroethene	8260B <sup>(1)</sup>	<50	50	ug/l	EAC	06/07/2006	0050067-1	<50
Vinyl chloride	8260B <sup>(1)</sup>	<50	50	ug/l	EAC	06/07/2006	0050067-1	<50

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. This sample is a portland cement/soil grout mixture.

**REPORT OF LABORATORY ANALYSIS**

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06060462





**Pace Analytical Services, Inc.**  
5203 Triangle Lane  
Export, PA 15632  
Phone: 724.733.1161  
Fax: 724.327.7793

September 19, 2006

Mr. Bill Buccille  
GeoCon  
4075 Monroeville Blvd  
Corp. I Building II  
Monroeville, PA 15146

Dear Mr. Buccille:

Enclosed are analytical results for samples submitted to Pace Analytical by GeoCon. The samples were received on September 1, 2006. The results reported in this project meet the requirements as specified in Chapter 5 of the NELAC Standards. Any deviations or discrepancies from the NELAC standards are documented in the case narrative(s) of this report. Parameters printed in italics represent Non-NELAC accredited parameters. Please reference Pace project number 06-5326 when inquiring about this report.

Client Site: Buffalo Color  
Client Ref.: P05-084

Pace Sample Identification	Client Sample Identification
0609-0414	Development Water

**General Comments:** Cooler temperature 5 ° C upon receipt. Ice was present. Insufficient sample volume has been provided for the performance of a sample matrix spike/matrix spike duplicate, therefore extraction of a blank (reagent water) spike and spike duplicate have been performed.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,

Rachel D. Christner  
Project Manager

RDC: jld

Enclosures

Page 1 of 6

## REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Mr. Bill Buccille  
 GeoCon  
 4075 Monroeville Blvd  
 Corp. I Building II  
 Monroeville, PA 15146

Lab Project ID: 06-5326  
 Lab Sample ID: 0609-0414  
 Client Sample ID: Development Water  
 Sample Matrix: Aqueous

Client Site: Buffalo Color  
 Client Ref.: P05-084

Date Sampled: 09/01/2006  
 Date Received: 09/01/2006

**General Chemistry**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
Biochemical Oxygen Demand	405.1 <sup>(1)</sup>	<6.0	6.0	mg/l	JMT	09/01/2006	0052674-1	<2.0
Cyanide (Amenable)	335.1 <sup>(1)</sup>	<0.010	0.010	mg/l	JMT	09/07/2006	0052681-1	<0.010
pH	150.1 <sup>(1)</sup>	9.34	2.00	pH	BKH	09/01/2006	0052582-1	6.46
Phenolics	420.1 <sup>(1)</sup>	<0.050	0.050	mg/l	BKH	09/07/2006	0052668-1	<0.050
Phosphorous (Total)	365.2 <sup>(1)</sup>	0.012	0.010	mg/l	DLH	09/12/2006	0052833-1	<0.010
Total Suspended Solids	160.2 <sup>(1)</sup>	8.0	4.0	mg/l	BKH	09/05/2006	0052627-1	<4.0

**Metals**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Mercury, Total, CVAAS</b>								
Mercury	245.1 <sup>(1)</sup>	<0.00020	0.00020	mg/l	CS0	09/11/2006	0052682-1	<0.00020
<b>Trace Metals, Total, ICP</b>								
Chromium	200.7 <sup>(1)</sup>	<0.0050	0.0050	mg/l	CS0	09/07/2006	0052630-1	<0.0050
Copper	200.7 <sup>(1)</sup>	0.026	0.0050	mg/l	CS0	09/07/2006	0052630-1	<0.0050
Lead	200.7 <sup>(1)</sup>	0.0087	0.0020	mg/l	CS0	09/07/2006	0052630-1	<0.0020
Nickel	200.7 <sup>(1)</sup>	0.012	0.010	mg/l	CS0	09/07/2006	0052630-1	<0.010
Zinc	200.7 <sup>(1)</sup>	0.34	0.010	mg/l	CS0	09/07/2006	0052630-1	<0.010

**Pesticides/PCB**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Polychlorinated Biphenyls, ECD</b>								
PCB Total-TCL	608 <sup>(2)</sup>	<1.0	1.0	ug/l	RDJ	09/11/2006	0052664-1	<1.0

**Semivolatiles**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Semivolatile Organic Compounds, GC/MS</b>								
Aniline	8270C <sup>(3)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
<b>Semivolatile Organic Compounds, PP, GC/MS</b>								
Acenaphthene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Acenaphthylene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10

(Continued)

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Lab Sample ID: 0609-0414  
Client Sample ID: Development Water

**Semivolatiles (Cont.)**

Anthracene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Benzidine	625 <sup>(2)</sup>	<100	100	ug/l	SPL	09/16/2006	0052613-1	<100
Benzo(a)anthracene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Benzo(a)pyrene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Benzo(b)fluoranthene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Benzo(ghi)perylene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Benzo(k)fluoranthene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Bis(2-Chloroethoxy) methane	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Bis(2-Chloroethyl)ether	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Bis(2-Chloroisopropyl) ether	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Bis(2-Ethylhexyl)phthalate	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
4-Bromophenyl- phenylether	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Butylbenzylphthalate	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
4-Chloro-3-methylphenol	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
2-Chloronaphthalene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
2-Chlorophenol	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
4-Chlorophenyl- phenylether	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Chrysene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Di-n-butylphthalate	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Di-n-octylphthalate	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Dibenz(a,h)anthracene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
1,2-Dichlorobenzene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
1,3-Dichlorobenzene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
1,4-Dichlorobenzene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
3,3'-Dichlorobenzidine	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
2,4-Dichlorophenol	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Diethylphthalate	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
2,4-Dimethylphenol	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Dimethylphthalate	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
4,6-Dinitro-2-methylphenol	625 <sup>(2)</sup>	<25	25	ug/l	SPL	09/16/2006	0052613-1	<25
2,4-Dinitrophenol	625 <sup>(2)</sup>	<25	25	ug/l	SPL	09/16/2006	0052613-1	<25
2,4-Dinitrotoluene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
2,6-Dinitrotoluene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
1,2-Diphenylhydrazine	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Fluoranthene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Fluorene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10

(Continued)

**REPORT OF LABORATORY ANALYSIS**

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Lab Sample ID: 0609-0414  
Client Sample ID: Development Water

**Semivolatiles (Cont.)**

Hexachlorobenzene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Hexachlorobutadiene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Hexachlorocyclopentadiene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Hexachloroethane	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Indeno(1,2,3-cd)pyrene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Isophorone	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
N-nitrosodi-n-propylamine	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
N-nitrosodimethylamine	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
N-nitrosodiphenylamine	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Naphthalene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Nitrobenzene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
2-Nitrophenol	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
4-Nitrophenol	625 <sup>(2)</sup>	<25	25	ug/l	SPL	09/16/2006	0052613-1	<25
Pentachlorophenol	625 <sup>(2)</sup>	<25	25	ug/l	SPL	09/16/2006	0052613-1	<25
Phenanthrene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Phenol	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
Pyrene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
1,2,4-Trichlorobenzene	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10
2,4,6-Trichlorophenol	625 <sup>(2)</sup>	<10	10	ug/l	SPL	09/16/2006	0052613-1	<10

**Volatiles**

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acrolein	624 <sup>(2)</sup>	<50	50	ug/l	MAK	09/05/2006	0052608-1	<50
Acrylonitrile	624 <sup>(2)</sup>	<10	10	ug/l	MAK	09/05/2006	0052608-1	<10
Benzene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Bromodichloromethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Bromoform	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Bromomethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Carbon Tetrachloride	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Chlorobenzene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Chloroethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
2-Chloroethylvinyl ether	624 <sup>(2)</sup>	<10	10	ug/l	MAK	09/05/2006	0052608-1	<10
Chloroform	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Chloromethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0

(Continued)

**REPORT OF LABORATORY ANALYSIS**

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Lab Sample ID: 0609-0414  
Client Sample ID: Development Water

**Volatiles (Cont.)**

Dibromochloromethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
1,1-Dichloroethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
1,2-Dichloroethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
1,1-Dichloroethene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
trans-1,2-Dichloroethene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
1,2-Dichloropropane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
cis-1,3-Dichloropropene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
trans-1,3-Dichloropropene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Ethylbenzene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Methylene chloride	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
1,1,2,2-Tetrachloroethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Tetrachloroethene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Toluene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
1,1,1-Trichloroethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
1,1,2-Trichloroethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Trichloroethene	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Trichlorofluoromethane	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0
Vinyl chloride	624 <sup>(2)</sup>	<5.0	5.0	ug/l	MAK	09/05/2006	0052608-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1983, Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio.

<sup>(2)</sup> U.S. Environmental Protection Agency, 1982, Test Methods, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, J.E. Longbottom and J.J. Lichtenberg, eds., EPA-600/4-82-057, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio.

<sup>(3)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. QC recovery low for CBOD, sample 0414 may be biased low. Sample 0609-0414 was received with headspace in the VOA vials. This sample required the addition of antifoam for analysis.

## REPORT OF LABORATORY ANALYSIS

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## **APPENDIX C-8**

### **Waste Management Manifests & Weigh Tickets**





# NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

22.55

If waste is asbestos waste, complete Sections I, II, III and IV.  
If waste is NOT asbestos waste, complete only Sections I, II and III.

## No. 511076

### Section I GENERATOR (Generator completes all of Section I)

a. Generator Name: Buffalo Color Corporation b. Generating Location: Same  
 c. Address: 100 Lee Street d. Address: \_\_\_\_\_  
Buffalo, NY 14210

e. Phone No.: 716-998-5642 f. Phone No.: \_\_\_\_\_

If owner of the generating facility differs from the generator, provide:

g. Owner's Name: \_\_\_\_\_ h. Owner's Phone No.: \_\_\_\_\_

i. ALLIED WASTE CODE: 

			L	0	7	Y	6	3	2	1	9

 Containers: \_\_\_\_\_ TYPE: \_\_\_\_\_  
 j. Description of Waste: Soil k. Quantity: 20 Units: Y No.: \_\_\_\_\_ TYPE: X

- TYPE  
 DM - METAL DRUM  
 DP - PLASTIC DRUM  
 B - BAG  
 BA - 6 MIL. PLASTIC BAG or WRAP  
 T - TRUCK  
 O - OTHER
- UNITS  
 P - POUNDS  
 Y - YARDS  
 M<sup>3</sup> - CUBIC METERS  
 Y<sup>3</sup> - CUBIC YARDS  
 O - OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Gordon G. Bellis, Jr. Generator Authorized Agent Name  
Gordon G. Bellis, Jr. Signature  
11/15/06 Shipment Date

### Section II TRANSPORTER (Generator completes a-d; Transporter I completes e-g; Transporter II completes h-n)

TRANSPORTER I  
 a. Name: Allied Waste of North America, Inc.  
 b. Address: 2321 Kenmore Avenue  
Kenmore, NY 14217  
 c. Driver Name/Title: Ken BIRGER  
 d. Phone No.: 716-614-3333 e. Truck No.: 3096  
 f. Vehicle License No./State: 29384JW NY  
 Acknowledgement of Receipt of Materials.  
 g. Driver Signature: [Signature] Shipment Date: 11/15/06

TRANSPORTER II  
 h. Name: \_\_\_\_\_  
 i. Address: \_\_\_\_\_  
 j. Driver Name/Title: \_\_\_\_\_  
 k. Phone No.: \_\_\_\_\_ l. Truck No.: \_\_\_\_\_  
 m. Vehicle License No./State: \_\_\_\_\_  
 Acknowledgement of Receipt of Materials.  
 n. Driver Signature: \_\_\_\_\_ Shipment Date: \_\_\_\_\_

### Section III DESTINATION (Generator completes a-d, destination site completes e-l)

a. Site Name: Allied Niagara Landfill c. Phone No.: 716-285-3345  
 b. Physical Address: 56<sup>th</sup> and Pine Avenue d. Mailing Address: \_\_\_\_\_  
Niagara Falls, NY 14304

e. Discrepancy Indication Space: \_\_\_\_\_  
 I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. Name of Authorized Agent: \_\_\_\_\_ Signature: [Signature] Receipt Date: 11/15/06

### Section IV ASBESTOS (Generator completes a-d, f, g, Operator\* completes e.)

a. Operator's\* Name: \_\_\_\_\_ b. Operator's\* Phone No.: \_\_\_\_\_  
 c. Operator's\* Address: \_\_\_\_\_  
 d. Special-Handling Instructions and additional information: \_\_\_\_\_

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

e. Operator's Name & Title: \_\_\_\_\_ OPERATOR'S SIGNATURE: [Signature]  
 f. Name and Address of Responsible Agency: \_\_\_\_\_  
 g.  Friable;  Non-friable;  Both \_\_\_\_\_ % friable \_\_\_\_\_ % non-friable



# NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

20.65

If waste is asbestos waste, complete Sections I, II, III and IV.  
If waste is NOT asbestos waste, complete only Sections I, II and III.

## No. 511077

### Section I GENERATOR (Generator completes all of Section I)

a. Generator Name: Buffalo Color Corporation b. Generating Location: Same

c. Address: 100 Lee Street  
Buffalo, NY 14210 d. Address: \_\_\_\_\_

e. Phone No.: 716-998-5642 f. Phone No.: \_\_\_\_\_

If owner of the generating facility differs from the generator, provide:

g. Owner's Name: \_\_\_\_\_ h. Owner's Phone No.: \_\_\_\_\_

i. ALLIED WASTE CODE 

1	0	7	4	3	2	1	9
---	---	---	---	---	---	---	---

 Containers 

--	--	--	--	--	--

j. Description of Waste: Soil k. Quantity 

--	--	--	--	--	--

 Units 

--	--	--	--	--	--

 No. 

--	--	--	--	--	--

 TYPE 

--	--	--	--	--	--

- TYPE**
- DM - METAL DRUM
  - DP - PLASTIC DRUM
  - B - BAG
  - BA - 6 MIL PLASTIC BAG or WRAP
  - T - TRUCK
  - O - OTHER
- UNITS**
- P - POUNDS
  - Y - YARDS
  - M<sup>3</sup> - CUBIC METERS
  - Y<sup>3</sup> - CUBIC YARDS
  - O - OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Gordon G. Bell Signature 11/15/06 Shipment Date

### Section II TRANSPORTER (Generator completes a-d; Transporter I completes e-g; Transporter II completes h-n)

TRANSPORTER I	TRANSPORTER II
a. Name: <u>Allied Waste of North America, Inc.</u>	h. Name: _____
b. Address: <u>2321 Kenmore Avenue</u> <u>Kenmore, NY 14217</u>	i. Address: _____
c. Driver Name/Title: <u>TONY SILES</u>	j. Driver Name/Title: _____
d. Phone No.: <u>716-614-3333</u>	k. Phone No.: _____
e. Truck No.: <u>3014</u>	l. Truck No.: _____
f. Vehicle License No./State: <u>29315 TW</u>	m. Vehicle License No./State: _____
g. Driver Signature: <u>TONY SILES</u> Shipment Date: <u>11/15/06</u>	n. Driver Signature: _____ Shipment Date: _____

### Section III DESTINATION (Generator completes a-d, destination site completes e-f)

a. Site Name: Allied Niagara Landfill c. Phone No.: 716-285-3345

b. Physical Address: 56<sup>th</sup> and Pine Avenue  
Niagara Falls, NY 14304 d. Mailing Address: \_\_\_\_\_

e. Discrepancy Indication Space: \_\_\_\_\_

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. Name of Authorized Agent: [Signature] Signature 11/15/06 Receipt Date

### Section IV ASBESTOS (Generator completes a-d, f, g, Operator\* completes e.)

a. Operator's\* Name: \_\_\_\_\_ b. Operator's\* Phone No.: \_\_\_\_\_

c. Operator's\* Address: \_\_\_\_\_

d. Special Handling Instructions and additional information: \_\_\_\_\_

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

e. Operator's Name & Title: \_\_\_\_\_



# NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV.  
If waste is NOT asbestos waste, complete only Sections I, II and III.

## No. 511078

### Section I GENERATOR (Generator completes all of Section I)

a. Generator Name: Buffalo Color Corporation b. Generating Location: Same

c. Address: 100 Lee Street  
Buffalo, NY 14210 d. Address: \_\_\_\_\_

e. Phone No.: 716-998-5642 f. Phone No.: \_\_\_\_\_

If owner of the generating facility differs from the generator, provide:

g. Owner's Name: \_\_\_\_\_ h. Owner's Phone No.: \_\_\_\_\_

i. ALLIED WASTE CODE: 

			1	0	7	4				3	2	1	9		
--	--	--	---	---	---	---	--	--	--	---	---	---	---	--	--

 Containers: \_\_\_\_\_

j. Description of Waste: Soil k. Quantity: 2 Units: y No.: \_\_\_\_\_ TYPE: T

RECEIVED  
NOV 27 2006

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Generator Authorized Agent Name: Golden G. Bills, Jr. Signature: \_\_\_\_\_ Shipment Date: 11/14/06

- CONTAINERS
- DM - METAL DRUM
  - DP - PLASTIC DRUM
  - B - BAG
  - BA - 6 MIL PLASTIC BAG or WRAP
  - T - TRUCK
  - O - OTHER
- UNITS
- P - POUNDS
  - Y - YARDS
  - M<sup>3</sup> - CUBIC METERS
  - Y<sup>3</sup> - CUBIC YARDS
  - O - OTHER

### Section II TRANSPORTER (Generator completes a-d; Transporter I completes e-g; Transporter II completes h-n)

TRANSPORTER I		TRANSPORTER II	
a. Name: <u>Allied Waste of North America, Inc.</u>		h. Name: _____	
b. Address: <u>2321 Kenmore Avenue</u> <u>Kenmore, NY 14217</u>		i. Address: _____	
c. Driver Name/Title: <u>John M. Bell</u>		j. Driver Name/Title: _____	
d. Phone No.: <u>716-614-3333</u>	e. Truck No.: <u>2166</u>	k. Phone No.: _____	l. Truck No.: _____
f. Vehicle License No./State: <u>NY 21-22</u>		m. Vehicle License No./State: _____	
g. Acknowledgement of Receipt of Materials. _____		n. Acknowledgement of Receipt of Materials. _____	
g. Driver Signature: _____	Shipment Date: <u>11/15/06</u>	n. Driver Signature: _____	Shipment Date: _____

### Section III DESTINATION (Generator completes a-d, destination site completes e-f)

a. Site Name: Allied Niagara Landfill c. Phone No.: 716-285-3345

b. Physical Address: 36<sup>th</sup> and Pine Avenue  
Niagara Falls, NY 14304 d. Mailing Address: \_\_\_\_\_

e. Discrepancy Indication Space: \_\_\_\_\_

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent: \_\_\_\_\_ Signature: \_\_\_\_\_ Receipt Date: 11/15/06

### Section IV ASBESTOS (Generator completes a-d, f, g, Operator\* completes e.)

a. Operator's\* Name: \_\_\_\_\_ b. Operator's\* Phone No.: \_\_\_\_\_

c. Operator's\* Address: \_\_\_\_\_

d. Special Handling Instructions and additional information: \_\_\_\_\_

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.



# NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

## No. 511083

If waste is asbestos waste, complete Sections I, II, III and IV.  
If waste is NOT asbestos waste, complete only Sections I, II and III.

### Section I GENERATOR (Generator completes all of Section I)

a. Generator Name: Buffalo Color Corporation b. Generating Location: Same  
 c. Address: 100 Lee Street d. Address: \_\_\_\_\_  
Buffalo, NY 14210  
 e. Phone No.: 716-998-5642 f. Phone No.: \_\_\_\_\_  
 If owner of the generating facility differs from the generator, provide:  
 g. Owner's Name: \_\_\_\_\_ h. Owner's Phone No.: \_\_\_\_\_  
 i. ALLIED WASTE CODE 

		1	0	7	7	3	2	1	9
--	--	---	---	---	---	---	---	---	---

 Containers 

--	--	--	--	--	--

  
 j. Description of Waste: Soil k. Quantity 

		20	
--	--	----	--

 Units 

y	
---	--

 No. 

--	--

 TYPE 

--	--	--	--

 T

- TYPE**  
 DM - METAL DRUM  
 DP - PLASTIC DRUM  
 B - BAG  
 BA - 6 MIL. PLASTIC BAG or WRAP  
 T - TRUCK  
 O - OTHER
- UNITS**  
 P - POUNDS  
 Y - YARDS  
 M<sup>3</sup> - CUBIC METERS  
 Y<sup>3</sup> - CUBIC YARDS  
 O - OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Gordon G. Bellis JR Signature 311506 Shipment Date  
Generator Authorized Agent Name

### Section II TRANSPORTER (Generator completes a-d; Transporter I completes e-g; Transporter II completes h-n)

TRANSPORTER I	TRANSPORTER II
a. Name: <u>Allied Waste of North America, Inc.</u>	h. Name: _____
b. Address: <u>2321 Kenmore Avenue</u> <u>Kenmore, NY 14217</u>	i. Address: _____
c. Driver Name/Title: <u>WILLIAMS</u>	j. Driver Name/Title: _____
d. Phone No.: <u>716-614-3333</u>	k. Phone No.: _____
e. Truck No.: <u>3106</u>	l. Truck No.: _____
f. Vehicle License No./State: <u>6-992-11 NY</u>	m. Vehicle License No./State: _____
Acknowledgement of Receipt of Materials.	
g. Driver Signature: <u>[Signature]</u>	n. Driver Signature: _____
Shipment Date: <u>11/15/06</u>	Shipment Date: _____

### Section III DESTINATION (Generator completes a-d, destination site completes e-f)

a. Site Name: Allied Niagara Landfill c. Phone No.: 716-285-3345  
 b. Physical Address: 56<sup>th</sup> and Pine Avenue d. Mailing Address: \_\_\_\_\_  
Niagara Falls, NY 14304  
 e. Discrepancy Indication Space: \_\_\_\_\_

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. Kam Scott Signature 111506 Receipt Date  
Name of Authorized Agent

### Section IV ASBESTOS (Generator completes a-d, f, g, Operator\* completes e.)

a. Operator's\* Name: \_\_\_\_\_ b. Operator's\* Phone No.: \_\_\_\_\_  
 c. Operator's\* Address: \_\_\_\_\_  
 d. Special Handling Instructions and additional information: \_\_\_\_\_

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

e. Operator's Name & Title: \_\_\_\_\_



SERVICE TICKET

SERVICE NAME: GEO-COR (Buenos Aires) No. 7586973

ADDRESS: 100 Lee St

RECPT REQ: # 264121

INSTRUCTIONS: D/OUI 20 YD OT New IO AUTO/MANUAL: 11-15-06

ACCT. NO.:	LOC. CODE:	SERV. DATE:
TRANS. CODE:	TRANS. DESC:	NBR. OF HAULS:
SYS. CODE:	RTE: 3126	ON CALL:
CONT. SIZE: 20 YD OT	VOL. CODE:	COMP: NO
HAUL CHARGE:	DISP CHRG:	OTHER CHRG:
DISP. COST:	DISP VOL: 20.65	VOL. CODE: Y/D
DISP. SITE:	ACT. DISP SITE:	ACTUAL DISP DATE: 11-15-06
SERV MINUTES:	TRUCK NBR: 3024	DRIVER NBR: 446
WASTE TYPE:	QTY:	VOL CODE:
WASTE TYPE:	QTY:	VOL CODE:



REORDER THIS FORM FROM STANDARD REGISTER

CUSTOMER SIGNATURE: \_\_\_\_\_  
DRIVER SIGNATURE: Tony

SERVICE TICKET

SERVICE NAME: Geo. con BUFFALO COLOR  
100. LEE ST  
ADDRESS:

No. **7587152**  
26/123

INSTRUCTIONS: out RECPT REQ: \_\_\_\_\_ COD: \_\_\_\_\_  
AUTO/MANUAL: \_\_\_\_\_

ACCT. NO.: \_\_\_\_\_ LOC. CODE: \_\_\_\_\_ SERV. DATE: 5/15/06

TRANS. CODE: \_\_\_\_\_ TRANS. DESC: \_\_\_\_\_

SYS. CODE: \_\_\_\_\_ RTE: \_\_\_\_\_ NBR. OF HAULS: \_\_\_\_\_

CONT. SIZE: 20 VOL. CODE: \_\_\_\_\_ COMP: \_\_\_\_\_ ON CALL: \_\_\_\_\_

HAUL CHARGE: \_\_\_\_\_ DISP CHRG: \_\_\_\_\_ OTHER CHRG: \_\_\_\_\_

DISP. COST: \_\_\_\_\_ DISP VOL: 22.55 VOL. CODE: Y10

DISP. SITE: Newco ACT. DISP SITE: \_\_\_\_\_ ACTUAL DISP DATE: \_\_\_\_\_

SERV MINUTES: \_\_\_\_\_ TRUCK NBR: 3026 DRIVER NBR: \_\_\_\_\_

WASTE TYPE: \_\_\_\_\_ QTY: \_\_\_\_\_ VOL CODE: \_\_\_\_\_ WASTE TYPE: \_\_\_\_\_ QTY: \_\_\_\_\_ VOL CODE: \_\_\_\_\_

WASTE TYPE: \_\_\_\_\_ QTY: \_\_\_\_\_ VOL CODE: \_\_\_\_\_ WASTE TYPE: \_\_\_\_\_ QTY: \_\_\_\_\_ VOL CODE: \_\_\_\_\_



REORDER THIS FORM FROM STANDARD REGISTER

CUSTOMER SIGNATURE: \_\_\_\_\_  
DRIVER SIGNATURE: [Signature]

SERVICE TICKET

No. 7587164

264115

SERVICE NAME: Geo Con & Bldg Color

ADDRESS: 100 Lee St

RECPT REQ: COD:

INSTRUCTIONS: Switch & Dump & Remove

AUTO/MANUAL:

ACCT. NO.:

LOG. CODE:

SERV. DATE: 11-15-06

TRANS. CODE:

TRANS. DESC:

SYS. CODE:

RTE: 624

NBR. OF HAULS:

CONT. SIZE: 20

VOL. CODE:

COMP: N

ON CALL:

HAUL CHARGE:

DISP CHRG:

OTHER CHRG:

DISP. COST:

DISP VOL: 2662

VOL. CODE: 310

DISP. SITE: Newco

ACT. DISP SITE:

ACTUAL DISP DATE:

SERV MINUTES:

TRUCK NBR: 3200

DRIVER NBR:

WASTE TYPE:

QTY:

VOL CODE:

WASTE TYPE:

QTY:

VOL CODE:

WASTE TYPE:

QTY:

VOL CODE:

WASTE TYPE:

QTY:

VOL CODE:



REORDER THIS FORM FROM STANDARD REGISTER

CUSTOMER SIGNATURE:

DRIVER SIGNATURE:



SERVICE TICKET

No. 7587165  
764077

SERVICE NAME: Geo Cen of Bldg Color  
ADDRESS: 100 Lee St Bldg

RECPT REQ: \_\_\_\_\_ COD: \_\_\_\_\_

INSTRUCTIONS: *Sort & Dump & Remove*

AUTO/MANUAL: \_\_\_\_\_

ACCT. NO.: \_\_\_\_\_

LOC. CODE: \_\_\_\_\_

SERV. DATE: 11-15-16

TRANS. CODE: \_\_\_\_\_

TRANS. DESC: \_\_\_\_\_

SYS. CODE: \_\_\_\_\_

RTE: 624

NBR. OF HAULS: \_\_\_\_\_

CONT. SIZE: 20

VOL. CODE: \_\_\_\_\_

COMP: N

ON CALL: \_\_\_\_\_

HAUL CHARGE: \_\_\_\_\_

DISP CHRG: \_\_\_\_\_

OTHER CHRG: \_\_\_\_\_

DISP. COST: \_\_\_\_\_

DISP VOL: \_\_\_\_\_

VOL. CODE: YLD

DISP. SITE: New LD

ACT. DISP SITE: \_\_\_\_\_

ACTUAL DISP DATE: \_\_\_\_\_

SERV MINUTES: \_\_\_\_\_

TRUCK NBR: 3206

DRIVER NBR: \_\_\_\_\_

WASTE TYPE: \_\_\_\_\_ QTY: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

WASTE TYPE: \_\_\_\_\_

QTY: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

WASTE TYPE: \_\_\_\_\_ QTY: \_\_\_\_\_

VOL CODE: \_\_\_\_\_

WASTE TYPE: \_\_\_\_\_

QTY: \_\_\_\_\_

VOL CODE: \_\_\_\_\_



REORDER THIS FORM FROM STANDARD REGISTER

CUSTOMER SIGNATURE: *[Signature]*

DRIVER SIGNATURE: *[Signature]*

## **APPENDIX D**

### **AREA A BANK STABILIZATION SYSTEM DOCUMENTATION**

## **APPENDIX D-1**

### **Analytical Testing – Riverbank Subgrade Soils**

Table 1  
Riverbank Sample Results and Soil Standards  
May 2006 Hits Only Summary

Method	Parameter	Restricted Brownfields 375-3.8(a) Industrial	MG/KG	RIVERBANK EAST 05/23/06	RIVERBANK WEST 05/23/06
6010	Aluminum - Total		MG/KG	6280	4260
6010	Antimony - Total		MG/KG	18.7	30.1
6010	Arsenic - Total	16	MG/KG	<b>44.5</b>	<b>91</b>
6010	Barium - Total	27000	MG/KG	208	546
6010	Beryllium - Total	2700	MG/KG	0.86	0.59
6010	Cadmium - Total	60	MG/KG	25.3	10.8
6010	Calcium - Total		MG/KG	38700	28200
6010	Chromium - Total	6800	MG/KG	524	545
6010	Cobalt - Total		MG/KG	9	14
6010	Copper - Total	190000	MG/KG	723	892
6010	Iron - Total		MG/KG	49200	163000
6010	Lead - Total	3900	MG/KG	1920	1180
6010	Magnesium - Total		MG/KG	7280	4400
6010	Manganese - Total	67000	MG/KG	1140	2380
6010	Nickel - Total	27000	MG/KG	37.5	55.7
6010	Potassium - Total		MG/KG	944	699
6010	Silver - Total	6800	MG/KG		1.2
6010	Sodium - Total		MG/KG	524	198
6010	Thallium - Total		MG/KG		8
6010	Vanadium - Total		MG/KG	21.6	41.8
6010	Zinc - Total	410000	MG/KG	3800	885
7471	Mercury - Total	5.7	MG/KG	3.4	4.5
8260/5035	1,2-Dichlorobenzene	1000	MG/KG	0.001 J	
8260/5035	Methylene chloride	1000	MG/KG	0.01	0.008
8270	2-Methylnaphthalene		MG/KG		2.1 J
8270	Acenaphthene	1000	MG/KG		4.8 J
8270	Acenaphthylene	1000	MG/KG	6.5 J	
8270	Anthracene	1000	MG/KG	9 J	10 J
8270	Benzo(a)anthracene	11	MG/KG	<b>21</b> J	<b>22</b> J
8270	Benzo(a)pyrene	1	MG/KG	<b>17</b> J	<b>17</b> J
8270	Benzo(b)fluoranthene	11	MG/KG	<b>23</b> J	<b>23</b> J
8270	Benzo(ghi)perylene	1000	MG/KG	9.7 J	9.7 J
8270	Benzo(k)fluoranthene	110	MG/KG	5.7 J	5.6 J
8270	Carbazole		MG/KG	3.7 J	5.4 J
8270	Chrysene	110	MG/KG	17 J	17 J
8270	Dibenzo(a,h)anthracene	1.1	MG/KG	<b>43</b>	<b>44</b>
8270	Dibenzofuran		MG/KG	3.4 J	4.1 J
8270	Fluoranthene	1000	MG/KG	38	38
8270	Fluorene	1000	MG/KG	6.7 J	6.4 J
8270	Indeno(1,2,3-cd)pyrene	11	MG/KG	8.8 J	9 J
8270	Naphthalene	1000	MG/KG		5.4 J
8270	Phenanthrene	1000	MG/KG	34 J	36 J
8270	Pyrene	1000	MG/KG	34 J	36 J

Notes:

Comparison criteria is lowest of listed soil standard or background concentration

Bold indicates parameter concentration exceeds comparison criteria value

SB - site background

NA - no criteria available

U = non-detect at the detection limit

J = laboratory reported an estimated value



Date: 05/30/2006  
Time: 14:08:13

MACTEC- BUFFALO COLOR  
Buffalo Color site  
METHOD 8260/5035 - TCL VOLATILE ORGANICS

Rept: AN1246

Client ID		RIVERBANK EAST		RIVERBANK WEST					
Job No	Lab ID	A06-5815	A6581501	A06-5815	A6581502				
Sample Date		05/23/2006		05/23/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Acetone	UG/KG	ND	28	ND	28	NA		NA	
Benzene	UG/KG	ND	6	ND	6	NA		NA	
Bromodichloromethane	UG/KG	ND	6	ND	6	NA		NA	
Bromoform	UG/KG	ND	6	ND	6	NA		NA	
Bromomethane	UG/KG	ND	11	ND	11	NA		NA	
2-Butanone	UG/KG	ND	28	ND	28	NA		NA	
Carbon Disulfide	UG/KG	ND	6	ND	6	NA		NA	
Carbon Tetrachloride	UG/KG	ND	6	ND	6	NA		NA	
Chlorobenzene	UG/KG	ND	6	ND	6	NA		NA	
Chloroethane	UG/KG	ND	11	ND	11	NA		NA	
Chloroform	UG/KG	ND	6	ND	6	NA		NA	
Chloromethane	UG/KG	ND	11	ND	11	NA		NA	
Cyclohexane	UG/KG	ND	6	ND	6	NA		NA	
1,2-Dibromoethane	UG/KG	ND	6	ND	6	NA		NA	
Dibromochloromethane	UG/KG	ND	6	ND	6	NA		NA	
1,2-Dibromo-3-chloropropane	UG/KG	ND	6	ND	6	NA		NA	
1,2-Dichlorobenzene	UG/KG	1 J	6	ND	6	NA		NA	
1,3-Dichlorobenzene	UG/KG	ND	6	ND	6	NA		NA	
1,4-Dichlorobenzene	UG/KG	ND	6	ND	6	NA		NA	
Dichlorodifluoromethane	UG/KG	ND	6	ND	6	NA		NA	
1,1-Dichloroethane	UG/KG	ND	6	ND	6	NA		NA	
1,2-Dichloroethane	UG/KG	ND	6	ND	6	NA		NA	
1,1-Dichloroethene	UG/KG	ND	6	ND	6	NA		NA	
cis-1,2-Dichloroethene	UG/KG	ND	6	ND	6	NA		NA	
trans-1,2-Dichloroethene	UG/KG	ND	6	ND	6	NA		NA	
1,2-Dichloropropane	UG/KG	ND	6	ND	6	NA		NA	
cis-1,3-Dichloropropene	UG/KG	ND	6	ND	6	NA		NA	
trans-1,3-Dichloropropene	UG/KG	ND	6	ND	6	NA		NA	
Ethylbenzene	UG/KG	ND	6	ND	6	NA		NA	
2-Hexanone	UG/KG	ND	28	ND	28	NA		NA	
Isopropylbenzene	UG/KG	ND	6	ND	6	NA		NA	
Methyl acetate	UG/KG	ND	6	ND	6	NA		NA	
Methylcyclohexane	UG/KG	ND	6	ND	6	NA		NA	
Methylene chloride	UG/KG	10	6	8	6	NA		NA	
4-Methyl-2-pentanone	UG/KG	ND	28	ND	28	NA		NA	
Methyl-t-Butyl Ether (MTBE)	UG/KG	ND	6	ND	6	NA		NA	
Styrene	UG/KG	ND	6	ND	6	NA		NA	
1,1,2,2-Tetrachloroethane	UG/KG	ND	6	ND	6	NA		NA	
Tetrachloroethene	UG/KG	ND	6	ND	6	NA		NA	
Toluene	UG/KG	ND	6	ND	6	NA		NA	
1,2,4-Trichlorobenzene	UG/KG	ND	6	ND	6	NA		NA	
1,1,1-Trichloroethane	UG/KG	ND	6	ND	6	NA		NA	
1,1,2-Trichloroethane	UG/KG	ND	6	ND	6	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/30/2006  
 Time: 14:08:13

MACTEC- BUFFALO COLOR  
 Buffalo Color site  
 METHOD 8260/5035 - TCL VOLATILE ORGANICS

