Former Mobil Service Station 99-MST - 979 Main Street (1001 Main Street)

ERIE COUNTY, NEW YORK

Site Management Plan

NYSDEC Site Number: C915260

Prepared for:
Kalieda Health and Kaleida Properties
726 Exchange Street
Larkin Building
Buffalo, New York 14210

Conventus Partners LLC
Centerpointe Corporate Park
350 Essjay Road
Williamsville, New York 14221

Prepared by:
C&S Engineers, Inc
141 Elm Street, Suite 100
Buffalo, New York 14203
TEL: (716) 847-1630

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SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at Former Mobil Service Station 99-MST - 979 Main Street (1001 Main Street) (hereinafter referred to as the "Site") under the New York State ("NYS") Brownfield Cleanup Program ("BCP") administered by New York State Department of Environmental Conservation ("NYSDEC"). The Site was remediated in accordance with Brownfield Cleanup Agreement ("BCA") Index#C915260-03-12, Site # C915260, which was executed on June 15, 2012 and last amended on August 7, 2012. BCA was amended for a change in ownership from F.L.C 50 High Street Corporation to Conventus Partners, LLC in August 2013.

The BCP Site originally included four parcels and a portion of a fifth parcel.

On November 28, 2011, the Applicants, acting as Brownfield Cleanup Program BCP Volunteers, submitted a subdivision application to the City of Buffalo to combine the parcels listed above into two parcels (1001 Main Street and 818 Ellicott Street). Further description of the BCP Site is provided in Section 1.2.1.

1.1.1 General

Kaleida Properties Inc, Kaleida Health and Conventus Partners, LLC entered into a BCA, with the NYSDEC to remediate an approximate 1.72 acre property located at the corner of Main and High Streets in City of Buffalo, County of Erie, State of New York ("Site"). This BCA required the Remedial Party, Kaleida Properties Inc, Kaleida Health and Conventus Partners, LLC to investigate and remediate contaminated media at the site. A figure showing the Site location and boundaries is provided in Figure 1-1. The

boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement.

After completion of the remedial work described in the Remedial Action Work Plan, some contamination remained in the subsurface at this Site, which is hereafter referred to as "remaining contamination." This Site Management Plan ("SMP") was prepared to manage remaining contamination at the Site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the Site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by C&S Engineer, Inc, on behalf of Kaleida Properties Inc, Kaleida Health and Conventus Partners, LLC, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls ("ICs") and Engineering Controls ("ECs") that are required by the Environmental Easement for the Site. The Environmental Easement is provided as Appendix A.

1.1.2 Purpose

The Site contains limited residual contamination remaining after completion of the remedial action. Engineering Controls have been incorporated into the Site remedy to control exposure to remaining contamination during the use of the Site to ensure protection of public health and the environment. An Environmental Easement granted by Conventus Partners LLC and Kaleida Properties to the NYSDEC, and recorded with the Erie County Clerk, will require compliance with this SMP and all ECs and ICs placed on the Site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary to ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the Site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the Site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) implementation of in situ chemical oxidation of site groundwater; (4) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of groundwater treatment.

To address these needs, this SMP includes three plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; and (3) an Groundwater Treatment Plan for implementation of the chemical oxidation treatment of the groundwater.

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion ("COC");
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA (Index # C915260-03-12; Site #C915260) for the Site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located in the City of Buffalo County of Erie County, New York and is identified below on the Erie County Tax Map.

SBL: 100.79 – 1- 1.1
Street Number: 1001 Main Street, Buffalo
(formerly 979 Main Street)
Owner: Kaledia Properties, Inc.

SBL: 100.79-1-2.11
Street Number: 818 Ellicott Street, Buffalo
Owner: Kaledia Health

The Site is an approximately 1.72 acre area bounded by Goodrich Street to the north, High Street to the south, parking lot to the east, and Main Street to the west (see Figure 1-1). The boundaries of the Site are more fully described in Appendix B – Metes and Bounds.

1.2.2 Site History

From 1889 to 1986 the Site had been used for numerous residential and commercial properties including:

- The University at Buffalo Medical and Dental School on the eastern portion of the property;
- A restaurant and hotel on the eastern portion of the Site; and
- From 1950 to 1982 an Exxon-Mobil gas station was located at the southwestern corner of the Site.

Petroleum releases from underground storage tanks associated with the former retail gasoline station were discovered on-site in 1981. Significant site investigation, groundwater monitoring and remedial activities related to the gasoline release have been ongoing since 1996. Site remedial activities that have been implemented in the last ten (10) years include soil vapor extraction and total fluids removal (high vacuum extraction). These remedies had limited affect in the overall reduction of contamination across the Site. Constituents requiring remediation are volatile organic compounds associated with gasoline, in particular benzene, toluene, ethyl-benzene and xylenes ("BTEX").

The Site was most recently used as a parking lot for Buffalo General Medical Center ("BGMC") and a medical office building on the corner of High and Main Streets.

1.2.3 Geologic Conditions

Geologic information is based on observations made during site excavations for the RI/IRM/AAR, and numerous previous studies provided in the BCP application and the RI/IRM/AAR work plan including the Supplemental Subsurface Investigation and Quarterly Groundwater Monitoring Report, (December 9, 2008, Groundwater & Environmental Service, Inc.) and the Geotechnical Engineering Report, 1001 Main Street Medical Office Building, Buffalo New York; (November 2010; McMahon and Mann Consulting Engineers).

The site contains urban fill of varying depths across the site. Fill depths ranged from 3 feet of parking lot subgrade and mixed stone to more urban fill ranging from 6 -12 feet of bricks concrete and miscellaneous building rubble, which at times was contained within old building basements.

Underlying the fill were native deposits of fine dense sand with silt with discrete clay lenses. Within this formation is a discrete, discontinuous water bearing zone comprised of coarse sand and fine to medium gravel. This zone is generally found between 32 and 35 feet bgs and ranging in thickness between 6-inches to several feet (GES, 2008).

Below this zone is the dry to moist fine sand and silt formation extends to nearly 70 feet bgs. Below this massive sand and silt formation is a coarse sand and gravel layer that grades to a sand, gravel; and clay till formation. Underlying the overburden is a grey cherty limestone formation at approximately 90 feet bgs (M&M, 2010).

Figures ES-2 and ES-3 present cross sections of the site geology prior to IRM activities.

Contamination Summary

As presented in detail in the RI/IRM/AAR Report, the extent of soil contamination has been studied over the last ten years in support of design for on-site

remediation systems. The most significant data was collected during Exxon-Mobil's 2008 Supplemental Subsurface Investigation. The investigation consisted of the installation of twenty-four (24) borings, nineteen (19) of which were converted to monitoring wells. This investigation provided significant data used to delineate the vertical and horizontal limits of the contamination. This data was supplemented by PID screening data collected during a 2010 geotechnical investigation. An additional study, "Commercial Use Assessment", completed in April 2012 to determine the limits of excavation required to reach the Commercial Use SCO. The data from these investigations, along with previous studies, resulted in the following determination of Site conditions prior to any site excavation:

1. The Site surface contained urban fill of variable thickness (2 to 11 feet), that is underlain by sand and a sand silt formation in the top 25 to 35 feet below ground surface ("BGS"). Below the sand and silt layers was a laterally discontinuous coarse sand and gravel lens, generally ½ to 3 feet in thickness, that acted as a preferential pathway for groundwater flow. Beneath this coarse sand and gravel lens(s) are silt/clay and inter-bedded sand beds to a depth of exceeding 42 feet BGS.

2. The main zone of contaminated soil, as identified in the 2008 study and confirmed in the 2012 Commercial Use Study, was in the middle to southwest quarter of the Site, generally concentrated in an area which is shown on Figure 1-2 and titled "Area of Deep Excavation" (See Figure 2).

3. The shallowest depth of contamination was approximately 10 feet BGS, although in general the depth ranges from approximately 20 feet BGS to approximately 40 feet BGS. The potential volume of contaminated soils that exceed Commercial Use SCOs was estimated at approximately 430,000 cubic feet; or approximately 16,000 cubic yards.

4. A thin zone of groundwater contamination extended northward across the northern property boundary, within the discontinuous coarse sand/gravel lens which provided preferential groundwater flow in that zone. The coarse sand/gravel lens ranged from ½ to 3 feet in thickness and ranges in depth between 32 to 35 feet BGS.

5. An area of free product ("LNAPL") was proximate to historic groundwater monitoring wells MW-11, MW-22, MW-26, MW-23 and MW-24 located generally in the southwestern quarter of the Site. This area coincided with the location of the former gasoline station. Soil contamination in the area of the LNAPL was encountered at approximately 10 feet BGS (commonly the depth of

the bottom of USTS). This indicated the LNAPL represented the source of the groundwater and soil contamination (See Figure 3).

6. 586 gallons of free product was estimated to be on the Site in the RI Work Plan.

Groundwater

The principal groundwater bearing zone beneath the site is located within the coarse sand and gravel layer between 32 and 35 feet bgs. This layer is of variable thickness (generally 6-inches to three feet) but is horizontally discontinuous. The layer is located within the central and northeastern portions of the Site, but does not extend completely to the southern, northwestern or southeastern areas of the Site (GES, 2008) and is confined by the dense fine sands and silt above and below the groundwater bearing zone.

Groundwater sampling occurred quarterly or semi-annually from 1997 to 2010, although a majority of the wells were installed in 2008. The sampling has shown that the dissolved BTEX contaminant plume has generally remained on-site, with the exception of VOCs present along the Goodrich Street right of way in the area of MW-02. However, sampling has also shown that since the cessation of remedial actions in 2008, the LNAPL plume moved from the eastern side of the Site, to the central and western side of the Site.

To confirm that site contaminants are limited to petroleum hydrocarbons, a groundwater sampling event was completed in the fall of 2011. Groundwater samples were collected from selected monitoring wells across the Site as well as off-site along Goodrich Street. The samples were subsequently analyzed for the full target compound list and target analytic list set of parameters to evaluate the potential presence for the Primary Contaminants of Concern ("PCOCs") other than petroleum hydrocarbons at the Site. Analytical results indicated that the Site PCOCs are limited to petroleum hydrocarbons.

The shallowest site-wide formation for groundwater is generally found within a coarse sand and gravel layer that ranges from ½ to five-feet thick and is found from 32 to 35 feet below grade. This zone is the main transport layer for contamination beneath the Site and is semi-confined by dense silt and fine to medium sand above and silt and clay

below. LNAPL (i.e. residual gasoline product) was also present in this formation in the central area of the Site. While previous studies had established areas of saturated soil and had identified the contaminant transport zone to be in the coarse sand and gravel layer between 32 and 35 feet, deeper borings and wells established that this zone is semi-confined, and that deeper zones of groundwater are present below 50 feet of depth and within the bedrock fracture system (approximately 100 feet depth).

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In January – February of 2012, hydrology studies were completed for the Site to establish potential subsurface flow conditions that may affect dewatering to the Site during remediation. These studies identified several conditions with the Site hydrology:

1. While previous studies had established areas of saturated soil and had identified the contaminant transport zone to be in the coarse sand and gravel layer between 32 and 35 feet, deeper borings and wells established that this zone is semi-confined, and that deeper zones of groundwater are present below 50 feet of depth and within the bedrock fracture system (approximately 100 feet depth). Wells screened within these discrete zones showed independent groundwater levels, indicating communication of groundwater between these zones is minimal.

2. Pumping rates within the formations, both within the groundwater transport zone and below, were very low. Maximum removal rates were approximately 1 quart per minute. This indicates that while the dense sand and silt soils have porosity, its conductivity (ability to transmit water) within the formation is restricted.

3. Estimate of the area and volume of contaminated groundwater were prepared prior to the implementation of the IRM; approximately 635,000 gallons of

contaminated groundwater exceeding 10 ug/L were estimated to be in place in this area of the Site.

A groundwater flow figure is shown in **Figure 1.2-1** (from the RI/IRM/AAR report) .

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A Remedial Investigation (RI) was performed to characterize the nature and extent of contamination at the Site. The results of the RI are described in detail in the following reports:

- Remedial Investigation, Interim Remedial Measure and Alternatives Analysis Report For 979 Main Street (1001 Main Street), November 2014.

Contamination is related to the historic use of the Site as a gas station and originally was sourced from leaking underground storage tanks located above the "Deep Excavation Area".

Below is a summary of site conditions when the RI was performed in January 2013 to October 2013:

<u>Soil</u>

For over 40 years, the LNAPL filtered downward from the base of the tanks to a depth of approximately 40 feet BGS. LNAPL intercepted the groundwater at approximately 32 feet BGS. The water table is present within a semi-confined coarse sand and gravel lens. This lens varies in thickness (1/2 to 3 feet) and extends to the northeast, confined laterally to the east and west. Because of low carbon in the fine sand silt and gravel formations, breakdown of the BTEX compounds was slow. This resulted in high VOC soil gas in the unsaturated zone below the release area and the continual loading of BTEX into the groundwater from the LNAPL (**Figure 1.2-1).** Soil Contamination (exceeding Residential Use SCOs), below the LNAPL layer was noted to extend to a depth of 35 to 40 feet BGS. This area has been identified as the Source Area for groundwater contamination.

Figures ES-1, ES-2 and ES-3 provide a sectional view of the source contamination prior to the IRM.

During the RI, a 30 foot by 30 foot grid was superimposed on the Site to ensure samples were taken from regular intervals. Each grid section, a total of 86 on the Site, was given a unique identifier, letters A to J (Grid letter I was excluded) were used from north to south and numbers 1 to 10 were used west to east. At least one sample was taken from each of these grid locations to determine the vertical and horizontal limits of BTEX impacts.

The RI revealed that the contaminates of concern are BTEX compounds (benzene, toluene, ethyl benzene and xylene). Soil screening during excavation of the source area observed PID readings greater than 2,000 ppm. Analytical results are provided in **Table 1-1.1** (from the final RI/IRM/AAR report) .

Site-Related Groundwater

Dissolved BTEX, once entering the groundwater bearing zone was transported via localized, preferential groundwater flow to the northeast corner of the Site (Following the location of the sand/gravel lens). Offsite wells (including MW-2) contain elevated dissolved BTEX concentrations.

On February 16, 2012, samples were taken from the monitoring wells that were installed and monitored as part of the cleanup of the spill onsite. The samples were collected by Groundwater and Environmental Services on behalf of Exxon Mobil as part of Exxon Mobil's quarterly monitoring program. These samples were the last samples collected under this program prior to the Site entering the BCP. A total of 33 groundwater monitoring wells were sampled during the February 2012 groundwater monitoring event. From the 33 monitoring wells 18 exceeded NYSDEC standards/guidance levels for BTEX compounds.

Table A: February 2012 Groundwater BTEX Concentrations

	Parameter (ppb)			
Well ID	Benzene	Ethyl benzene	Toluene	Total Xylene
NYSDEC Standard/Guidance Levels	1	5	5	5
MW-02	ND	108	ND	1,921
MW-05	441	212	158	1,940
MW-08	630	620	868	10,240
MW-09	ND	33.8	1.13	172
MW-12R	1.85	ND	ND	ND
MW-14R	414	1,200	1,020	7,662
MW-19	4.72	ND	ND	ND
MW-22	3,030	1,730	7,530	13,360
MW-23	8,440	1,300	23,600	23,050
MW-24	1,470	2,150	18,600	20,250
MW-25	ND	56.6	ND	215.7
MW-26	25,800	1,900	30,800	14,680
MW-27	1.95	ND	ND	ND
MW-29	17.9	900	1,460	5,170
MW-31	175	462	47	1,081.8
MW-32	3,490	1,130	135	5,073
MW-33	3,490	1,280	2,140	5,557
MW-34	9,220	1,090	2,580	7,890

1.4 SUMMARY OF REMEDIAL ACTIONS

The Site was remediated in accordance with the NYSDEC-approved Interim Remedial Measure Work Plan dated December, 2012.

The following is a summary of the IRM performed at the Site:

1. Excavation of soil/fill exceeding restricted residential SCOs listed in **Table 2**;
2. Removal of LNAPL and contaminated groundwater;

3. Backfilling with clean fill and construction of concrete floor;

4. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the Site; and

5. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) groundwater treatment and monitoring, and (3) reporting;

Remedial activities were completed at the Site in October 2013.

1.4.1 Removal of Contaminated Materials from the Site

Previous site investigations had delineated the likely boundaries of the contaminated soil and the depth of that contamination. Additionally, remedial investigation and IRM confirmatory samples were collected simultaneously during the IRM activities. The area of contamination requiring the deepest excavation is shown on **Figure 1-3** (from the RI/IRM/AAR report), is labeled as the "Area of Deep Excavation."

Prior to mass excavation for the IRM, an earth retention system was installed using steel sheeting placed around the entire perimeter of excavation. Steel sheeting were installed using a vibrating hammer mounted on a crane. Steel sheeting was designed to accommodate a maximum excavation depth of 42 feet and was installed to a depth of 40 to 50 feet BGS. The earth retention system was driven into the ground and then tiebacks were installed to provide adequate structural support.

Excavation across the rest of the Site was limited to 26 BGS to ensure removal of soils exceeding Restricted Residential Use SCOs.

Demolition debris, such as bricks and concrete from buried foundations were sent to several off-site commercial facilities for use as general fill.

Soils showing visible contamination, gasoline odors or PID readings above 5 ppm were sent off-site for disposal at Modern Landfill or treatment at Noco's soil treatment facility. Soil screening during excavation of the source area observed PID readings greater than 2,000 ppm.

Post-excavation samples confirmed remaining soils satisfy Restricted Residential Use SCOs or better within the Area of Deep Excavation. Following the mass excavation, 8-10 feet of flowable fill was placed and topped with 4 to 6 feet of crushed stone gravel to a depth of 26 ft BGS grade. Across the entire footprint of the building, a minimum of 19 inches of clean gravel was placed followed by a sealed layer of 15-mil plastic sheeting and 5 inches of concrete.

Soils left in place satisfy restricted Residential Use SCOs or better, which exceeds the intended commercial use of the Site as a medical office building. A list of the soil cleanup objectives (SCOs) for the primary contaminants of concern (COCs) and sampling resultsfor this Site is provided in **Table 1-1** (from the RI/IRM/AAR).

Mass Excavation Base Depth

Outside the Source Area (area of Deep Excavation) the Site was excavated down to 26 BGS. The bottom of this excavation was then sampled, on a 30 x 30 foot grid, to determine if there was any contamination remaining onsite. **Figure 2-3** (from the RI/IRM/AAR) shows the completed depths.

Within Area of Deep Excavation

The Source Area was generally impacted to 40 feet BGS and excavation was completed in 30foot by 30-foot segments within the impacted area. In some areas, excavation depth varied between 38 and 42 feet. **Figure 2-3** (from the RI/IRM/AAR) shows the completed depths.

Along the shoring (E1, F1, H1) the excavation was tiered with the shallowest depth adjacent to the shoring. This method was required because the shoring which was installed to 50 feet could not support the removal of all material to 42 feet BGS. However, H1 soils met Unrestricted Use SCOs at 26 feet BGS, and E1 and F1 soils met that standard at 36 feet BGS; therefore the stepped removal of soil in this area was enough to surpass the goal of Restricted Residential Use SCO.

At G1, along the shoring, the soil exceeded Industrial Use SCO at 33 feet BGS and Commercial Use SCO at 36 feet BGS; no PCOCs exceeded Unrestricted Use SCO at 39 feet BGS. This grid location was excavated to approximately 40 feet BGS.

Groundwater Management and Excavation Methods

Excavation to 40 feet of depth was complicated at several grid locations due to the presence of running sands that compromised excavation integrity.

Grid location G6 was the first location that was excavated to 40 ft BGS (14), but due to high volume of water and running sands/gravel, the hole was temporarily backfilled with soil until new excavation methods were developed in concurrence with the NYSDEC. Similar issues were encountered at E5, F4, F5, G2, G3, G4, G5 and H2.

Excavation in these areas was completed using a step-method, similar to that used along the shoring. Each deep excavation grid in which running sands were encountered was excavated using the following methodology:

- Final excavation depth in each grid was pre-determined by advancing a geoprobe to the final depth and collection of a confirmatory sample;
- Excavation size was limited to a smaller area, typically 15' by 10' or 15' by 15';
- The area was excavated to the groundwater bearing zone;
- A vacuum truck was used to remove water infiltrating the excavation;
- Once the area was partially dewatered, excavation proceeded to the finished depth and water removal continued during full depth excavation;
- Immediately following the excavation to the remedial depth, flowable fill was placed in the hole; and
- The density of the fill material sealed the thin water bearing zone, once the flowable fill set, the excavation was brought up to grade (-26 feet) with approximately 3 feet of crushed rock fill.

Temporary Soil Staging

Soil removed from the deep excavation zone (below 30 feet BGS) was saturated with water and LNAPL/water mixtures.

To properly handle water saturated soils from the Deep Excavation Area, soil was placed on poly sheeting in the excavation in thin layers and allowed to dry. Once the soil was stabilized it was direct-loaded into trucks and transported to Modern Disposal or Noco Treatment Facility.

Following the completion of this process the poly sheeting layer was removed and the soil underneath was re-sampled to ensure that no contamination had transferred from the drying soil to the Site. All samples returned with all VOCs satisfying Unrestricted Use SCOs.

A total of 67,458 tons of petroleum contaminated soils were sent offsite to Modern Landfill (disposal) or Tonawnada terminals (for treatment).

Native soils that showed no evidence of contamination were sent to Central Park Plaza for reuse. Native soils sent to Central Park Plaza consisted of silty sand, silt and clay.

Post-excavation samples confirmed remaining soils met Restricted Residential Use or better within the Area of Deep Excavation. Following the mass excavation, 8-10 feet of flowable fill was placed and topped with 4 to 6 feet of crushed stone gravel to a depth of 26 ft BGS grade. Across the entire footprint of the building was placed a minimum of 19 inches of clean gravel followed by a sealed layer of 15-mil plastic sheeting and 5 inches of concrete.

1.4.2 In situ Treatment

The mass excavation removed LNAPL containing soil, the source of the contaminant loading into groundwater.

The removal of soils in the source area also included the removal of the groundwater bearing zone. During soil removal, 1997 tons of groundwater and LNAPL was removed from the excavation and sent off-site. The groundwater bearing zone within the source area was replaced with flowable fill, sealing this area off from the adjacent groundwater bearing zone beneath the Site.

Following mass excavation activities, seven new wells were installed on-site. The well logs are provided in Appendix E.

Note that one well (BCP-MW-2), was installed into the flowable fill within the Deep Excavation Area. This well did not produce water. A second well BCP-MW-6 was installed along the western side of the deep excavation, along the tiered excavation area and did intercept the portion of the groundwater bearing zone remaining along the shoring. This well did produce water for sampling. All other wells were installed through native materials and the gravel water bearing layer. All wells were installed to an approximate depth of 43 feet below surrounding grade (approximately 16 feet below basement floor elevation).

The monitoring well locations were located in areas of previously identified groundwater contamination and to the south of the plume to confirm that contamination had not moved off-site to the south. To allow for comparison, the monitoring wells were located adjacent to previous monitoring well sites, which had been removed during Site excavation.

Implementation of the IRM, including source removal, was effective in removing any remaining free product grossly contaminated soils and the groundwater containing the highest dissolved BTEX. However, residual groundwater contamination remains on-site.

To address the residual contamination, oxidizing chemicals were applied to the area through direct injection into the wells:

- BCP-MW-6
- BCP-MW-3
- BCP-MW-5

Due to the variation in the concentrations and the proximity of BCP MW-6 to the shoring, two different chemical products were directly installed into the wells that had remaining concentrations of BTEX. The groundwater in BCP MW-6 was treated with RegenOX (sodium percarbonate) while BCP MW-3 and BCP MW-5 were treated with Klozur Activated Persultafe (sodium persulfate).

C&S applied the chemical treatment in all wells as directed by the products specifications. Treatment with Klozur occurred in two steps; gravity feeding the sodium persulfate into the monitoring well, followed by gravity feeding an iron activator.

1.4.3 Remaining Contamination

Sampling for the RI was also generally used to confirm the horizontal and vertical limits of contamination as part of the IRM, results are presented in **Table ES-1 and Figure 2-5** (both from the RI/IRM/AAR Report).

The IRM was effective in remediating the Site.

SOILS

All confirmatory soil samples meet Restricted Residential Use SCOs at the bottom depth of the excavation for that grid location (which varied 26 feet BGS outside the Area of Deep Excavation and 40 to 42 feet within) following the mass excavation.

Table ES-1 and **Figure 2-5** summarize the results of all soil samples remaining at the Site after completion of Remedial Action that exceed the Track 1 (unrestricted) SCOs.

GROUNDWATER

Groundwater sampling was conducted on newly installed monitoring wells after mass excavation of contaminated soils. Sampling of remaining groundwater was done on September 20, 2014 to determine what affect the chemicals had on the groundwater. The results for BTEX are presented in **Table B**. Location of the Post IRM groundwater wells is provided in **Figure 2-4**

Table B: Groundwater BTEX Concentrations following Source Removal

BCP Monitoring Well	9/20/2013 BTEX Concentration (ppb)
BCP-MW1	ND
BCP-MW2	Dry
BCP-MW3	11,040
BCP-MW4	71
BCP-MW5	17,528
BCP-MW6	1,880
BCP-MW7	1.47

Previous site investigations indicate, groundwater contamination from the source area is known to have extended off-site into Goodrich Street and Main Street. While the IRM was not required to address off-site contamination, groundwater contamination still remains onsite.

The Site has been permanently surrounded by impervious steel shoring, installed to a depth of 40 feet along Goodrich Street and 50 feet along Main Street. Both depths extend below the groundwater bearing zone effectively sealing the remaining groundwater contamination within the Site boundaries and preventing off-site groundwater migration back onto the Site.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

Since remaining contaminated soil and groundwater exists beneath the Site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the Site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the Site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the Site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the Site remedy, as determined by the NYSDEC.

2.2 ENGINEERING CONTROLS

2.2.1 Engineering Control Systems

Procedures for operating and maintaining the monitoring and in-situ chemical injection process are documented in the Operation and Maintenance Plan (Section 4 of this SMP). Procedures for monitoring the system are included in the Monitoring Plan (Section 3 of this SMP). The Monitoring Plan also addresses severe condition inspections in the event that a severe condition, which may affect controls at the Site, occurs.

The in situ treatment consists of periodic application of 6% solution of RegenOX (sodium percarbonate) in three of the seven monitoring wells. The solution will be gravity fed directly into the monitoring wells from a 55 gallon poly drum.

Monitoring well BCP-MW2 was installed into the flowable fill. Prior to commencement of the monitoring program, BCP-MW2 will be modified and re-drilled as follows:

- The 8 –inch diameter well will be partially filled with sand,
- A small diameter hollow stem auger will be used to drill through the existing interior well and through the bottom of the well casing,
- Drilling will extend 5 feet below the existing well bottom. A new well be installed inside the current well casing,
- The new 2-inch PVC well will be screened for 5 –feet into the native soil below the fill materials to monitor whether the groundwater plume has migrated under the deep excavation area.

Once the new well has been installed, the well will be monitored to determine if groundwater is present in this zone. If groundwater is present, the well be added to the sampling protocol. If the groundwater within the well shows significant groundwater contamination, the project engineer will consult with the NSYDEC as to whether an

additional ORC injection point(s) will be needed based on the radius of influence of the injection program.

The following monitoring wells will be treated:

- BCP-MW-6
- BCP-MW-3
- BCP-MW-5
- BCP-MW2 (if needed following well modification)

Groundwater monitoring will follow 6 to 8 weeks after each treatment event. All seven monitoring well will be sampled for VOCs using EPA Method 8260.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the Decision Document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

In situ treatment and monitoring will continue until BTEX concentrations have been lowered below NYSDEC standard/guidance levels or have become asymptotic to a low level over an extended period of time as accepted by the NYSDEC.

2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the Decision Document to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Site to restricted residential uses only. Adherence to these Institutional Controls on the Site is required by the Environmental Easement and will be implemented under this Site Management Plan (in

this section property under Institutional Controls are identified as "Controlled Property"). These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- All Engineering Controls must be operated and maintained as specified in this SMP;
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP.

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Site has a series of Institutional Controls in the form of Site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The Site may only be used for restricted residential use provided that the long-term Engineering and Institutional Controls included in this SMP are employed;
- The Site may not be used for a higher level of use, unrestricted or residential use, without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the Site that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the Site is prohibited by the City of Buffalo;
- Vegetable gardens and farming on the Site are prohibited;

- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Excavation Work Plan

The Site has been remediated for restricted residential use. Any future intrusive work that will penetrate the concrete floor, or encounter or disturb the remaining contamination, including any modifications or repairs underneath the concrete floor will be performed in compliance with the Excavation Work Plan (EWP) that is attached as **Appendix C** to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the Site. A sample HASP is attached as **Appendix D** to this SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and Federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The Site owner, its successor, assigns and/or lessees associated, and parties performing this work are responsible for insuring the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of wastewater, control of runoff from open excavations into remaining contamination, and for structures that may

be affected by excavations (such as building foundations and bridge footings). The Site owner, successors, assigns and/or lessees will ensure that site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections of all remedial components installed at the Site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- Sampling and analysis of appropriate media during monitoring events;
- If Site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- Sixty (60) day advance notice of any proposed changes in Site use that are required under the terms of the Brownfield Cleanup Agreement (BCA), 6NYCRR Part 375, and/or Environmental Conservation Law.
- Seven (7) day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or engineering control that reduces or has the potential to reduce the effectiveness of an Engineering Control and likewise any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the Site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least sixty (60) days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the new responsible party has been provided with a copy of the Brownfield Cleanup Agreement (BCA), and all approved work plans and reports, including this SMP
- Within 15 days after the transfer of all or part of the Site, the newly responsible party's name, contact representative, and contact information will be confirmed in writing.

2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to qualified environmental professional. These emergency contact lists must be maintained in an easily accessible location at the Site.

Table C: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Table D: Contact Numbers

Mark Colmerauer (C&S Engineers)	(716) 955-3024
Denise Juron-Borgese	(716) 631-8000
Al Kruger	(716) 859-8552
NYSDEC Region 9	(716) 851-7000
New York State Department of Health (Erie County)	(716) 961-6800

* Note: Contact numbers subject to change and should be updated as necessary

2.5.2 Map and Directions to Nearest Health Facility

Site Location: 1001 Main Street, Buffalo NY

Nearest Hospital Name: Buffalo General Medical Center

Hospital Location: 100 High Street, Buffalo NY

Hospital Telephone: (716) 859-5600

Directions to the Hospital:

1. Head toward High Street.
2. Head east on High Street to Ellicott Street.
3. Turn left on Ellicott Street.

Total Distance: 0.02 miles (520 feet)

Total Estimated Time: 2 minutes

Map Showing Route from the Site to the Hospital:

Figure 3: Map to Hospital

2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan **(Table C)**. The list will also posted prominently at the Site and made readily available to all personnel at all times.

3.0 SITE MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, and all affected Site media identified below. Monitoring of other Engineering Controls is described in Chapter 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.1.2 Purpose and Schedule

This Monitoring Plan describes the methods to be used for:

1. Sampling and analysis of all appropriate media (e.g., groundwater and soils);
2. Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil;
3. Assessing achievement of the remedial performance criteria;
4. Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
5. Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, this Monitoring Plan provides information on:

- Sampling locations, protocol, and frequency;
- Information on all designed monitoring systems (e.g., well logs);
- Analytical sampling program requirements;
- Reporting requirements;
- Quality Assurance/Quality Control (QA/QC) requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and

- Annual inspection and periodic certification.

Quarterly monitoring of the performance of the remedy and overall reduction in contamination on-site and off-site will be conducted for the first two years. The frequency thereafter may be reduced to semi-annual or annual basis with approval by NYSDEC. Trends in contaminant levels in groundwater in the affected areas will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in **Table E** and outlined in detail in Sections 3.2 and 3.3 below.

Table E: Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Onsite Groundwater	Quarterly for two years. Semi-annually or annually thereafter.	Groundwater	EPA Method 8260 (VOC)

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

3.2 MEDIA MONITORING PROGRAM

3.2.1 Groundwater Monitoring

Groundwater monitoring will be performed on a quarterly basis for the first two years to assess the performance of the in situ chemical oxidation. Based upon the review of two years monitoring data, the Remedial Party may recommend NYSDEC to reduce the monitoring frequency to semi-annual or annual basis.

The network of seven monitoring wells, presented in **Figure 2-4,** has been installed to monitor both up-gradient and down-gradient groundwater conditions at the Site. The network of on-site wells has been designed based on the following criteria:

1. Wells targeted areas of highest historic BTEX concentrations and outside of the area of Deep Excavation, which was backfilled with flowable fill;
2. Located wells adjacent to former pre-construction monitoring wells to evaluate groundwater conditions before and after the IRM; and

3. Well screens were placed inside the coarse sand / gravel water bearing zone.

The seven monitoring well locations were focused on areas of previously identified groundwater contamination and to the south of the plume to confirm that contamination had not moved off-site to the south. To allow for comparison, the monitoring wells were located adjacent to previous monitoring well sites, which had been removed during site excavation. Ten feet of 0.01 inch wide well screen was used and placed in the boring within the coarse sand/gravel zone. Wells were drilled approximately 14 feet below the basement floor of the underground parking garage (39 feet below ground surface) Well logs for the installation are provided in **Appendix E**.

Table F: Post-Construction BCP Wells and Adjacent Previous Monitoring Wells

BCP Monitoring Well	Diameter (inch)	Depth to Top of Screen (feet)[1]	Depth to Bottom of Screen (feet)[1]	Adjacent Previous Monitoring Well (2008)
BCP-MW1	2	29	39	MW-36
BCP-MW2*	8	29	39	MW-33
BCP-MW3	8	30	40	MW-34
BCP-MW4	2	29	39	MW-31
BCP-MW5	2	30	40	MW-32
BCP-MW6	8	29	39	MW-24
BCP-MW7	2	29	39	MW-27

*Installed in deep excavation area within flowable fill zone.

[1] Note: Depth from surrounding grade (i.e. street elevation)

Groundwater generally flows within the coarse sand/gravel zone to the northeast. Groundwater recharge from the surface has been eliminated due to the concrete floor of the parking garage, and the adjacent asphalt surface to the west which effectively covers 100% of the site recharge area.

Additionally, below grade migration has been effectively stopped by the presence of deep sheet piling that cuts off the groundwater bearing zone from the remaining offsite formation.

Figure 2-4 shows the monitoring well array and baseline post-remedial groundwater quality conditions are provided in **Figure 2-9**. Monitoring well construction logs for BCP monitoring wells are included in **Appendix E**.

The sampling frequency may be modified with the approval NYSDEC. The SMP will be modified to reflect changes in sampling plans approved by NYSDEC.

Deliverables for the groundwater monitoring program are specified below.

3.2.1.1 Sampling Protocol

All monitoring well sampling activities will be recorded in a field book and a groundwater-sampling log presented in **Appendix F**. Other observations (e.g., well integrity, etc.) will be noted on the well sampling log. The well sampling log will serve as the inspection form for the groundwater monitoring well network. Groundwater samples will be collected using low stress (low-flow) purging/sampling equipment and techniques as outlined in U.S. Environmental Protection Agency Standard Operating Procedure titled "Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells."

The following activities will be completed before going into the field each day before the start of sampling:

1. Fill out appropriate section on Well Sampling Logs for the wells to be sampled;
2. Obtain the sampling schedule for each well to be sampled;
3. Calibrate the Photoionization Detector (PID) with the calibration gas;

4. Determine the amount of sampling to be done for the day and prepare the necessary number of coolers;
5. Each well to be sampled will have designated coolers containing the pre-labeled, certified clean, sample bottles. The groundwater samples will be placed in the cooler labeled for the well from which they were taken. The bottle shall be labeled with large distinguishable letters, so that the groundwater samples will be placed in the proper cooler; and
6. Select the appropriate sample bottles for the day's sampling. The bottles shall be pre-marked with a sample parameter and preservatives. Reusable glass bottles will have been cleaned and prepared at the laboratory. The bottles for the various parameters to be analyzed from each well location will then be placed in a cooler.

The following steps describe the sample collection of groundwater.

1. Unlock and remove the well cap.
2. Test the air at the wellhead with the calibrated PID. If the gases from the well have caused the air in the breathing zone to read greater than 5 ppm, stop work and refer to the Health and Safety Plan. Record the reading on the Well Sampling Logs.
3. In order to obtain a representative sample of the formation water, the well must be purged of the static water within the well. Prior to purging, the static water level within the well must be measured and the measurement recorded on the Well Sampling Logs. To determine the amount of water necessary to purge, find the liquid column height in the well to determine the total volume (three liquid column borehole volumes) of liquid to be purged.
4. Purge the well; lower pump slowly into the well until it is below the water surface. In accordance with NYSDEC Guidance, purge waters will be disposed within sealed steel 55 gallon drums.
5. Record the amount of water purged in the field logbook and on the Well Sampling Logs.
6. Water quality meter will be connected to the inflow tubing from the submerged pump inside the well. Water quality parameters including: specific conductance; dissolved oxygen; oxygen reduction potential; pH; temperature and turbidity will

be logged on a continuous basis until water quality readings stabilize or the amount of water purged is reached.

7. If the well goes dry during pumping, allow for full recovery (measure the water level) and then sample. If recovery takes more than twenty minutes, proceed to next well but return to sample within 24 hours.
8. Fill the appropriate sample bottles according to the sampling schedule for each well. While filling the sample bottles, record the well number, type, volume of container, and the preservatives used on the Well Sampling Logs.
9. If the well should go dry during sampling and the well needs to be re-sampled the next day, the second attempt to sample the well will proceed.
10. The preservatives for the various sampling parameters were previously added to the clean sample bottles by the laboratory. Some parameters may require additional special handling.
11. Volatile organics analyses samples must be free of air bubbles. When a bubble-free sample has been obtained, it must be immediately chilled.
12. Collect the matrix spike duplicates and trip blanks. Duplicate samples will include the field splitting of at least one groundwater sample for each sampling visit. This may require the extraction of twice the amount of water needed for duplication purposes. The creation of trip/field blanks and duplicates shall be performed at least once with each field batch with a minimum of once every twenty samples.
13. Record all pertinent information in field logbook and on the Well Sampling Logs (include color, odor, sediment content of sample, etc.). Any situations at the Site that have the potential to interfere with the analytical results should also be recorded here.
14. Lock well, inspect well site, and note any maintenance required.
15. Dispose of potentially contaminated materials in designated container for contaminated solids.

Separate trip blanks will be carried into the field on each of the sampling days. The trip blank vials will be prepared by the contracted laboratory and handled in the field similar to the other sampling containers with the exception that the vials will not be opened.

Field Measurement Techniques

Water Level Measurement - Water elevations will be taken on all wells prior to purging and sampling. All measurements will be taken within a 24-hour period to obtain consistent elevations and recorded on well data sheets. The procedure for measuring water levels in the monitoring wells is:

1. Unlock and remove well cap;
2. Test the atmosphere of the well with the calibrated PID, if the gases from the well have caused the air in the breathing zone to read greater than 5 ppm, stop work and refer to the Health and Safety Plan;
3. Measure water level to nearest 0.01 foot with a water level indicator (electronic); and
4. Water level indicators will be decontaminated before moving to next well, the tape and cable are decontaminated by washing in a bucket of distilled water-biodegradable phosphate free-detergent solution, followed by a rinse with distilled water.

Laboratory Analysis

Samples will be collected in 40 ml glass jars and immediately placed on ice. All groundwater samples from onsite and offsite monitoring wells will be analyzed for VOCs (EPA Method 8260B) on a 5 day turnaround time. Field parameters such as pH, turbidity and specific conductance will be recorded at sample collection.

Laboratory analysis will be conducted by a third-party laboratory that is accredited by the NYSDOH Environmental Laboratory Accreditation Program ("ELAP"). Laboratory analytical methods will include the most current NYSDEC Analytical Services Protocol ("ASP").

Data Usability

Data Usability Summary Report ("DUSR") will be performed by a third-party data consultant using the most recent methods and criteria from the U.S. EPA. The DUSR will assess all sample analytical data, blanks, duplicates and laboratory control samples and evaluate the completeness of the data package.

Custody Procedures

As outlined in NYSDEC Sampling Guidelines and Protocols, a sample is under the following conditions:

- It is in your actual possession;
- It is in your view after being in your physical possession;
- It was in your possession and then you locked or sealed it up to prevent tampering; or
- It is in a secure area

The environmental professional will maintain all chain-of-custody documents that will be completed for all samples that will leave the Site to be tested in the laboratory.

3.2.1.2 Monitoring Well Repairs, Replacement And Decommissioning

If biofouling or silt accumulation occurs in the onsite and/or offsite monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced (as per the Monitoring Plan), if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC will be notified prior to any repair or decommissioning of monitoring wells for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent periodic report. Well decommissioning without replacement will be done only with the prior approval of NYSDEC. Well abandonment will be performed in accordance with NYSDEC's "Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be reinstalled in the nearest available location, unless otherwise approved by the NYSDEC.

3.3 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. Site-wide inspections will also be performed after all severe weather conditions that may affect Engineering Controls or monitoring devices. During these inspections, an inspection form will be completed (**Appendix G**). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that site records are up to date.

3.4 MONITORING QUALITY ASSURANCE/QUALITY CONTROL

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site (**Appendix H**). Main Components of the QAPP include:

- QA/QC Objectives for Data Measurement;
- Sampling Program.
    - Sample containers will be properly washed, decontaminated, and appropriate preservative will be added (if applicable) prior to their use by the analytical laboratory. Containers with preservative will be tagged as such.
    - Sample holding times will be in accordance with the NYSDEC ASP requirements.
    - Field QC samples (e.g., trip blanks, coded field duplicates, and matrix spike/matrix spike duplicates) will be collected as necessary.

- Sample Tracking and Custody.
- Calibration Procedures.
    - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
    - The laboratory will follow all calibration procedures and schedules as specified in USEPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Analytical Procedures.
- Preparation of a Data Usability Summary Report (DUSR), which will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and chain of custody procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method.
- Internal QC and Checks.
- QA Performance and System Audits.
- Preventative Maintenance Procedures and Schedules.
- Corrective Action Measures.

3.5 MONITORING REPORTING REQUIREMENTS

Forms and any other information generated during regular monitoring events and inspections will be kept on file onsite. All forms, and other relevant reporting formats used during the monitoring/inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All monitoring results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. A letter report will also be prepared, subsequent to each sampling event. The letter will include, at a minimum:

- Date of event;

- Personnel conducting sampling;
- Description of the activities performed;
- Type of samples collected (water);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (o be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether groundwater conditions have changed since the last reporting event.

Data will be reported in hard copy or digital format as determined by NYSDEC.

A summary of the monitoring program deliverables are summarized in **Table G** below.

- Groundwater Monitoring Report
- Well Sampling Logs
- Chain of Custody Documentation
- Laboratory Data Sheets
- Yearly Site Wide Inspection Report

Table G: Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Onsite Groundwater Monitoring	Quarterly for two years. Semi-annually or annually thereafter.
Site Wide Inspection	Annually

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

This Operation and Maintenance Plan describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the Site. This Operation and Maintenance Plan:

- Includes the steps necessary to allow individuals unfamiliar with the Site to operate and maintain the groundwater treatment system;
- Includes an operation and maintenance contingency plan; and,
- Will be updated periodically to reflect changes in site conditions.

A copy of this Operation and Maintenance Plan, along with the complete SMP, will be kept at the Site. This Operation and Maintenance Plan is not to be used as a stand-alone document, but as a component document of the SMP.

4.2 ENGINEERING CONTROL SYSTEM PERFORMANCE MONITORING

In-situ Chemical Oxidation

In-situ chemical oxidation was selected as the remedial option to treat petroleum impacted groundwater beneath the concrete floor of the underground parking lot. Impacted groundwater is limited to the coarse sand/gravel zone located approximately 32 to 35 feet below ground surface.

Previous Treatments

To address the residual contamination, oxidizing chemicals were applied to the area through direct injection into the wells (**Figure 2-4**):

- BCP-MW-6
- BCP-MW-3
- BCP-MW-5

Figure 2-4 presents the location of the monitoring wells.

Due to the variation in the concentrations and the proximity of BCP MW-6 to the shoring, two different chemical products were directly installed into the wells that had remaining concentrations of BTEX. The groundwater in BCP MW-6 was treated with RegenOX (sodium percarbonate) while BCP MW-3 and BCP MW-5 were treated with Klozur Activated Persultafe (sodium persulfate). Treatment with Klozur occurred in two steps; gravity feeding Klozur persulfate into the monitoring well then followed by gravity feeding an iron activator.

The first treatment event occurred December 12, 2013 through December 20, 2013. During the injection treatment BCP-MW-3 and BCP-MW-5 became clogged with the iron precipitate.

In March 2014, sediment from BCP-MW-3 and BCP-MW-5 were cleaned by jetting clean water into the well and removed sediment containing water with a vactor truck. To avoid sediment clogging these wells again Klozur will not be used to treat groundwater in BCP-MW-3 and BCP-MW-5. These wells will be treated with RegenOX.

Ongoing Treatments

In situ chemical oxidation treatment will continue over the next 2 – 5 years. Injection treatment will be determined based on groundwater monitoring results. It is anticipated that injections will be applied every 2 – 3 months. However, it is possible that injection periods may be extended to semi-annual events to better assess whether BTEX concentrations are rebounding after treatment. The procedure for gravity fed injections is below:

1. Poly sheets are placed on the area around the monitoring well and where the product is mixed;
2. Injection chemicals were mixed in two 55 gallon poly drums;
3. RegenOX was mixed as a 6% solution, gravity feeding approximately 200 gallons of injection solution per monitoring well;

4. Injection solution should be gravity feed from the 55 gallon drum using garden hoses, the injection solution was gravity fed beneath the water table and allowed to slowly infiltrate into the coarse sand/gravel zone; and
5. The total amount of injection solution and pounds of chemical product used will be recorded and presented in the Groundwater Monitoring Report.

4.2.1 Monitoring Schedule

Sampling/inspection will occur following 6 to 8 weeks after a treatment event. After groundwater BTEX concentrations have been lowered below NYSDEC standards/guidance levels or have become asymptotic to a low level over an extended period of time as accepted by the NYSDEC then sampling/inspections will be conducted quarterly for two years.

The monitoring well sampling log will serve as the inspection form for the groundwater monitoring well network. The following wells will be sampled quarterly:

BCP-MW1

BCP-MW2

BCP-MW3

BCP-MW4

BCP-MW5

BCP-MW6

BCP-MW7

Monitoring deliverables for the groundwater treatment system are specified later in this Plan.

4.2.2 General Equipment Monitoring

A visual inspection of the complete system will be conducted during the monitoring event. Monitoring well system components to be monitored include, but are not limited to, the following:

- Steel lid/road box
- Bolts

- Well plug
- PVC riser

4.2.4 Sampling Event Protocol

Post-treatment groundwater sampling procedures are described in Section 3.3.1.1 Sampling Protocol.

4.3 MAINTENANCE AND PERFORMANCE MONITORING REPORTING REQUIREMENTS

Monitoring well maintenance reports and any other information generated during regular operations at the Site will be kept on-file at the Conventus Partners LLC offices. All reports, forms, and other relevant information generated will be available upon request to the NYSDEC and submitted as part of the Periodic Review Report, as specified in the Section 5 of this SMP.

4.3.1 Routine Maintenance Reports

If maintenance is needed on the groundwater monitoring wells, the following information will be included in the Groundwater Monitoring Report:

- Date;
- Name, company, and position of person(s) conducting maintenance activities;
- Maintenance activities conducted;
- Any modifications to the wells;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

5. INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan and Section 4 Operation and Maintenance Plan of this SMP. At a minimum, a site-wide inspection will be conducted annually. Inspections of remedial components will also be conducted when a breakdown of any treatment system component has occurred or whenever a severe condition has taken place, such as an erosion or flooding event that may affect the ECs.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections and monitoring events will be recorded on the appropriate forms for their respective system which are contained in Appendices F. Additionally, a general site-wide inspection form will be completed during the site-wide inspection (see **Appendix G**). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including all media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection and site monitoring data will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;
- The Monitoring Plan is being implemented;
- Operation and maintenance activities are being conducted properly; and, based on the above items,

- The Site remedy continues to be protective of public health and the environment and is performing as designed in the RAWP and FER.

5.2 CERTIFICATION OF ENGINEERING AND INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, a qualified environmental professional or Professional Engineer licensed to practice in New York State will prepare the following certification:

For each institutional or engineering control identified for the Site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program and generally accepted engineering practices;
- The information presented in this report is accurate and complete; and

- A certificate stating "I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] (and if the Site consists of multiple properties): [I have been authorized and designated by all Site owners to sign this certification] for the Site."

The signed certification will be included in the Periodic Review Report described below.

For each institutional identified for the Site, I certify that all of the following statements are true:

- The institutional control employed at this Site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the environmental easement.
- The information presented in this report is accurate and complete; and
- A certificate stating, "I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as [Owner or Owner's Designated Site Representative] (and if the Site consists of multiple properties): [and I have been authorized and designated by all site owners to sign this certification] for the Site."

- Site and that "No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid;"

  Every five years the following certification will be added:

- The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Periodic Review Report described below.