Rept: AN1246

Client ID		RIVERBANK EAST		RIVERBANK WEST					
Job No	Lab ID	A06-5815	A6581501	A06-5815	A6581502				
Sample Date		05/23/2006		05/23/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,1,2-Trichloro-1,2,2-trifluor	UG/KG	ND	6	ND	6	NA		NA	
Trichlorofluoromethane	UG/KG	ND	6	ND	6	NA		NA	
Trichloroethene	UG/KG	ND	6	ND	6	NA		NA	
Vinyl chloride	UG/KG	ND	11	ND	11	NA		NA	
Total Xylenes	UG/KG	ND	17	ND	17	NA		NA	
<b>IS/SURROGATE(S)</b>									
Chlorobenzene-D5	%	100	50-200	103	50-200	NA		NA	
1,4-Difluorobenzene	%	104	50-200	104	50-200	NA		NA	
1,4-Dichlorobenzene-D4	%	92	50-200	102	50-200	NA		NA	
Toluene-D8	%	96	71-125	93	71-125	NA		NA	
p-Bromofluorobenzene	%	92	68-124	92	68-124	NA		NA	
1,2-Dichloroethane-D4	%	90	61-136	87	61-136	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/30/2006  
Time: 14:08:13

MACTEC- BUFFALO COLOR  
Buffalo Color site  
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN1246

Client ID		RIVERBANK EAST		RIVERBANK WEST					
Job No	Lab ID	A06-5815	A6581501	A06-5815	A6581502				
Sample Date		05/23/2006		05/23/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aniline	UG/KG	ND	36000	ND	37000	NA		NA	
Acenaphthene	UG/KG	ND	36000	4800 J	37000	NA		NA	
Acenaphthylene	UG/KG	6500 J	36000	ND	37000	NA		NA	
Acetophenone	UG/KG	ND	36000	ND	37000	NA		NA	
Anthracene	UG/KG	9000 J	36000	10000 J	37000	NA		NA	
Atrazine	UG/KG	ND	36000	ND	37000	NA		NA	
Benzaldehyde	UG/KG	ND	36000	ND	37000	NA		NA	
Benzo(a)anthracene	UG/KG	21000 J	36000	22000 J	37000	NA		NA	
Benzo(b)fluoranthene	UG/KG	23000 J	36000	23000 J	37000	NA		NA	
Benzo(k)fluoranthene	UG/KG	5700 J	36000	5600 J	37000	NA		NA	
Benzo(ghi)perylene	UG/KG	9700 J	36000	9700 J	37000	NA		NA	
Benzo(a)pyrene	UG/KG	17000 J	36000	17000 J	37000	NA		NA	
Biphenyl	UG/KG	ND	36000	ND	37000	NA		NA	
Bis(2-chloroethoxy) methane	UG/KG	ND	36000	ND	37000	NA		NA	
Bis(2-chloroethyl) ether	UG/KG	ND	36000	ND	37000	NA		NA	
2,2'-Oxybis(1-Chloropropane)	UG/KG	ND	36000	ND	37000	NA		NA	
Bis(2-ethylhexyl) phthalate	UG/KG	ND	36000	ND	37000	NA		NA	
4-Bromophenyl phenyl ether	UG/KG	ND	36000	ND	37000	NA		NA	
Butyl benzyl phthalate	UG/KG	ND	36000	ND	37000	NA		NA	
Caprolactam	UG/KG	ND	36000	ND	37000	NA		NA	
4-Chloroaniline	UG/KG	ND	36000	ND	37000	NA		NA	
4-Chloro-3-methylphenol	UG/KG	ND	36000	ND	37000	NA		NA	
2-Chloronaphthalene	UG/KG	ND	36000	ND	37000	NA		NA	
2-Chlorophenol	UG/KG	ND	36000	ND	37000	NA		NA	
4-Chlorophenyl phenyl ether	UG/KG	ND	36000	ND	37000	NA		NA	
Carbazole	UG/KG	3700 J	36000	5400 J	37000	NA		NA	
Chrysene	UG/KG	17000 J	36000	17000 J	37000	NA		NA	
Dibenzo(a,h)anthracene	UG/KG	43000	36000	44000	37000	NA		NA	
Dibenzofuran	UG/KG	3400 J	36000	4100 J	37000	NA		NA	
Di-n-butyl phthalate	UG/KG	ND	36000	ND	37000	NA		NA	
3,3'-Dichlorobenzidine	UG/KG	ND	180000	ND	180000	NA		NA	
2,4-Dichlorophenol	UG/KG	ND	36000	ND	37000	NA		NA	
Diethyl phthalate	UG/KG	ND	36000	ND	37000	NA		NA	
2,4-Dimethylphenol	UG/KG	ND	36000	ND	37000	NA		NA	
Dimethyl phthalate	UG/KG	ND	36000	ND	37000	NA		NA	
4,6-Dinitro-2-methylphenol	UG/KG	ND	180000	ND	180000	NA		NA	
2,4-Dinitrophenol	UG/KG	ND	180000	ND	180000	NA		NA	
2,4-Dinitrotoluene	UG/KG	ND	36000	ND	37000	NA		NA	
2,6-Dinitrotoluene	UG/KG	ND	36000	ND	37000	NA		NA	
Di-n-octyl phthalate	UG/KG	ND	36000	ND	37000	NA		NA	
Fluoranthene	UG/KG	38000	36000	38000	37000	NA		NA	
Fluorene	UG/KG	6700 J	36000	6400 J	37000	NA		NA	
Hexachlorobenzene	UG/KG	ND	36000	ND	37000	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo



Date: 05/30/2006  
Time: 14:08:13

MACTEC- BUFFALO COLOR  
Buffalo Color site  
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN1246

Client ID		RIVERBANK EAST		RIVERBANK WEST					
Job No	Lab ID	A06-5815	A6581501	A06-5815	A6581502				
Sample Date		05/23/2006		05/23/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Hexachlorobutadiene	UG/KG	ND	36000	ND	37000	NA		NA	
Hexachlorocyclopentadiene	UG/KG	ND	36000	ND	37000	NA		NA	
Hexachloroethane	UG/KG	ND	36000	ND	37000	NA		NA	
Indeno(1,2,3-cd)pyrene	UG/KG	8800 J	36000	9000 J	37000	NA		NA	
Isophorone	UG/KG	ND	36000	ND	37000	NA		NA	
2-Methylnaphthalene	UG/KG	ND	36000	2100 J	37000	NA		NA	
2-Methylphenol	UG/KG	ND	36000	ND	37000	NA		NA	
4-Methylphenol	UG/KG	ND	36000	ND	37000	NA		NA	
Naphthalene	UG/KG	ND	36000	5400 J	37000	NA		NA	
2-Nitroaniline	UG/KG	ND	180000	ND	180000	NA		NA	
3-Nitroaniline	UG/KG	ND	180000	ND	180000	NA		NA	
4-Nitroaniline	UG/KG	ND	180000	ND	180000	NA		NA	
Nitrobenzene	UG/KG	ND	36000	ND	37000	NA		NA	
2-Nitrophenol	UG/KG	ND	36000	ND	37000	NA		NA	
4-Nitrophenol	UG/KG	ND	180000	ND	180000	NA		NA	
N-nitrosodiphenylamine	UG/KG	ND	36000	ND	37000	NA		NA	
N-Nitroso-Di-n-propylamine	UG/KG	ND	36000	ND	37000	NA		NA	
Pentachlorophenol	UG/KG	ND	180000	ND	180000	NA		NA	
Phenanthrene	UG/KG	34000 J	36000	36000 J	37000	NA		NA	
Phenol	UG/KG	ND	36000	ND	37000	NA		NA	
Pyrene	UG/KG	34000 J	36000	36000 J	37000	NA		NA	
2,4,5-Trichlorophenol	UG/KG	ND	88000	ND	89000	NA		NA	
2,4,6-Trichlorophenol	UG/KG	ND	36000	ND	37000	NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	68	50-200	66	50-200	NA		NA	
Naphthalene-D8	%	73	50-200	71	50-200	NA		NA	
Acenaphthene-D10	%	82	50-200	80	50-200	NA		NA	
Phenanthrene-D10	%	101	50-200	99	50-200	NA		NA	
Chrysene-D12	%	85	50-200	85	50-200	NA		NA	
Perylene-D12	%	86	50-200	86	50-200	NA		NA	
Nitrobenzene-D5	%	81 D	35-120	95	35-120	NA		NA	
2-Fluorobiphenyl	%	76 D	45-120	87	45-120	NA		NA	
p-Terphenyl-d14	%	91 D	54-135	85	54-135	NA		NA	
Phenol-D5	%	69 D	40-120	78	40-120	NA		NA	
2-Fluorophenol	%	62 D	30-120	49	30-120	NA		NA	
2,4,6-Tribromophenol	%	38 D	46-129	72	46-129	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/30/2006  
Time: 14:08:34

MACTEC- BUFFALO COLOR  
Buffalo Color site  
BUFFALO COLOR- TAL METALS(23) SOIL

Rept: AN1246

Client ID		RIVERBANK EAST		RIVERBANK WEST					
Job No	Lab ID	A06-5815	A6581501	A06-5815	A6581502				
Sample Date		05/23/2006		05/23/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aluminum - Total	MG/KG	6280	11.3	4260	10.5	NA		NA	
Antimony - Total	MG/KG	18.7	16.9	30.1	15.7	NA		NA	
Arsenic - Total	MG/KG	44.5	2.2	91.0	2.1	NA		NA	
Barium - Total	MG/KG	208	0.56	546	0.52	NA		NA	
Beryllium - Total	MG/KG	0.86	0.22	0.59	0.21	NA		NA	
Cadmium - Total	MG/KG	25.3	0.22	10.8	0.21	NA		NA	
Calcium - Total	MG/KG	38700	56.5	28200	52.4	NA		NA	
Chromium - Total	MG/KG	524	0.56	545	0.52	NA		NA	
Cobalt - Total	MG/KG	9.0	0.56	14.0	0.52	NA		NA	
Copper - Total	MG/KG	723	1.1	892	1.0	NA		NA	
Iron - Total	MG/KG	49200	11.3	163000	52.4	NA		NA	
Lead - Total	MG/KG	1920	1.1	1180	1.0	NA		NA	
Magnesium - Total	MG/KG	7280	22.6	4400	21.0	NA		NA	
Manganese - Total	MG/KG	1140	0.22	2380	1.0	NA		NA	
Mercury - Total	MG/KG	3.4	0.46	4.5	0.46	NA		NA	
Nickel - Total	MG/KG	37.5	0.56	55.7	0.52	NA		NA	
Potassium - Total	MG/KG	944	33.9	699	31.4	NA		NA	
Selenium - Total	MG/KG	ND	4.5	ND	4.2	NA		NA	
Silver - Total	MG/KG	ND	0.56	1.2	0.52	NA		NA	
Sodium - Total	MG/KG	524	158	198	147	NA		NA	
Thallium - Total	MG/KG	ND	6.8	8.0	6.3	NA		NA	
Vanadium - Total	MG/KG	21.6	0.56	41.8	0.52	NA		NA	
Zinc - Total	MG/KG	3800	5.6	885	1.0	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 05/30/2006  
Time: 14:08:34

MACTEC- BUFFALO COLOR  
Buffalo Color site  
WET CHEMISTRY ANALYSIS

Rept: AN1246

Client ID		RIVERBANK EAST		RIVERBANK WEST					
Job No	Lab ID	A06-5815	A6581501	A06-5815	A6581502				
Sample Date		05/23/2006		05/23/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Cyanide - Total	UG/G	ND	1.1	ND	0.95	NA		NA	

NA = Not Applicable    ND = Not Detected

STL Buffalo



Date: 06/05/2006  
Time: 15:35:18

MACTEC- BUFFALO COLOR  
Buffalo Color site  
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

Client ID		RIVERBANK EAST		RIVERBANK WEST					
Job No	Lab ID	A06-6281	A6628101	A06-6281	A6628102				
Sample Date		05/23/2006		05/23/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Aniline	UG/KG	2900 J	3600	ND	3700	NA		NA	
Acenaphthene	UG/KG	1900 J	3600	4800	3700	NA		NA	
Acenaphthylene	UG/KG	6000	3600	850 J	3700	NA		NA	
Acetophenone	UG/KG	1600 J	3600	ND	3700	NA		NA	
Anthracene	UG/KG	9700	3600	9600	3700	NA		NA	
Atrazine	UG/KG	ND	3600	ND	3700	NA		NA	
Benzaldehyde	UG/KG	ND	3600	ND	3700	NA		NA	
Benzo(a)anthracene	UG/KG	23000	3600	21000	3700	NA		NA	
Benzo(b)fluoranthene	UG/KG	36000	3600	30000	3700	NA		NA	
Benzo(k)fluoranthene	UG/KG	38000	3600	32000	3700	NA		NA	
Benzo(ghi)perylene	UG/KG	10000	3600	8400	3700	NA		NA	
Benzo(a)pyrene	UG/KG	21000	3600	19000	3700	NA		NA	
Biphenyl	UG/KG	700 J	3600	ND	3700	NA		NA	
Bis(2-chloroethoxy) methane	UG/KG	ND	3600	ND	3700	NA		NA	
Bis(2-chloroethyl) ether	UG/KG	ND	3600	ND	3700	NA		NA	
2,2'-Oxybis(1-Chloropropane)	UG/KG	ND	3600	ND	3700	NA		NA	
Bis(2-ethylhexyl) phthalate	UG/KG	ND	3600	ND	3700	NA		NA	
4-Bromophenyl phenyl ether	UG/KG	ND	3600	ND	3700	NA		NA	
Butyl benzyl phthalate	UG/KG	ND	3600	ND	3700	NA		NA	
Caprolactam	UG/KG	ND	3600	ND	3700	NA		NA	
4-Chloroaniline	UG/KG	ND	3600	ND	3700	NA		NA	
4-Chloro-3-methylphenol	UG/KG	ND	3600	ND	3700	NA		NA	
2-Chloronaphthalene	UG/KG	ND	3600	ND	3700	NA		NA	
2-Chlorophenol	UG/KG	ND	3600	ND	3700	NA		NA	
4-Chlorophenyl phenyl ether	UG/KG	ND	3600	ND	3700	NA		NA	
Carbazole	UG/KG	4200	3600	5200	3700	NA		NA	
Chrysene	UG/KG	19000	3600	16000	3700	NA		NA	
Dibenzo(a,h)anthracene	UG/KG	5300	3600	3800	3700	NA		NA	
Dibenzofuran	UG/KG	3400 J	3600	3600 J	3700	NA		NA	
Di-n-butyl phthalate	UG/KG	ND	3600	ND	3700	NA		NA	
3,3'-Dichlorobenzidine	UG/KG	ND	18000	ND	18000	NA		NA	
2,4-Dichlorophenol	UG/KG	ND	3600	ND	3700	NA		NA	
Diethyl phthalate	UG/KG	ND	3600	ND	3700	NA		NA	
2,4-Dimethylphenol	UG/KG	ND	3600	ND	3700	NA		NA	
Dimethyl phthalate	UG/KG	ND	3600	ND	3700	NA		NA	
4,6-Dinitro-2-methylphenol	UG/KG	ND	18000	ND	18000	NA		NA	
2,4-Dinitrophenol	UG/KG	ND	18000	ND	18000	NA		NA	
2,4-Dinitrotoluene	UG/KG	ND	3600	ND	3700	NA		NA	
2,6-Dinitrotoluene	UG/KG	ND	3600	ND	3700	NA		NA	
Di-n-octyl phthalate	UG/KG	ND	3600	ND	3700	NA		NA	
Fluoranthene	UG/KG	40000	3600	35000	3700	NA		NA	
Fluorene	UG/KG	6700	3600	5000	3700	NA		NA	
Hexachlorobenzene	UG/KG	1300 J	3600	ND	3700	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 06/05/2006  
Time: 15:35:18

MACTEC- BUFFALO COLOR  
Buffalo Color site  
METHOD 8270 - TCL SEMI-VOLATILE ORGANICS

Rept: AN0326

Client ID		RIVERBANK EAST		RIVERBANK WEST					
Job No	Lab ID	A06-6281	A6628101	A06-6281	A6628102				
Sample Date		05/23/2006		05/23/2006					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Hexachlorobutadiene	UG/KG	ND	3600	ND	3700	NA		NA	
Hexachlorocyclopentadiene	UG/KG	ND	3600	ND	3700	NA		NA	
Hexachloroethane	UG/KG	ND	3600	ND	3700	NA		NA	
Indeno(1,2,3-cd)pyrene	UG/KG	14000	3600	12000	3700	NA		NA	
Isophorone	UG/KG	ND	3600	ND	3700	NA		NA	
2-Methylnaphthalene	UG/KG	2000 J	3600	1900 J	3700	NA		NA	
2-Methylphenol	UG/KG	ND	3600	ND	3700	NA		NA	
4-Methylphenol	UG/KG	ND	3600	ND	3700	NA		NA	
Naphthalene	UG/KG	1900 J	3600	4400	3700	NA		NA	
2-Nitroaniline	UG/KG	ND	18000	ND	18000	NA		NA	
3-Nitroaniline	UG/KG	ND	18000	ND	18000	NA		NA	
4-Nitroaniline	UG/KG	ND	18000	ND	18000	NA		NA	
Nitrobenzene	UG/KG	ND	3600	ND	3700	NA		NA	
2-Nitrophenol	UG/KG	ND	3600	ND	3700	NA		NA	
4-Nitrophenol	UG/KG	ND	18000	ND	18000	NA		NA	
N-nitrosodiphenylamine	UG/KG	350 J	3600	400 J	3700	NA		NA	
N-Nitroso-Di-n-propylamine	UG/KG	ND	3600	ND	3700	NA		NA	
Pentachlorophenol	UG/KG	ND	18000	ND	18000	NA		NA	
Phenanthrene	UG/KG	41000	3600	37000	3700	NA		NA	
Phenol	UG/KG	ND	3600	ND	3700	NA		NA	
Pyrene	UG/KG	41000	3600	37000	3700	NA		NA	
2,4,5-Trichlorophenol	UG/KG	ND	8800	ND	8900	NA		NA	
2,4,6-Trichlorophenol	UG/KG	ND	3600	ND	3700	NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	77	50-200	102	50-200	NA		NA	
Naphthalene-D8	%	94	50-200	123	50-200	NA		NA	
Acenaphthene-D10	%	88	50-200	116	50-200	NA		NA	
Phenanthrene-D10	%	85	50-200	108	50-200	NA		NA	
Chrysene-D12	%	63	50-200	83	50-200	NA		NA	
Perylene-D12	%	72	50-200	94	50-200	NA		NA	
Nitrobenzene-D5	%	70	35-120	61	35-120	NA		NA	
2-Fluorobiphenyl	%	94	45-120	81	45-120	NA		NA	
p-Terphenyl-d14	%	87	54-135	76	54-135	NA		NA	
Phenol-D5	%	84	40-120	75	40-120	NA		NA	
2-Fluorophenol	%	58	30-120	50	30-120	NA		NA	
2,4,6-Tribromophenol	%	72	46-129	69	46-129	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