5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department every year, beginning fifteen months after the Certificate of Completion is issued. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in **Appendix B** (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the Site during the reporting period in electronic format;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables and graphical representations of contaminants of concern by media (groundwater), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted; these will include

a presentation of past data as part of an evaluation of contaminant concentration trends;

- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format; and
- A site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific Decision Document;
    - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
    - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan for the media being monitored;
    - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and
    - The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy and electronic format, to the NYSDEC Regional Office in which the Site is located, and in electronic format to the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 CORRECTIVE MEASURES PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

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Table 1-1.1: VOCs
REMEDIAL INVESTIGATION SOIL ANALYTICAL RESULTS

Sample Name	NYSDEC Soil Cleanup Objectives					A-3	A-4	A-5	A-6	A-7	A-8	A-9	B-2 / C-2	B-3	B-4	B-5	B-6	B-7	B-8
Sample Depth						0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'
Sample Date						22-Mar-13	29-May-13	29-May-13	29-May-13	9-Jul-13	9-Jul-13	20-Sep-13	1-Apr-13	22-Mar-13	29-May-13	29-May-13	9-Jul-13	9-Jul-13	9-Jul-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analyte	Unrestricted	Residential	Restricted Residential	Commercial	Industrial														
Volatile Organic Compounds																			
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.06	2.9	4.8	44	89	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0017 J	ND	ND	ND	ND
n-Butylbenzene [f]	12	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride [f]	0.76	1.4	2.4	22	44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.37	10	49	350	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	30	41	390	780	ND	0.0011 J	ND	ND	ND	ND	ND	ND	ND	0.028	ND	ND	ND	ND
Hexachlorobenzene [f]	0.33[b]	0.33[e]	1.2	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.12	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether [f]	0.93	62	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.05	51	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	100	500	1,000	ND	0.0018 J	ND	ND	ND	ND	ND	0.00092 J	ND	0.47	ND	ND	ND	ND
Xylene (mixed)	0.26	100	100	500	1,000	ND	0.011	ND	ND	ND	ND	ND	0.000098 J	ND	0.27	ND	ND	ND	ND
No Regulatory Limits																			
1,2 Dibromethane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.076	ND	ND	ND	ND
Isopropylbenzene						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0037 J	ND	ND	ND	ND
Methyclclohexane						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.049	ND	ND	ND	ND
Methyl acetate						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

SO=Soil Sample

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

Sample depths: "0" indicates sample from base excavation at 26 ft below grade, additional depths are from below base excavation (i.e. "14" is 40 feet below grade)

ND = Not Detected above Method Detection Limit

B = Compound was found in the blank and sample

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

U = The analyte was analyzed for, but was not detected above the reporting limit

Table 1-1.1: VOCs
REMEDIAL INVESTIGATION SOIL ANALYTICAL RESULTS

Sample Name	NYSDEC Soil Cleanup Objectives					B-9	C-3	C-4	C-5	C-6	C-7	C-8	C-9	D-2	D-3	D-4	D-5	D-5	D-6
Sample Depth						0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	12'	0'
Sample Date						20-Sep-13	22-Mar-13	22-Mar-13	10-Jul-13	10-Jul-13	10-Jul-13	13-Sep-13	13-Sep-13	5-Jun-13	22-Mar-13	1-Apr-13	1-Apr-13	1-Apr-13	1-Apr-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analyte	Unrestricted	Residential	Restricted Residential	Commercial	Industrial														
Volatile Organic Compounds																			
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0092 J	ND	ND	ND
Benzene	0.06	2.9	4.8	44	89	ND	ND	ND	ND	ND	ND	ND	0.0016 J	ND	ND	ND	0.0066	ND	ND
n-Butylbenzene [f]	12	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride [f]	0.76	1.4	2.4	22	44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.37	10	49	350	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	30	41	390	780	ND	ND	ND	ND	ND	ND	ND	0.0015 J	ND	ND	ND	0.0530	0.011	ND
Hexachlorobenzene [f]	0.33[b]	0.33[e]	1.2	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.12	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0039 J	ND
Methyl tert-butyl ether [f]	0.93	62	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.05	51	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	0.0055	ND	0.00036 J	0.00053 J	0.180	0.015	ND
Xylene (mixed)	0.26	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	0.014	ND	ND	ND	4.3	0.053	0.0027 J
No Regulatory Limits																			
1,2 Dibromethane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane						ND	ND	ND	ND	ND	ND	ND	ND	ND	0.001 J	ND	ND	ND	ND
Isopropylbenzene						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyclclohexane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.54	ND	ND
Methyl acetate						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

SO=Soil Sample

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

Sample depths: "0" indicates sample from base excavation at 26 ft below grade, additional depths are from below base excavation (i.e. "14" is 40 feet below grade)

ND = Not Detected above Method Detection Limit

B = Compound was found in the blank and sample

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

U = The analyte was analyzed for, but was not detected above the reporting limit

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Table 1-1.1: VOCs
REMEDIAL INVESTIGATION SOIL ANALYTICAL RESULTS

Sample Name	NYSDEC Soil Cleanup Objectives					D-7	D-8	D-9	EB-1	EB-2	EB-3	EB-4	EB-5	EB-6	EB-7	EB-8	EB-9	E-1
Sample Depth						0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	0'	10'
Sample Date						10-Jul-13	13-Sep-13	29-May-13	11-Apr-13	12-Apr-13	12-Apr-13	16-Apr-13	16-Apr-13	16-Apr-13	16-Apr-13	16-Apr-13	16-Apr-13	30-May-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analyte	Unrestricted	Residential	Restricted Residential	Commercial	Industrial													
Volatile Organic Compounds																		
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	100	100	500	1,000	ND	ND	ND	ND	0.0048 J	ND	0.0095 J	ND	ND	ND	0.0075 J	0.0069 J	ND
Benzene	0.06	2.9	4.8	44	89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene [f]	12	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride [f]	0.76	1.4	2.4	22	44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.37	10	49	350	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	30	41	390	780	ND	0.00067 J	ND	ND	0.00037 J	0.00037 J	ND	ND	ND	ND	0.005	0.00043 J	ND
Hexachlorobenzene [f]	0.33[b]	0.33[e]	1.2	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.12	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether [f]	0.93	62	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.05	51	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	100	500	1,000	ND	ND	ND	0.001 JB	0.0019 JB	0.0019 JB	0.00075 JB	0.00055 JB	0.00096 JB	0.00086 JB	0.00091 JB	0.00089 JB	ND
Xylene (mixed)	0.26	100	100	500	1,000	ND	0.0036 J	ND	0.00067 J	0.0021 J	0.002 J	ND	ND	ND	ND	0.00071 J	0.0012 J	ND
No Regulatory Limits																		
1,2 Dibromethane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0018 J	ND	ND
Isopropylbenzene						ND	ND	ND	ND	0.0019 J	ND	ND	ND	ND	ND	ND	ND	ND
Methyclclohexane						ND	ND	ND	ND	ND	0.0019 J	ND	ND	ND	ND	0.00082 J	ND	ND
Methyl acetate						ND	ND	ND	ND	0.0033 J	0.0032 J	ND	ND	ND	ND	ND	ND	ND

Notes:

SO=Soil Sample

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

Sample depths: "0" indicates sample from base excavation at 26 ft below grade, additional depths are from below base excavation (i.e. "14" is 40 feet below grade)

ND = Not Detected above Method Detection Limit

B = Compound was found in the blank and sample

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

U = The analyte was analyzed for, but was not detected above the reporting limit

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Table 1-1.1: VOCs
REMEDIAL INVESTIGATION SOIL ANALYTICAL RESULTS

Sample Name	NYSDEC Soil Cleanup Objectives					E-1	E-1	E2-1	E-2	E-3	E-4	E-5	E-6	E-7	E-8	E-9	F1	F1
Sample Depth						13'	16'	14'	16'	14'	14'	14'	14'	0'	0'	0'	10'	13'
Sample Date						30-May-13	30-May-13	18-Apr-13	18-Apr-13	18-Apr-13	18-Apr-13	8-May-13	19-Apr-13	13-Sep-13	13-Sep-13	29-May-13	30-May-13	30-May-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analyte	Unrestricted	Residential	Restricted Residential	Commercial	Industrial													
Volatile Organic Compounds																		
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND	ND	ND	ND	ND	0.005	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	100	100	500	1,000	ND	ND	ND	ND	ND	0.011 J	ND	ND	ND	ND	ND	ND	0.005 J
Benzene	0.06	2.9	4.8	44	89	0.013	0.002 J	ND	ND	0.380	ND	0.041 J	0.1	ND	ND	ND	ND	ND
n-Butylbenzene [f]	12	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride [f]	0.76	1.4	2.4	22	44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.37	10	49	350	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	30	41	390	780	ND	0.0056	ND	0.0029 J	1.600	0.00084 J	0.071 J	0.57	ND	ND	ND	ND	ND
Hexachlorobenzene [f]	0.33[b]	0.33[e]	1.2	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.12	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether [f]	0.93	62	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.05	51	100	500	1,000	ND	ND	ND	ND	ND	0.0044	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	100	500	1,000	ND	0.0036 J	0.00097 J	0.0024 JB	2.70	0.0024 J	0.27 J	1.4	ND	ND	ND	ND	ND
Xylene (mixed)	0.26	100	100	500	1,000	ND	0.02	0.0013 J	0.015 B	11.00	0.0030 J	0.46 J	4.9	ND	ND	ND	ND	ND
No Regulatory Limits																		
1,2 Dibromethane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane						ND	ND	ND	ND	0.55	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene						ND	ND	ND	0.0067	0.096	ND	0.0084 J	0.034 J	ND	ND	ND	ND	ND
Methyclclohexane						ND	ND	ND	0.079	0.77	ND	0.14 J	0.18	ND	ND	ND	ND	ND
Methyl acetate						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

SO=Soil Sample

ug/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

Sample depths: "0" indicates sample from base excavation at 26 ft below grade, additional depths are from below base excavation (i.e. "14" is 40 feet below grade)

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U = The analyte was analyzed for, but was not detected above the reporting limit

979 (1001) MAIN STREET
BUFFALO, NEW YORK

Table 1-1.1: VOCs
REMEDIAL INVESTIGATION SOIL ANALYTICAL RESULTS

Sample Name	NYSDEC Soil Cleanup Objectives					F1	F2	F3	F4	F5	F6	F6	F-7	F-7	F-7	F-7	F-8	F-9	G-1
Sample Depth						16'	14'	14'	12'	14'	10'	13'	8'	10'	13'	16'	0'	0'	7'
Sample Date						30-May-13	18-Apr-13	18-Apr-13	30-May-13	7-May-13	5-Jun-13	5-Jun-13	5-Jun-13	5-Jun-13	5-Jun-13	5-Jun-13	21-May-13	21-May-13	7-May-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analyte	Unrestricted	Residential	Restricted Residential	Commercial	Industrial														
Volatile Organic Compounds																			
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND	ND	ND	0.00019 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	100	100	500	1,000	ND	ND	0.0041 J	ND	ND	ND	ND	ND	ND	0.028	ND	0.023	ND	ND
Benzene	0.06	2.9	4.8	44	89	ND	0.076	ND	0.0065	0.047 J	0.14	0.078	57	1.2	0.013 J	0.017	0.078 J	ND	120
n-Butylbenzene [f]	12	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride [f]	0.76	1.4	2.4	22	44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.37	10	49	350	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	30	41	390	780	ND	0.078	0.00035 J	0.0011 J	0.087	0.16	0.18	76	5.4	0.13	0.015	4.2	ND	220
Hexachlorobenzene [f]	0.33[b]	0.33[e]	1.2	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.12	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0062 J	ND	0.013 J	ND	32
Methyl tert-butyl ether [f]	0.93	62	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.05	51	100	500	1,000	ND	ND	ND	ND	ND	0.033 JB	0.036 JB	ND	ND	0.028 JB	ND	ND	ND	ND
Toluene	0.7	100	100	500	1,000	ND	0.14	0.0011 J	ND	0.2	0.3	0.450	110	4.2	0.1	0.024 B	5	ND	820
Xylene (mixed)	0.26	100	100	500	1,000	ND	0.17	0.0016 J	0.0027 J	0.45	0.83	1.50	460	27	0.56	0.059 B	46	ND	1500
No Regulatory Limits																			
1,2 Dibromethane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone						ND	ND	ND	ND	0.12 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide						ND	ND	ND	ND	ND	0.0052	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane						ND	0.14	ND	0.0016 J	ND	ND	0.14	ND	ND	0.066	0.0087	ND	ND	ND
Isopropylbenzene						ND	0.0054	ND	ND	ND	0.0071 J	0.0130 J	3.9	0.5	0.02	0.0014 J	0.42	ND	170
Methyclclohexane						ND	0.043	ND	ND	0.14	0.14	0.21	43	12	0.05 J	0.0066	0.78	ND	12 J
Methyl acetate						ND	ND	ND	ND	ND	0.43	ND	ND	ND	ND	ND	ND	ND	150

Notes:

SO=Soil Sample

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979 (1001) MAIN STREET
BUFFALO, NEW YORK

Table 1-1.1: VOCs
REMEDIAL INVESTIGATION SOIL ANALYTICAL RESULTS

Sample Name	NYSDEC Soil Cleanup Objectives					G-1	G-1	G-1	G-2	G-2	G-3	G-4	G-5	G-5	G-6	G-6	G-6	G-7	G-7
Sample Depth						10'	13'	16'	14'	16'	14'	14'	10'	13'	10'	13'	16'	8'	14'
Sample Date						5-Jun-13	5-Jun-13	5-Jun-13	19-Apr-13	19-Apr-13	19-Apr-13	18-Apr-13	5-Jun-13	5-Jun-13	5-Jun-13	5-Jun-13	5-Jun-13	25-Apr-13	25-Apr-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analyte	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**														
Volatile Organic Compounds																			
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.06	2.9	4.8	44	89	18	0.42	0.25	18	0.096	0.34	0.064	0.740	0.33	14	0.67	0.037 J	0.016 J	ND
n-Butylbenzene [f]	12	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride [f]	0.76	1.4	2.4	22	44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.37	10	49	350	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	30	41	390	780	94	0.66	0.34	19	0.0061	0.0720	0.033	0.730	1.8	13	1.3	0.065	0.880	11
Hexachlorobenzene [f]	0.33[b]	0.33[e]	1.2	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.12	100	100	500	1,000	ND	ND	ND	ND	ND	0.0061 J	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether [f]	0.93	62	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.05	51	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	100	500	1,000	420	2.6	1.5	53	0.0077 B	0.32	0.030 B	ND	5.9	2.6 J	3.3	0.150	3.8	13
Xylene (mixed)	0.26	100	100	500	1,000	620	4.2	2.3	120	0.0049 JB	0.27	0.19 B	4.8	12	51	8.8	0.39	5.9	69
No Regulatory Limits																			
1,2 Dibromethane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene						89		0.34	13	ND	0.031	0.044		2.1	120	1.4	ND	0.48	18
Methyclclohexane						3.9 J	0.036 J	0.017 J	0.84 J	0.0015 J	0.0018 J	0.0036 J	0.024 J	0.087	4.4	0.12	ND	0.033 J	1
Methyl acetate						110	1	0.43	18.0	0.0067	0.03 J	0.022	2.9	1.7	170	2.40	0.082	0.36	16

Notes:

SO=Soil Sample

ug/kg = micrograms per kilogram

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Sample depths: "0" indicates sample from base excavation at 26 ft below grade, additional depths are from below base excavation (i.e. "14" is 40 feet below grade)

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979 (1001) MAIN STREET
BUFFALO, NEW YORK

Table 1-1.1: VOCs
REMEDIAL INVESTIGATION SOIL ANALYTICAL RESULTS

Sample Name	NYSDEC Soil Cleanup Objectives					G-8	G-9	G-9	H-1	H-2	H-2	H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-8
Sample Depth						0'	0'	0'	0'	10'	13'	16'	14'	14'	14'	14'	10'	0'	0'
Sample Date						21-May-13	21-May-13	7-Aug-13	5-Jun-13	5-Jun-13	5-Jun-13	5-Jun-13	19-Apr-13	19-Apr-13	18-Apr-13	25-Apr-13	5-Jun-13	21-May-13	7-Aug-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analyte	Unrestricted	Residential	Restricted Residential	Commercial	Industrial														
Volatile Organic Compounds																			
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	0.093	ND	ND	0.0073 J	ND	ND
Benzene	0.06	2.9	4.8	44	89	ND	ND	ND	ND	ND	0.84	ND	0.044	4.40	3.3	0.15	0.0027 J	ND	ND
n-Butylbenzene [f]	12	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride [f]	0.76	1.4	2.4	22	44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.37	10	49	350	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	30	41	390	780	ND	ND	ND	0.001 J	0.380	0.61	0.00048 JB	0.019	0.46	0.540	1.8	0.02 B	ND	ND
Hexachlorobenzene [f]	0.33[b]	0.33[e]	1.2	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.12	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	0.0051 J	0.053	ND	ND	ND	ND	ND
Methyl tert-butyl ether [f]	0.93	62	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.05	51	100	500	1,000	ND	ND	ND	ND	0.067 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	100	500	1,000	ND	ND	0.00043 J	0.0048 JB	ND	1.9	0.002 JB	0.071 B	6.00	6.5	5	0.032 B	ND	ND
Xylene (mixed)	0.26	100	100	500	1,000	ND	0.0041 J	ND	0.0059 J	1.3	4.2	0.0026 JB	0.088 B	3.1	3.4	11	0.067 B	ND	ND
No Regulatory Limits																			
1,2 Dibromethane						ND	ND	ND	ND	ND	ND	ND	ND	0.0460	0.038 J	ND	ND	ND	ND
2-Hexanone						ND	ND	ND	ND	ND	ND	ND	0.0051 J	ND	ND	ND	ND	ND	ND
Carbon disulfide						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene						ND	ND	ND	ND	ND	ND	ND	ND	0.076 J	0.22	ND	0.012	ND	ND
Methyclclohexane						ND	ND	ND	ND	ND	0.022 J	ND	0.0034 J	0.0073	0.013	0.08 J	ND	ND	ND
Methyl acetate						ND	ND	ND	ND	ND	0.120	ND	0.043	0.067 J	0.18	1.1	0.0069	ND	ND

Notes:

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979 (1001) MAIN STREET
BUFFALO, NEW YORK

Table 1-1.1: VOCs
REMEDIAL INVESTIGATION SOIL ANALYTICAL RESULTS

Sample Name	NYSDEC Soil Cleanup Objectives					H-9	H-9	J-1	J-2	J-3	J-4	J-4	J-5	J-5	J-6	J-7	J-8	J-9
Sample Depth						0'	0'	0'	0'	0'	0'	14'	0'	14'	0'	0'	0'	0'
Sample Date						21-May-13	7-Aug-13	22-May-13	22-May-13	22-May-13	12-Jul-13	18-Apr-13	12-Jul-13	18-Apr-13	21-May-13	21-May-13	21-May-13	21-May-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Analyte	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Industrial**													
Volatile Organic Compounds																		
1,2-Dichloroethane	0.02	2.3	3.1	30	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	0.05	100	100	500	1,000	ND	ND	ND	ND	0.0051 J	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	0.06	2.9	4.8	44	89	ND	ND	ND	ND	ND	ND	0.085	ND	0.00064 J	ND	0.00073 J	ND	ND
n-Butylbenzene [f]	12	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride [f]	0.76	1.4	2.4	22	44	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.1	100[a]	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	0.37	10	49	350	700	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	30	41	390	780	ND	ND	ND	ND	2.6	ND	0.061	ND	0.0071	ND	0.001 J	ND	ND
Hexachlorobenzene [f]	0.33[b]	0.33[e]	1.2	6	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl ethyl ketone	0.12	100	100	500	1,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether [f]	0.93	62	100[a]	500[b]	1,000[c]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.05	51	100	500	1,000	ND	ND	ND	ND	0.043 JB	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.7	100	100	500	1,000	ND	ND	ND	ND	1.2	ND	0.51	ND	0.0081	ND	0.0032 JB	ND	ND
Xylene (mixed)	0.26	100	100	500	1,000	ND	ND	ND	ND	22	ND	0.4	ND	0.048	ND	0.0066 J	ND	ND
No Regulatory Limits																		
1,2 Dibromethane						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane						ND	ND	ND	ND	0.19	ND	0.029 J	ND	ND	ND	ND	ND	ND
Isopropylbenzene						ND	ND	ND	ND	0.22	ND	0.0011 J	ND	ND	ND	ND	ND	ND
Methyclclohexane						ND	ND	ND	ND	0.92	ND	0.011	ND	0.0066	ND	ND	ND	ND
Methyl acetate						ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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RESTRICTED RESIDENTIAL CLEANUP OBJECTIVES

Contaminate	Restricted Residential
PHENANTHRENE	100
PHENOL	100
PYRENE	100
Metals	
ARSENIC	16
BARIUM	400
BERYLLIUM	72
CADMIUM	4.3
CHROMIUM, HEXAVALENT	110
CHROMIUM, TRIVALENT	180
COPPER	270
TOTAL CYANIDE	27
LEAD	400
MANGANESE	2000
MERCURY	0.81
NICKEL	310
SELENIUM	180
SILVER	180
ZINC	10000
PCBs/Pesticides	
2,4,5-TP Acid (Silvex)	100[a]
4,4'-DDE	8.9
4,4'-DDT	7.9
4,4'-DDD	13
Aldrin	0.097
alpha-BHC	0.48
beta-BHC	0.36
Chlordane (alpha)	4.2
delta-BHC	100[a]
Dibenzofuran	59
Dieldrin	0.2
Endosulfan I	24[i]
Endosulfan II	24[i]
Endosulfan sulfate	24[i]
Endrin	11
Heptachlor	2.1
Lindane	1.3
Polychlorinated biphenyls	1

RESTRICTED RESIDENTIAL CLEANUP OBJECTIVES

NYSDEC Soil Cleanup Objectives	
Contaminate	**Restricted Residential**
Volatile Organic Compounds	
1,1,1-TRICHLOROETHANE	100
1,1-DICHLOROETHANE	26
1,1-DICHLOROETHENE	100
1,2-DICHLOROBENZENE	100
1,2-DICHLOROETHANE	3.1
1,3-DICHLOROBENZENE	49
1,4-DICHLOROBENZENE	13
ACETONE	100
BENZENE	4.8
CARBON TETRACHLORIDE	2.4
CHLOROBENZENE	100
CHLOROFORM	49
CIS-1,2-DICHLOROETHYLENE	100
ETHYLBENZENE	41
METHYL ETHYL KETONE (2-BUTANONE)	100
METHYLENE CHLORIDE	100
TERT-BUTYL METHYL ETHER	100
TETRACHLOROETHYLENE(PCE)	19
TOLUENE	100
TRANS-1,2-DICHLOROETHENE	100
TRICHLOROETHYLENE (TCE)	21
VINYL CHLORIDE	0.9
XYLENES, TOTAL	100
Semi-Volatile Organic Compounds	
2-METHYLPHENOL (O-CRESOL)	100
4-METHYLPHENOL (P-CRESOL)	100
ACENAPHTHENE	100
ACENAPHTHYLENE	100
ANTHRACENE	100
BENZO(A)ANTHRACENE	1
BENZO(A)PYRENE	1
BENZO(B)FLUORANTHENE	1
BENZO(G,H,I)PERYLENE	100
BENZO(K)FLUORANTHENE	3.9
CHRYSENE	3.9
DIBENZ(A,H)ANTHRACENE	0.33
DIBENZOFURAN	59
FLUORANTHENE	100
FLUORENE	100
HEXACHLOROBENZENE	1.2
INDENO(1,2,3-C,D)PYRENE	0.5
NAPHTHALENE	100
PENTACHLOROPHENOL	6.7

979 (1001 Main Street)
BUffalo, New York

Table ES-1

Summary of Confirmatory Samples with Concentrations Exceeding Unrestricted Use

Sample Name	NYSDEC Soil Cleanup Objectives					B-4	D-5	E-3	E-5	E-6	F2	F5	F6	F-8	G-1	G-2	G-3	G-4	G-6
Sample Depth						0'	0'	14'	14'	14'	14'	14'	13'	0'	16'	16'	14'	14'	16'
Sample Date						29-May-13	1-Apr-13	18-Apr-13	8-May-13	19-Apr-13	18-Apr-13	7-May-13	5-Jun-13	21-May-13	5-Jun-13	19-Apr-13	19-Apr-13	18-Apr-13	5-Jun-13
Matrix						SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Contaminate	**Unrestricted**	**Residential**	**Restricted Residential**	**Commercial**	**Protection of GW**														
Volatile Organic Compounds																			
Acetone	0.05	100	100	500	**0.05**	ND	ND	ND	ND	ND	ND	ND	ND	0.023	ND	ND	ND	ND	ND
Benzene	0.06	2.9	4.8	44	**0.06**	0.0017 J	0.0066	**0.380**	0.041 J	**0.1**	**0.076**	0.047 J	**0.078**	**0.078 J**	**0.25**	**0.096**	**0.34**	**0.064**	0.037 J
Ethylbenzene	1	30	41	390	**1**	0.028	0.0530	**1.600**	0.071 J	0.57	0.078	0.087	0.18	**4.2**	0.34	0.0061	0.0720	0.033	0.065
Toluene	0.7	100	100	500	**0.7**	0.47	0.180	**2.70**	0.27 J	**1.4**	0.14	0.2	0.450	**5**	**1.5**	0.0077 B	0.32	0.030 B	0.150
Xylene (mixed)	0.26	100	100	500	**2**	0.27	**4.3**	**11.00**	0.46 J	**4.9**	0.17	0.45	1.50	**46**	**2.3**	0.0049 JB	0.27	0.19 B	0.39

Notes:
SO=Soil Sample

mg/kg = milligrams per kilogram

Sample depths: "0" indicates sample from base excavation at 26 ft below grade, additional depths are from below base excavation (i.e. "14" is 40 feet below grade)

ND = Not Detected above Method Detection Limit

B = Compound was found in the blank and sample

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

U = The analyte was analyzed for, but was not detected above the reporting limit

NOTE: A total of 84 confirmatory soil samples were collected and analyzed for VOCs
67 samples contained no detections or concentrations below Unrestricted Use SCO (79.7% of all samples collected)
15 samples contained concentrations below Residential Use SCOs (17.9% of all samples collected)
2 samples contained concentrations below Restricted Residential Use SCOS (2.4% of all samples collected)

979 (1001 Main Street)
BUffalo, New York

Table ES-1

Summary of Confirmatory Samples with Concentrations Exceeding Unrestricted Use

Sample Name	NYSDEC Soil Cleanup Objectives					G-7	H-4	H-5	H-6	J-3	J-4
Sample Depth						14'	14'	14'	14'	0'	14'
Sample Date						25-Apr-13	19-Apr-13	18-Apr-13	25-Apr-13	22-May-13	18-Apr-13
Matrix						SO	SO	SO	SO	SO	SO
Units						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Contaminate	Unrestricted	Residential	Restricted Residential	Commercial	Protection of GW						
Volatile Organic Compounds											
Acetone	0.05	100	100	500	**0.05**	ND	0.093	ND	ND	0.0051 J	ND
Benzene	0.06	2.9	4.8	44	**0.06**	ND	**4.40**	**3.3**	**0.15**	ND	**0.085**
Ethylbenzene	1	30	41	390	**1**	**11**	0.46	0.540	**1.8**	**2.6**	0.061
Toluene	0.7	100	100	500	**0.7**	**13**	**6.00**	**6.5**	**5**	**1.2**	0.51
Xylene (mixed)	0.26	100	100	500	**2**	**69**	**3.1**	**3.4**	**11**	**22**	0.4

Notes:
SO=Soil Sample

mg/kg = milligrams per kilogram

Sample depths: "0" indicates sample from base excavation at 26 ft below grade, additional depths are from below base excavation (i.e. "14" is 40 feet below grade)

ND = Not Detected above Method Detection Limit

B = Compound was found in the blank and sample

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value

U = The analyte was analyzed for, but was not detected above the reporting limit

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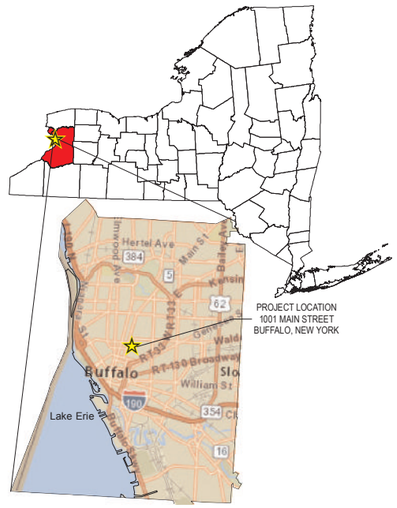