## **APPENDIX D-2**

### **Waste Management**

#### **Analytical Testing/Characterization Data – Solid Waste**

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

**Analytical Data Report**  
Report Date: 05/17/06  
Work Order Number: 6E09005

Solid Waste Stockpile  
Riverbank Spoils from  
grading, subgrade prep,  
grubbing, & other  
excavations.  
-TCC

**Prepared For**  
Ken Paisley

Sevenson Environmental Services

2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201

Site: Buffalo Color

Enclosed are the results of analyses for samples received by the laboratory on 05/09/06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Brian S. Schepart, Ph.D., Laboratory Director

**ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS**  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 05/17/06 09:42
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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Buffalo Color / Stock Pile	6E09005-01	Soil	05/09/06 11:00	05/09/06 11:50

Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 05/17/06 09:42
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**Physical Parameters by APHA/ASTM/EPA Methods**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Buffalo Color / Stock Pile (6E09005-01) Soil</b>									
<b>Sampled: 05/09/06 11:00 Received: 05/09/06 11:50</b>									
Ignitability by Flashpoint	>200		deg F	1	AE60932	05/09/06	05/09/06	EPA 1010	
Reactive Cyanide	ND	40.0	mg/kg	"	AB61015	05/09/06	05/10/06	Section 7.3.3.2	U
Reactive Sulfide	ND	40.0	"	"	AE61014	"	05/10/06	Section 7.3.4.2	U

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 05/17/06 09:42

**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Buffalo Color / Stock Pile (6E09005-01) Soil</b> <b>Sampled: 05/09/06 11:00</b> <b>Received: 05/09/06 11:50</b>									
Mercury	ND	0.001	mg/L	1	AE61020	05/10/06	05/11/06	EPA 7470A-TCLP	
Silver	ND	0.025	"	5	AE61016	05/10/06	05/10/06	6010B	
Arsenic	ND	0.045	"	"	"	"	"	"	
Barium	0.452	0.025	"	"	"	"	"	"	
Cadmium	0.034	0.025	"	"	"	"	"	"	
Chromium	0.057	0.025	"	"	"	"	"	"	
Lead	0.146	0.075	"	"	"	"	"	"	
Selenium	ND	0.095	"	"	"	"	"	"	

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 05/17/06 09:42

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Buffalo Color / Stock Pile (6E09005-01) Soil</b> <b>Sampled: 05/09/06 11:00</b> <b>Received: 05/09/06 11:50</b>									
vinyl chloride	ND	10	ug/l	1	AE61201	05/12/06	05/12/06	8260-TCLP	U
1,1-dichloroethene	ND	10	"	"	"	"	"	"	U
2-butanone	ND	100	"	"	"	"	"	"	U
chloroform	ND	10	"	"	"	"	"	"	U
carbon tetrachloride	ND	10	"	"	"	"	"	"	U
benzene	ND	10	"	"	"	"	"	"	U
1,2-dichloroethane	ND	10	"	"	"	"	"	"	U
trichloroethene	ND	10	"	"	"	"	"	"	U
tetrachloroethene	ND	10	"	"	"	"	"	"	U
chlorobenzene	ND	10	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	10	"	"	"	"	"	"	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %		66-128	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %		81-118	"	"	"	"	
<i>Surrogate: Bromofluorobenzene</i>		101 %		85-123	"	"	"	"	

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 05/17/06 09:42

**TCLP Pesticides by EPA Method 1311/8080A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Buffalo Color / Stock Pile (6E09005-01) Soil</b> <b>Sampled: 05/09/06 11:00</b> <b>Received: 05/09/06 11:50</b>									
Gamma-BHC (Lindane)	ND	0.040	ug/l	1	AE61019	05/10/06	05/12/06	8081	U
Heptachlor	ND	0.040	"	"	"	"	"	"	U
Heptachlor Epoxide	ND	0.040	"	"	"	"	"	"	U
Endrin	ND	0.040	"	"	"	"	"	"	U
Methoxychlor	ND	0.040	"	"	"	"	"	"	U
Chlordane	ND	0.800	"	"	"	"	"	"	U
Toxaphene	ND	1.00	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		362 %		55-135	"	"	"	"	S-04
Surrogate: Decachlorobiphenyl		74.0 %		58-130	"	"	"	"	

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 05/17/06 09:42

**TCLP Herbicides by EPA Method 1311/8151A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Buffalo Color / Stock Pile (6E09005-01) Soil</b> <b>Sampled: 05/09/06 11:00</b> <b>Received: 05/09/06 11:50</b>									
2,4-D	ND	0.4	ug/l	1	AE61102	05/11/06	05/12/06	8151	U
2,4,5-TP (Silvex)	ND	0.4	"	"	"	"	"	"	U
Surrogate: 2,4-DCPAA		90.5 %	24-146		"	"	"	"	

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 05/17/06 09:42

**TCLP Semivolatile Organic Compounds by EPA Method 1311/8270C**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Buffalo Color / Stock Pile (6E09005-01) Soil</b> <b>Sampled: 05/09/06 11:00</b> <b>Received: 05/09/06 11:50</b>									
pyridine	ND	8	ug/l	1	AE61111	05/11/06	05/11/06	8270C-TCLP	U
1,4-dichlorobenzene	ND	8	"	"	"	"	"	"	U
Total cresols (o,m & p)	ND	24	"	"	"	"	"	"	U
hexachloroethane	ND	8	"	"	"	"	"	"	U
nitrobenzene	ND	8	"	"	"	"	"	"	U
hexachlorobutadiene	ND	8	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	16	"	"	"	"	"	"	U
2,4,5-trichlorophenol	ND	8	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	8	"	"	"	"	"	"	U
hexachlorobenzene	ND	8	"	"	"	"	"	"	U
pentachlorophenol	ND	16	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol		46.9 %		14-53	"	"	"	"	
Surrogate: Phenol-d6		31.6 %		10-35	"	"	"	"	
Surrogate: Nitrobenzene-d5		81.8 %		38-96	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		81.8 %		41-95	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		101 %		44-124	"	"	"	"	
Surrogate: Terphenyl-d14		93.0 %		42-127	"	"	"	"	

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 05/17/06 09:42

**Conventional Chemistry Parameters by EPA Methods  
 Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Buffalo Color / Stock Pile (6E09005-01) Soil</b> <b>Sampled: 05/09/06 11:00</b> <b>Received: 05/09/06 11:50</b>									
pH	7.81	0.10	pH Units	1	AE60931	05/09/06	05/09/06	EPA 9045C	
% Solids	86.1	0.1	%	"	AE61604	05/15/06	05/16/06	% calculation	



Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 05/17/06 09:42
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**Polychlorinated Biphenyls by EPA Method 8082**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Buffalo Color / Stock Pile (6E09005-01RE2) Soil</b>									
<b>Sampled: 05/09/06 11:00 Received: 05/09/06 11:50</b>									
Aroclor 1016	ND	33.0	ug/kg dry	10	AE61304	05/15/06	05/16/06	8082	
Aroclor 1221	ND	33.0	"	"	"	"	"	"	
Aroclor 1232	ND	33.0	"	"	"	"	"	"	
Aroclor 1242	ND	33.0	"	"	"	"	"	"	
Aroclor 1248	ND	33.0	"	"	"	"	"	"	
Aroclor 1254	631	33.0	"	"	"	"	"	"	
Aroclor 1260	459	33.0	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		75.8 %		60-133	"	"	"	"	
Surrogate: Decachlorobiphenyl		77.4 %		67-124	"	"	"	"	

Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 05/17/06 09:42
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**Notes and Definitions**

- U Analyte included in the analysis, but not detected
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

Solid Waste.

Drilling / Well Soil Cuttings  
-TCC

**Analytical Data Report**  
Report Date: 07/03/06  
Work Order Number: 6F22021

**Prepared For**  
Ken Paisley

Sevenson Environmental Services

2749 Lockport Road

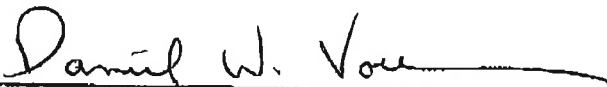
Niagara Falls, NY 14302

Fax: (716) 285-4201

Site: Buffalo Color

Enclosed are the results of analyses for samples received by the laboratory on 06/22/06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Daniel W. Vollmer, Laboratory QA/QC Officer

ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Buffalo Color  
Project Number: Buffalo Color  
Project Manager: Ken Paisley

Reported:  
07/03/06 10:35

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BC-Soil-062206	6F22021-02	Soil	06/22/06 12:20	06/22/06 13:00

Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 10:31
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**TCLP Metals by 6000/7000 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Soil-062206 (6F22021-02) Soil</b> <b>Sampled: 06/22/06 12:20</b> <b>Received: 06/22/06 13:00</b>									
Mercury	ND	0.001	mg/L	1	AF62720	06/28/06	06/28/06	EPA 7470A-TCLP	
Silver	ND	0.025	"	5	AF62827	06/28/06	06/28/06	6010B	U
Arsenic	0.091	0.045	"	"	"	"	"	"	
Barium	0.501	0.025	"	"	"	"	"	"	
Cadmium	ND	0.025	"	"	"	"	"	"	U
Chromium	ND	0.025	"	"	"	"	"	"	U
Lead	ND	0.075	"	"	"	"	"	"	U
Selenium	ND	0.095	"	"	"	"	"	"	U

Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 10:31
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**Polychlorinated Biphenyls by EPA Method 8082**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Soil-062206 (6F22021-02RE1) Soil</b> <b>Sampled: 06/22/06 12:20</b> <b>Received: 06/22/06 13:00</b>									
Aroclor 1016	ND	33.0	ug/kg dry	10	AF62607	06/26/06	06/27/06	8082	U
Aroclor 1221	ND	33.0	"	"	"	"	"	"	U
Aroclor 1232	ND	33.0	"	"	"	"	"	"	U
Aroclor 1242	ND	33.0	"	"	"	"	"	"	U
Aroclor 1248	ND	33.0	"	"	"	"	"	"	U
Aroclor 1254	ND	33.0	"	"	"	"	"	"	U
Aroclor 1260	ND	33.0	"	"	"	"	"	"	U
<i>Surrogate: Tetrachloro-meta-xylene</i>		116 %	61-140		"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		117 %	56-136		"	"	"	"	

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 07/03/06 10:31

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Soil-062206 (6F22021-02) Soil Sampled: 06/22/06 12:20 Received: 06/22/06 13:00</b>									
vinyl chloride	ND	10	ug/l	1	AF62914	06/29/06	06/29/06	8260-TCLP	U
1,1-dichloroethene	ND	10	"	"	"	"	"	"	U
2-butanone	ND	100	"	"	"	"	"	"	U
chloroform	ND	10	"	"	"	"	"	"	U
carbon tetrachloride	ND	10	"	"	"	"	"	"	U
benzene	ND	10	"	"	"	"	"	"	U
1,2-dichloroethane	ND	10	"	"	"	"	"	"	U
trichloroethene	ND	10	"	"	"	"	"	"	U
tetrachloroethene	ND	10	"	"	"	"	"	"	U
chlorobenzene	ND	10	"	"	"	"	"	"	U
1,4-dichlorobenzene	ND	10	"	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4		102 %		66-128	"	"	"	"	
Surrogate: Toluene-d8		103 %		81-118	"	"	"	"	
Surrogate: Bromofluorobenzene		98.3 %		85-123	"	"	"	"	



Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 10:31
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**TCLP Pesticides by EPA Method 1311/8080A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Soil-062206 (6F22021-02) Soil</b> <b>Sampled: 06/22/06 12:20</b> <b>Received: 06/22/06 13:00</b>									
Gamma-BHC (Lindane)	ND	0.040	ug/l	1	AF62911	06/29/06	06/30/06	8081	U
Heptachlor	ND	0.040	"	"	"	"	"	"	U
Heptachlor Epoxide	ND	0.040	"	"	"	"	"	"	U
Endrin	ND	0.040	"	"	"	"	"	"	U
Methoxychlor	ND	0.040	"	"	"	"	"	"	U
Chlordane	ND	0.800	"	"	"	"	"	"	U
Toxaphene	ND	1.00	"	"	"	"	"	"	U
Surrogate: Tetrachloro-meta-xylene		85.5 %		55-135	"	"	"	"	
Surrogate: Decachlorobiphenyl		74.5 %		58-130	"	"	"	"	

Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 10:31
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**TCLP Herbicides by EPA Method 1311/8151A**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Soil-062206 (6F22021-02) Soil</b> <b>Sampled: 06/22/06 12:20</b> <b>Received: 06/22/06 13:00</b>									
2,4-D	ND	0.4	ug/l	1	AF62843	06/28/06	06/30/06	8151	U
2,4,5-TP (Silvex)	ND	0.4	"	"	"	"	"	"	U
<i>Surrogate: 2,4-DCPAA</i>		47.0 %	24-146		"	"	"	"	

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 07/03/06 10:31

**TCLP Semivolatile Organic Compounds by EPA Method 1311/8270C**

**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Soil-062206 (6F22021-02) Soil</b> <b>Sampled: 06/22/06 12:20</b> <b>Received: 06/22/06 13:00</b>									
pyridine	ND	8	ug/l	1	AF62912	06/29/06	06/30/06	8270C-TCLP	U
1,4-dichlorobenzene	ND	8	"	"	"	"	"	"	U
Total cresols (o,m & p)	ND	24	"	"	"	"	"	"	U
hexachloroethane	ND	8	"	"	"	"	"	"	U
nitrobenzene	ND	8	"	"	"	"	"	"	U
hexachlorobutadiene	ND	8	"	"	"	"	"	"	U
2,4,6-trichlorophenol	ND	16	"	"	"	"	"	"	U
2,4,5-trichlorophenol	ND	8	"	"	"	"	"	"	U
2,4-dinitrotoluene	ND	8	"	"	"	"	"	"	U
hexachlorobenzene	ND	8	"	"	"	"	"	"	U
pentachlorophenol	ND	16	"	"	"	"	"	"	U
Surrogate: 2-Fluorophenol		35.8 %		14-53	"	"	"	"	
Surrogate: Phenol-d6		23.2 %		10-35	"	"	"	"	
Surrogate: Nitrobenzene-d5		73.8 %		38-96	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		73.2 %		41-95	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		85.6 %		44-124	"	"	"	"	
Surrogate: Terphenyl-d14		82.8 %		42-127	"	"	"	"	

Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 10:35
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**Conventional Chemistry Parameters by EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Soil-062206 (6F22021-02) Soil</b>									
Sampled: 06/22/06 12:20 Received: 06/22/06 13:00									
pH	6.95	0.10	pH Units	1	AF62719	06/22/06	06/22/06	EPA 9045C	
% Solids	89.4	0.1	%	"	AP63008	06/29/06	06/30/06	% calculation	

Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 10:31
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**Physical Parameters by APHA/ASTM/EPA Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Soil-062206 (6F22021-02) Soil</b> <b>Sampled: 06/22/06 12:20</b> <b>Received: 06/22/06 13:00</b>									
Ignitability by Flashpoint	>200		deg F	1	AF62612	06/22/06	06/26/06	EPA 1010	
Reactive Cyanide	ND	40.0	mg/kg	"	AF62318	06/22/06	06/22/06	Section 7.3.3.2	
Reactive Sulfide	ND	40.0	"	"	AF62320	"	06/23/06	Section 7.3.4.2	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Buffalo Color  
Project Number: Buffalo Color  
Project Manager: Ken Paisley

Reported:  
07/03/06 10:31

### Notes and Definitions

- U Analyte included in the analysis, but not detected
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





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Results for EG 607017-01

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Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302

Project: Buffalo Color  
Project Number: Buffalo Color E-913  
Project Manager: Ken Paisley

Reported:  
08/03/06 11:38

Soil Sample 7/7/06  
6G07017-01 (Soil)  
Waste Stream Technology Inc.

Solid Waste  
Blue-Indigo Stained Soils  
From Riverbank  
(Limited Volume ≈ 5-gal  
bucket) -TLC

TCLP Metals by 6000/7000 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
Mercury	ND	0.001	mg/L	1	AG61118	07/12/06	07/12/06	EPA 7470A-TCLP	
Silver	ND	0.025	"	5	AG61115	07/11/06	"	6010B	
Arsenic	ND	0.045	"	"	"	"	"	"	
Barium	0.600	0.025	"	"	"	"	"	"	
Cadmium	ND	0.025	"	"	"	"	"	"	
Chromium	ND	0.025	"	"	"	"	"	"	
Lead	1.09	0.075	"	"	"	"	"	"	
Selenium	ND	0.095	"	"	"	"	"	"	

TCLP Volatile Organic Compounds by EPA Method 1311/8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
vinyl chloride	ND	10	ug/l	1	AG61302	07/13/06	07/13/06	8260-TCLP	
1,1-dichloroethene	ND	10	"	"	"	"	"	"	
2-butanone	ND	100	"	"	"	"	"	"	
chloroform	ND	10	"	"	"	"	"	"	
carbon tetrachloride	ND	10	"	"	"	"	"	"	
benzene	ND	10	"	"	"	"	"	"	
1,2-dichloroethane	ND	10	"	"	"	"	"	"	
trichloroethene	ND	10	"	"	"	"	"	"	
tetrachloroethene	20	10	"	"	"	"	"	"	B
chlorobenzene	ND	10	"	"	"	"	"	"	
1,4-dichlorobenzene	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane-d4 [surr]	101%	(86 - 128)	"	"	"	"	"	"	
Toluene-d8 [surr]	101%	(81 - 118)	"	"	"	"	"	"	
Bromofluorobenzene [surr]	93.7%	(85 - 123)	"	"	"	"	"	"	

TCLP Herbicides by EPA Method 1311/8151A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
2,4-D	ND	0.4	ug/l	1	AG61103	07/11/06	07/15/06	8151	
2,4,5-TP (Silvex)	ND	0.4	"	"	"	"	"	"	
2,4-DCPAA [surr]	114%	(24 - 146)	"	"	"	"	"	"	

TCLP Semivolatile Organic Compounds by EPA Method 1311/8270C

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
pyridine	ND	8	ug/l	1	AG61221	07/12/06	07/13/06	8270C-TCLP	
1,4-dichlorobenzene	ND	8	"	"	"	"	"	"	
Total cresols (o,m & p)	ND	24	"	"	"	"	"	"	
hexachloroethane	ND	8	"	"	"	"	"	"	
nitrobenzene	ND	8	"	"	"	"	"	"	
hexachlorobutadiene	ND	8	"	"	"	"	"	"	
2,4,6-trichlorophenol	ND	16	"	"	"	"	"	"	
2,4,5-trichlorophenol	ND	8	"	"	"	"	"	"	
2,4-dinitrotoluene	ND	8	"	"	"	"	"	"	
hexachlorobenzene	ND	8	"	"	"	"	"	"	
pentachlorophenol	ND	16	"	"	"	"	"	"	
2-Fluorophenol [surr]	27.8%	(14 - 53)	"	"	"	"	"	"	
Phenol-d6 [surr]	19.4%	(10 - 35)	"	"	"	"	"	"	
Nitrobenzene-d5 [surr]	59.0%	(38 - 96)	"	"	"	"	"	"	
2-Fluorobiphenyl [surr]	60.8%	(41 - 95)	"	"	"	"	"	"	
2,4,6-Tribromophenol [surr]	72.2%	(44 - 124)	"	"	"	"	"	"	
Terphenyl-d14 [surr]	78.5%	(42 - 127)	"	"	"	"	"	"	

Conventional Chemistry Parameters by EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
pH	7.28	0.10	pH Units	1	AG61127	07/11/06	07/11/06	EPA 9045C	
% Solids	94.9	0.1	%	"	AG61205	07/10/06	07/12/06	% calculation	

Physical Parameters by APHA/ASTM/EPA Methods



Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
Ignitability by Flashpoint	>200		deg F	1	AG61315	07/13/06	07/13/06	EPA 1010	
Reactive Cyanide	ND	40.0	mg/kg	"	AG61325	07/11/06	07/12/06	Section 7.3.3.2	
Reactive Sulfide	ND	40.0	"	"	AG61323	"	07/13/06	Section 7.3.4.2	

## TCLP Extraction by EPA 1311

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
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Results for 6G07017-01RE1

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Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302

Project: Buffalo Color  
Project Number: Buffalo Color E-913  
Project Manager: Ken Paisley

Reported:  
08/03/06 11:40

Soil Sample 7/7/06  
6G07017-01RE1 (Soil)  
Waste Stream Technology Inc.

Polychlorinated Biphenyls by EPA Method 8082

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
Aroclor 1016	ND	3.30	ug/kg (dry)	1	AG61009	07/10/06	07/11/06	8082	
Aroclor 1221	ND	3.30	"	"	"	"	"	"	
Aroclor 1232	ND	3.30	"	"	"	"	"	"	
Aroclor 1242	ND	3.30	"	"	"	"	"	"	
Aroclor 1248	ND	3.30	"	"	"	"	"	"	
Aroclor 1254	ND	3.30	"	"	"	"	"	"	
<b>Aroclor 1260</b>	<b>63.8</b>	<b>3.30</b>	"	"	"	"	"	"	
<hr/>									
Tetrachloro-meta-xylene [surr]	62.9%	(61 - 140)		"	"	"	"	"	
Decachlorobiphenyl [surr]	65.9%	(56 - 136)		"	"	"	"	"	

TCLP Pesticides by EPA Method 1311/8080A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Analysis	Notes
Gamma-BHC (Lindane)	ND	0.040	ug/l	1	AG61204	07/11/06	07/12/06	8081	
Heptachlor	ND	0.040	"	"	"	"	"	"	
Heptachlor Epoxide	ND	0.040	"	"	"	"	"	"	
Endrin	ND	0.040	"	"	"	"	"	"	
Methoxychlor	ND	0.040	"	"	"	"	"	"	
Chlordane	ND	0.800	"	"	"	"	"	"	
Toxaphene	ND	1.00	"	"	"	"	"	"	
<hr/>									
Tetrachloro-meta-xylene [surr]	102%	(55 - 135)		"	"	"	"	"	
Decachlorobiphenyl [surr]	99.0%	(58 - 130)		"	"	"	"	"	

## **APPENDIX D-3**

### **Waste Management**

#### **NYSDEC Form 47-19-7 & Truck Weigh Tickets**

FOR STATE USE ONLY		
SITE NO.	APPLICATION NO	DATE RECEIVED
DEPARTMENT ACTION <input type="checkbox"/> Approved <input type="checkbox"/> Disapproved		DATE

**APPLICATION FOR TREATMENT OR DISPOSAL  
 OF AN INDUSTRIAL WASTE STREAM**  
 SEE APPLICATION INSTRUCTIONS ON REVERSE SIDE



1 NAME OF PROJECT/FACILITY MODERN LANDFILL, INC.	2 COUNTY NIAGARA	3 SITE NUMBER 32N30
4 NAME OF OWNER RICHARD WASHUTA	5 ADDRESS (Street, City, State, Zip Code) 4746 Model City Road, Model City, NY 14107	6 TELEPHONE NO (716) 754-8226
6 NAME OF OPERATOR RICHARD WASHUTA	8. ADDRESS (Street, City, State, Zip Code) Pletcher & Harold Road, Model City, NY 14107	9 TELEPHONE NO (716) 754-8226
10. METHOD OF TREATMENT OR DISPOSAL  SANITARY LANDFILL - D90		
11 COMPANY GENERATING WASTE Buffalo Color Corporation Site	12 ADDRESS OF FACILITY GENERATING WASTE (Street, City, State, Zip Code) 100 Lee St, Buffalo NY 14210	
13. REPRESENTATIVE OF WASTE GENERATOR Tim Metcalf	14 MAILING ADDRESS OF REPRESENTATIVE	15 TELEPHONE NO 973 455 4107
16. DESCRIPTION OF PROCESS PRODUCING WASTE Soil, CONCRETE, AND TREE STUMPS REMOVED FROM THE RIVER BANK AT THE SITE DURING CONSTRUCTION OF A NEW RETAINING WALL		
17. EXPECTED ANNUAL WASTE PRODUCTION 400 Tons/Year _____ Gallons/Year _____	18. WASTE HAULED IN <input type="checkbox"/> Drums <input type="checkbox"/> Bulk Tank <input type="checkbox"/> Roll-Off Container <input checked="" type="checkbox"/> Other <u>Dumps</u>	
19 WASTE COMPOSITION 19A. Average Percent Solids <u>85-90%</u> <u>NO FREE LIQUIDS</u>	19b. Physical State <input type="checkbox"/> Liquid <input type="checkbox"/> Slurry <input type="checkbox"/> Sludge <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Contained Gas	19c pH Range <u>5</u> to <u>10</u>
19d. COMPONENTS	CONCENTRATION (Dry Weight) Upper Lower Typical	UNIT (Check One) Wt % ppm
1) <u>Soil</u>	<u>60</u> <u>30</u> <u>40</u>	<input checked="" type="checkbox"/> <input type="checkbox"/>
2) <u>CONCRETE</u>	<u>70</u> <u>40</u> <u>50</u>	<input checked="" type="checkbox"/> <input type="checkbox"/>
3) <u>TREE STUMPS</u>	<u>20</u> <u>0</u> <u>10</u>	<input checked="" type="checkbox"/> <input type="checkbox"/>
4) _____	_____	<input type="checkbox"/> <input type="checkbox"/>
20 IS AN ANALYSIS OF WASTE ATTACHED? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	21 WAS A TCLP TEST CONDUCTED ON THE WASTE? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "yes", attach results	22. MATERIAL IS: <input type="checkbox"/> Hazardous <input checked="" type="checkbox"/> Non-Hazardous
23 DETAIL ALL HAZARD AND NUISANCE PROBLEMS ASSOCIATED WITH THE WASTES List necessary safety, handling, treatment and disposal precautions.		
24 WHERE WAS MATERIAL DISPOSED OF PREVIOUSLY?		
25. NAME OF WASTE TRANSPORTER <u>MODERN DISPOSAL</u>	26 ADDRESS (Street, City, State, Zip Code) <u>SAME</u>	27 NYSDEC PERMIT No
29. CERTIFICATION I hereby affirm under penalty of perjury that information provided on this form and attached statements and exhibits is true to the best of my knowledge and belief. False statements made herein are punishable as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law.		28 TELEPHONE NO
a SIGNATURE AND TITLE OF REPRESENTATIVE OF WASTE GENERATOR		DATE
b SIGNATURE AND TITLE OF REPRESENTATIVE OF TREATMENT OR DISPOSAL FACILITY		DATE

# GENERATOR WASTE CHARACTERIZATION REPORT

**INSTRUCTIONS:** The following form is required for disposal of nonhazardous industrial/commercial wastes at Modern Landfill. Please complete all sections of this report. Send completed report along with the analytical, chain of custody and the Application for Disposal of an Industrial Waste Stream (47-19-7) to this office. A separate form is required for each waste stream.

## GENERATOR INFORMATION:

Generator Name: BUFFALO COLOR CORPORATION SITE  
Generating Facility Address: 100 LEE ST, BUFFALO, NY 14210  
Technical Contact: KEN PRISLEY/SEVENSON Phone: (716) 284-0431 x 270  
Alternate Contact: \_\_\_\_\_ Phone: ( ) \_\_\_\_\_

## INVOICING INFORMATION:

Contracting Firm: SEVENSON ENVIRONMENTAL, 2749 LOCKPORT ROAD, NIAGARA FALLS, NY  
Contact: RICHARD PONZI Phone: (716) 284 0431 14305  
Do you have an existing account with Modern Landfill?  Yes [ ] No  
Billing Address: SAME

## TRANSPORTER INFORMATION:

Hauler Name: MODERN DISPOSAL NYSDEC Permit No. \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Phone: ( ) \_\_\_\_\_

Is Modern Landfill currently on your Transporter Permit: [ ] Yes [ ] No

If no, please enclose a Part C Application to cover this waste stream.

## WASTE INFORMATION:

Common name of waste: SOIL AND DEBRIS  
Description of process generating this waste: SOIL, CONCRETE, AND TREE STUMPS REMOVED FROM THE RIVER BANK AT THE SITE DURING CONSTRUCTION OF A NEW RETAINING WALL  
Is this waste hazardous under US EPA Guidelines & 6NYCRR Part 371 (d)? [ ] Yes  No

Indicate the category which best describes this waste stream:

- Industrial Waste [ ] Construction & Demolition Debris  
[ ] Household Waste [ ] Other (Please Specify) \_\_\_\_\_  
[ ] Commercial Solid Waste

**PHYSICAL CHARACTERISTICS OF WASTE**

The waste is at least 20% solid and contains no free liquid	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
The Flashpoint of the waste is >140°F	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
The pH level of the waste is between 2.0 and 12.5	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
Is the waste reactive (Cyanide/Sulfide)?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	
Is the waste free of PCBs	1.09 ppm, SEE ATTACHED ANALYSIS	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
Color:	Odor: <input type="checkbox"/> Strong <input type="checkbox"/> Mild <input checked="" type="checkbox"/> None		

**TCLP TESTING AND CERTIFICATION**

**Metals**

Constituent	Nonhazardous Limit (mg/l)	Present	Not Present
Arsenic	5.0		X
Barium	100.0	0.452	
Cadmium	1.0	0.034	
Chromium	5.0	0.057	
Lead	5.0	0.146	
Mercury	0.2		X
Selenium	1.0		X
Silver	5.0		X

**Herbicides / Pesticides**

Constituent	Nonhazardous Limit (mg/l)	Present	Not Present
2,4-D	10.0		X
2,4,5-TP silvex	1.0		X
Endrin	0.02		X
Lindane	0.4		X
Methoxychlor	10.0		X
Toxaphene	0.5		X
Chlordane	0.03		X
Heptachlor	0.008		X

**Acid Extractables**

Constituent	Nonhazardous Limit (mg/l)	Present	Not Present
O-Creosol	200.0		X
M-Creosol	200.0		X
P-Creosol	200.0		X
Pentachlorophenol	100.0		X
2,4,5-Trichlorophenol	400.0		X
2,4,6-Trichlorophenol	2.0		X

**Base Neutrals Extractables**

Constituent	Nonhazardous Limit (mg/l)	Present	Not Present
1,4-Dichlorobenzene	7.5		X
2,4-Dinitrotoluen	0.13		X
Hexachlorobenzene	0.13		X
Hexachlorobutadiene	0.5		X
Hexachloroethane	3		X
Nitrobenzene	2		X
Pyridine	5		X

**Volatile Organics**

Constituent	Nonhazardous Limit (mg/l)	Present	Not Present
1,1-Dichloroethylene	0.7		X
Methyl Ethyl Ketone	200.0		X
Tetrachloroethylene	0.7		X
Vinyl Chloride	0.2		X
Benzene	0.5		X
Carbon Tetrachloride	0.5		X
Chlorobenzene	100.0		X
Chloroform	6.0		X
Trichloroethylene	0.5		X
1,2-Dichloroethane	0.5		X

**CERTIFICATION**

I certify that all information contained within this Generator Waste Characterization Report, including all attached information, is complete and actual and is an accurate representation of known or suspected hazards described herein.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company: \_\_\_\_\_

Date: \_\_\_\_\_



Buffalo Color  
Modern Disposal Tracking Log

Date Shipped	Modern Ticket #	Tons	Invoice #	Amt
6/6/2006	1284034	19.73		
6/6/2006	1284024	20.07		
6/6/2006	1284389	19.86		
6/6/2006	1284401	20.3		
6/6/2006	1284362	13.78		
6/6/2006	1284308	15.62		
6/6/2006	1284003	21.48		
6/6/2006	1284133	20.19		
6/6/2006	1284009	19.59		
6/6/2006	1284190	21.13		
6/6/2006	1284166	21.68		
6/6/2006	1284151	22.55		
6/6/2006	1284140	18.18		
6/6/2006	1284016	17.24		
6/6/2006	1284294	13.83		
6/22/2006	1290678	22.57		
6/22/2006	1290549	21.74		
6/22/2006	1290656	22.27		
6/22/2006	1290647	19.56		
6/22/2006	1290557	20.92		
6/22/2006	1290559	18.55		
7/17/2006	1298700	13.88		
7/17/2006	1298487	27.82		
7/17/2006	1298589	24.35		
7/17/2006	1298498	21.65		
7/17/2006	1298434	24.96		
7/17/2006	1298578	21.89		
7/17/2006	1298567	23.94		
7/17/2006	1298429	28.63		
7/17/2006	1298710	4.05		
7/17/2006	1298687	26.67		
7/17/2006	1298427	28.03		
7/17/2006	1298481	27.84		
<b>Total Shipped</b>		<b>684.55</b>		





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 745

TIME OUT: 815 Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

TRANSACTION #: TK-3112519-000

DATE: 06/06/06

ROUTE: X012

TRUCK #: PF

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN:

M13

CONTAINER # OUT:

NOTES:

*Drum Clerk M13*  
 DRIVER SIGNATURE

*JT Ball Jr*  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1284034  
DATE IN : 06/06/06 08:49:15  
DATE OUT: 06/06/06 08:49:15

TRUCK : M13-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03112519-000

MDS MODERN DISPOSAL  
COMMODITY: 0100-0000 INDUSTRIAL WASTE  
GROSS WEIGHT: 65,200.00  
TARE WEIGHT: 25,740.00  
NET WEIGHT: 39,460.00  
TONS: 19.73

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 7:30

TIME OUT: 8:00

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3112522-000

DATE: 06/06/06

ROUTE: X012

TRUCK #: PF *M-14*

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

CONTAINER # IN: \_\_\_\_\_

CONTAINER # OUT: \_\_\_\_\_

NOTES:

*90318 J.S. N.Y*

*[Signature]*  
 DRIVER SIGNATURE

*[Signature]*  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 12:30

TIME OUT: 13:55 Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

TRANSACTION #: TK-3118667-000

DATE: 06/06/06

ROUTE: X012

TRUCK #: pf M-14

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: \_\_\_\_\_

CONTAINER # OUT: \_\_\_\_\_

NOTES:

90318 JJ N.Y  
  
 DRIVER SIGNATURE

CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1284389  
 DATE IN : 06/06/06 14:32:07  
 DATE OUT: 06/06/06 14:32:07

TRUCK : M14--mds  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03118667-000

MDS MODERN DISPOSAL  
 COMMODITY: 0100-0000 INDUSTRIAL WASTE  
 GROSS WEIGHT: 64,900.00  
 TARE WEIGHT: 25,100.00  
 NET WEIGHT: 39,720.00  
 TONS: 19.86

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 1240

TIME OUT: 200

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

TRANSACTION #: TK-3118661-000  
 DATE: 06/06/06  
 ROUTE: X012  
 TRUCK #: pf  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: \_\_\_\_\_

CONTAINER # OUT: M13

NOTES:

Drew Olds MB  
 DRIVER SIGNATURE

J. Belle  
 CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1284401  
DATE IN : 06/06/06 14:43:15  
DATE OUT: 06/06/06 14:43:15

TRUCK : M13-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03118661-000


COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 66,340.00

TARE WEIGHT: 25,740.00

NET WEIGHT: 40,600.00

TONS: 20.30

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: NOON

TIME OUT: 1:30 Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

TRANSACTION #: TK-3112549-000

DATE: 06/06/06

ROUTE: X012

TRUCK #: PF 109 DGRAD

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: 71688

CONTAINER # OUT: \_\_\_\_\_

NOTES:

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



MODERN CORPORATION  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1284362  
 DATE IN : 06/06/06 13:59:44  
 DATE OUT: 06/06/06 13:59:44

TRUCK : DT-104-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03112549-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

MDS MODERN DISPOSAL  
 GROSS WEIGHT: 56,900.00  
 TARE WEIGHT: 29,340.00  
 NET WEIGHT: 27,560.00  
 TONS: 13.78

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:** 12:10

**TIME OUT:** 1:05  
**Contact:** JEFF SHIRLEY  
**Phone :** 716/284-0431

**TRANSACTION #:** TK-3112603-000  
**DATE:** 06/06/06  
**ROUTE:** X012  
**TRUCK #:** pf 30  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** \_\_\_\_\_

**CONTAINER SIZE:** 0.00

**CONTAINER # OUT:** \_\_\_\_\_

**RANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

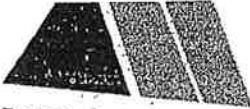
**NOTES:**

DRIVER SIGNATURE

CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



MODERN CORPORATION  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1284308  
 DATE IN : 06/06/06 13:39:33  
 DATE OUT: 06/06/06 13:39:33

TRUCK : PF30-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

COMMODITY: 0100-2000  
 MDS MODERN DISPOSAL  
 INDUSTRIAL WASTE

GROSS WEIGHT: 57,720.00  
 TARE WEIGHT: 26,480.00  
 NET WEIGHT: 31,240.00  
 TONS: 15.62

HAULER TICKET: TK03112603-000

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 7:15

TIME OUT: 7:45 Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

TRANSACTION #: TK-3112001-000  
 DATE: 06/06/06  
 ROUTE: X012  
 TRUCK #: PF 30  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: \_\_\_\_\_

CONTAINER # OUT: \_\_\_\_\_

NOTES:

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



MODERN CORPORATION  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1284003  
DATE IN : 06/06/06 08:19:21  
DATE OUT : 06/06/06 08:19:21

TRUCK : PF30-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR : 4456.040

SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03112001-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 69,440.00

TARE WEIGHT: 26,480.00

NET WEIGHT: 42,960.00

TONS: 21.40

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 9:30

TIME OUT: 10:15

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

TRANSACTION #: TK-3118646-000

DATE: 06/06/06

ROUTE: X012

TRUCK #: pf 104

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: 94688

CONTAINER # OUT: \_\_\_\_\_

NOTES:

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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**MODERN CORPORATION**  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1284133  
 DATE IN : 06/06/06 10:43:43  
 DATE OUT: 06/06/06 10:43:43

TRUCK : DT104-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000  
 MDS MODERN DISPOSAL

HAULER TICKET: TK03118646-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 69,720.00  
 TARE WEIGHT: 29,340.00  
 NET WEIGHT: 40,380.00  
 TONS: 20.19

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 715

TIME OUT: 750

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

TRANSACTION #: **TK-3118642-000**

DATE: 06/06/06

ROUTE: X012

TRUCK #: pf DOWN 104

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: QA 6FP

CONTAINER # OUT: \_\_\_\_\_

NOTES:

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.