Legend

Brownfield Cleanup Program Boundary

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

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Feet

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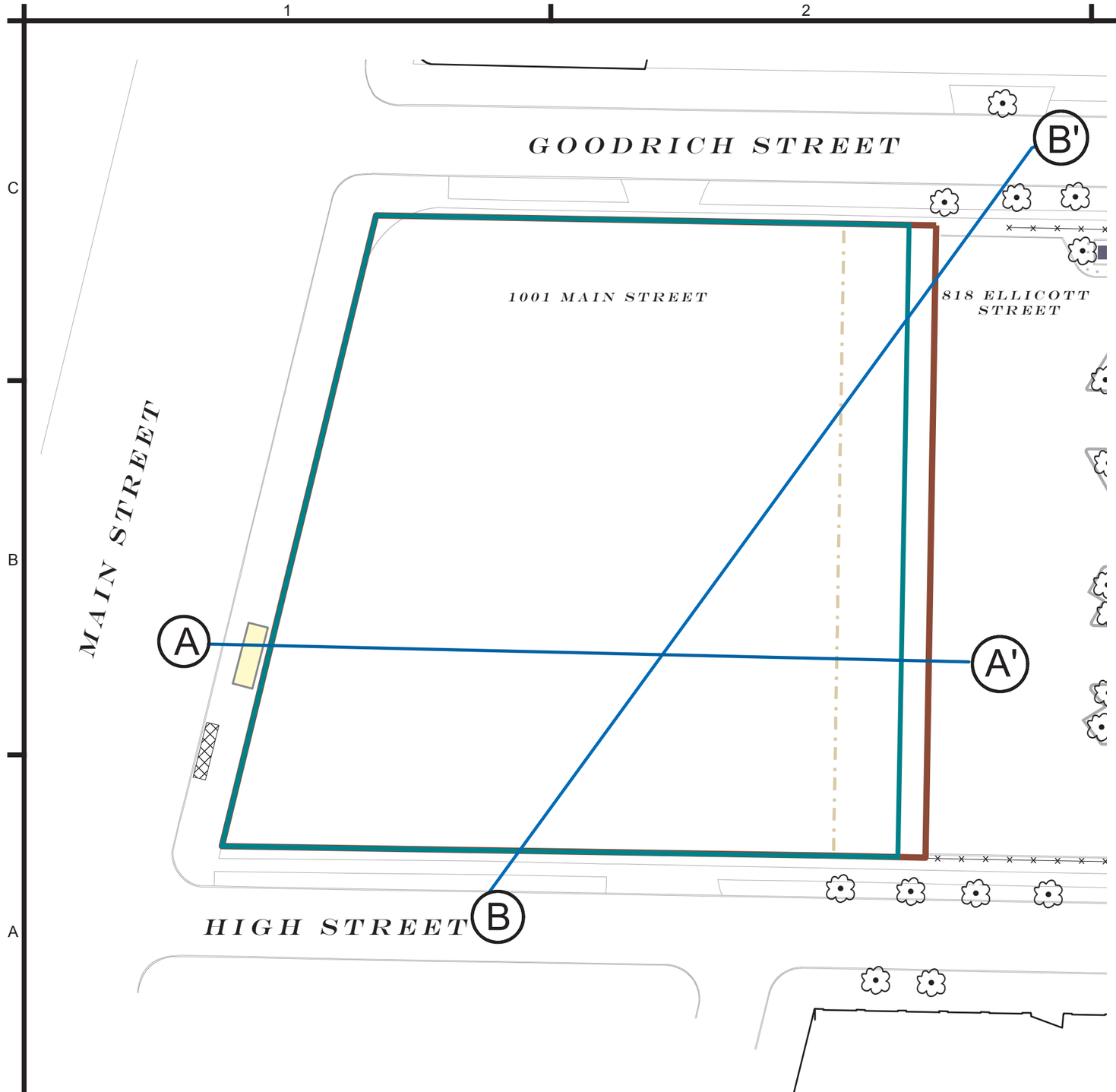
FORMER MOBIL STATION 99-MST
979 MAIN ST (1001 MAIN ST)
BROWNFIELD CLEANUP PROGRAM
BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO:	K11.002.001	
DATE:	OCTOBER 13, 2014	
DRAWN BY:	C. MARTIN	
DESIGNED BY:	C. MARTIN	
CHECKED BY:	M. COLMERAUER	

PROJECT AREA
AND
SITE BOUNDARIES

FIGURE 1-1

Path: F:\Project\K11-Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\Projects\RI-IRM\FIGURE_1-1_SITE_LOCATION.mxd



Legend

- Property Lines
- Brownfield Cleanup Program Boundary
- Shoring Boundary

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

Notes

1) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

2) Survey data from McIntosh & McIntosh P.C. "Topographical Map of Part of Lot-29, TWP.-11, R.-8, Holland Purchase" Job No. 7669-B(2) September 24, 2008.

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FORMER MOBIL STATION 99-MST
979 MAIN ST (1001 MAIN ST)
BROWNFIELD CLEANUP PROGRAM
BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	K11.002.001
DATE:	OCTOBER 13, 2014
DRAWN BY:	Z. TRABZADA
DESIGNED BY:	Z. TRABZADA
CHECKED BY:	M. COLMERAUER

PRE IRM CROSS SECTION LOCATIONS

ES-1

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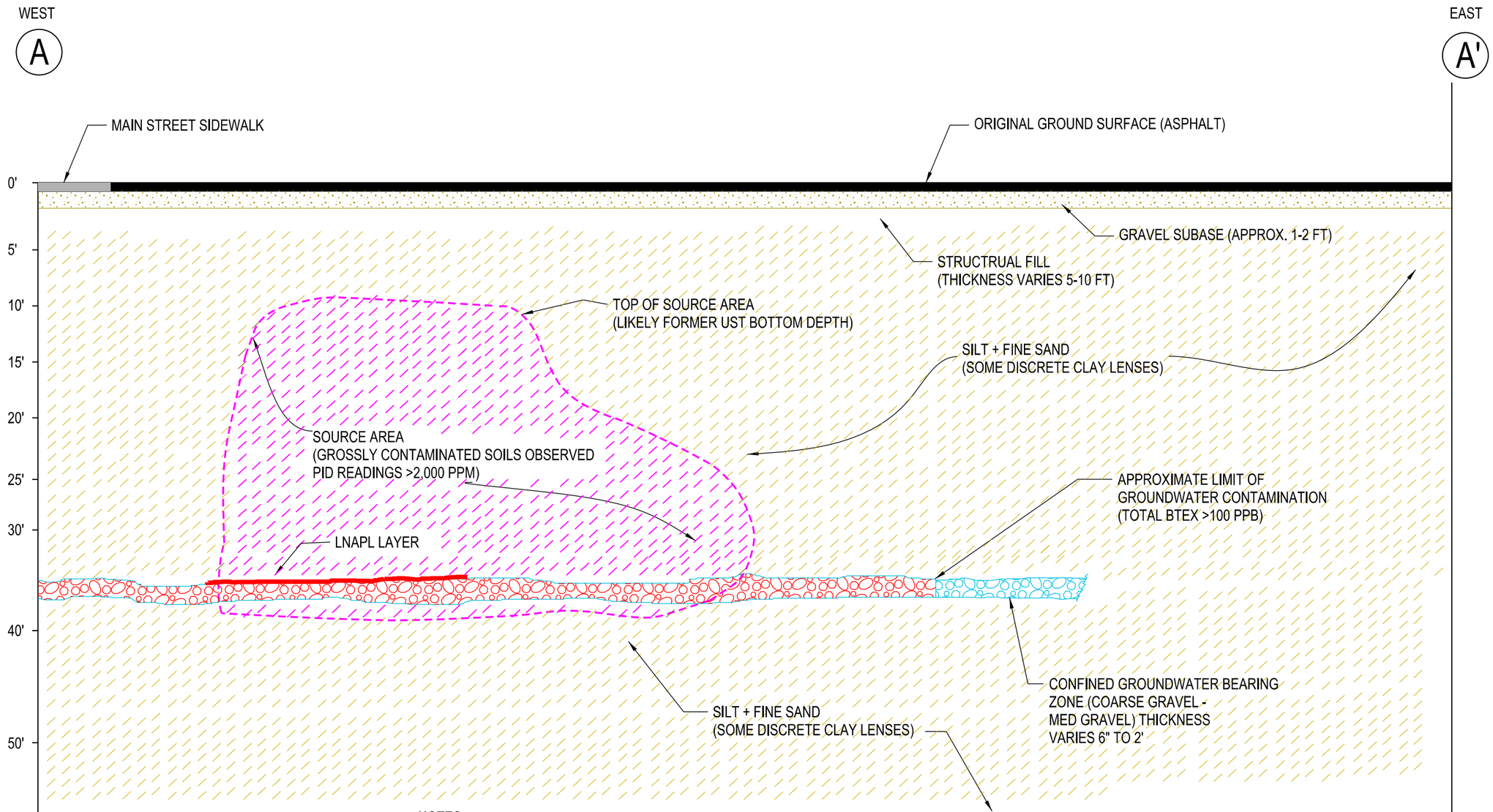

NOTES:

1. SUBSURFACE GEOLOGY BASED ON BORING LOGS PRESENTED IN:
   - A. SUPPLEMENTAL SUBSURFACE INVESTIGATION & QUARTERLY MONITORING REPORT, (GES, DECEMBER 2012)
   - B. GEOTECHNICAL ENGINEERING REPORT, 1001 MAIN STREET MEDICAL OFFICE BUILDING, BUFFALO NEW YORK, (McMAHON & MANN CONSULTING ENGINEERS, NOVEMBER 2012)
   - C. COMMERCIAL USE ASSESSMENT REPORT, (C&S, MAY 2012)
2. LNAPL = LIGHT NON-AQUEOUS PAHSE LIQUID
3. BTEX = BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE

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FORMER MOBIL SERVICE STATION
99-MST 979 MAIN ST (1001 MAIN ST)
BROWNFIELD CLEANUP PROGRAM
BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	K11.002.001
DATE:	OCTOBER 31, 2014
SCALE:	NOT TO SCALE
DRAWN BY:	Z. TRABZADA
DESIGNED BY:	Z.TRABZADA
CHECKED BY:	M. COLMERAUER

PRE IRM
CROSS SECTION
A-A'

ES-2

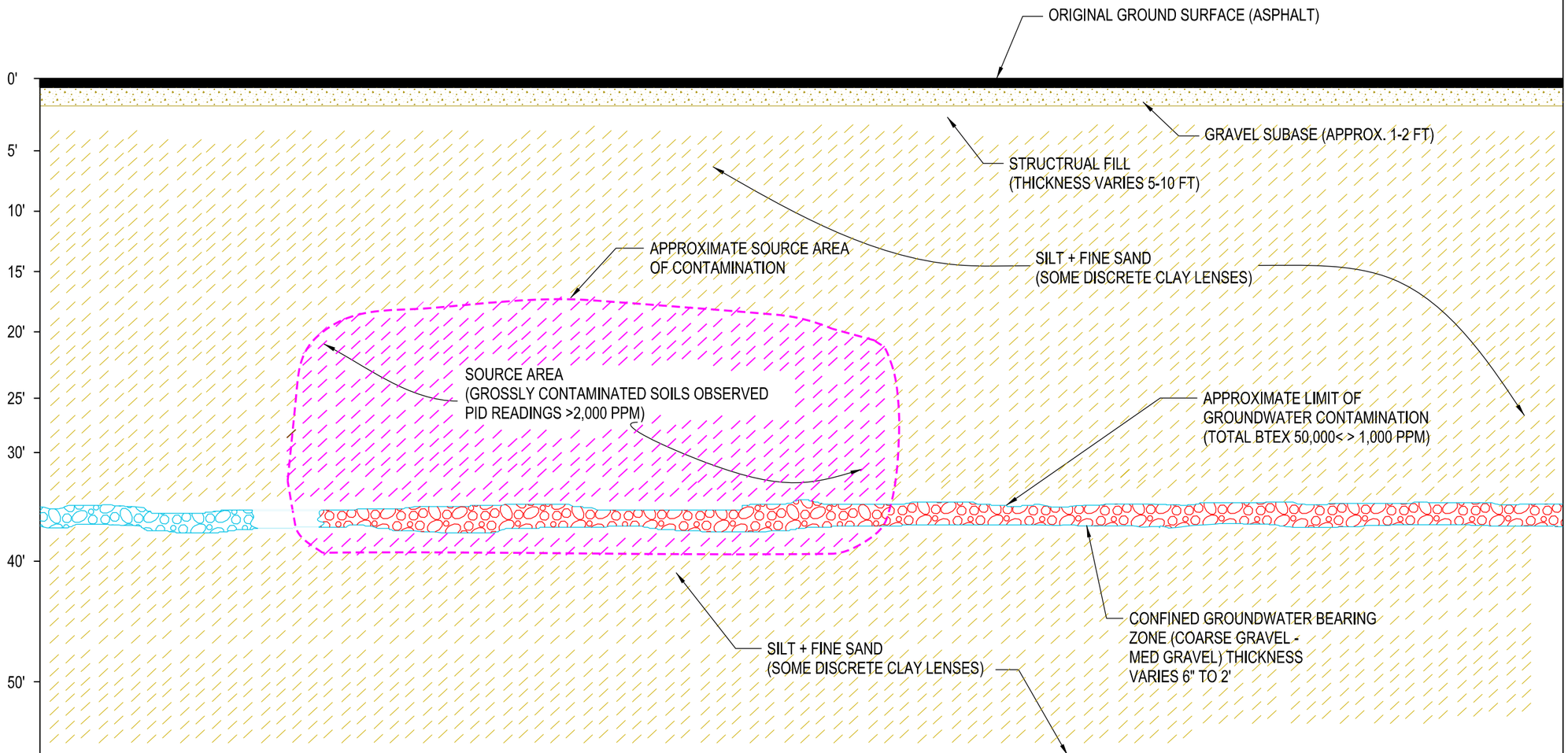
REFNAME

SOUTH

B

NORTH

B'



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FORMER MOBIL SERVICE STATION
99-MST 979 MAIN ST (1001 MAIN ST)
BROWNFIELD CLEANUP PROGRAM

BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION

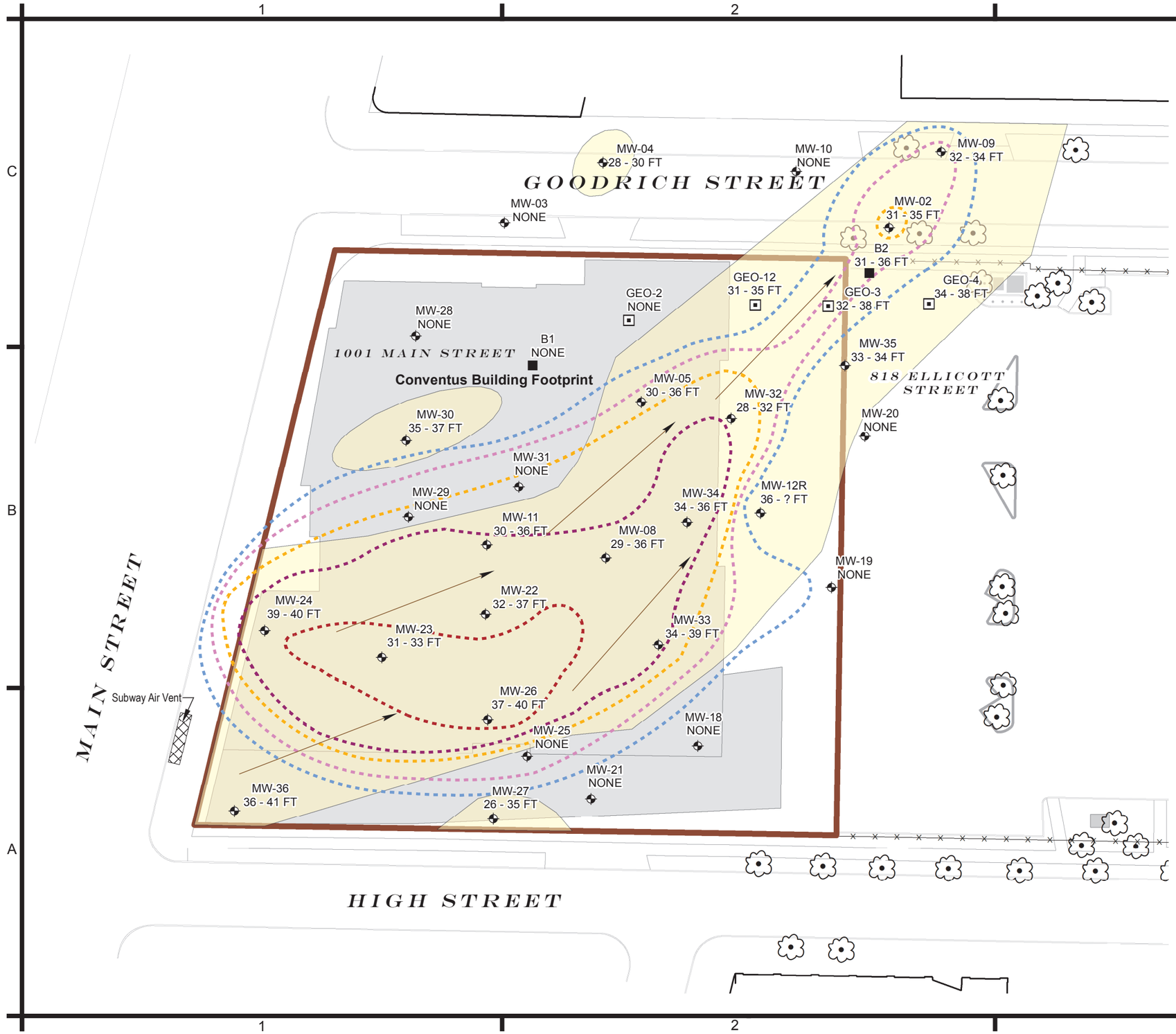
REVISIONS

PROJECT NO:	K11.002.001
DATE:	OCTOBER 31, 2014
SCALE:	NOT TO SCALE
DRAWN BY:	Z. TRABZADA
DESIGNED BY:	Z.TRABZADA
CHECKED BY:	M. COLMERAUER

PRE IRM
CROSS SECTION
B-B'

ES-3

REFNAME



Legend

- Brownfield Cleanup Program Boundary
- Coarse Sand / Gravel Groundwater Bearing Zone (at depth of approximately 28 ft below ground surface to approximately 41 ft below ground surface)
- Groundwater Monitoring Well Location
- Soil Boring Location
- Geotechnical Boring Location
- General Direction of BTEX Plume Flow

Total BTEX Isoconcentration Contours (ug/L)
February 2012

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

Location Identifier — Depth of Coarse Sand / Gravel Zone

MW-24
39 - 40 FT
NONE = Not Present

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

Notes

1) BTEX=Benzene, Toluene, Ethylbenzene and Xylene

2) Survey data from McIntosh & McIntosh P.C. "Topographical Map of Part of Lot-29, TWP.-11, R.-8, Holland Purchase" Job No. 7669-B(2) September 24, 2008.

3) Analytical data from May 22, 2014 sampling event for monitoring wells within the BCP site and July 24, 2014 sampling event for monitoring wells along Main Street and Goodrich Streets.

4) Sources used include: Environmental Product & Services Logs (MW-01 through MW-16), 1997; Groundwater & Environmental Services Logs (B1, B2, MW-18 through MW-36); and Earth Dimensions Logs (GEO-01 through GEO-04 and GEO-12), 2010.

0 25 50 100 Feet

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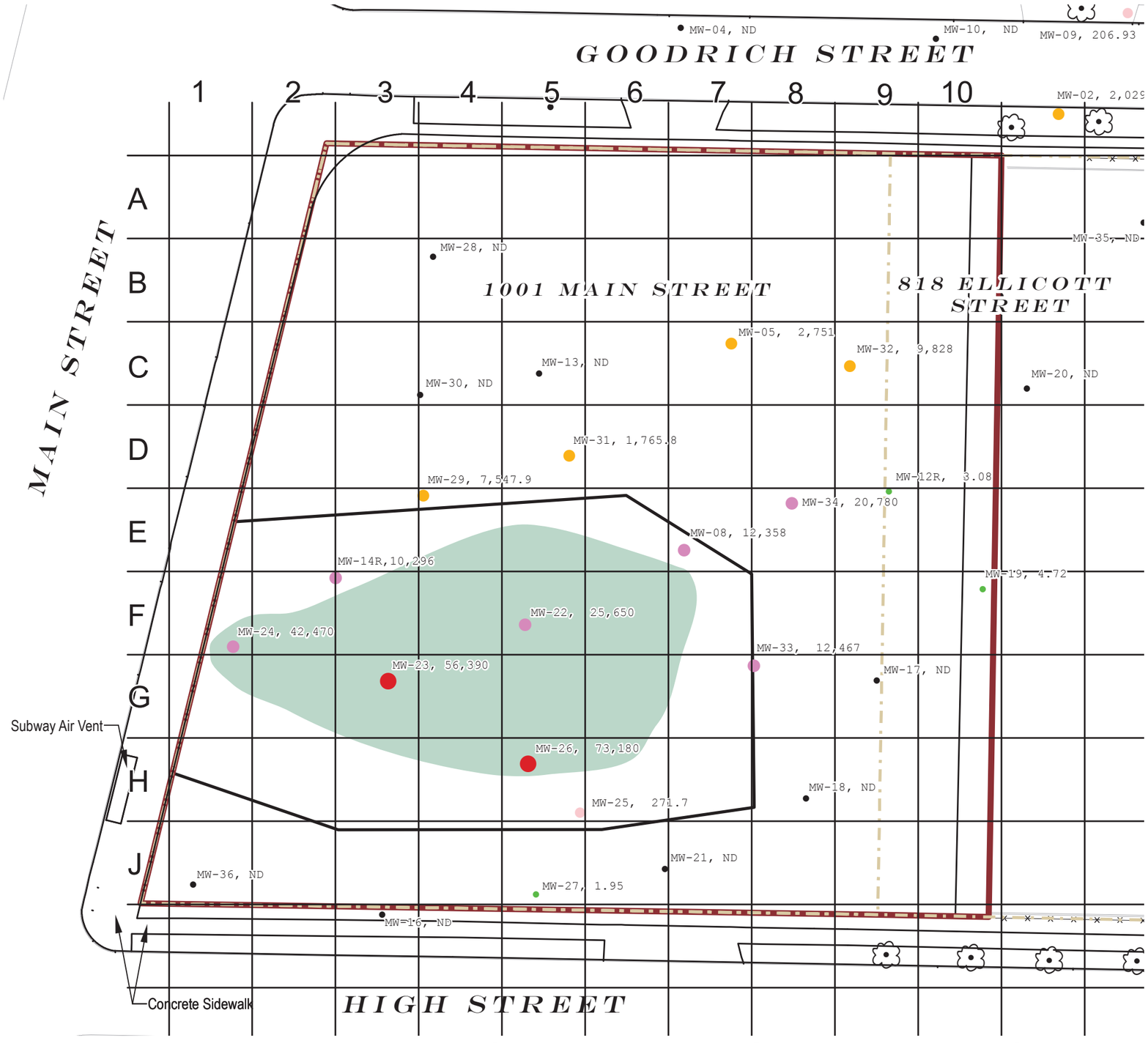
FORMER MOBIL STATION 99-MST
979 MAIN ST (1001 MAIN ST)
BROWNFIELD CLEANUP PROGRAM
BUFFALO, NEW YORK

MARK	DATE	DESCRIPTION
REVISIONS		

PROJECT NO:	K11.002.001
DATE:	OCTOBER 13, 2014
DRAWN BY:	C. MARTIN
DESIGNED BY:	C. MARTIN
CHECKED BY:	M. COLMERAUER

GROUNDWATER BEARING ZONE AND CONTAMINATION PLUME

FIGURE 1-2.1



Legend

- Property Lines
- Brownfield Cleanup Program Boundary
- Area of Deep Excavation to -40 ft (below former ground surface)
- Separate Phase Hydrocarbon Plume ("Free Product Zone") February 2012

Total BTEX Concentration (ug/L) February 2012

- Not Detected
- <10
- 10 - 100
- 100 - 1,000
- 1,000 - 10,000
- 10,000 - 50,000
- >50,000

Location Identifier — Concentration ug/L

MW-24, 42,470

ND = Not Detected

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

Notes

1) Elevations from New York State Erie County LiDAR Dataset, 2005, NAD 88.