**Modern Disposal Services, Inc.**

4746 Model City Rd  
Model City, NY 14174-0209  
1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET  
BUFFALO

TIME IN:

10 00

TIME OUT:

10 50

Contact: JEFF SHIRLEY  
Phone : 716/284-0431

TRANSACTION #: TK-3118665-000

DATE: 06/06/06

ROUTE: X012

TRUCK #: pf

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
0100-0000 INDUSTRIAL WASTE

CONTAINER # IN:

CONTAINER SIZE: 0.00

CONTAINER # OUT: M13

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
tons (m06-2081) contaminated soil (20 ton limit)

NOTES:

Donald M13  
DRIVER SIGNATURE

J. Bolles  
CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

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MODERN CORPORATION  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1284190  
DATE IN : 06/06/06 11:36:37  
DATE OUT : 06/06/06 11:36:37

TRUCK : M13-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03118665-000

MDS MODERN DISPOSAL  
COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 68,000.00

TARE WEIGHT: 25,740.00

NET WEIGHT: 42,260.00

TONS: 21.13

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 10<sup>00</sup>

TIME OUT: 10<sup>40</sup>

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3112523-000  
 DATE: 06/06/06  
 ROUTE: X012  
 TRUCK #: PF *M-14*  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER # IN: \_\_\_\_\_

CONTAINER SIZE: 0.00  
 TRANSACTION TYPE/STYLE: EMPTY AND RETURN

CONTAINER # OUT: \_\_\_\_\_

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

NOTES:

*90318 JJ N.Y*

*Mark Haseley*  
 DRIVER SIGNATURE

*[Handwritten Signature]*  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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MODERN CORPORATION  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1204166  
 DATE IN : 06/06/06 11:14:00  
 DATE OUT: 06/06/06 11:14:00

TRUCK : M14-mds  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03112523-000

COMMODITY: 0100-0200 INDUSTRIAL WASTE

MDS MODERN DISPOSAL  
 GROSS WEIGHT: 68,540.00  
 TARE WEIGHT: 25,180.00  
 NET WEIGHT: 43,360.00  
 TONS: 21.68

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 9:55

TIME OUT: 10:30

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3112602-000  
 DATE: 06/06/06  
 ROUTE: X012  
 TRUCK #: pf 30  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER # IN: \_\_\_\_\_

CONTAINER SIZE: 0.00

CONTAINER # OUT: \_\_\_\_\_

TRANSACTION TYPE/STYLE: EMPTY AND RETURN

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

NOTES:

DRIVER SIGNATURE

CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

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**MODERN CORPORATION**  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET # : 1284151  
 DATE IN : 06/06/06 11:05:31  
 DATE OUT : 06/06/06 11:05:31

TRUCK : PF30-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03112602-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE  
 MDS MODERN DISPOSAL  
 GROSS WEIGHT: 71,580.00  
 TARE WEIGHT: 26,480.00  
 NET WEIGHT: 45,100.00  
 TONS: 22.55

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 9:40AM

TIME OUT: 10:15AM

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

ANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

TRANSACTION #: TK-3112544-000

DATE: 06/06/06

ROUTE: X012

TRUCK #: ~~PT~~ ONEIDA 006

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: \_\_\_\_\_

CONTAINER # OUT: \_\_\_\_\_

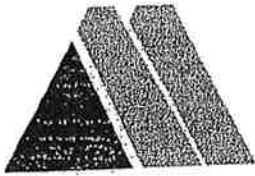
NOTES:

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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**MODERN CORPORATION**  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1284140  
 DATE IN : 06/06/06 10:53:23  
 DATE OUT: 06/06/06 10:53:23

TRUCK : 006  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03112544-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 62,520.00

TARE WEIGHT: 26,160.00

NET WEIGHT: 36,360.00

TONS: 18.18

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 7:15 Am

TIME OUT: 7:55 Am Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

TRANSACTION #: TK-3112543-000

DATE: 06/06/06

ROUTE: X012

TRUCK #: ~~PT~~ OMIDA 000

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: \_\_\_\_\_

CONTAINER # OUT: \_\_\_\_\_

NOTES:

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

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MODERN CORPORATION  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1284016  
 DATE IN : 06/06/06 08:34:04  
 DATE OUT: 06/06/06 08:34:04

TRUCK : 006  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03112543-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 60,640.00

TARE WEIGHT: 26,160.00

NET WEIGHT: 34,480.00

TONS: 17.24

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4745 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:**

12:10 PM

**TIME OUT:**

12:50 PM

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

**TRANSACTION #:** TK-3112545-000  
**DATE:** 06/06/06  
**ROUTE:** X012  
**TRUCK #:** ~~100~~ ONEIDA 006  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** \_\_\_\_\_

**CONTAINER SIZE:** 0.00

**CONTAINER # OUT:** \_\_\_\_\_

**TRANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

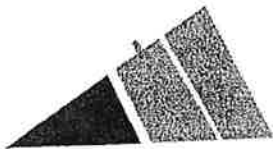
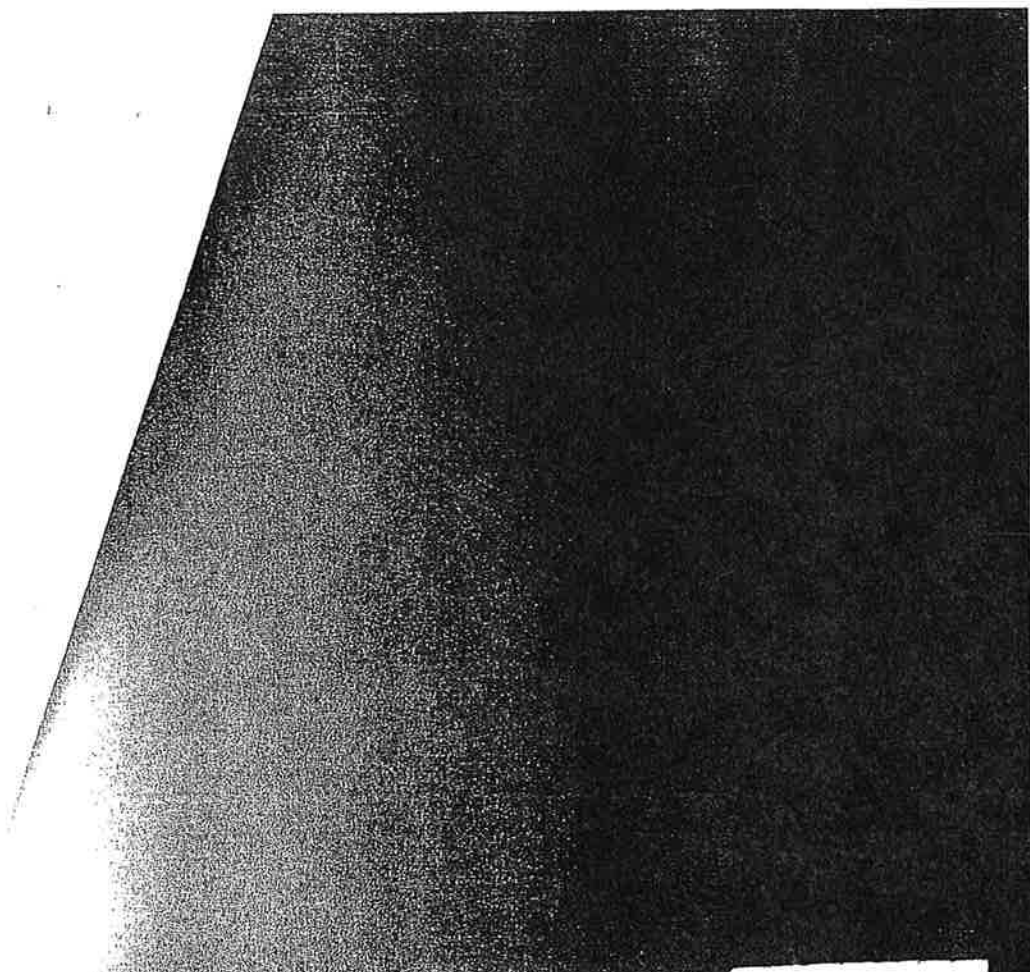
**NOTES:**

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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MODERN CORPORATION  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1284294  
 DATE IN : 06/06/06 13:27:55  
 DATE OUT: 06/06/06 13:27:55

TRUCK : 006  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03112545-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 53,020.00  
 TARE WEIGHT: 26,100.00  
 NET WEIGHT: 27,000.00  
 TONS: 13.83

*[Handwritten Signature]*

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:** 940

**TIME OUT:** 1020

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

**TRANSACTION #:** TR-3138688-000  
**DATE:** 06/22/06  
**ROUTE:** X012  
**TRUCK #:** PF  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** 0713  
**CONTAINER # OUT:** \_\_\_\_\_

**CONTAINER SIZE:** 0.00  
**RANSACTON TYPE/STYLE:** LOAD ON SITE  
**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

**NOTES:**

*Dorews*

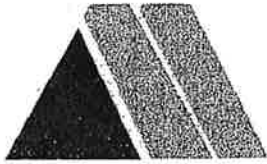
DRIVER SIGNATURE

*J. Bolle*

CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**  
 P.O. BOX 209 MÓDEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1290678  
 DATE IN : 06/22/06 10:54:28  
 DATE OUT : 06/22/06 10:54:28

TRUCK : M13-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000  
 MDS MODERN DISPOSAL

HAULER TICKET: TK03138688-000

COMMODITY: 0100-2000 INDUSTRIAL WASTE

GROSS WEIGHT: 70,880.00

TARE WEIGHT: 25,740.00

NET WEIGHT: 45,140.00

TONS: 22.57

**WEIGHMASTER:** \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 7:00

TIME OUT: 7:30

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3138681-000  
 DATE: 06/22/06  
 ROUTE: X012  
 TRUCK #: PF 30  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER # IN: \_\_\_\_\_

CONTAINER SIZE: 0.00

CONTAINER # OUT: \_\_\_\_\_

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

NOTES:

*[Signature]*  
 DRIVER SIGNATURE

*[Signature]*  
 CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



MODERN CORPORATION  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1290549  
DATE IN : 06/22/06 08:07:54  
DATE OUT: 06/22/06 08:07:54

TRUCK : AF30-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4458.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03138091-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 69,960.00

TARE WEIGHT: 26,480.00

NET WEIGHT: 43,480.00

TONS: 21.74

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 9:30 AM

TIME OUT: 9:50 PM

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3138687-000  
 DATE: 06/22/06  
 ROUTE: X012  
 TRUCK #: PF 33  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER # IN: \_\_\_\_\_

CONTAINER SIZE: 0.00

CONTAINER # OUT: \_\_\_\_\_

RANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

NOTES:

  
 \_\_\_\_\_  
 DRIVER SIGNATURE

  
 \_\_\_\_\_  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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**MODERN CORPORATION**  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1290656  
 DATE IN : 06/22/06 10:29:25  
 DATE OUT: 06/22/06 10:29:25

TRUCK : PF33-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03138697-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 71,600.00

TARE WEIGHT: 27,060.00

NET WEIGHT: 44,540.00

TONS: 22.27

**WEIGHMASTER:** \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

**Signature:** \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 9:30

TIME OUT: 9:45

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3138685-000  
 DATE: 06/22/06  
 ROUTE: X012  
 TRUCK #: PF *PF*  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER # IN: \_\_\_\_\_

CONTAINER SIZE: 0.00

CONTAINER # OUT: \_\_\_\_\_

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

**NOTES:**

  
 \_\_\_\_\_  
 DRIVER SIGNATURE

  
 \_\_\_\_\_  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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**MODERN CORPORATION**

P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1290647  
DATE IN : 06/22/06 10:18:15  
DATE OUT: 06/22/06 10:18:15

TRUCK : PF30-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03138685-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 65,600.00

TARE WEIGHT: 26,480.00

NET WEIGHT: 39,120.00

TONS: 19.56

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 7:00 am

TIME OUT: 7:40 am

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3138683-000

DATE: 06/22/06

ROUTE: X012

TRUCK #: PF 33

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER # IN: \_\_\_\_\_

CONTAINER SIZE: 0.00

CONTAINER # OUT: \_\_\_\_\_

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

**NOTES:**

DRIVER SIGNATURE

CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for inclination purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**

P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1290557  
DATE IN : 06/22/06 08:18:36  
DATE OUT: 06/22/06 08:18:36

TRUCK : PF33-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03138683-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 68,900.00

TARE WEIGHT: 27,060.00

NET WEIGHT: 41,840.00

TONS: 20.92

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 730

TIME OUT: 745

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3138684-000  
 DATE: 06/22/06  
 ROUTE: X012  
 TRUCK #: ~~PF~~ M13  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER # IN: \_\_\_\_\_  
 CONTAINER # OUT: M13

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

NOTES:

*[Signature]*  
 DRIVER SIGNATURE

*[Signature]*  
 CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

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MODERN CORPORATION  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1290559  
DATE IN : 06/22/06 08:21:09  
DATE OUT: 06/22/06 08:21:09

TRUCK : M13-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 8163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03130684-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 62,840.00

TARE WEIGHT: 25,740.00

NET WEIGHT: 37,100.00

TONS: 18.55

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8228 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 2:55

TIME OUT: 3:05 Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

TRANSACTION #: TK-3145301-000

DATE: 07/17/06

ROUTE: X009

TRUCK #: PF 30

PREPARED BY: patw

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: \_\_\_\_\_

CONTAINER # OUT: \_\_\_\_\_

NOTES:

*Short  
 LOAD Due to  
 lack of material*

*[Signature]*  
 DRIVER SIGNATURE

*[Signature]*  
 CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

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**MODERN CORPORATION**  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1298700  
 DATE IN : 07/17/06 15:41:46  
 DATE OUT : 07/17/06 15:41:46

TRUCK : PF30-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

COMMODITY: 0100-0000 MDS MODERN DISPOSAL INDUSTRIAL WASTE  
 GROSS WEIGHT: 54,240.00  
 TARE WEIGHT: 26,480.00  
 NET WEIGHT: 27,760.00  
 TONS: 13.88

HAULER TICKET: TK03145301-000

**WEIGHMASTER:**

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:**

10:10

**TIME OUT:**

10:20

**Contact:** JEFF SHIRLEY  
**Phone :** 716/284-0431

**TRANSACTION #:** TR-3136199-000  
**DATE:** 07/17/06  
**ROUTE:** X012  
**TRUCK #:** PF 30  
**PREPARED BY:**  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** \_\_\_\_\_

**CONTAINER SIZE:** 0.00

**CONTAINER # OUT:** \_\_\_\_\_

**ANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

**NOTES:** ON SITE 8:15 AM

DRIVER SIGNATURE

CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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**MODERN CORPORATION**

P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1298487  
DATE IN : 07/17/06 11:14:13  
DATE OUT: 07/17/06 11:14:13

TRUCK : PF30-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03136199-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE  
MDS MODERN DISPOSAL  
GROSS WEIGHT: 82,120.00  
TARE WEIGHT: 26,480.00  
NET WEIGHT: 55,640.00  
TONS: 27.82

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4748 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:** 12:45 PM

**TIME OUT:** 1:10 PM

**Contact:** JEFF SHIRLEY  
 Phone : 716/284-0431

**TRANSACTION #:** TK-3145121-000  
**DATE:** 07/17/06  
**ROUTE:** X012  
**TRUCK #:** PF 33  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER SIZE:** 0.00

**TRANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE

tons (m06-2081) contaminated soil (20 ton limit)

**CONTAINER # IN:** \_\_\_\_\_

**CONTAINER # OUT:** \_\_\_\_\_

**NOTES:**

  
 \_\_\_\_\_  
 DRIVER SIGNATURE

  
 \_\_\_\_\_  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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**MODERN CORPORATION**  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1298589  
 DATE IN : 07/17/06 13:44:52  
 DATE OUT: 07/17/06 13:44:52

TRUCK : PF33-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03145121-000

MDS MODERN DISPOSAL  
 COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 75,760.00

TARE WEIGHT: 27,060.00

NET WEIGHT: 48,700.00

TONS: 24.35

**WEIGHMASTER:** \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:** 10<sup>30</sup>/<sub>AM</sub>

**TIME OUT:** 10<sup>50</sup>/<sub>PM</sub>

**Contact:** JEFF SHIRLEY  
**Phone :** 716/284-0431

**TRANSACTION #:** TK-3145122-000  
**DATE:** 07/17/06  
**ROUTE:** X009  
**TRUCK #:** PF 33  
**PREPARED BY:** gabe  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** \_\_\_\_\_

**CONTAINER SIZE:** 0.00

**CONTAINER # OUT:** \_\_\_\_\_

**TRANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

**NOTES:**

  
 \_\_\_\_\_  
 DRIVER SIGNATURE

  
 \_\_\_\_\_  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**  
 P.O. BOX 209, MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1298498  
 DATE IN : 07/17/06 11:25:47  
 DATE OUT : 07/17/06 11:25:44

TRUCK : PF33-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR : 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000  
 MDS MODERN DISPOSAL  
 COMMODITY: 0100-0000 INDUSTRIAL WASTE  
 GROSS WEIGHT: 70,360.00  
 TARE WEIGHT: 27,060.00  
 NET WEIGHT: 43,300.00  
 TONS: 21.65

HAULER TICKET: TK03145122-000

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:** 8:15

**TIME OUT:** 8:45 **Contact:** JEFF SHIRLEY  
**Phone :** 716/284-0431

**TRANSACTION #:** TK-3145126-000  
**DATE:** 07/17/06  
**ROUTE:** X009  
**TRUCK #:** PF 33  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** \_\_\_\_\_

**CONTAINER SIZE:** 0.00

**CONTAINER # OUT:** \_\_\_\_\_

**RANSACTON TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

**NOTES:**

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



MODERN CORPORATION  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1298434  
 DATE IN : 07/17/06 09:18:36  
 DATE OUT: 07/17/06 09:18:36

TRUCK : PF33-MDS  
 HAULER : MDS / FOURNIER TRUCKING  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03145136-000

MDS MODERN DISPOSAL  
 COMMODITY: 0100-0000 INDUSTRIAL WASTE  
 GROSS WEIGHT: 76,980.00  
 TARE WEIGHT: 27,060.00  
 NET WEIGHT: 49,920.00  
 TONS: 24.96

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN: 12:30

TIME OUT: 1:00

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

TRANSACTION #: TK-3145303-000

DATE: 07/17/06

ROUTE: X012

TRUCK #: PF 3030

PREPARED BY: gabe

DUMP SITE: MODERN LANDFILL, INC

CONTAINER # IN: \_\_\_\_\_

CONTAINER # OUT: \_\_\_\_\_

NOTES:

  
 DRIVER SIGNATURE

  
 CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1298578  
DATE IN : 07/17/06 13:34:18  
DATE OUT: 07/17/06 13:34:18

TRUCK : PF30-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03145303-000  
COMMODITY: 0100-0000 INDUSTRIAL WASTE  
GROSS WEIGHT: 70,260.00  
TARE WEIGHT: 26,480.00  
NET WEIGHT: 43,780.00  
TONS: 21.89

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:**

**TIME OUT:**

**Contact:** JEFF SHIRLEY  
**Phone :** 716/284-0431

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER SIZE:** 0.00

**TRANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

**TRANSACTION #:** TK-3171102-000  
**DATE:** 07/17/06  
**ROUTE:** X012  
**TRUCK #:** 1439  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**CONTAINER # IN:** NA

**CONTAINER # OUT:** \_\_\_\_\_

**NOTES:**

*J. Merial*  
 DRIVER SIGNATURE

*G. Belle*  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



MODERN CORPORATION  
P.O. BOX 209, MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1298567  
DATE IN : 07/17/06 13:19:42  
DATE OUT: 07/17/06 13:19:42

TRUCK : 1439-MDS  
HAULER : MDS MODERN DISPOSAL  
GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03171102-000 COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 77,600.00

TARE WEIGHT: 29,800.00

NET WEIGHT: 47,800.00

TONS: 23.94

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_





**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:** 8:15

**TIME OUT:** 8:35

**Contact:** JEFF SHIRLEY  
**Phone :** 716/284-0431

**TRANSACTION #:** TK-3145310-000  
**DATE:** 07/17/06  
**ROUTE:** X009  
**TRUCK #:** PF 80  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** \_\_\_\_\_

**CONTAINER SIZE:** 0.00

**CONTAINER # OUT:** \_\_\_\_\_

**TRANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil(20 ton limit)

**NOTES:**

  
 \_\_\_\_\_  
 DRIVER SIGNATURE

  
 \_\_\_\_\_  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



MODERN CORPORATION  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1298429  
DATE IN : 07/17/06 09:09:25  
DATE OUT: 07/17/06 09:09:25

TRUCK : PF30-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03145310-000 COMMODITY: 0100-0000 INDUSTRIAL WASTE  
MDS MODERN DISPOSAL  
GROSS WEIGHT: 83,740.00  
TARE WEIGHT: 26,480.00  
NET WEIGHT: 57,260.00  
TONS: 28.63

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:**

2:55 PM

**TIME OUT:**

3:15 PM

**Contact:** JEFF SHIRLEY  
**Phone :** 716/284-0431

**TRANSACTION #:** TK-3145319-000

**DATE:** 07/17/06

**ROUTE:** X009

**TRUCK #:** PF 33

**PREPARED BY:** gabe

**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** \_\_\_\_\_

**CONTAINER SIZE:** 0.00

**CONTAINER # OUT:** \_\_\_\_\_

**TRANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081) contaminated soil (20 ton limit)

**NOTES:**

Short Load Lack of MATERIAL

\_\_\_\_\_  
 DRIVER SIGNATURE

\_\_\_\_\_  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**

P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1298710  
DATE IN : 07/17/06 15:54:59  
DATE OUT: 07/17/06 15:54:59

TRUCK : PF33-MDS  
HAULER : MDS / FOURNIER TRUCKING  
GENERATOR: 4456.040

SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000

MDS MODERN DISPOSAL

HAULER TICKET: TK03145319-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

GROSS WEIGHT: 35,160.00

TARE WEIGHT: 27,060.00

NET WEIGHT: 8,100.00

TONS: 4.05

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:**

**TIME OUT:**

**Contact:** JEFF SHIRLEY  
**Phone :** 716/284-0431

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER SIZE:** 0.00

**TRANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

**TRANSACTION #:** TK-3171902-000

**DATE:** 07/17/06

**ROUTE:** X012

**TRUCK #:** 1439

**PREPARED BY:** patw

**DUMP SITE:** MODERN LANDFILL, INC

**CONTAINER # IN:** NA

**CONTAINER # OUT:** \_\_\_\_\_

**NOTES:**

*Jamaire*  
 DRIVER SIGNATURE

*J. Bolles*  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ PLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1298687  
DATE IN : 07/17/06 15:14:02  
DATE OUT: 07/17/06 15:13:54

TRUCK : 1439-MDS  
HAULER : MDS MODERN DISPOSAL  
GENERATOR: 4456.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET

BILL TO : 6163.000  
MDS MODERN DISPOSAL

HAULER TICKET: TK03171902-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE  
GROSS WEIGHT: 83,140.00  
TARE WEIGHT: 29,800.00  
NET WEIGHT: 53,340.00  
TONS: 26.67

WEIGHMASTER: 

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



Modern Disposal Services, Inc. *85820*  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-862-0012 (716) 754-8226 Fax (716) 754-8964



SERVICE SITE: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

TIME IN:

TIME OUT:

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

TRANSACTION #: TK-3171100-000  
 DATE: 07/17/06  
 ROUTE: X012  
 TRUCK #: 1439  
 PREPARED BY: patw  
 DUMP SITE: MODERN LANDFILL, INC

COMMODITY: TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

CONTAINER # IN:           
 CONTAINER # OUT:         

CONTAINER SIZE: 0.00

TRANSACTION TYPE/STYLE: LOAD ON SITE

SERVICE CODE: DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

NOTES: ON SITE AT 8 AM

*James*  
 DRIVER SIGNATURE

*Patw*  
 CUSTOMER SIGNATURE

\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\*

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:**

**TIME OUT:**

**Contact:** JEFF SHIRLEY  
 Phone : 716/284-0431

**TRANSACTION #:** TK-3171101-000  
**DATE:** 07/17/06  
**ROUTE:** X012  
**TRUCK #:** 1439  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** \_\_\_\_\_  
**CONTAINER # OUT:** NA

**CONTAINER SIZE:** 0.00

**ANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

**NOTES:**

*J. Maceris*  
 DRIVER SIGNATURE

*J. Bolles*  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

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**MODERN CORPORATION**  
P.O. BOX 209 MODEL CITY, NEW YORK 14107  
LANDFILL SITE - HAROLD @ FLETCHER RD.  
LEWISTON, NEW YORK

TICKET : 1298427  
DATE IN : 07/17/06 09:04:28  
DATE OUT: 07/17/06 09:04:28

TRUCK : 1439-MDS  
HAULER : MDS MODERN DISPOSAL  
GENERATOR: 4456.040  
SEVENSON @ BUFFALO COLOR  
100 LEE STREET

HAULER TICKET: TK03171100-000  
BILL TO : 6163.000  
MDS MODERN DISPOSAL  
COMMODITY: 0100-0000 INDUSTRIAL WASTE  
GROSS WEIGHT: 85,860.00  
TARE WEIGHT: 29,800.00  
NET WEIGHT: 56,060.00  
TONS: 28.03

WEIGHMASTER: \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

Signature: \_\_\_\_\_



**Modern Disposal Services, Inc.**  
 4746 Model City Rd  
 Model City, NY 14174-0209  
 1-800-662-0012 (716) 754-8226 Fax (716) 754-8964



**SERVICE SITE:** 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET  
 BUFFALO

**TIME IN:**

**TIME OUT:**

Contact: JEFF SHIRLEY  
 Phone : 716/284-0431

**TRANSACTION #:** TK-3171101-000  
**DATE:** 07/17/06  
**ROUTE:** X012  
**TRUCK #:** 1439  
**PREPARED BY:** patw  
**DUMP SITE:** MODERN LANDFILL, INC

**COMMODITY:** TA M06-2081  
 0100-0000 INDUSTRIAL WASTE

**CONTAINER # IN:** NA

**CONTAINER # OUT:** NA

**CONTAINER SIZE:** 0.00

**ANSACTION TYPE/STYLE:** LOAD ON SITE

**SERVICE CODE:** DUMP TRUCK SERVICE  
 tons (m06-2081)contaminated soil(20 ton limit)

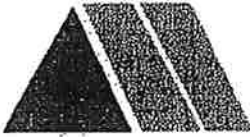
**NOTES:**

*J. MacNeil*  
 DRIVER SIGNATURE

*J. Bolles*  
 CUSTOMER SIGNATURE

**\*\*\*PLEASE NOTE INDEMNIFICATION AGREEMENT\*\*\***

The Customer agrees to indemnify, defend and hold harmless the Contractor against all claims, damages, suits, judgments, penalties, fines and other liability or injury or death to persons or loss or damage to property arising out of the Customer's use, operation or possession of the equipment or arising out of the Customer's breach of any warranty created hereunder by the Customer. The Customer shall not overload the equipment nor use it for incineration purposes or make alterations without the contractor's written approval.



**MODERN CORPORATION**  
 P.O. BOX 209 MODEL CITY, NEW YORK 14107  
 LANDFILL SITE - HAROLD @ PLETCHER RD.  
 LEWISTON, NEW YORK

TICKET : 1298481  
 DATE IN : 07/17/06 11:02:14  
 DATE OUT: 07/17/06 11:02:14

TRUCK : 1439-MDS  
 HAULER : MDS MODERN DISPOSAL  
 GENERATOR: 4456.040  
 SEVENSON @ BUFFALO COLOR  
 100 LEE STREET

BILL TO : 6163.000

HAULER TICKET: TK03171101-000

COMMODITY: 0100-0000 INDUSTRIAL WASTE

MDS MODERN DISPOSAL  
 GROSS WEIGHT: 85,480.00  
 TARE WEIGHT: 29,800.00  
 NET WEIGHT: 55,680.00  
 TONS: 27.84

**WEIGHMASTER:** \_\_\_\_\_

To the best of my knowledge, the waste stream(s) indicated on this ticket contain(s) no hazardous or unacceptable waste and has been packaged and transported in accordance with all applicable state and federal regulations. Any person accepting this ticket assumes all risk of accident and expressly agrees that Modern Landfill Inc. shall not be liable under any circumstances for any injury to person, loss or damage and also agrees to indemnify and hold harmless Modern Landfill Inc. and its employees.

Additionally, I hereby acknowledge that I have read and understand conditions or statements indicated on reverse.

**Signature:** \_\_\_\_\_



## **APPENDIX D-4**

### **Waste Management**

#### **Analytical Testing/Characterization Data – Waste Water**

**WASTE STREAM TECHNOLOGY, INC.**

302 Grote Street  
Buffalo, NY 14207  
(716) 876-5290

*Development Water  
Tank 1  
-TU*

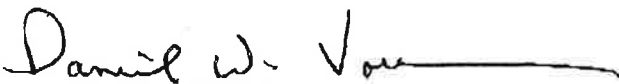
**Analytical Data Report**  
Report Date: 07/03/06  
Work Order Number: 6F22021

**Prepared For**  
Ken Paisley

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls, NY 14302  
Fax: (716) 285-4201  
Site: Buffalo Color

Enclosed are the results of analyses for samples received by the laboratory on 06/22/06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Daniel W. Vollmer, Laboratory QA/QC Officer

**ENVIRONMENTAL LABORATORY ACCREDITATION CERTIFICATION NUMBERS**  
NYSDOH ELAP #11179 NJDEPE #73977 PADEP #68757



Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 09:20
--	---	-----------------------------

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BC-Tank01-062206	6F22021-01	Water	06/22/06 12:00	06/22/06 13:00

Method 625 Analysis Notes:

According to the Buffalo Color BSA permit requirements, aniline and any aniline derivative whose concentration is greater than 0.01 mg/L must be reported. The Method 625 analysis of sample number 6F22021-01 contained aniline (estimated concentration of 3690 µg/L) plus two aniline derivatives, n-methyl aniline (estimated concentration of 440 µg/L) and o-toluidine (estimated concentration of 174 µg/L).

Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 08:53
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**Metals by EPA 200 Series Methods**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting		Dilution	Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units						
<b>BC-Tank01-062206 (6F22021-01) Water</b>									
Sampled: 06/22/06 12:00    Received: 06/22/06 13:00									
Chromium	0.029	0.025	mg/L	1	06/27/06	06/27/06 20:20	EPA 200.7	T.Por	
Copper	ND	0.045	"	"	"	"	"	T.Por	
Nickel	ND	0.025	"	"	"	"	"	T.Por	
Lead	ND	0.075	"	"	"	"	"	T.Por	
Zinc	ND	0.065	"	"	"	"	"	T.Por	



Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/24/06 09:59
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**Metals by EPA 200 Series Methods  
Waste Stream Technology Inc.**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>BC-Tank01-062206 (6F22021-01) Water</b>		<b>Sampled: 06/22/06 12:00</b>		<b>Received: 06/22/06 13:00</b>					
Chromium	0.029	0.025	mg/L	1	AF62710	06/27/06	06/27/06	EPA 200.7	
Copper	ND	0.045	"	"	"	"	"	"	
Mercury	0.0003	0.0002	"	"	AF62721	06/28/06	06/28/06	EPA 245.1	
Nickel	ND	0.025	"	"	AF62710	06/27/06	06/27/06	EPA 200.7	
Lead	ND	0.075	"	"	"	"	"	"	

Sevenson Environmental Services  
2749 Lockport Road  
Niagara Falls NY, 14302

Project: Buffalo Color  
Project Number: Buffalo Color  
Project Manager: Ken Paisley

Reported:  
07/03/06 08:53

**Purgeables by EPA Method 624**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting		Dilution	Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units						
<b>BC-Tank01-062206 (6F22021-01) Water</b> <b>Sampled: 06/22/06 12:00</b> <b>Received: 06/22/06 13:00</b>									
chloromethane	ND	20.0	ug/l	1	06/26/06	06/27/06 16:48	624	SCT	U
vinyl chloride	ND	10.0	"	"	"	"	"	SCT	U
bromomethane	ND	20.0	"	"	"	"	"	SCT	U
chloroethane	ND	20.0	"	"	"	"	"	SCT	U
Trichlorofluoromethane	ND	10.0	"	"	"	"	"	SCT	U
1,1-dichloroethene	ND	10.0	"	"	"	"	"	SCT	U
<b>methylene chloride</b>	<b>34.6</b>	20.0	"	"	"	"	"	SCT	
trans-1,2-dichloroethene	ND	10.0	"	"	"	"	"	SCT	U
1,1-dichloroethane	ND	10.0	"	"	"	"	"	SCT	U
chloroform	ND	10.0	"	"	"	"	"	SCT	U
1,1,1-trichloroethane	ND	10.0	"	"	"	"	"	SCT	U
carbon tetrachloride	ND	10.0	"	"	"	"	"	SCT	U
benzene	ND	10.0	"	"	"	"	"	SCT	U
1,2-dichloroethane	ND	10.0	"	"	"	"	"	SCT	U
trichloroethene	ND	10.0	"	"	"	"	"	SCT	U
1,2-dichloropropane	ND	10.0	"	"	"	"	"	SCT	U
bromodichloromethane	ND	10.0	"	"	"	"	"	SCT	U
2-chloroethylvinyl ether	ND	100	"	"	"	"	"	SCT	U
cis-1,3-dichloropropene	ND	10.0	"	"	"	"	"	SCT	U
toluene	ND	10.0	"	"	"	"	"	SCT	U
trans-1,3-dichloropropene	ND	10.0	"	"	"	"	"	SCT	U
1,1,2-trichloroethane	ND	10.0	"	"	"	"	"	SCT	U
tetrachloroethene	ND	10.0	"	"	"	"	"	SCT	U
dibromochloromethane	ND	10.0	"	"	"	"	"	SCT	U
chlorobenzene	ND	10.0	"	"	"	"	"	SCT	U
<b>ethylbenzene</b>	<b>11.9</b>	10.0	"	"	"	"	"	SCT	
bromoform	ND	10.0	"	"	"	"	"	SCT	U
1,1,2,2-tetrachloroethane	ND	10.0	"	"	"	"	"	SCT	U
1,3-dichlorobenzene	ND	10.0	"	"	"	"	"	SCT	U
1,4-dichlorobenzene	ND	10.0	"	"	"	"	"	SCT	U
1,2-dichlorobenzene	ND	10.0	"	"	"	"	"	SCT	U
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %		74-117	"	"	"	SCT	
<i>Surrogate: Toluene-d8</i>		89.0 %		82-123	"	"	"	SCT	
<i>Surrogate: Bromofluorobenzene</i>		93.0 %		85-123	"	"	"	SCT	

Waste Stream Technology Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Severson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 08:53
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**Acid and Base/Neutral Extractables by EPA Method 625**  
**Waste Stream Technology Inc.**