2) BTEX=Benzene, Toluene, Ethylbenzene, Xylene

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0 20 40 80 Feet

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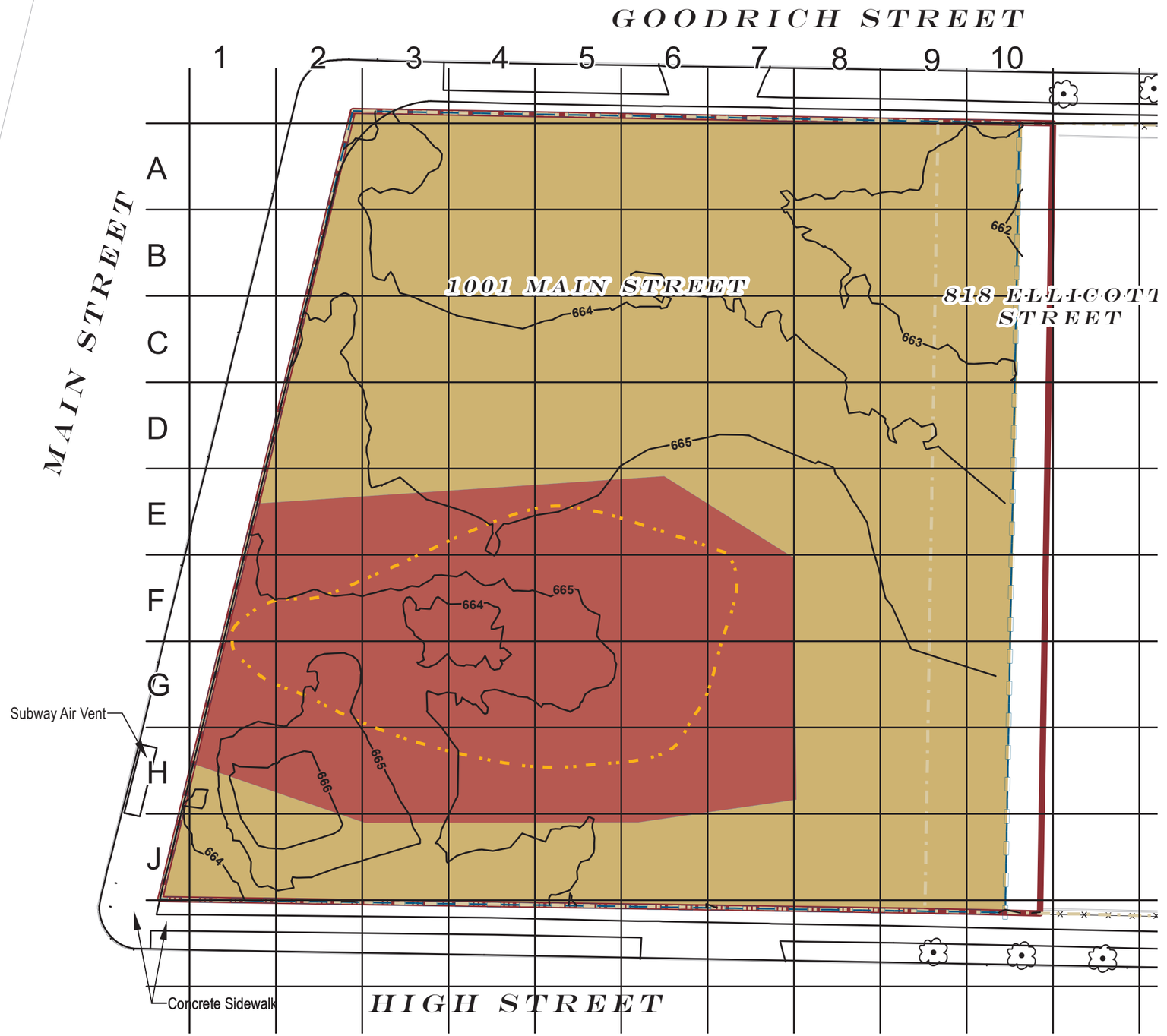
PRE-IRM HISTORIC GROUNDWATER CONTAMINATION

FIGURE 1-2

Path: F:\Project\K11-Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\Projects\RI-IRM\FIGURE_1-3_HISTORIC_GW_CONTAMINATION.mxd



Legend

- Property Lines
- Brownfield Cleanup Program Boundary
- Earth Retention Shoring
- Area of Excavation to -26 ft (below former ground surface)
- Area of Deep Excavation to -40 ft (below former ground surface)
- Separate Phase Hydrocarbon Plume ("Free Product Zone") February 2012
- 665 Former Ground Elevation Contour (feet)

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

Notes

1) Elevations from New York State Erie County LiDAR Dataset, 2005, NAD 88.

2) Coordinate System: NAD 1983 StatePlane NY West FIPS 3103
Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

3) Survey data from McIntosh & McIntosh P.C. "Topographical Map of Part of Lot-29, TWP.-11, R.-8, Holland Purchase" Job No. 7669-B(2) September 24, 2008.

0 20 40 80 Feet

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DRAWN BY:	C. MARTIN
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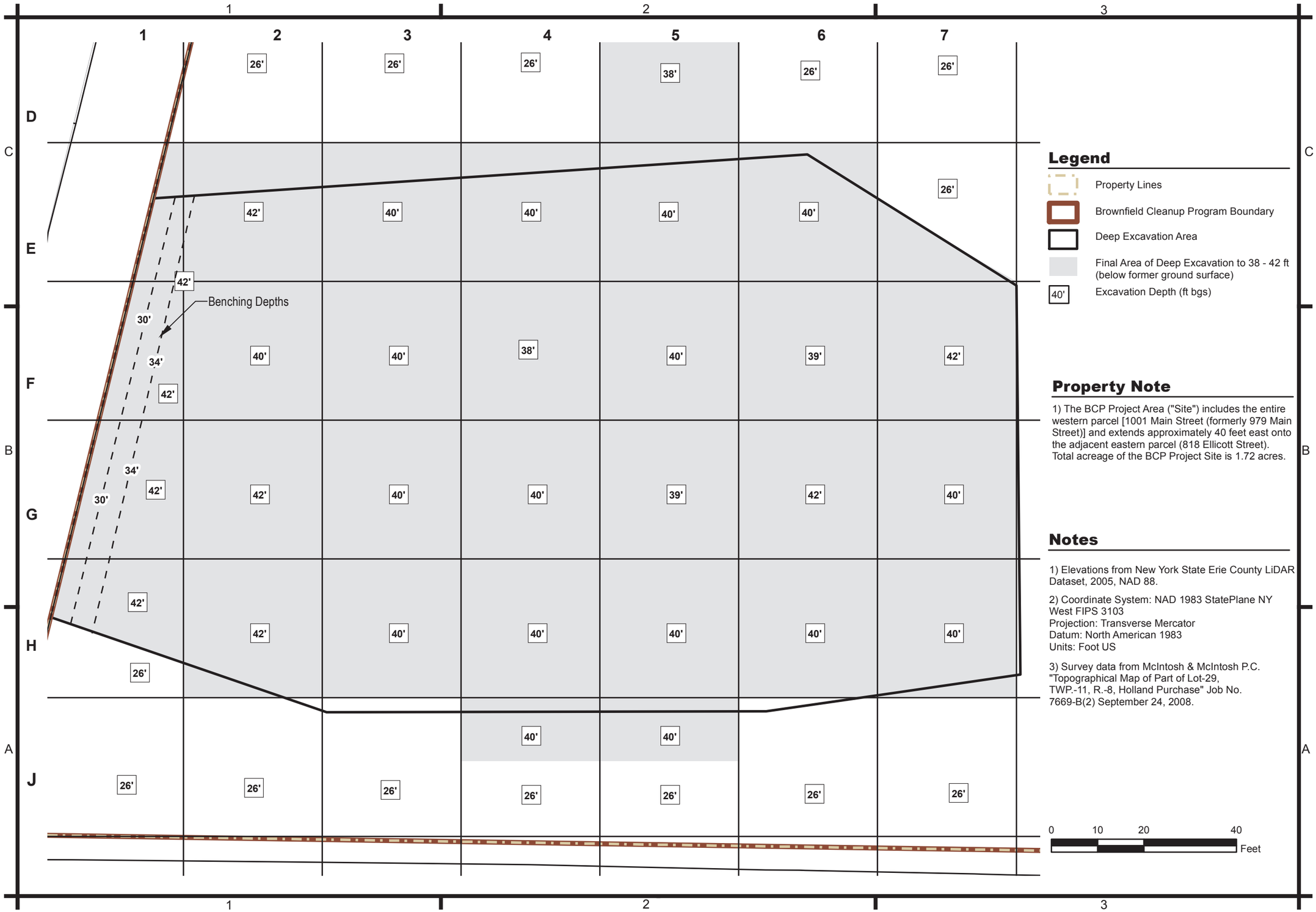
CHECKED BY:	M. COLMERAUER

RI / IRM EXCAVATION AREAS

FIGURE 1-3

Path: F:\Project\K11-Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\Projects\RI-IRM\FIGURE_1-3_EXCAVATION.mxd



Legend

- Property Lines
- Brownfield Cleanup Program Boundary
- Deep Excavation Area
- Final Area of Deep Excavation to 38 - 42 ft (below former ground surface)
- 40' Excavation Depth (ft bgs)

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

Notes

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Datum: North American 1983
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0 10 20 40 Feet

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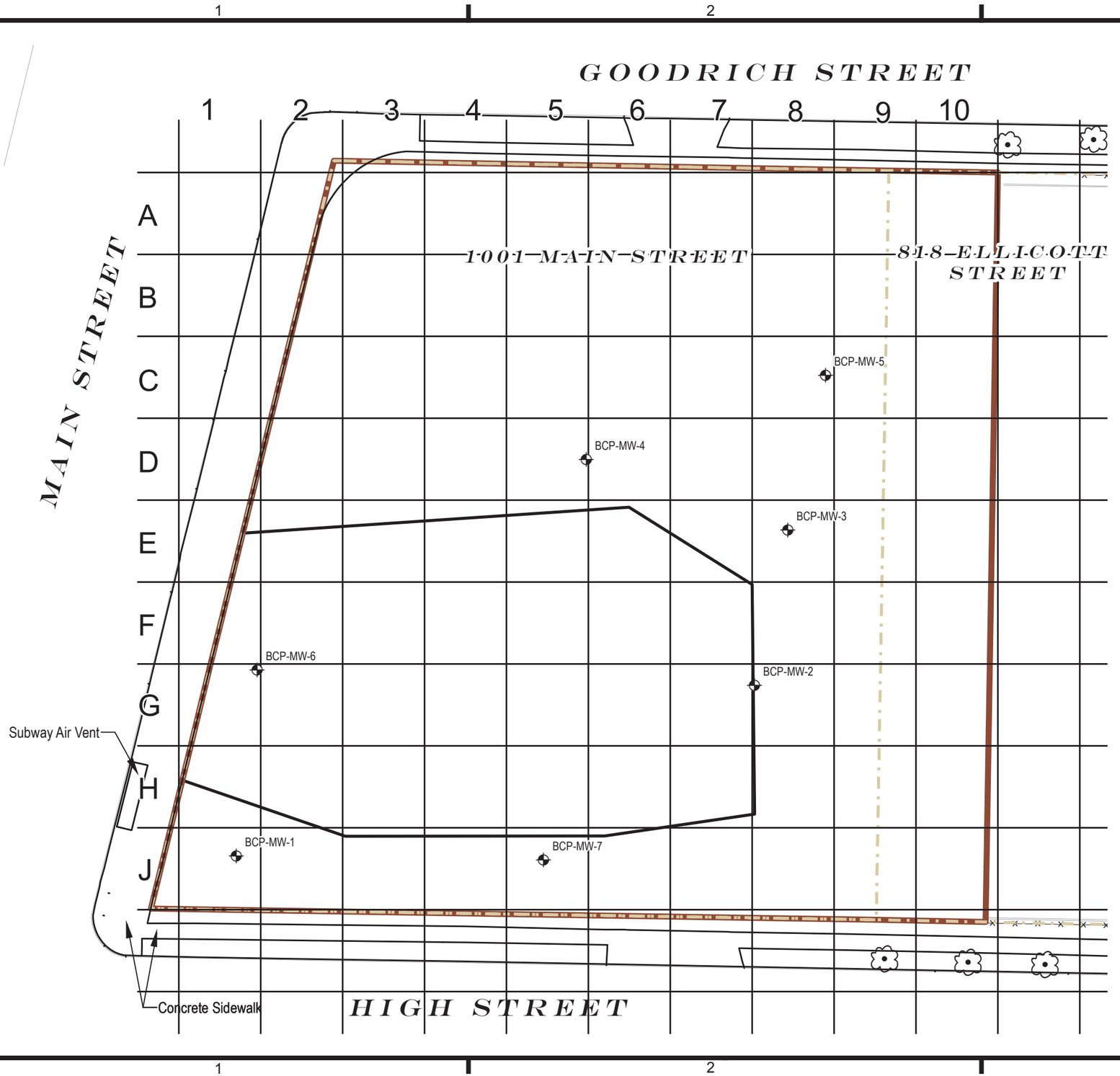
SOURCE AREA EXCAVATION DEPTHS

FIGURE 2-3

Path: F:\Project\K11-Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\Projects\RI-IRM\FIGURE_2-2_IRM_EXCAVATION.mxd



Legend

- Property Lines
- Brownfield Cleanup Program Boundary
- Area of Deep Excavation to -40 ft (below former ground surface)
- Groundwater Monitoring Well Location (Ground Floor of Underground Parking Garage)

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

Notes

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Projection: Transverse Mercator
Datum: North American 1983
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0 20 40 80 Feet

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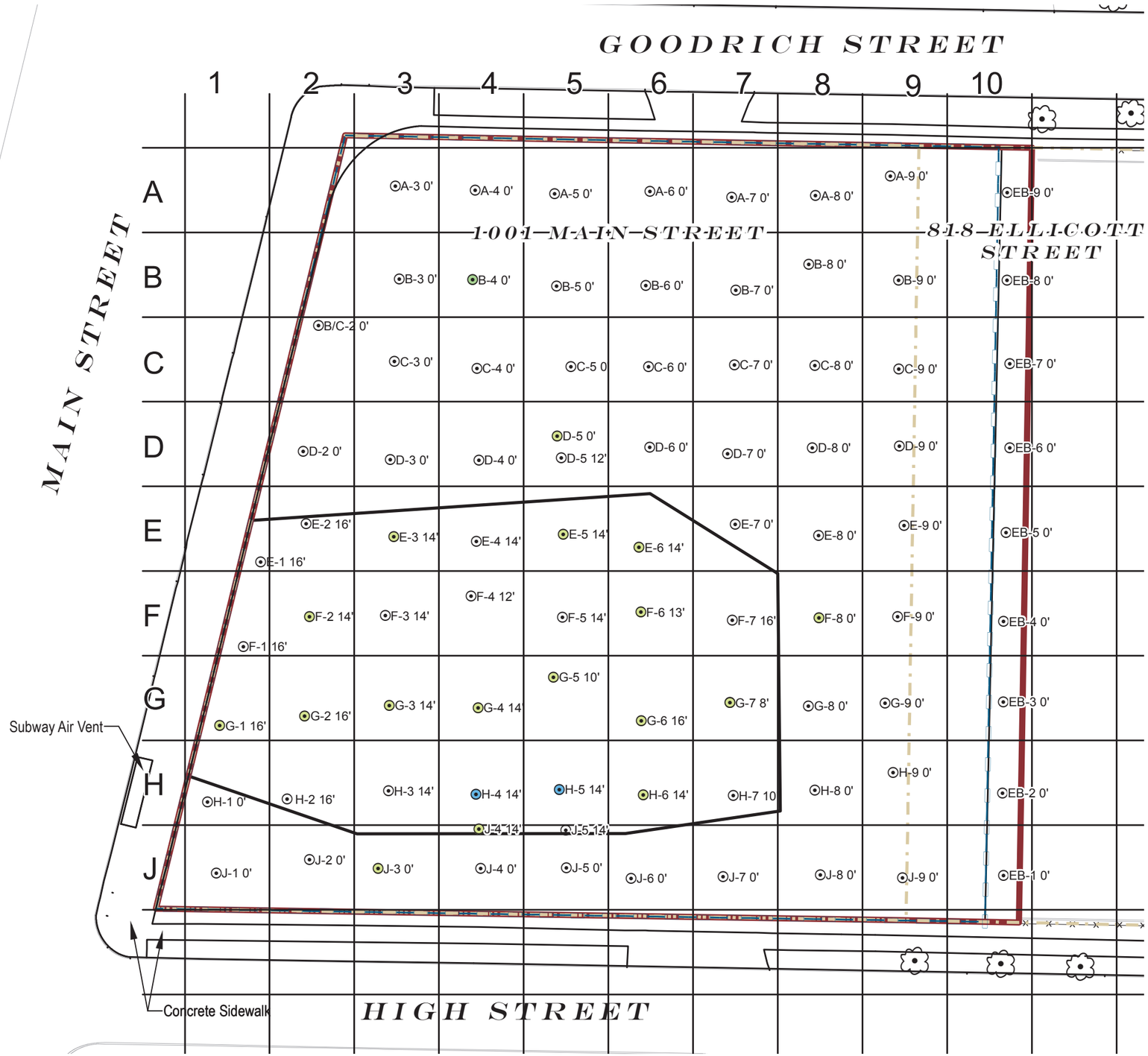
POST-CONSTRUCTION GROUNDWATER MONITORING WELLS

FIGURE 2-4

Path: F:\Project\K11-Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\Projects\RI-IRM\FIGURE_X_GW_WELL_LOCATIONS.mxd



Legend

- Property Lines
- Brownfield Cleanup Program Boundary
- Area of Deep Excavation to -40 ft (below former ground surface)
- Earth Retention Shoring

Exceedance of NYSDEC Soil Cleanup Objectives

- Samples Collected During BCP Appliaction (see IRM Work Plan, 2013)
- Satisfies Unrestricted Use
- Sample Exceeded Unrestricted Use Criteria for at Least One Compound
- Sample Exceeded Residential Use Criteria for at Least One Compound
- Sample Exceeded Restricted Residential Use Criteria for at Least One Compound
- Sample Exceeded Commercial Use Criteria for at Least One Compound
- Sample Exceeded Industrial Use Criteria for at Least One Compound

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

Notes

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Projection: Transverse Mercator
Datum: North American 1983
Units: Foot US

3) Survey data from McIntosh & McIntosh P.C. "Topographical Map of Part of Lot-29, TWP.-11, R.-8, Holland Purchase" Job No. 7669-B(2) September 24, 2008.

4) Sample depths shown as "0" indicate sample collected at top of initial cut depthat 26' below grade. All other depths shown are feet below initial cut depth (i.e. "14" is 40' below grade).

5) Sample exceedances presented are based on volatile organic compound lab analysis results.

0 20 40 80 Feet

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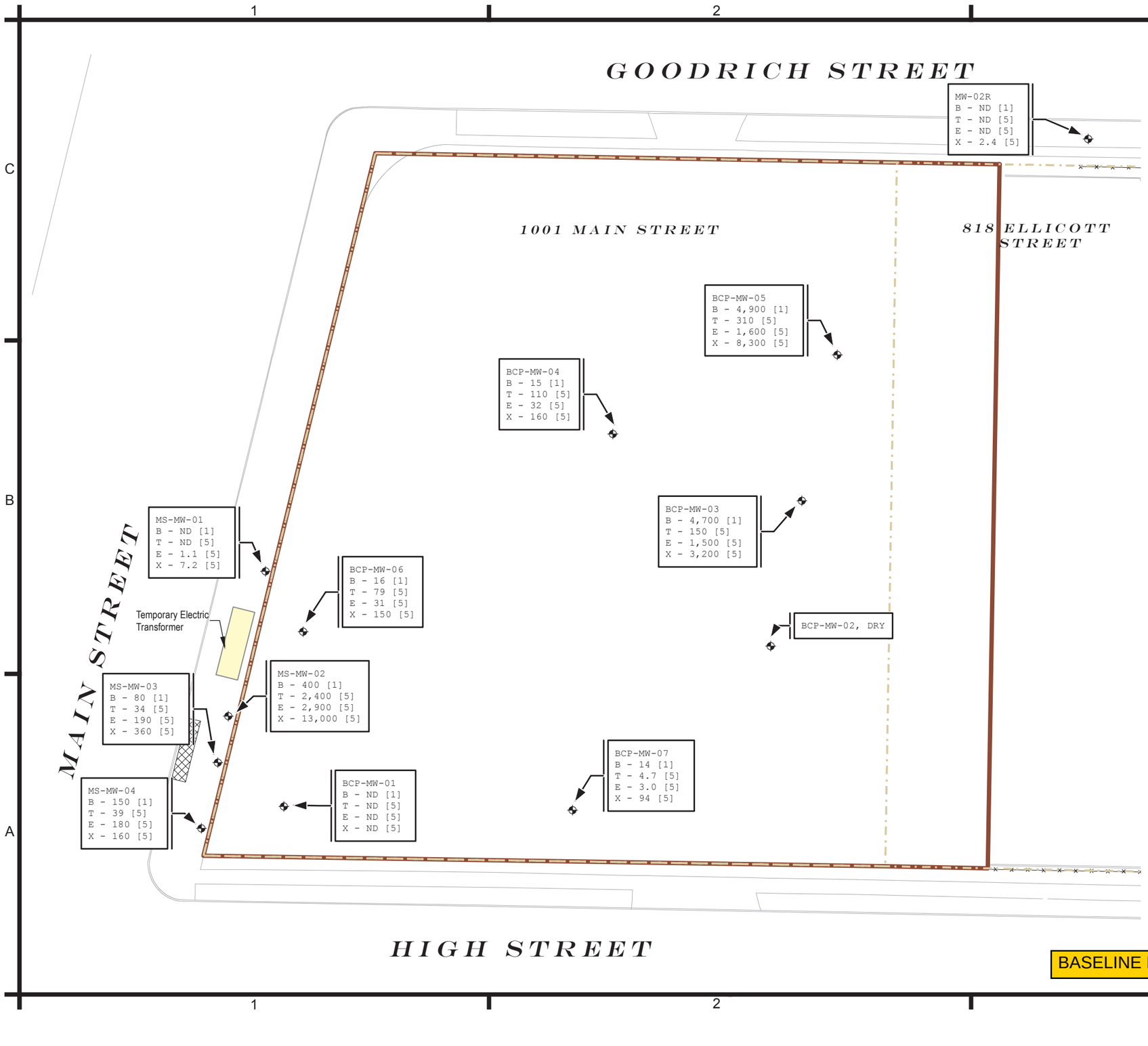
INTERIM REMEDIAL MEASURE

CONFIRMATORY SAMPLING RESULTS

FIGURE 2-5

Path: F:\Project\K11-Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\Projects\RI-IRM\FIGURE_1-4_SAMPLE_LOCATIONS_IRMA.mxd



Legend

- Property Lines
- Brownfield Cleanup Program Boundary
- Groundwater Monitoring Well Location

Location Identifier — BTEX Concentration ug/L

MS-MW-04, 317

BTEX = Benzene, Toluene, Ethylbenzene and Xylenes

Property Note

1) The BCP Project Area ("Site") includes the entire western parcel [1001 Main Street (formerly 979 Main Street)] and extends approximately 40 feet east onto the adjacent eastern parcel (818 Ellicott Street). Total acreage of the BCP Project Site is 1.72 acres.

Notes

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3) Analytical data from May 22, 2014 sampling event for monitoring wells within the BCP site and July 24, 2014 sampling event for monitoring wells along Main Street and Goodrich Streets.

0 25 50 100 Feet

BASELINE DATA; POST IRM ACTIVITIES

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OFFSITE & ONSITE GROUNDWATER WELLS

FIGURE 2-9

Path: F:\Project\K11-Kaleida Health\K11.002.001 - MOB Brownfield Cleanup Program\Environmental-study\CADD-GIS\GIS\Projects\BCP_GW_WELL_LOCATIONS.mxd

APPENDIX A – ENVIRONMENTAL EASEMENT

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 27th day of October, 2014 between Owner Kaleida Properties, Inc., having an office at 726 Exchange Street, Suite 522, County of Erie, State of New York and tenant, Conventus Partners, LLC (having a 49 year ground lease at the premises), having an office at 350 Essjay Road, Suite 101, County of Erie, State of New York (collectively the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 1001 Main Street in the City of Buffalo, County of Erie and State of New York, known and designated on the tax map of the County Clerk of Erie as tax map parcel numbers: Section 100.79 Block 1 Lot 1.1, being the same as that property conveyed to Grantor by deed dated March 16, 2012 and recorded in the Erie County Clerk's Office in Liber and Page Liber 11219 of Deeds at page 5885. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 1.402 +/- acres, and is hereinafter more fully described in the Land Title Survey dated May 29, 2014 prepared by Foit-Albert Associates, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation

established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C915260-03-12, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

A. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

B. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

C. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

D. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation

pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved b the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5 the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C915260
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail [10/12]

and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Owner: Kaleida Properties, Inc.:

By: _____

Print Name: Jonathan Swiatkowski

Title: President Date: 10/9/14

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the 9th day of October, in the year 2014, before me, the undersigned, personally appeared Jonathan Swiatkowski personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public - State of New York

ANITA ~~PATTERSON~~ Brinck
Notary Public - State of New York
NO. 01PA6125592
Qualified in Erie County
My Commission Expires 4-18-2017

Tenant: Conventus Partners, LLC:
By: Conventus Manager, LLC, its manager
By: F.L.C. 50 High Street Corporation, its sole member

By: Frank L Ciminelli

Print Name: Frank L. Ciminelli, Operating Agent

Title: _____ Date: 8/28/14

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the 28th day of August, in the year 2014, before me, the undersigned, personally appeared Frank L Ciminelli, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Sharon A Mozeko
Notary Public - State of New York

SHARON A. MOZEKO #01MO6050774
Notary Public, State of New York
Qualified in Erie County
My Commission Expires Nov. 13, 2014

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 27th day of October, in the year 2014 before me, the undersigned, personally appeared Robert Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2018

SCHEDULE "A" PROPERTY DESCRIPTION

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. 29, Township 11, Range 8 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at the intersection of the east line of Main Street with the south line of Goodrich Street; running thence easterly along the south line of Goodrich Street, a distance of 191.58 feet to a point; running thence southerly at an interior angle of 89° 46' with the last described line a distance of 274.85 feet to a point on the north line of High Street; running thence westerly along the north line of High Street and at an interior angle of 90° 16' 10" with the last described line, a distance of 252.70 feet to its intersection with the east line of Main Street; running thence northeasterly along the east line of Main Street, a distance of 281.96 feet to the point or place of beginning, containing 61,070 square feet or 1.402 acres of land more or less.

CHRISTOPHER L. JACOBS, ERIE COUNTY CLERK
REF:

DATE:12/2/2014
TIME:3:24:59 PM
RECEIPT: 14190876

MICHAEL NISENGARD
ACCOUNT #: 0

ITEM - 01 785
RECD: 12/2/2014 3:27:08 PM
FILE: 2014240622 BK/PG D 11272/6764
Deed Sequence: TT20148568
KALEIDA PROPERTIES INC
COMMISSIONER OF THE DEPARTMENT OF ENVIRONMEN
TAL CONSERVATION 100.00
Recording Fees 10.00
TP584

Subtotal 110.00

TOTAL DUE	$110.00
PAID TOTAL	$110.00
PAID CHECK	$110.00
Check #174306:	110.00

REC BY: Loretta
COUNTY RECORDER

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 27th day of October, 2014, between Owner(s) Kaleida Health, having an office at 726 Exchange Street, Suite 522, Buffalo New York 14210, County of Erie, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 818 Ellicott Street in the City of Buffalo, County of Erie and State of New York, known and designated on the tax map of the County Clerk of Erie as tax map parcel numbers: Section 100.79 Block 1 Lot 2.11, being the same as that property conveyed to Grantor by deed dated April 26, 2012 and recorded in the Erie County Clerk's Office in Liber and Page Liber 11224 of Deeds at page 7440. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 0.323 +/- acres, and is hereinafter more fully described in the Land Title Survey dated May 29, 2014 prepared by Foit-Albert Associates, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C915260-03-12, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv) ;

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Erie County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

A. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

B. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

C. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

D. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation

Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5 the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by

Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C915260
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Kaleida Health:

By: _____

Print Name: Jonathan Swiatkowski

Title: EVP CFO Date: 10/9/14

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the 9th day of October, in the year 2014, before me, the undersigned, personally appeared Jonathan Swiatkowski, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Notary Public - State of New York

ANITA PATTERSON "Brick"
Notary Public - State of New York
NO. 01PA6125592
Qualified in Erie County
My Commission Expires 4-18-2017

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 27th day of October, in the year 2014, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2016

SCHEDULE "A" PROPERTY DESCRIPTION

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. 29, Township 11, Range 8 of the Holland Land Company's Survey, bounded and described as follows:

COMMENCING at the intersection of the west line of Ellicott Street with the north line of High Street; running thence westerly along the north line of High Street, a distance of 292.72 feet to the POINT OF BEGINNING; running thence northerly at an interior angle of 89° 43' 50" with the last described line, a distance of 274.85 feet to a point on the south line of Goodrich Street; running thence easterly along the south line of Goodrich Street and at an interior angle of 90° 14' 00" with the last described line, a distance of 50.47 feet to a point; running thence southerly at an interior angle of 90° 02' 43" with the last described line, a distance of 274.82 feet to a point on the north line of High Street; running thence westerly along the north line of High Street and at an interior angle of 89° 59' 27", a distance of 51.80 feet to the point or place of beginning, containing 14,054 square feet or 0.323 acre of land more or less.

CHRISTOPHER L. JACOBS, ERIE COUNTY CLERK
REF:

DATE:12/2/2014
TIME:3:30:01 PM
RECEIPT: 14190885

MICHAEL NISENGARD
ACCOUNT #: 0

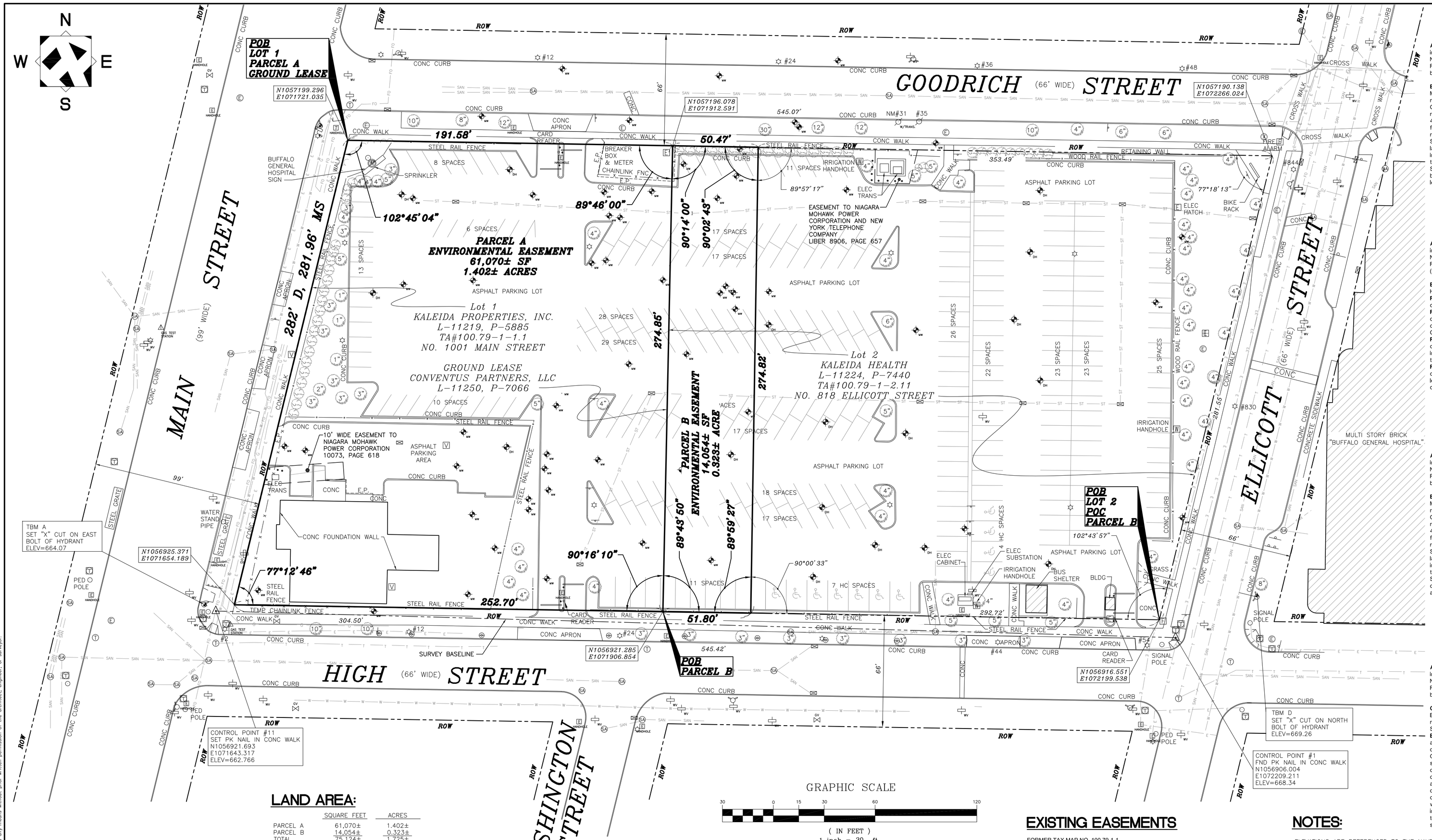
ITEM - 01 785
RECD: 12/2/2014 3:31:10 PM
FILE: 2014240633 BK/PG D 11272/6782
Deed Sequence: TT20148570
KALEIDA HEALTH
COMMISSIONER OF THE DEPARTMENT OF ENVIRONMEN
TAL CONSERVATION 90.00
Recording Fees 10.00
TP584

Subtotal 100.00

TOTAL DUE	$100.00
PAID TOTAL	$100.00
PAID CHECK	$100.00
Check #174305:	100.00

REC BY: Loretta
COUNTY RECORDER

APPENDIX B – METES AND BOUNDS



LAND AREA:

	SQUARE FEET	ACRES
PARCEL A	61,070±	1.402±
PARCEL B	14,054±	0.323±
TOTAL	75,124±	1.725±

ABBREVIATIONS:

CA	CABLE TV
CONC	CONCRETE
CIP	CAST IRON PIPE
D	DEED
DIP	DUCTILE IRON PIPE
ELEC	ELECTRIC
EP	EDGE OF PAVEMENT
FND	FOUND
GV	GAS VALVE
GSV	GAS SERVICE VALVE
HC	HANDICAPPED
IP	IRON PIPE
L	LIBER
MS	MEASURED
OHE	OVERHEAD ELECTRIC
OHT	OVERHEAD TELEPHONE
OHW	OVERHEAD WIRE
OL	ON LINE
P	PAGE
PED	PEDESTRIAN
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
PVC	POLY-VINYL CHLORIDE
ROW	RIGHT OF WAY
TEMP	TEMPORARY
VTP	VITRIFIED TILE PIPE
WV	WATER VALVE

LEGEND:

- BASELINE POINT – (POINT OF INTERSECTION)
- BASELINE POINT – (POINT ON LINE)
- BENCHMARK
- CLEANOUT
- CONIFEROUS BUSH/SHRUB
- CONIFEROUS TREE
- CONTROL VALVE
- DECIDUOUS BUSH/SHRUB
- DECIDUOUS TREE
- DRAINAGE MANHOLE (STORM)
- DRAINAGE STRUCTURE (CATCH BASIN)
- DRILL HOLE
- DRILL HOLE (BORE)
- ELECTRIC MANHOLE
- ELECTRIC METER
- ELECTRIC HANDHOLE
- FIBER OPTIC MANHOLE
- FIRE BOX
- FIRE HYDRANT
- FLAGPOLE
- GAS MANHOLE
- GAS METER
- GAS TEST STATION
- GAS VALVE
- GUY POLE
- HORIZONTAL CONTROL POINT
- IRON PIN
- IRON PIPE
- MONITORING WELL
- NON-UTILITY POLE
- PARKING METER
- PERMANENT SURVEY MARKER
- PK NAIL
- POLE w/LIGHT
- POLE w/ LIGHT-NON UTILITY
- REBAR
- REBAR AND CAP
- SEWER MANHOLE (SANITARY)
- SIGN
- SIGN 2 POSTS
- STAKE
- TELEPHONE JUNCTION BOX
- TELEPHONE MANHOLE
- TELEPHONE PULL BOX
- TELEPHONE VAULT/HANDHOLE
- UNKNOWN MANHOLE
- UNKNOWN UTILITY VALVE
- UTILITY BOX (TRANSFORMER)
- UTILITY POLE
- UTILITY POLE w/LIGHT
- UTILITY POLE w/TRANSFORMER
- VENT
- WATER HOUSE SERVICE
- WATER MANHOLE
- WATER METER
- WATER METER PIT
- WATER VALVE

NOT TO SCALE

VICINITY MAP

EXISTING EASEMENTS

FORMER TAX MAP NO. 100.79-1-1
EASEMENT TO CONSTRUCT, MAINTAIN AND OPERATE ELECTRIC SYSTEMS TO NIAGARA MOHAWK POWER CORPORATION BY LIBER 6936 OF DEEDS AT PAGE 575, DATED SEPTEMBER 13, 1963. (AFFECTS THE NORTHERN HALF OF #1001 MAIN STREET, BLANKET IN NATURE AND UNABLE TO GRAPHICALLY DEPICT)

TAX MAP NO. 100.79-1-2.11, FORMER TAX MAP NO. 100.79-1-2
EASEMENT TO ERECT, MAINTAIN AND OPERATE ELECTRIC AND COMMUNICATION LINES TO NIAGARA MOHAWK POWER CORPORATION AND NEW YORK TELEPHONE BY LIBER 8906 OF DEEDS AT PAGE 657, DATED APRIL 24, 1980. (SHOWN HEREON)

FORMER TAX MAP NO. 100.79-1-4
A PERMANENT EASEMENT FOR CONSTRUCTION, PLACEMENT, MAINTENANCE, USE, REPAIR AND REPLACEMENT OF A SIGN TO BUFFALO GENERAL HOSPITAL BY LIBER 9985 OF DEEDS AT PAGE 462, DATED FEBRUARY 15, 1989. (AFFECTS SOUTHWEST CORNER OF #997 MAIN STREET)

TAX MAP NO. 100.79-1-2.11
EASEMENT TO CONSTRUCT, MAINTAIN AND OPERATE ELECTRIC SYSTEMS TO NIAGARA MOHAWK POWER CORPORATION BY LIBER 10073 OF DEEDS AT PAGE 618, DATED AUGUST 17, 1989. (SHOWN HEREON)

We certify to:

The People of the State of New York Acting Through Their Commissioner of the Department of Environmental Conservation

that in our professional opinion, this survey was prepared in accordance with the current code of practice for land surveys adopted by the New York State Association of Professional Land Surveyors.

This certification does not extend to subsequent owners, mortgages, or title insurers, unless this survey has been resurveyed for this purpose by the surveyor.

NOTES:

ELEVATIONS ARE REFERENCED TO THE NAVD 88 VERTICAL DATUM.

COORDINATES ARE REFERENCED TO THE NEW YORK STATE PLANE COORDINATE SYSTEM WEST ZONE, NAD 83.

NORTH IS REFERENCED TO TRUE NORTH AT 78°35' MERIDIAN OF WEST LONGITUDE.

UNAUTHORIZED ALTERATION OR ADDITION TO ANY SURVEY, DRAWING, DESIGN, SPECIFICATION, PLAN OR REPORT IS A VIOLATION OF SECTION 7209, PROVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

FOR TOPOGRAPHIC INFORMATION, SEE "TOPOGRAPHIC SURVEY", SHEET TS-102, PREPARED BY FOIT-ALBERT ASSOCIATES, DATED SEPTEMBER 12, 2011.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORD INFORMATION PROVIDED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM RECORD INFORMATION AVAILABLE, THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. IT IS THE CLIENTS' RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND TO PROTECT SAID UTILITIES FROM ANY DAMAGE.

THIS SURVEY WAS PREPARED WITH THE BENEFIT OF A CURRENT ABSTRACT OF TITLE.

THIS MAP IS BASED ON A FIELD SURVEY COMPLETED ON AUGUST 30, 2011.

The engineering and institutional controls for this Easement are set forth in the Site Management Plan (SMP). A copy of the SMP may be obtained by any party with an interest in the property. The SMP can be obtained from the NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233.

BCP SITE NO. C9915260
BCP SITE NAME: FORMER MOBIL SERVICE STATION 99-MST
BCA INDEX: C915260-03-12

LOT 1 DESCRIPTION

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. 29, Township 11, Range 8 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at the intersection of the east line of Main Street with the south line of Goodrich Street; running thence easterly along the south line of Goodrich Street, a distance of 191.58 feet to a point; running thence southerly at an interior angle of 89° 46' with the last described line a distance of 274.85 feet to a point on the north line of High Street; running thence westerly along the north line of High Street and at an interior angle of 90° 16' 10" with the last described line, a distance of 252.70 feet to its intersection with the east line of Main Street; running thence northeasterly along the east line of Main Street a distance of 282 feet to the point or place of beginning, containing 1.402 acres of land more or less.

LOT 2 DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Buffalo, County of Erie and State of New York, and being part of Lot 29, Township 11, Range 8 of the Holland Land Company survey (so-called), bounded and described as follows:

BEGINNING AT the intersection of the north line of High Street and the west line of Ellicott Street;
RUNNING THENCE: Westerly, along the north line of High Street, a distance of 292.72 feet to a point;
RUNNING THENCE: Northerly, at an exterior angle of 90°-16'-10" with the last described line, a distance of 274.85 feet to a point on the south line of Goodrich Street;
RUNNING THENCE: Easterly, along the south line of Goodrich Street, a distance of 353.49 feet to the intersection of the south line of Goodrich Street with the west line of Ellicott Street;
RUNNING THENCE: Southerly, along the west line of Ellicott Street, a distance of 281.55 feet more or less to the POINT OR PLACE OF BEGINNING, containing 2.038 Acres, be the same, more or less.

PARCEL A ENVIRONMENTAL EASEMENT

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. 29, Township 11, Range 8 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at the intersection of the east line of Main Street with the south line of Goodrich Street; running thence easterly along the south line of Goodrich Street, a distance of 191.58 feet to a point; running thence southerly at an interior angle of 89° 46' with the last described line a distance of 274.85 feet to a point on the north line of High Street; running thence westerly along the north line of High Street and at an interior angle of 90° 16' 10" with the last described line, a distance of 252.70 feet to its intersection with the east line of Main Street; running thence northeasterly along the east line of Main Street, a distance of 281.96 feet to the point or place of beginning, containing 61,070 square feet or 1.402 acres of land more or less.

PARCEL B ENVIRONMENTAL EASEMENT

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. 29, Township 11, Range 8 of the Holland Land Company's Survey, bounded and described as follows:

COMMENCING at the intersection of the west line of Ellicott Street with the north line of High Street; running thence westerly along the north line of High Street, a distance of 292.72 feet to the **POINT OF BEGINNING;** running thence northerly at an interior angle of 89° 43' 50" with the last described line, a distance of 274.85 feet to a point on the south line of Goodrich Street; running thence easterly along the south line of Goodrich Street and at an interior angle of 90° 14' 00" with the last described line, a distance of 50.47 feet to a point; running thence southerly at an interior angle of 90° 02' 43" with the last described line, a distance of 274.82 feet to a point on the north line of High Street; running thence westerly along the north line of High Street and at an interior angle of 89° 59' 27", a distance of 51.80 feet to the point or place of beginning, containing 14,054 square feet or 0.323 acre of land more or less.

Consultant:
Foit Albert ASSOCIATES
Architecture. Engineering. Surveying.
763 Main Street
Buffalo, New York 14203
T 716.856.3933 F 716.856.3981 W foit-albert.com

ENVIRONMENTAL EASEMENT

NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION SITE NO. C915260-03-12
PART OF LOT 29, TOWNSHIP 11, RANGE 8 OF HOLLAND LAND COMPANY'S SURVEY
CITY OF BUFFALO, COUNTY OF ERIE, STATE OF NEW YORK

Seal:
STATE OF NEW YORK
MICHAEL JOSEPH PUCCIO
049916
LICENSED LAND SURVEYOR

Revision Number	Revision Date/Description
1	PER REVIEW 8/22/14 MJP
2	
3	
4	

Scale: 1"=30'

Date: 5-29-14	Project Manager: M.POHL
Drawn By: K.ARMSTRONG	Checked By: M.POHL
Project: 11003.16	
File Name: 11003-16 BS107 Environmental Easement.dwg	
Sheet: SHEET 1 OF 1	

BS-107

PARCEL A

ENVIRONMENTAL EASEMENT

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. 29, Township 11, Range 8 of the Holland Land Company's Survey, bounded and described as follows:

BEGINNING at the intersection of the east line of Main Street with the south line of Goodrich Street; running thence easterly along the south line of Goodrich Street, a distance of 191.58 feet to a point; running thence southerly at an interior angle of 89° 46' with the last described line a distance of 274.85 feet to a point on the north line of High Street; running thence westerly along the north line of High Street and at an interior angle of 90° 16' 10" with the last described line, a distance of 252.70 feet to its intersection with the east line of Main Street; running thence northeasterly along the east line of Main Street, a distance of 281.96 feet to the point or place of beginning, containing 61,070 square feet or 1.402 acres of land more or less.

PARCEL B

ENVIRONMENTAL EASEMENT

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. 29, Township 11, Range 8 of the Holland Land Company's Survey, bounded and described as follows:

COMMENCING at the intersection of the west line of Ellicott Street with the north line of High Street; running thence westerly along the north line of High Street, a distance of 292.72 feet to the **POINT OF BEGINNING**; running thence northerly at an interior angle of 89° 43' 50" with the last described line, a distance of 274.85 feet to a point on the south line of Goodrich Street; running thence easterly along the south line of Goodrich Street and at an interior angle of 90° 14' 00" with the last described line, a distance of 50.47 feet to a point; running thence southerly at an interior angle of 90° 02' 43" with the last described line, a distance of 274.82 feet to a point on the north line of High Street; running thence westerly along the north line of High Street and at an interior angle of 89° 59' 27", a distance of 51.80 feet to the point or place of beginning, containing 14,054 square feet or 0.323 acre of land more or less.

APPENDIX C – EXCAVATION WORK PLAN

Appendix C – Excavation Work Plan

Former Mobil Service Station 99-MST - 979 Main Street (1001 Main Street)

ERIE COUNTY, NEW YORK

NYSDEC Site Number: C915260

Prepared by:
C&S Engineers, Inc
141 Elm Street, Suite 100
Buffalo, New York 14203
TEL: (716) 847-1630

NOVEMBER 28 2014

APPENDIX C – EXCAVATION WORK PLAN

A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the Site owner or their representative will notify the Department. Currently, this notification will be made to:

Jaspal Walia

Regional Hazardous Waste Remediation Engineer

270 Michigan Avenue Buffalo, NY 14203

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for Site re-grading, intrusive elements or utilities to be installed, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP,
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in **Appendix D** of this document;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface and material that can be used as cover soil.

A-3 STOCKPILE METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC.

A-4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner, its successors, assigns and/or lessees of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the activities performed under this section are complete.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the Site are clean of dirt and other materials derived from the Site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

A-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

All trucks loaded with Site materials will exit the vicinity of the Site using approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary]].

Trucks will be prohibited from stopping and idling in the neighborhood outside the Project Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

A-7 MATERIALS REUSE ON-SITE

No soil or fill materials will be re-used on site. The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. .

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

A-8 FLUIDS MANAGEMENT

All liquids to be removed from the Site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the Site, but will be managed off-site.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

A-9 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the Site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the Site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the Site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed in **Table H**. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not

be imported onto the Site without prior approval by NYSDEC. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

A-10 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

A-11 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the Site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

A-12 COMMUNITY AIR MONITORING PLAN

Community Air Monitoring Plan is provided as part of the Health and Safety Plan (**Appendix D Of the Site Monitoring Plan)**. Air sampling stations will be determined based on the prevailing wind on-site. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

A-13 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis will include pink water. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils; if odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

A-14 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below.

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

A-15 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX D – HEALTH & SAFETY PLAN AND COMMUNITY AIR MONITORING PLAN

December 2012

Contaminated Material
HEALTH & SAFETY PLAN

For

Remediation and Construction Activities
Medical Office Building
979 to 1001 to Main Street
Buffalo, New York

C&S Engineers, Inc
90 Broadway
Buffalo, New York 14203

Section A-1: Project Safety Orientation

I. Policy Statement

This document, Contaminated Materials Health and Safety Plan (HASP), will guide health and safety protocols during remedial activities at the Site at 979 to 1001 Main Street (Site). It is the policy of the Construction Manager that all employees will receive Health & Safety Orientation prior to beginning work. Everyone working on the Site shall receive specific safety orientation prior to entering the Site.

II. Emergency and Project Management Contact Information

Provided below is a list of telephone numbers for use in the event of an emergency onsite.

Emergency Medical Service	911
Police: Buffalo Police Department (NYPD)	911
Hospital: Buffalo General Hospital	(716) 859-5600
Fire: Buffalo Fire Department	911
National Response Center	(800) 424-8802
Poison Control Center	(800) 222-1222
Center for Disease Control	(800) 311-3435
NYSDEC Region 9 (Buffalo, New York)	(716) 851-7220
American Consulting Professionals	(716) 533-4105
Kaleida Health	(716) 462-2510
Ciminelli Real Estate Corp	(716) 631-8000
Project Field Office Trailer	TBD

III. Hospital Information and Directions to Buffalo General Hospital

Buffalo General Hospital
100 High Street
Buffalo, New York
14203
(716) 859-5600

Buffalo General Hospital is within walking distance immediately east of the Site (Figure 1).

Section A-2: Project Safety Staff Responsibilities

I. Health and Safety Staff

This section briefly describes the health and safety responsibilities for the remedial activities to be implemented at the Site. The following staff is responsible for ensuring compliance with the HASP.

1) Site Safety Manager/Director

- Has the overall responsibility for coordinating and reporting all health and safety activities and the health and safety of Site Workers.
- Must have completed, at a minimum, the OSHA 30-Hour Construction Safety Training.
- Directs and coordinates health and safety monitoring activities.
- Ensures that field teams utilize proper personal protective equipment (PPE).
- Conducts initial onsite specific training prior to Site Workers commencing work.
- Conducts and documents daily and periodic safety briefings.
- Ensures that field team members comply with this HASP.
- Immediately notifies the Construction Manager (CM) Project Manager and Superintendent of all accident/incidents.
- Determines upgrading or downgrading of PPE based on Site conditions and/or real time monitoring results.
- Ensures that monitoring instruments are calibrated daily or as the manufacturer's instructions determine.
- Reports to the CM Project Manager and Superintendent to provide summaries of field operations and progress.
- Submits and maintains all documentation required in this HASP and any other pertinent health and safety documentation.

2) Safety Representatives

- Must be designated to the Site Safety Manager/Director by each Subcontractor as a Competent Person having, at a minimum, the OSHA 30-Hour Construction Safety Training

- Must schedule and attend a **Pre-Construction Safety Meeting** with the Site Safety Manager/Director to discuss the Subcontractor Safety Requirements and must attend the **Weekly Subcontractor Coordination Meeting**.

- Responsible for ensuring that their **lower tier contractors** comply with project safety requirements.

- Must make **frequent and regular inspections** of their work areas and activities and ensure hazards that are under their control are corrected immediately and all other hazards are reported to the Construction Manager's Project Manager and Site Safety Manager/Director.

- Must report all work related injuries, regardless of severity, to the Construction Manager's Project Manager and the Site Safety Manager/Director within 24 hours after they occur.

3) Site Workers

- Report any unsafe or potentially hazardous conditions to the Site Safety Manager/Director.

- Maintain knowledge of the information, instructions, and emergency response actions contained in the HASP.

- Comply with rules, regulations, and procedures as set forth in this HASP, including any revisions that are instituted.

- Prevent unauthorized personnel from entering work Site.

Section B-1: Environmental Conditions

This section of the HASP pertains to excavation of Site soils (or other activities that involve moving existing Site soils around or off the Site) and surface and groundwater management.

I. Background

The Project will remediate volatile organic compounds (VOCs) present in Site soils and groundwater which exceed New York State Department of Environmental Conservation (NYSDEC) Guidance Levels. Site activities in connection with the construction of the Project include:

- Excavation of Site soils

- Stockpiling

- Transportation and disposal of soil materials

- Pumping and handing of groundwater

Elevated levels of VOCs have been observed as part of historic remedial activities at the Site. VOCs were detected above NYSDEC Guidance levels in shallow soils in close proximity to a former gasoline filling station in the southwest corner of the Site. VOCs are also found in deeper soils associated with a groundwater contaminant plume located in the central area of the Site (Figure 2).