Analyte	Result	Reporting			Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units	Dilution					
<b>BC-Tank01-062206 (6F22021-01) Water</b>									
Sampled: 06/22/06 12:00    Received: 06/22/06 13:00									
Aniline	3690	2.0	ug/l	1	06/26/06	06/30/06 11:08	625	R.S	E
n-nitrosodimethylamine	ND	2.0	"	"	"	"	"	R.S	U
bis(2-chloroethyl)ether	ND	2.0	"	"	"	"	"	R.S	U
phenol	ND	4.0	"	"	"	"	"	R.S	U
2-chlorophenol	ND	4.0	"	"	"	"	"	R.S	U
1,3-dichlorobenzene	ND	2.0	"	"	"	"	"	R.S	U
1,4-dichlorobenzene	ND	2.0	"	"	"	"	"	R.S	U
1,2-dichlorobenzene	ND	2.0	"	"	"	"	"	R.S	U
bis(2-chloroisopropyl)ether	ND	2.0	"	"	"	"	"	R.S	U
hexachloroethane	ND	2.0	"	"	"	"	"	R.S	U
N-Nitrosodi-n-propylamine	ND	2.0	"	"	"	"	"	R.S	U
nitrobenzene	ND	2.0	"	"	"	"	"	R.S	U
isophorone	ND	2.0	"	"	"	"	"	R.S	U
2-nitrophenol	ND	4.0	"	"	"	"	"	R.S	U
2,4-dimethylphenol	ND	4.0	"	"	"	"	"	R.S	U
Bis(2-chloroethoxy)methane	ND	2.0	"	"	"	"	"	R.S	U
2,4-dichlorophenol	ND	4.0	"	"	"	"	"	R.S	U
1,2,4-trichlorobenzene	ND	2.0	"	"	"	"	"	R.S	U
naphthalene	111	2.0	"	"	"	"	"	R.S	
hexachlorobutadiene	ND	2.0	"	"	"	"	"	R.S	U
4-chloro-3-methylphenol	ND	4.0	"	"	"	"	"	R.S	U
hexachlorocyclopentadiene	ND	4.0	"	"	"	"	"	R.S	U
2,4,6-trichlorophenol	ND	4.0	"	"	"	"	"	R.S	U
2-chloronaphthalene	ND	2.0	"	"	"	"	"	R.S	U
acenaphthylene	ND	2.0	"	"	"	"	"	R.S	U
Dimethyl phthalate	ND	2.0	"	"	"	"	"	R.S	U
2,6-dinitrotoluene	ND	2.0	"	"	"	"	"	R.S	U
acenaphthene	12.2	2.0	"	"	"	"	"	R.S	
2,4-dinitrophenol	ND	4.0	"	"	"	"	"	R.S	U
2,4-dinitrotoluene	ND	2.0	"	"	"	"	"	R.S	U
4-nitrophenol	ND	4.0	"	"	"	"	"	R.S	U
fluorene	8.6	2.0	"	"	"	"	"	R.S	
4-Chlorophenyl phenyl ether	ND	2.0	"	"	"	"	"	R.S	U
Diethyl phthalate	ND	2.0	"	"	"	"	"	R.S	U
4,6-dinitro-2-methylphenol	ND	4.0	"	"	"	"	"	R.S	U
n-nitrosodiphenylamine	6.3	2.0	"	"	"	"	"	R.S	
4-bromophenylphenylether	ND	2.0	"	"	"	"	"	R.S	U

Waste Stream Technology Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 08:53
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**Acid and Base/Neutral Extractables by EPA Method 625  
Waste Stream Technology Inc.**

Analyte	Result	Reporting		Dilution	Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units						
<b>BC-Tank01-062206 (6F22021-01) Water</b>									
		Sampled: 06/22/06 12:00		Received: 06/22/06 13:00					
hexachlorobenzene	ND	2.0	ug/l	1	"	06/30/06 11:08	625	R.S	U
pentachlorophenol	ND	4.0	"	"	"	"	"	R.S	U
phenanthrene	13.5	2.0	"	"	"	"	"	R.S	
anthracene	2.0	2.0	"	"	"	"	"	R.S	
Di-n-butyl phthalate	ND	2.0	"	"	"	"	"	R.S	U
benzidine	ND	10.0	"	"	"	"	"	R.S	U
fluoranthene	ND	2.0	"	"	"	"	"	R.S	U
pyrene	ND	2.0	"	"	"	"	"	R.S	U
Butyl benzyl phthalate	ND	2.0	"	"	"	"	"	R.S	U
3,3'-Dichlorobenzidine	ND	2.0	"	"	"	"	"	R.S	U
Benzo (a) anthracene	ND	2.0	"	"	"	"	"	R.S	U
chrysene	ND	2.0	"	"	"	"	"	R.S	U
bis(2-ethylhexyl)phthalate	ND	2.0	"	"	"	"	"	R.S	U
Di-n-octyl phthalate	ND	2.0	"	"	"	"	"	R.S	U
Benzo (b) fluoranthene	ND	2.0	"	"	"	"	"	R.S	U
Benzo (k) fluoranthene	ND	2.0	"	"	"	"	"	R.S	U
Benzo (a) pyrene	ND	2.0	"	"	"	"	"	R.S	U
Indeno (1,2,3-cd) pyrene	ND	2.0	"	"	"	"	"	R.S	U
Dibenz (a,h) anthracene	ND	2.0	"	"	"	"	"	R.S	U
Benzo (g,h,i) perylene	ND	2.0	"	"	"	"	"	R.S	U
Surrogate: 2-Fluorophenol		22.0 %		20-49	"	"	"	R.S	
Surrogate: Phenol-d6		11.4 %		13-30	"	"	"	R.S	S-04
Surrogate: Nitrobenzene-d5		59.6 %		46-98	"	"	"	R.S	
Surrogate: 2-Fluorobiphenyl		50.5 %		48-105	"	"	"	R.S	
Surrogate: 2,4,6-Tribromophenol		38.0 %		56-122	"	"	"	R.S	S-04
Surrogate: Terphenyl-d14		50.9 %		50-120	"	"	"	R.S	

Waste Stream Technology Inc.

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Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 08:53
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**PCBs by EPA Method 608  
Waste Stream Technology Inc.**

Analyte	Result	Reporting		Dilution	Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units						
<b>BC-Tank01-062206 (6F22021-01) Water</b>									
Sampled: 06/22/06 12:00 Received: 06/22/06 13:00									
aroclor 1016	ND	0.059	ug/l	1	06/27/06	06/28/06 17:04	608	man	U
Aroclor 1221	ND	0.059	"	"	"	"	"	man	U
Aroclor 1232	ND	0.059	"	"	"	"	"	man	U
Aroclor 1242	ND	0.059	"	"	"	"	"	man	U
Aroclor 1248	ND	0.059	"	"	"	"	"	man	U
Aroclor 1254	ND	0.059	"	"	"	"	"	man	U
Aroclor 1260	ND	0.059	"	"	"	"	"	man	U
Surrogate: Tetrachloro-meta-xylene		32.1 %		59-129	"	"	"	man	S-04
Surrogate: Decachlorobiphenyl		4.61 %		43-132	"	"	"	man	S-04

Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls NY, 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Reported:  
 07/03/06 08:53

**Conventional Chemistry Parameters by EPA Methods  
 Waste Stream Technology Inc.**

Analyte	Result	Reporting			Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units	Dilution					
<b>BC-Tank01-062206 (6F22021-01) Water</b> <b>Sampled: 06/22/06 12:00</b> <b>Received: 06/22/06 13:00</b>									
Biochemical Oxygen Demand	101	100	mg O <sub>2</sub> /L	1	06/23/06 12:00	06/28/06 15:00	EPA 405.1	ME	
Cyanide (amenable)	0.200	0.010	mg/L	"	06/27/06	06/28/06 10:21	EPA 335.2	ME	
pH	9.84	0.01	pH Units	"	06/28/06	06/28/06 12:37	EPA 150.1	GI	
Phenols	0.199	0.005	mg/L	"	06/28/06	06/28/06 16:52	EPA 420.1	ME	
Phosphate, Total as P	4.05	0.12	"	"	06/27/06	06/27/06 15:23	EPA 365.2	ME	
Total Suspended Solids	1130	4.0	"	"	06/26/06	06/27/06 11:42	EPA 160.2	ME	

Sevenson Environmental Services 2749 Lockport Road Niagara Falls NY, 14302	Project: Buffalo Color Project Number: Buffalo Color Project Manager: Ken Paisley	Reported: 07/03/06 08:53
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### Notes and Definitions

- U Analyte included in the analysis, but not detected
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference







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Results for 6G05006-01

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Sevenson Environmental Services  
 2749 Lockport Road  
 Niagara Falls, NY 14302

Project: Buffalo Color  
 Project Number: Buffalo Color  
 Project Manager: Ken Paisley

Repor  
 07/17/06

BC-TANK02-070506  
 6G05006-01 (Water)  
 Waste Stream Technology Inc.

**Metals by EPA 200 Series Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Anal
Chromium	0.186	0.025	mg/L	1	AG61123	07/11/06	07/12/06	EPA 2
Copper	0.186	0.045	"	"	"	"	"	"
Mercury	0.0021	0.0002	"	"	AG60717	"	07/11/06	EPA 2
Nickel	0.051	0.025	"	"	AG61123	"	07/12/06	EPA 2
Lead	0.235	0.075	"	"	"	"	"	"
Zinc	0.859	0.065	"	"	"	"	"	"

**Purgeables by EPA Method 624**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Al
chloromethane	ND		2.0	ug/l	1	AG60604	07/06/06	07/06/06
vinyl chloride	ND		1.0	"	"	"	"	"
bromomethane	ND		2.0	"	"	"	"	"
chloroethane	ND		2.0	"	"	"	"	"
Trichlorofluoromethane	ND		1.0	"	"	"	"	"
1,1-dichloroethene	ND		1.0	"	"	"	"	"
methylene chloride	ND		2.0	"	"	"	"	"
trans-1,2-dichloroethene	ND		1.0	"	"	"	"	"
1,1-dichloroethane	ND		1.0	"	"	"	"	"
chloroform	ND		1.0	"	"	"	"	"
1,1,1-trichloroethane	ND		1.0	"	"	"	"	"
carbon tetrachloride	ND		1.0	"	"	"	"	"
<b>benzene</b>	<b>66.4</b>		1.0	"	"	"	"	"
1,2-dichloroethane	ND		1.0	"	"	"	"	"
trichloroethene	ND		1.0	"	"	"	"	"
1,2-dichloropropane	ND		1.0	"	"	"	"	"
bromodichloromethane	ND		1.0	"	"	"	"	"
2-chloroethylvinyl ether	ND		10.0	"	"	"	"	"
cis-1,3-dichloropropene	ND		1.0	"	"	"	"	"
<b>toluene</b>	<b>1.4</b>		1.0	"	"	"	"	"
trans-1,3-dichloropropene	ND		1.0	"	"	"	"	"
1,1,2-trichloroethane	ND		1.0	"	"	"	"	"
<b>tetrachloroethene</b>	<b>1.8</b>		1.0	"	"	"	"	"

dibromochloromethane	ND	1.0	"	"	"	"	"
<b>chlorobenzene</b>	<b>1660</b>	25.0	"	25	"	"	"
ethylbenzene	ND	1.0	"	1	"	"	"
bromoform	ND	1.0	"	"	"	"	"
1,1,2,2-tetrachloroethane	ND	1.0	"	"	"	"	"
1,3-dichlorobenzene	ND	1.0	"	"	"	"	"
<b>1,4-dichlorobenzene</b>	<b>11.9</b>	1.0	"	"	"	"	"
<b>1,2-dichlorobenzene</b>	<b>37.1</b>	1.0	"	"	"	"	"
<hr/>							
<i>1,2-Dichloroethane-d4 [surr]</i>	106%	(74 - 117)	"	"	"	"	"
<i>Toluene-d8 [surr]</i>	106%	(82 - 123)	"	"	"	"	"
<i>Bromofluorobenzene [surr]</i>	96.7%	(85 - 123)	"	"	"	"	"

**Acid and Base/Neutral Extractables by EPA Method 625**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Al
n-nitrosodimethylamine	ND	2.5	ug/l	1	AG60706	07/07/06	07/11/06	
<b>Aniline</b>	<b>620</b>	2.5	"	"	"	"	"	
bis(2-chloroethyl)ether	ND	2.5	"	"	"	"	"	
phenol	ND	5.1	"	"	"	"	"	
2-chlorophenol	ND	5.1	"	"	"	"	"	
1,3-dichlorobenzene	ND	2.5	"	"	"	"	"	
<b>1,4-dichlorobenzene</b>	<b>7.8</b>	2.5	"	"	"	"	"	
<b>1,2-dichlorobenzene</b>	<b>27.5</b>	2.5	"	"	"	"	"	
bis(2-chloroisopropyl)ether	ND	2.5	"	"	"	"	"	
hexachloroethane	ND	2.5	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	2.5	"	"	"	"	"	
nitrobenzene	ND	2.5	"	"	"	"	"	
isophorone	ND	2.5	"	"	"	"	"	
2-nitrophenol	ND	5.1	"	"	"	"	"	
2,4-dimethylphenol	ND	5.1	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	2.5	"	"	"	"	"	
2,4-dichlorophenol	ND	5.1	"	"	"	"	"	
1,2,4-trichlorobenzene	ND	2.5	"	"	"	"	"	
<b>naphthalene</b>	<b>49.8</b>	2.5	"	"	"	"	"	
hexachlorobutadiene	ND	2.5	"	"	"	"	"	
4-chloro-3-methylphenol	ND	5.1	"	"	"	"	"	
hexachlorocyclopentadiene	ND	5.1	"	"	"	"	"	
2,4,6-trichlorophenol	ND	5.1	"	"	"	"	"	
2-chloronaphthalene	ND	2.5	"	"	"	"	"	
acenaphthylene	ND	2.5	"	"	"	"	"	
Dimethyl phthalate	ND	2.5	"	"	"	"	"	
2,6-dinitrotoluene	ND	2.5	"	"	"	"	"	
<b>acenaphthene</b>	<b>8.1</b>	2.5	"	"	"	"	"	
2,4-dinitrophenol	ND	5.1	"	"	"	"	"	
2,4-dinitrotoluene	ND	2.5	"	"	"	"	"	
4-nitrophenol	ND	5.1	"	"	"	"	"	
<b>fluorene</b>	<b>8.1</b>	2.5	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	2.5	"	"	"	"	"	
Diethyl phthalate	ND	2.5	"	"	"	"	"	
4,6-dinitro-2-methylphenol	ND	5.1	"	"	"	"	"	

<b>n-nitrosodiphenylamine</b>	<b>21.8</b>	2.5	"	"	"	"	"
4-bromophenylphenylether	ND	2.5	"	"	"	"	"
hexachlorobenzene	ND	2.5	"	"	"	"	"
pentachlorophenol	ND	5.1	"	"	"	"	"
<b>phenanthrene</b>	<b>9.7</b>	2.5	"	"	"	"	"
<b>anthracene</b>	<b>4.8</b>	2.5	"	"	"	"	"
Di-n-butyl phthalate	ND	2.5	"	"	"	"	"
<b>benzidine</b>	<b>22.8</b>	12.7	"	"	"	"	"
<b>fluoranthene</b>	<b>5.3</b>	2.5	"	"	"	"	"
<b>pyrene</b>	<b>5.0</b>	2.5	"	"	"	"	"
Butyl benzyl phthalate	ND	2.5	"	"	"	"	"
3,3'-Dichlorobenzidine	ND	2.5	"	"	"	"	"
Benzo (a) anthracene	ND	2.5	"	"	"	"	"
chrysene	ND	2.5	"	"	"	"	"
<b>bis(2-ethylhexyl)phthalate</b>	<b>4.4</b>	2.5	"	"	"	"	"
Di-n-octyl phthalate	ND	2.5	"	"	"	"	"
Benzo (b) fluoranthene	ND	2.5	"	"	"	"	"
Benzo (k) fluoranthene	ND	2.5	"	"	"	"	"
Benzo (a) pyrene	ND	2.5	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	2.5	"	"	"	"	"
Dibenz (a,h) anthracene	ND	2.5	"	"	"	"	"
Benzo (g,h,i) perylene	ND	2.5	"	"	"	"	"

<i>2-Fluorophenol [surr]</i>	32.8%	(20 - 49)	"	"	"	"	"
<i>Phenol-d6 [surr]</i>	21.9%	(13 - 30)	"	"	"	"	"
<i>Nitrobenzene-d5 [surr]</i>	69.6%	(46 - 98)	"	"	"	"	"
<i>2-Fluorobiphenyl [surr]</i>	69.4%	(48 - 105)	"	"	"	"	"
<i>2,4,6-Tribromophenol [surr]</i>	62.1%	(56 - 122)	"	"	"	"	"
<i>Terphenyl-d14 [surr]</i>	78.7%	(50 - 120)	"	"	"	"	"

**PCBs by EPA Method 608**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Al
aroclor 1016	ND	0.062	ug/l	1	AG61015	07/10/06	07/11/06	
Aroclor 1221	ND	0.062	"	"	"	"	"	
Aroclor 1232	ND	0.062	"	"	"	"	"	
Aroclor 1242	ND	0.062	"	"	"	"	"	
Aroclor 1248	ND	0.062	"	"	"	"	"	
Aroclor 1254	ND	0.062	"	"	"	"	"	
Aroclor 1260	ND	0.062	"	"	"	"	"	
<i>Tetrachloro-meta-xylene [surr]</i>	25.0%	(59 - 129)	"	"	"	"	"	
<i>Decachlorobiphenyl [surr]</i>	28.7%	(43 - 132)	"	"	"	"	"	

**Conventional Chemistry Parameters by EPA Methods**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Ar
Biochemical Oxygen Demand	ND	20.0	mg O2/L	1	AG61026	07/05/06	07/10/06	EP
Cyanide (amenable)	ND	0.010	mg/L	"	AG61214	07/11/06	07/12/06	EP
pH	<b>8.07</b>	0.01	pH Units	"	AG61222	07/12/06	"	EP

<b>Phenols</b>	<b>0.083</b>	0.005	mg/L	"	AG61218	07/11/06	07/11/06	EP
<b>Phosphate, Total as P</b>	<b>0.84</b>	0.12	"	"	AG60711	07/06/06	07/06/06	EP
<b>Total Suspended Solids</b>	<b>188</b>	4.0	"	"	AG61002	"	07/07/06	EP

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