Strict adherence to this HASP should protect Site workers from most potential contaminants. Although not covered under this section, the Excavation Contractor (Contractor) shall adhere to all other applicable OSHA and general construction regulations and guidance, as described in this HASP.

The designated Site Safety Manager/Director will be responsible for implementing the requirements of this section of the HASP. Compliance with this HASP is required of all Site workers who may potentially encounter contaminated materials at the Site (hereinafter referred to as Site Workers), including the Construction Manager's employees, contractors, subcontractors and all other onsite workers. In the event that a Site Worker does not follow these procedures, he or she will be required to leave the Site immediately. The content of this Section may change or undergo revisions based upon changes in the technical scope of work, the results of monitoring, and/or additional information made available to health and safety personnel. Any proposed changes must be reviewed and approved by the Site Safety Manager/Director before implementing the changes to the HASP.

Upon entering the Site, all visitors will be required to sign-in and read and comply with the provisions of this Section. Occasional Site visitors (inspectors, owners, etc.) do not need to comply if they sign a statement acknowledging that they have received Site-specific health and safety training and will comply with the procedures described in the training. In the event that a visitor does not follow these procedures, he or she will be required to leave the Site immediately.

II. Summary of Environmental Site Investigations

The Site has been the subject of investigative activities since 1987 and remedial activities since 1997 associated with soil and groundwater contamination from leaking underground storage tanks that were located in the southwest corner of the Site. Through the course of historic investigation and remedial activities, more than 50 soil borings and 36 groundwater monitoring wells have been installed to evaluate subsurface conditions at the Site.

III. Site Geology

The Site is immediately underlain by a generally continuous layer of historic urban fill material consisting of sand, gravel, rock fragments, brick fragments, and other manmade materials. The fill is variable in thickness across the Site from less than one foot to over 11 feet in thickness.

Underlying the fill material is a mixed deposit consisting of alternating gray and brown zones of silty sand, sand, gravel, clayey-silt, sandy-silt and glacial deposits. These zones appear discontinuous from boring to boring and is present to a depth of approximately 70 + feet.

Glacial till is present under the mixed deposit, and is comprised of varying amounts of gravel, sand, silt and clay and is dense to very dense. Where encountered, the glacial till unit is approximately 13 feet in thickness.

IV. Soil Quality Results

In general, exceedances of soil regulatory guidance values occurred within the areas of the Site where former Underground Storage Tanks (USTs) were located, in the area where free product is present (Figure 2), and associated with the on-site groundwater contaminant plume. High levels of contaminants of concern (COCs) were detected in soil borings and groundwater monitoring wells within the area of the Site where free product is present. Moderate to low levels of COCs were detected associated with the on-site groundwater contaminant plume. In these instances, shallow soils from surface to 10 feet below ground surface (BGS) usually showed few signs of contamination; whereas concentrations of COCs in soils at depths of 10 feet to 35 feet were greatest.

V. Groundwater Flow and Quality Results

A total of 36 groundwater monitoring wells have been installed on-site and immediately off-site as part of historic investigative activities. Groundwater grab samples have been collected on-site since 1997 on a quarterly basis. Collectively, this data provides a comprehensive characterization of groundwater quality beneath the Site.

In general, groundwater results indicate the presence of VOC contaminants in groundwater above regulatory guidance values. The primary COCs are benzene, toluene, ethylbenzene, and xylene, or BTEX compounds. Groundwater flows in a northeast direction and the contaminant plume was elongated in a northeast direction. The orientation of this plume, coupled with groundwater flow, indicated that the plume appeared to originate from the former Mobil Station in the southwest corner of the Site. Subsequent remedial activities on-site from 1998 to 2008 consisting of high vacuum extraction combined with air sparging have “mitigated" contaminant concentrations in the northeast area of the Site. However, the contaminant plume originally stretched from the southwest area of the Site onto the Goodrich Street right-of-way. The western extent of the contaminant plume along Main Street is unknown.

VI. Potential Hazards Related to Fill/Soil

This section provides a brief summary of the potential Compounds of Concern and related hazards at the Site.

1) General

The following information is presented to identify the types of materials that may be encountered at the Site. The detailed information on these materials was obtained from:

- Sax’s Dangerous Properties of Industrial Materials - Lewis Eighth Edition;
- Chemical Hazards of the Workplace - Proctor/Hughes;

- Condensed Chemical Dictionary – Hawley;
- Rapid Guide to Hazardous Chemicals in the Workplace - Lewis 1990;
- NIOSH Pocket Guide to Chemical Hazards –1996; and
- ACGIH TLV Values and Biological Exposure Indices, OSHA 29 CFR 1910.1000.

2) Compounds of Concern

Based on the sampling results, VOCs associated with gasoline (primarily BTEX) were detected above regulatory guidance values in overburden soils primarily at depths greater than 26 feet BGS. The Summary of Toxicological Data related to COCs is found in Table 1 and provides information such as the chemical characteristics, health hazards, protection, and exposure limits.

3) Hazard Assessment

The potential to encounter hazards related to contaminated soil is dependent upon the type of work activity performed and the duration and location of the work activity. Potential hazards at the Site include inhalation of VOCs or particulates containing contaminants, ingestion of particulates containing contaminants and/or skin contact with contaminants and/or particulates containing contaminants.

The potential for Site Workers to be exposed to chemical hazards may occur during excavation, truck loading, truck and equipment cleaning activities, during handling of excavation waters, and/or during other activities in areas where contaminants have been identified. For chronic and acute toxicity data, refer to the Material Safety Data Sheets in Appendix A for further details on compound characteristics.

4) Exposure Pathways and Assessment

Exposure to these compounds during ongoing activities may occur through inhalation of dust particles containing contaminants, inhalation of VOCs and/or SVOCs, and by way of dermal absorption and accidental ingestion by either direct or indirect cross-contamination activities.

Based on known Site conditions from over 10 years of on-site investigative and remedial activities, all Site workers will be required to wear OSHA Level D PPE to minimize any potential for exposure. Level D PPE is:

- Work uniform (long pants, sleeved shirt);
- Hard hat;
- Steel toe work boots;
- Safety glasses;
- Boot covers (as necessary depending on the task);
- Hearing protection (as necessary depending on the task); and
- Reflective safety vest (as necessary depending on the task)

Additional measures for unexpected conditions are discussed below in Section VII.

In addition, inhalation of dust particles containing contaminants can occur during adverse weather conditions (high or changing wind directions) or during operations that may generate airborne dust such as excavation, loading of trucks, and grading. To minimize exposure to dust, dust control measures will be implemented in accordance with the Site-specific Community Air Monitoring Program CAMP. Where dust control measures are not feasible or exceed levels contained in Table 2, respiratory protection will be required.

5) Excavation Stockpiles

During the course of work at the Site, it may be necessary to temporarily stockpile excavated soil materials in advance of disposal. Although this is not expected to be a common occurrence, any stockpiled material will be covered with polyethylene (poly) sheeting with a minimum thickness of 8 mil. These stockpiles will be covered in order to limit precipitation from contacting soil materials and to avoid the generation of dust from soil materials. Covered stockpiles will be inspected daily to ensure that there has not been any damage to the poly sheeting and that the stockpile is still adequately covered.

6) Dust Control

Dust suppression methods will be employed by the Contractor throughout the construction project. Dust (particulate matter) will be controlled at the Site in accordance with the Site CAMP, and in compliance with all applicable federal, state, and local requirements and the requirements. The Contractor will implement necessary measures to control particulates including the following measures:

(i) Limiting on-site speed to five miles per hour.

(ii) Watering unpaved surfaces, including haul roads and excavation faces. All unpaved haul roads and excavation surfaces will be continuously watered by watering trucks or constant misting, so that surfaces remain damp at all times when in use during construction. Gravel cover shall be applied to unpaved surfaces which are regularly traveled.

(iv) Covering or water-misting of stockpiled materials. All stockpiled dry materials (e.g., sand, aggregate) will be water-misted; sprayed with non-hazardous, biodegradable suppressing agent; covered; or otherwise enclosed.

(v) Loading of any dry material which may release dust from trucks will be accompanied by manual water spraying of the material.

(vi) Covering all trucks carrying loose material such as debris, excavate or fill, and verifying that covers on all such trucks have been properly sealed. Outgoing trucks will be inspected at the gate, and not allowed to exit if covers are not properly sealed.

(vii) Washing the wheels of all trucks as they exit from the Site. A washing station will be constructed at each truck exit, whereby truck wheels will be washed, and the water shall be contained and recycled to avoid tracking mud out of the Site.

The Contractor will make provisions to have an adequate amount of water and appropriate equipment to disperse water on-site at all times.

7) Transportation and Disposal of Soils

Prior to the start of excavation, all soil materials will be sampled at a frequency sufficient to meet disposal facility requirements and the Contractor will secure approvals for disposal of soil materials in accordance with federal, state, and local regulations. The soil material will be loaded directly into trucks after excavation and transported to an off-site disposal facility (unless Site conditions, coordination of activities, timelines, and/or daily production limitations require temporary stockpiling prior to sampling and disposal).

The contaminated soil material will be shipped by a licensed hauler in accordance with all applicable federal, state, and local regulations. Each shipment will be transported under a non-hazardous waste manifest/bill of lading, hazardous waste manifest or other appropriate documentation based upon sampling results. All contaminated soil material will be properly disposed of at a permitted off-site Treatment, Storage and Disposal Facility (TSDF).

Before any transport vehicle leaves the Site, the sides and wheels will be inspected. If any soil materials are observed on the wheels or body of the truck, they will be removed using a shovel, broom, water hose and/or other hand tools in the designated vehicle cleaning area (Section 6.3). In addition, all trucks carrying soil material for disposal will have the soils in the truck body covered with a tarp. Outgoing trucks shall be inspected at the gate and not allowed to exit if covers are not properly utilized.

8) Additional Precautions

Dermal absorption or skin contact with contaminants is possible during intrusive activities and grading at the Site. The use of proper PPE, as described in Section VI (4), and proper vehicle and Site Worker cleaning procedures should significantly reduce the risk of skin contact. In addition, adhering to the dust control procedures will reduce the amount of airborne dust and therefore reduce the risk of skin contact and inhalation. The potential for accidental ingestion of contaminated particulates is expected to be remote with good hygiene practices.

9) Hazard Assessment and Mitigation

Hazardous conditions requiring higher levels of PPE and personal cleaning facilities are not anticipated to occur on Site given the nature of anticipated construction activities. If hazardous conditions are encountered, activities, if any, which involve direct physical contact with free phase petroleum, hazardous waste as defined by EPA or grossly contaminated soil as defined by DEC guidance (i.e. soil that contains visibly identifiable free or otherwise readily detectable free or residual product) would be addressed as set forth below.

A decision to upgrade the required level of PPE and/or withdrawal of Site Workers from an area would be made by the Site Safety Manager/Director based on atmospheric hazards, as determined by air monitoring and/or the presence of unexpected Site conditions. In addition, if, during Site work, unanticipated construction activities require direct physical contact with free phase petroleum product or soils containing materials exceeding EPA thresholds for hazardous materials, those

workers engaged in such activities will be required to increase their level of PPE to Modified Level D or higher, based on the potential for exposure and OSHA requirements. Modified Level D PPE includes:

- Outer gloves: leather, cotton, neoprene or nitrile (as specified by the Site Safety Manager/ Director);
- Inner gloves: latex or nitrile;
- Regular Tyvek coveralls (Poly-coated Tyvek, as specified by the Site Safety Manager/ Director);
- Chemical resistant boots over work boots (as specified by the Site Safety Manager/ Director);
- Steel toe work boots;
- Hard Hat;
- Safety glasses;
- Hearing protection (as necessary depending on the task); and
- Reflective safety vest (as necessary depending on the task).

VII. Site Control for Unexpected Conditions

In the event that unexpected conditions or hazardous waste is encountered, the following four-zone approach will be employed in order to prevent the spread of the contamination from the area containing the unexpected condition and to protect Site Workers. The four-zones include the:

- Exclusion Zone;
- Contamination Reduction Zone;
- Remediated Zone; and
- Support Zone.

A stepped remedial approach will be managed and the zones modified as the work progresses. Each of the areas will be defined through the use of control barricades and/or construction/hazard fencing. A clearly marked delineation between the zones will be maintained. Signage will be posted to further identify and delineate these areas. Unexpected conditions that may be encountered include previously unknown buried drums, USTs, and grossly contaminated soil. Grossly contaminated soil is defined in the NYSDEC's Draft DER-10 Technical Guidance for Site Investigation and Remediation document as soil that contains visibly identifiable free or otherwise readily detectable free or residual product.

In order to minimize the potential for exposure in areas of grossly contaminated soil or hazardous materials, Site workers shall:

- Avoid eating or drinking in these areas;
- Take extra precautions to protect any skin injuries; and
- Not use cigarettes, cosmetics, gum, etc., in these areas.

The following subsections describe the four zones that will be utilized in the event that unexpected conditions or gross contamination is discovered at the Site.

1) Exclusion Zone

The area where the unexpected condition is discovered would be considered the Exclusion Zone (EZ). All excavation and handling of contaminated materials generated as a result of the discovery of an unexpected condition would take place within the EZ. This zone will be clearly delineated by hay bales, jersey barriers, and/or similar methods. Safety tape may be used as secondary delineation within the EZ. The zone delineation markings may be opened in areas for varying lengths of time to accommodate equipment operation or specific construction activities. The Site Safety Manager/Director may establish more than one EZ where different levels of protection may be employed or where different hazards exist. Site Workers will not be allowed in the EZ without:

- A buddy (co-worker);
- Appropriate PPE in accordance with OSHA regulations;
- Medical authorization; and
- Training certification in accordance with 29 CFR 1910.120.

2) Contamination Reduction Zone

A Contamination Reduction Zone (CRZ) will be established between the EZ and the property limits. The CRZ contains the Contamination Reduction Corridor (CRC) and provides an area for decontamination of Site Workers and equipment. The CRZ will be used for general Site entry and egress, in addition to access for heavy equipment and emergency support services. Site Workers will not be allowed in the CRZ without:

- A buddy (co-worker);
- Appropriate PPE in accordance with OSHA regulations;
- Medical authorization; and
- Training certification in accordance with 29 CFR 1910.120.

In addition, the CRZ will include a Site Worker Cleaning Area that will include a field wash station for Site Workers, equipment, and PPE to allow Site Workers to wash their hands, arms, neck, and face after exiting areas of grossly contaminated soil or hazardous materials. All Site Workers will be required to pass through the Site Worker Cleaning Area and wash their hands and remove any loose fill and soils from their clothing and boots prior to exiting the CRZ.

3) Remediated Zone

A Remediated Zone (RZ) will be established in portions of the Site where the remediation has been completed and only general construction work will be performed. Setup of the RZ will consist of implementing several measures designed to reduce the risk of workers' exposure and prevent non-trained workers from entering the non-remediated zone. Non-trained workers will work only in areas where the potential for exposure has been minimized by removal of all hazardous materials. The remediated zone will then be separated from the non-remediated zone by installing and maintaining temporary plywood or other construction fences along the boundary between the two zones. If potentially impacted material is uncovered in the RZ, all non-trained workers will be removed and the Site Safety Manager/Director will assess the potential risks. If, at any other time, the risk of exposure increases while non-trained workers are present in the RZ, the non-trained workers will be removed. At all times, when non- trained workers are present in the RZ, air monitoring for the presence of VOCs will be conducted in the RZ, as well as at the fence line of the non-remediated zone.

4) Support Zone

The Support Zone (SZ) will be an uncontaminated area that will be the field support area for the Site operations. The SZ will contain the temporary project trailers and provide for field team communications and staging for emergency response. Appropriate sanitary facilities and safety equipment will be located in this zone. Potentially contaminated Site Workers or materials are not allowed in this zone. The only exception will be appropriately packaged/decontaminated and labeled samples. Meteorological conditions will be observed and noted from this zone, as well as those factors pertinent to heat and cold.

VIII. Monitoring Procedures

In addition to the monitoring requirements set forth in the CAMP, as part of customary practice, periodic ambient air monitoring will be performed during the excavation of Site soils (or other activities that involve moving existing Site soils around or off the Site) in connection with the construction of the Project. If air monitoring results exceed the levels indicated in Table 2, the appropriate OSHA requirements will be followed. All monitoring instruments shall be operated by qualified personnel only and will be calibrated prior to use, as necessary. No excavation will be performed without the presence of the Site Safety Manager/Director or designated approved substitute at the Site, and without air monitoring as outlined in the CAMP. The Site Safety Manager/Director is responsible for ensuring that appropriate monitoring, levels of protection and safety procedures are followed.

1) Instrumentation

The following monitoring instruments will be supplied and utilized by the Contractor and will be available for use during field operations, as necessary. There will be a minimum of one of each piece of equipment on the Site at all times (depending on the size and locations of active work areas, it may be prudent to have multiple machines on Site):

- Photoionization Detector (PID) with 10.6 EV probe, Flame Ionization Detector (FID), or equivalent.

- Dust/Particulate Monitor (DM), MIE Miniram, or equivalent.

A PID and/or FID equipped organic vapor meter shall be used as outlined above to monitor VOCs in and around active work areas during excavation and truck loading activities, and to measure VOCs upwind of the work areas to determine background concentrations.

A particulate monitor shall be used as outlined above to measure concentrations of dust and particulate matter in and around the active work areas, and to measure particulates upwind of the work areas to determine background concentrations.

All instruments shall be calibrated daily prior to use in accordance with the manufacturer's procedures. Calibration records shall be documented and recorded daily.

The frequency of monitoring should be determined by the Site Safety Manager/Director after consultation with the Construction Manager's Project Superintendent. The rationale for any

modification must be documented and maintained by the Site Safety Manager/Director in the on-site health and safety files.

2) Action Levels

Action levels for the upgrading of PPE requirements in the HASP will apply to all Site work during excavation and truck loading activities at the Site. These action levels are provided in Table 2 and are for known contaminants measured using direct reading instruments in the Breathing Zone (BZ) for VOCs and particulates. The BZ will be determined by the Site Safety Manager/Director, but is typically 4 to 5 feet above the work area surface or elevation.

An air horn will be readily available in the Site trailer. An additional air horn will be located in the work area to alert Site Workers to an emergency situation. In the event of an emergency or the need to upgrade the level of personal protection, sharp blasts of the air horn will be sounded. If the level of respiratory protection needs to be upgraded, the Contractor will immediately contact the Construction Manager and Owner's Representative.

3) Community Air Monitoring Program

The Owners' representative will perform a Community Air Monitoring Program (CAMP) at the Site during all subsurface disturbance (i.e., during all grading, excavation, transporting, and loading of soil for disposal). The CAMP will meet the requirements of the New York State Department of Health Generic CAMP. The CAMP details are provided in the CAMP Plan, which is a separate document that will be distributed to Subcontractors in the Project Manual.

IX. Vehicle Cleaning Areas and Disposal Procedures

This section details the specific vehicle cleaning and waste disposal procedures to be implemented at the Site during the excavation and truck loading activities.

1) Contamination Prevention

Contamination prevention will help to avoid spreading Site-derived fill and soil onto the public roadways and into areas of the Site where contaminated materials have been removed. Procedures for prevention include:

<u>Heavy Equipment</u>

- Care should be taken to limit the amount of contaminated material that comes in contact with heavy equipment (eg.: tires).

- If tools used in contaminated areas are to be placed on equipment for transport to an area where all contaminated material has been removed or to be cleaned, plastic should be used to keep the equipment clean.

- Heavy equipment that comes in contact with contaminated material should be decontaminated to remove any remaining contamination prior to the equipment being removed from the Site.

- Dust control measures, including water misting, will be used on roads inside the Site boundaries, as described in the CAMP.

2) Vehicle Cleaning Area/Stabilized Construction Entrances

One or more temporary vehicle cleaning areas will be constructed to clean disposal trucks and other vehicles and heavy equipment prior to leaving the Site. The vehicle cleaning area will be constructed of gravel and will be of sufficient size to prevent vehicles from spreading contaminated material. Before any disposal truck or other vehicle, or heavy equipment leaves the Site, the sides and wheels will be inspected. If any soil material is observed on the wheels or body of the truck or heavy equipment, the soil material will be removed and collected for disposal using a shovel, broom, and/or other methods including wet vehicle cleaning procedures (i.e., power washing or steam cleaning).

Water will be contained and recycled to avoid tracking mud out of the Site. No equipment will be allowed to leave the Site prior to inspection and verification that the equipment was properly cleaned. The Site Safety Director/Manager will inspect the streets surrounding the Site to determine whether they are becoming covered with soil from the Site; if this occurs, the Contractor will clean the streets.

3) Disposal Procedures

While it is not anticipated that there will be equipment, special clothing or other materials that would be required to be segregated, if unexpected conditions arise, waste would be segregated and disposed of based on its level of contamination and the requirements of the disposal facilities. All discarded materials, waste materials, or other objects will be handled in such a way as to preclude the potential for spreading contamination, creating a sanitary hazard, or causing litter to be left onsite. If any potentially contaminated materials (e.g., clothing, gloves, etc.) are generated, they will be bagged or drummed, as necessary, labeled, and segregated for disposal. All non-contaminated materials will be collected and bagged for appropriate disposal.

Table 1
Toxicological Physical and Chemical Properties of Compounds Potentially Present at the Site

Compound of Concern	Exposure Limits	Characteristics	Routes of Exposure	Symptoms of Overexposure
Benzene	0.5 ppm (8 hr.TWA), 1ppm PEL	vapor, aromatic odor	inhalation, ingestion, skin adsorption	Dermatitis, CNS Depression
Ethylbenzene	PEL 435 mg/m^3 (100 ppm)	Liquid, aromatic odor	inhalation, ingestion, skin adsorption	Sensory irritant, CNS depression
Gasoline	PEL 900mg/m3 (300 ppm)	Liquid, aromatic odor	inhalation, ingestion, skin adsorption	Eye/skin irritation, CNS depression
Petroleum hydrocarbons (Petroleum distillates)	PEL 2000 mg/m^3	colorless liquid	inhalation, ingestion, skin adsorption	respiratory irritant, skin irritant, CNS depression
Petroleum naphtha	PEL 400 mg/m3 (100 ppm)	reddish brown liquid, aromatic odor	inhalation, ingestion, skin adsorption	Eye/skin irritation, CNS depression
Toluene	PEL 188 mg/m3 (50 ppm) skin, 200 ppm inhalation	Colorless liquid, sweet odor	inhalation, ingestion, skin adsorption	Eye/skin irritation, CNS depression
Xylene	PEL 435 mg/m3 (100 ppm)	Liquid, aromatic odor	inhalation, ingestion, skin adsorption	Eye/skin irritation, CNS depression

References

U.S. Department of Labor. 1990. OSHA Regulated Hazardous Substances, industrial Exposure and Control Technologies Government Institutes, Inc. Hawley's Condensed Chemical Dictionary, Sax, N. Van Nostrand and Reinhold Company, 11th Edition, 1987.

NIOSH Pocket Guide to Chemicals, 1999, National Institute for Occupational Safety and Health.

TWA - Tire Weighted Average for 8-hour workday unless otherwise noted.

Proctor, N.H., J.P. Hughes and M.L. Fischman, 1989. Chemical Hazards of the Workplace. Van Nostrand Reinhold. New York.

Sax, N.I. and R.J. Lewis. 1989. Dangerous Properties of Industrial Materials. 7th Edition. Van Nostrand Reinhold. New York.

Guide to Occupational Exposure Values. 1990. American Conference of Governmental Industrial Hygienists (ACGIH).

TLV — ACGIH Threshold Limit Values (usually 8 hour time weighted average concentrations).

IDLH — Immediately Dangerous to Life and Health concentrations represent the maximum concentration from which, in the event of respirator failure, one could escape within 30 minutes without a respirator and without experiencing any escape-impairing or irreversible health effects.

PEL — OSHA Permissible Exposure Limit (usually) a time weighted average concentration that must not be exceeded during any 8 hour work shift of a 40 hr work week.

TABLE 2

ACTION LEVELS FOR WORKER BREATHING ZONE

Instrument	**Action Level ***	**Level of Respiratory Protection/Action**
PID	0 to 5 ppm (one minute sustained)	Level D *
PID	5 to 50 ppm (one minute sustained)	Level C (Utilize Air Purifying Respirator)
PID	>50 to <100 ppm (one minute sustained)	Level B
PID	100 ppm	Stop work** (ventilate, apply foam)
Dust Monitor	0 – 1.0 mg/m^3, 5-minute average	Level D
Dust Monitor	>1.0 to 5.0 mg/m^3, 5-minute average	Level D – Institute dust suppression measures
Dust Monitor	>5.0 to 50 mg/m^3, 5-minute average	Level C – Institute dust suppression measures

Note: Action levels are based on above background levels.

* Instrument readings will be taken in the breathing zone (BZ) of the Site Workers, unless otherwise indicated.

** Suspend work in immediate area. Conduct air monitoring periodically to determine when work can continue. Implement mitigative measures.

Community Air Monitoring Plan

for

Proposed Medical Office Building
1001 Main Street
Buffalo, New York 14203

Former Mobil Station 99-MST
Site No. C915260

November 12, 2012

Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Based on over 10 years of monitoring and investigation, this site contamination is known to be limited to petroleum VOCs.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

<u>VOC Monitoring, Response Levels and Actions</u>

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment

should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate, such as isobutylene. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.

2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.

3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM10) with the following minimum performance standards:

(a) Objects to be measured: Dust, mists or aerosols;
(b) Measurement Ranges: 0.001 to 400 mg/m3 (1 to 400,000 :ug/m3);
(c) Precision (2-sigma) at constant temperature: +/- 10 :g/m3 for one second averaging; and +/- 1.5 g/m3 for sixty second averaging;
(d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
(e) Resolution: 0.1% of reading or 1g/m3, whichever is larger;
(f) Particle Size Range of Maximum Response: 0.1-10;
(g) Total Number of Data Points in Memory: 10,000;
(h) Logged Data: Each data point with average concentration, time/date and data point number;
(i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;

(j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
(k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
(l) Operating Temperature: -10 to 50$_o$ C (14 to 122$_o$ F); and
(m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.

4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record-keeping plan.

5. The action level will be established at 150 ug/m3 (15 minutes average). While conservative, this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m3, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m3 above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m3 continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM-10 at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

(a) Applying water on haul roads;
(b) Wetting equipment and excavation faces;
(c) Spraying water on buckets during excavation and dumping;
(d) Hauling materials in properly tarped or watertight containers;
(e) Restricting vehicle speeds to 10 mph;
(f) Covering excavated areas and material after excavation activity ceases; and
(g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m3 action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.

APPENDIX E – MONITORING WELL BORING AND CONSTRUCITON LOGS

C&S COMPANIES	C&S Engineers, Inc. 90 Broadway Buffalo, New York 14203 Phone: 716-847-1630 Fax: 716-847-1454 www.cscos.com	**BORING LOG**	***Boring No.***	**BCP MW-01**
			Sheet 1 of:	1
			Project No.:	K11.002.001

Project Name:	979 (1001) Main Street					***Surface Elev.:***	
Location:	MOB - Buffalo, NY					***Datum:***	6. Surface
Client:	Kaleida Properties					***Start Date:***	8/15/13
Drilling Firm:	SJB		***Driller:***	***Tony***		***Finish Date:***	8/15/13
Groundwater	***Depth***	***Date & Time***	***Drill Rig:***	CME 45C		***Inspector:***	N. Wohlabaugh
While Drilling:			***Casing:***		***Rock Core:***	***Undist:***	
Before Casing Removal:			***Sampler:***		***Other:***		
After Casing Removal:			***Hammer:***	Auto			

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION c - coarse, m - medium, f - fine S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%	COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			5		Start: 12:15 PM
1			4	***Crushed Stone (dry)***	12" rec
			9		0.2 ppm
2			10		
			6		
3			6	***Crushed Stone (dry)***	15" rec
			8	***Silt (red/brown - dry)***	0.2 ppm
4			8		
			11		
5			12	***Silt (red/brown - moist)***	13" rec
			15		2.5 ppm
6			18		
			16		
7			22	***Silt (red/brown - saturated)***	24" rec
			22	***Gravel (fine - medium grey - saturated)***	0 ppm
8			24		
			13		
9			19	***Gravel (medium fine - medium grey - saturated)***	18" rec
			19	***Silt (saturated)***	15.3 ppm
10			22		
			7		
11			18	***Gravel (medium fine - medium grey - saturated)***	17" rec
			18	***Silt (saturated)***	229 ppm
12			28		
13			50/4	***Gravel (medium fine - medium grey - saturated)***	5" rec
					16..3 ppm
14					
			16		
15			24	***Gravel (medium fine - medium grey - saturated)***	17" rec
			14		14..0 ppm
16			16		
17					
18					
19					
20					
21					
22					
23					
24					

C&S COMPANIES

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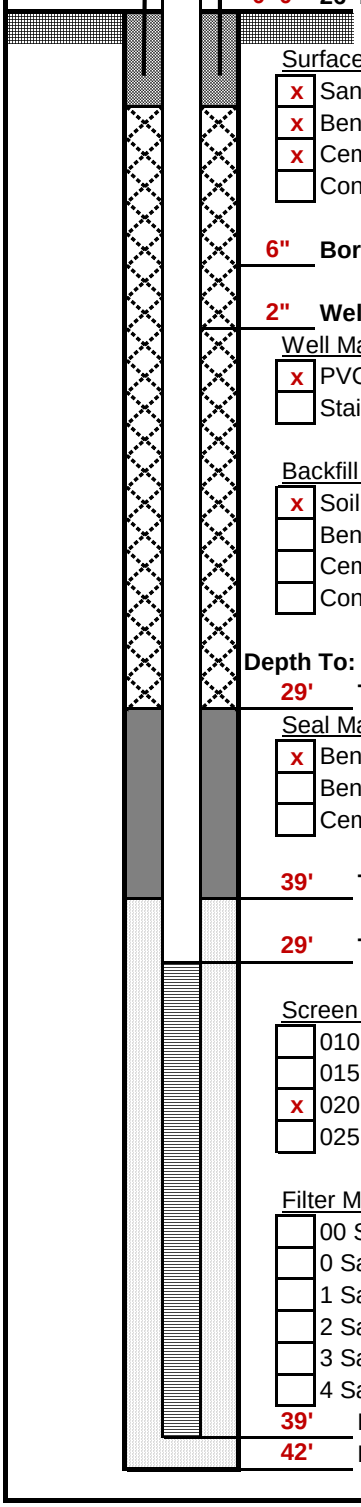
GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

Well No.	BCP MW-01
Project No.:	K11.002.001
Surface Elev.:	
Datum:	26' bgs
Start Date:	8/15/13
Finish Date:	8/15/13
Inspector:	
Casing:	0

Project Name:	979 (1001) Main Street
Location:	MOB - Buffalo, NY
Client:	Kaleida Properties
Drilling Firm:	SJB
Driller:	0
Drill Rig:	CME 45C

Notes: (provide description of observation well location, method of construction, development method and any other information)

The observation well was constructed in Bore Hole B-3 upon completing the soil boring to depth of 25 feet below ground surface (bgs). Hollow Stem Augers (HSA) were used as the casing and the well was constructed inside the augers. Filter pack material and seal material were poured separately down the inside of the augers while the augers were retracted. Measurements were taken to asure that neither the filter pack or seal materials were bridging between the well and HSA. The well was developed by pumping to remove fine materials.



2'-9" Top Protective Casing

2'-6" Top of Riser

0'-0" 26' bgs.

Surface Backfill Material
- [x] Sand
- [x] Bentonite Slurry
- [x] Cement/Bentonite Grout
- [ ] Concrete

6" Bore Hole Diameter

2" Well Diameter

Well Material
- [x] PVC
- [ ] Stainless Steel

Backfill Material
- [x] Soil Cuttings
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout
- [ ] Concrete

Depth To:

29' Top of Seal

Seal Material
- [x] Bentonite Chips/Pellets
- [ ] Bentonite Slurry
- [ ] Cement/Bentonite Grout

39' Top of Filter Pack

29' Top of Screen

Screen Slot Size
- [ ] 010 in
- [ ] 015 in
- [x] 020 in
- [ ] 025 in

Filter Material
- [ ] 00 Sand Pack
- [ ] 0 Sand Pack
- [ ] 1 Sand Pack
- [ ] 2 Sand Pack
- [ ] 3 Sand Pack
- [ ] 4 Sand Pack

39' Bottom of Screen

42' Bottom of Bore Hole

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

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Fax: 716-847-1454
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BORING LOG

Boring No.	**BCP MW-02**
Sheet 1 of:	1
Project No.:	K11.002.001
Surface Elev.:	
Datum:	6. Surface
Start Date:	8/16/13
Finish Date:	8/16/13
Inspector:	N. Wohlabaugh

Project Name:	979 (1001) Main Street							
Location:	MOB - Buffalo, NY							
Client:	Kaleida Health							
Drilling Firm:	SJB			**Driller:**	***Tony***			
Groundwater	***Depth***	***Date & Time***		**Drill Rig:**	CME 45C			
While Drilling:				***Casing:***		***Rock Core:***		***Undist:***
Before Casing Removal:				***Sampler:***		***Other:***		
After Casing Removal:				***Hammer:***	Auto			

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

c - coarse
m - medium
f - fine

a - and - 35-50%
s - some - 20-35%
l - little - 10-20%
t - trace - 0-10%

S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION	COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			7		Start: 9:20 AM
1			7	***Crushed Stone (grey - dry)***	6" rec
			15		0.2 ppm
2			17		
			10		
3			10	***Flowable Fill (black - dry/damp)***	6" rec
			23		0.2 ppm
4			26		
			3		
5			3	***Flowable Fill (black - dry/damp)***	24" rec
			12		3.1 ppm
6			10		
			13		
7			15	***Flowable Fill (black - dry/damp)***	24" rec
			22		5.6 ppm
8			23		
			4		
9			4	***Flowable Fill (black - damp/moist)***	24" rec
			5		4.3 ppm
10			8		
			5		
11			9	***Flowable Fill (black - damp/moist)***	20" rec
			14	***Medium Sand (Caorse - gray - moist)***	1.5 ppm
12			48		
13			3-May	***2" of Slough***	N/A
					N/A
14					
15				***Bottom of @ 13'+3' = 16' bg***	
16					
17					
18					
19					
20					
21					
22					
23					
24					

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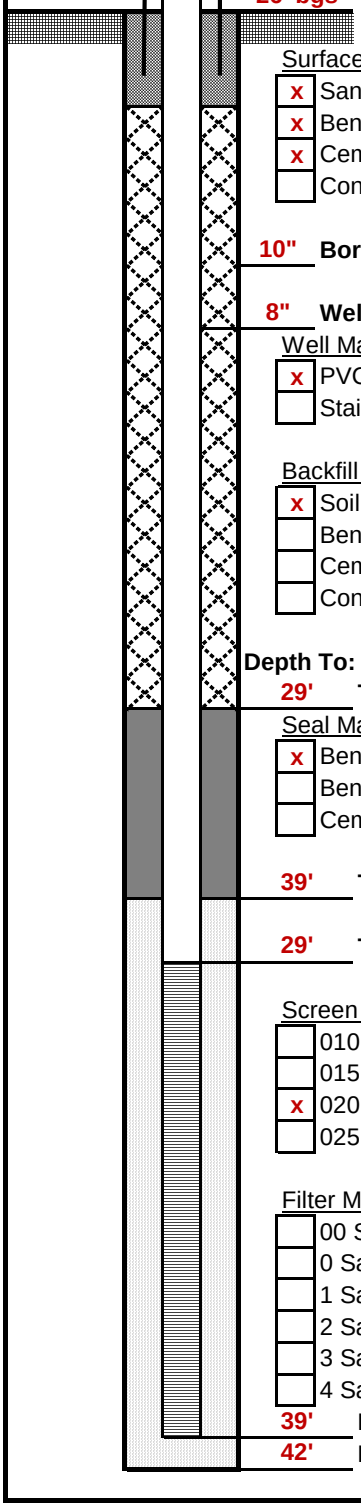
Buffalo, New York 14203

GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

Well No.	BCP MW-02		
Project No.:	K11.002.001		
Surface Elev.:			
Project Name:	979 (1001) Main Street	**Datum:**	26' bgs
Location:	MOB - Buffalo, NY	**Start Date:**	8/16/13
Client:	Kaleida Health	**Finish Date:**	8/16/13
Drilling Firm:	SJB	**Driller:** 0	**Inspector:**
		Drill Rig: CME 45C	**Casing:** 0

Notes: (provide description of observation well location, method of construction, development method and any other information)

The observation well was constructed in Bore Hole B-3 upon completing the soil boring to depth of 25 feet below ground surface (bgs). Hollow Stem Augers (HSA) were used as the casing and the well was constructed inside the augers. Filter pack material and seal material were poured separately down the inside of the augers while the augers were retracted. Measurements were taken to asure that neither the filter pack or seal materials were bridging between the well and HSA. The well was developed by pumping to remove fine materials.



2'-9" **Top Protective Casing**

2'-6" **Top of Riser**

26' bgs

Surface Backfill Material
- ☒ Sand
- ☒ Bentonite Slurry
- ☒ Cement/Bentonite Grout
- ☐ Concrete

10" **Bore Hole Diameter**

8" **Well Diameter**

Well Material
- ☒ PVC
- ☐ Stainless Steel

Backfill Material
- ☒ Soil Cuttings
- ☐ Bentonite Slurry
- ☐ Cement/Bentonite Grout
- ☐ Concrete

Depth To:

29' **Top of Seal**

Seal Material
- ☒ Bentonite Chips/Pellets
- ☐ Bentonite Slurry
- ☐ Cement/Bentonite Grout

39' **Top of Filter Pack**

29' **Top of Screen**

Screen Slot Size
- ☐ 010 in
- ☐ 015 in
- ☒ 020 in
- ☐ 025 in

Filter Material
- ☐ 00 Sand Pack
- ☐ 0 Sand Pack
- ☐ 1 Sand Pack
- ☐ 2 Sand Pack
- ☐ 3 Sand Pack
- ☐ 4 Sand Pack

39' **Bottom of Screen**

42' **Bottom of Bore Hole**

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

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Fax: 716-847-1454
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BORING LOG

Boring No.	**BCP MW-03**
Sheet 1 of:	1
Project No.:	K11.002.001
Surface Elev.:	
Datum:	26' - Surface
Start Date:	9/12/13
Finish Date:	9/12/13
Inspector:	N. Wohlabaugh

Project Name:	979 (1001) Main Street							
Location:	MOB - Buffalo, NY							
Client:	Kaleida Health							
Drilling Firm:	SJB			**Driller:**	**Tony**			
Groundwater	**Depth**	**Date & Time**		**Drill Rig:**	CME 45C			
While Drilling:				**Casing:**		**Rock Core:**	**Undist:**	
Before Casing Removal:				**Sampler:**		**Other:**		
After Casing Removal:				**Hammer:**	Auto			

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

c - coarse
m - medium
f - fine

a - and - 35-50%
s - some - 20-35%
l - little - 10-20%
t - trace - 0-10%

S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION	COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			4		Start: 8:30 AM
1			7	***Sand (med brown - fine sand - moist)***	12" rec
			10	***some Silt***	0.2 ppm
2			12		
			17		
3			17	***Silt (med brown - wet to saturated)***	15" rec
			18	***some Fine Sand and Clay***	0.4 ppm
4			17		
			6		
5			8	***Sand (black - med grained - sheen - saturated)***	14" rec
			7		415 ppm
6			7		
			9		
7			10	***Sand (black - med grained - sheen - saturated)***	16"
			10		0 ppm
8			11		
			2		
9			4	***Sand (med grey - saturated)***	20" rec
			5	***4" of Clay at the bottom (red/brown)***	175 ppm
10			15		
			16		
11			35	***Sand (upper 10" - black - wet to moist)***	20" rec
			50/3	***Sand (lower 10" - coarse - with agular gravel - west to moist)***	305 ppm
12					
			27		
13			50/4	***Sand (med grey - coarse - with angular gravel - moist)***	8" rec
					19.4 ppm
14					
			13		
15			19	***Sand (med grey - coarse - with angular gravel - moist)***	15" rec
			37		12 ppm
16			30		
17					
18					
19					
20					
21					
22					
23					
24					

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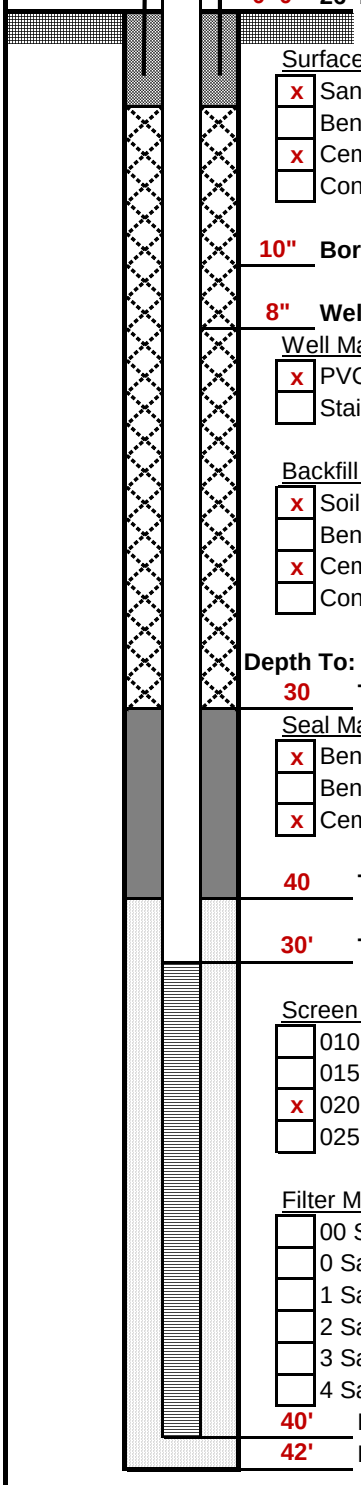
GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

		Well No.	**BCP MW-03**
		Project No.:	K11.002.001
		Surface Elev.:	
Project Name:	979 (1001) Main Street	***Datum:***	26' bgs
Location:	MOB - Buffalo, NY	***Start Date:***	9/12/13
Client:	Kaleida Health	***Finish Date:***	9/12/13
Drilling Firm:	SJB ***Driller:*** 0	***Inspector:***	
Drill Rig:	CME 45C	***Casing:***	0

Notes: (provide description of observation well location, method of construction, development method and any other information)

The observation well was constructed in Bore Hole B-3 upon completing the soil boring to depth of 25 feet below ground surface (bgs). Hollow Stem Augers (HSA) were used as the casing and the well was constructed inside the augers. Filter pack material and seal material were poured separately down the inside of the augers while the augers were retracted. Measurements were taken to asure that neither the filter pack or seal materials were bridging between the well and HSA. The well was developed by pumping to remove fine materials.



2'-9" **Top Protective Casing**
2'-6" **Top of Riser**
0'-0" **26' bgs.**

Surface Backfill Material
☒ Sand
☐ Bentonite Slurry
☒ Cement/Bentonite Grout
☐ Concrete

10" **Bore Hole Diameter**

8" **Well Diameter**

Well Material
☒ PVC
☐ Stainless Steel

Backfill Material
☒ Soil Cuttings
☐ Bentonite Slurry
☒ Cement/Bentonite Grout
☐ Concrete

Depth To:
30 **Top of Seal**

Seal Material
☒ Bentonite Chips/Pellets
☐ Bentonite Slurry
☒ Cement/Bentonite Grout

40 **Top of Filter Pack**

30' **Top of Screen**

Screen Slot Size
☐ 010 in
☐ 015 in
☒ 020 in
☐ 025 in

Filter Material
☐ 00 Sand Pack
☐ 0 Sand Pack
☐ 1 Sand Pack
☐ 2 Sand Pack
☐ 3 Sand Pack
☐ 4 Sand Pack

40' **Bottom of Screen**
42' **Bottom of Bore Hole**

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

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BORING LOG

Boring No.	**BCP MW-04**
Sheet 1 of:	1
Project No.:	K11.002.001
Surface Elev.:	
Datum:	6. Surface
Start Date:	8/15/13
Finish Date:	8/15/13
Inspector:	N. Wohlabaugh

Project Name:	979 (1001) Main Street							
Location:	MOB - Buffalo, NY							
Client:	Kaleida Health							
Drilling Firm:	SJB			**Driller:**	**Tony**			
Groundwater	**Depth**	**Date & Time**		**Drill Rig:**	CME 45C			
While Drilling:				**Casing:**		**Rock Core:**	**Undist:**	
Before Casing Removal:				**Sampler:**		**Other:**		
After Casing Removal:				**Hammer:**	Auto			

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

c - coarse
m - medium
f - fine

a - and - 35-50%
s - some - 20-35%
l - little - 10-20%
t - trace - 0-10%

S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION	COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			9		Start: 7:20 AM
1			12	***Crushed Stone (dry)***	12" rec
			13		0.2 ppm
2			10		
			15		
3			21	***Crushed Stone (dry)***	15" rec
			23		0.2 ppm
4			25		
			20		
5			19	***Crushed Stone (dry)***	16" rec
			19	***Bottom 2" Flowable Fill***	0.5 ppm
6			20		
			13		
7			16	***Flowable Fill (black - moist)***	24" rec
			19		0 ppm
8			40		
			12		
9			13	***Flowable Fill (black - moist)***	24" rec
			15		0 ppm
10			19		
			7		
11			8	***Flowable Fill (black - moist)***	24" rec
			9	***Sand (medium brown - saturated)***	517 ppm
12			9		
			5		
13			9	***Sand (medium brown - moist)***	16" rec
			6	***Clay (red/brown - moist)***	59 ppm
14			14		
			6		
15			4	***Clay (red/brown - moist)***	23" rec
			7		1.2 ppm
16			15		
17					
18					
19					
20					
21					
22					
23					
24					

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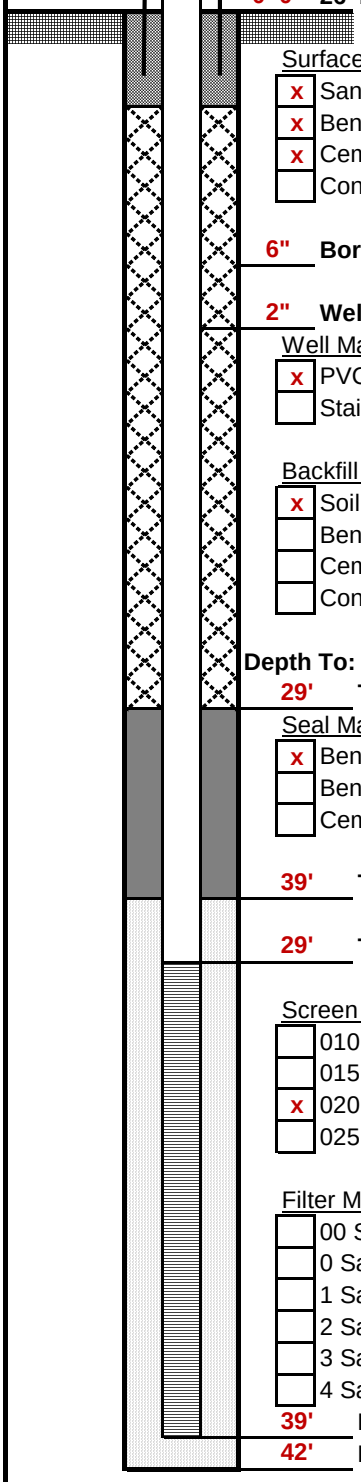
GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

Well No.	**BCP MW-04**
Project No.:	K11.002.001
Surface Elev.:	
Datum:	26' bgs
Start Date:	8/15/13
Finish Date:	8/15/13
Inspector:	
Casing:	0

Project Name: 979 (1001) Main Street
Location: MOB - Buffalo, NY
Client: Kaleida Health
Drilling Firm: SJB
Driller: 0
Drill Rig: CME 45C



2'-9" **Top Protective Casing**
2'-6" **Top of Riser**
0'-0" **26' bgs.**

Surface Backfill Material
☒ Sand
☒ Bentonite Slurry
☒ Cement/Bentonite Grout
☐ Concrete

6" **Bore Hole Diameter**

2" **Well Diameter**

Well Material
☒ PVC
☐ Stainless Steel

Backfill Material
☒ Soil Cuttings
☐ Bentonite Slurry
☐ Cement/Bentonite Grout
☐ Concrete

Depth To:
29' **Top of Seal**

Seal Material
☒ Bentonite Chips/Pellets
☐ Bentonite Slurry
☐ Cement/Bentonite Grout

39' **Top of Filter Pack**

29' **Top of Screen**

Screen Slot Size
☐ 010 in
☐ 015 in
☒ 020 in
☐ 025 in

Filter Material
☐ 00 Sand Pack
☐ 0 Sand Pack
☐ 1 Sand Pack
☐ 2 Sand Pack
☐ 3 Sand Pack
☐ 4 Sand Pack

39' **Bottom of Screen**
42' **Bottom of Bore Hole**

Notes: (provide description of observation well location, method of construction, development method and any other information)

The observation well was constructed in Bore Hole B-3 upon completing the soil boring to depth of 25 feet below ground surface (bgs). Hollow Stem Augers (HSA) were used as the casing and the well was constructed inside the augers. Filter pack material and seal material were poured separately down the inside of the augers while the augers were retracted. Measurements were taken to asure that neither the filter pack or seal materials were bridging between the well and HSA. The well was developed by pumping to remove fine materials.

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

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BORING LOG

Boring No.	**BCP MW-05**
Sheet 1 of:	1
Project No.:	K11.002.001
Project Name:	979 (1001) Main Street
Surface Elev.:	
Location:	MOB - Buffalo, NY
Datum:	26' - Surface
Client:	Kaleida Health
Start Date:	9/12/13
Drilling Firm:	SJB
Driller:	Tony
Finish Date:	9/12/12
Drill Rig:	CME 45C
Inspector:	N. Wohlabaugh

Groundwater	Depth	Date & Time	Casing:		Rock Core:		Undist:	
While Drilling:			Sampler:		Other:			
Before Casing Removal:			Hammer:	Auto				
After Casing Removal:								

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

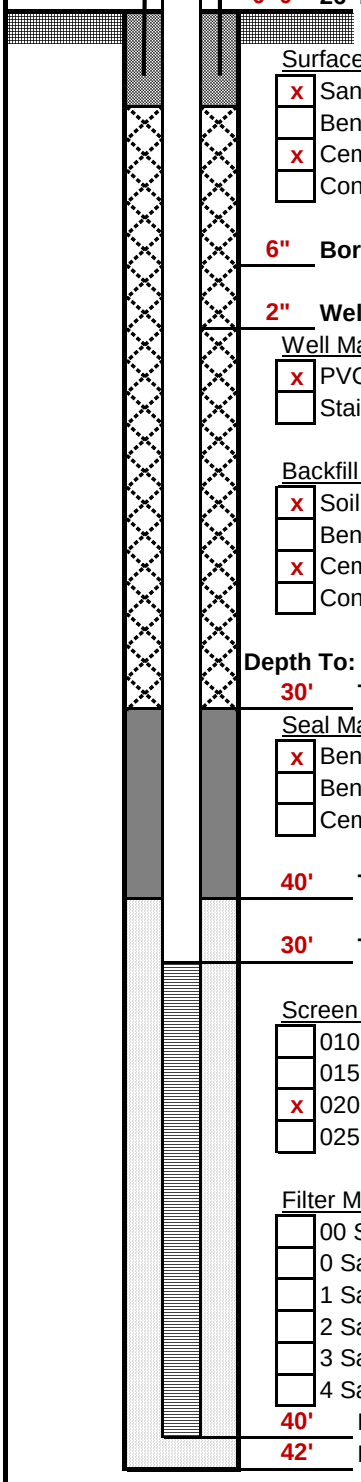
Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION (c - coarse, m - medium, f - fine; a - and - 35-50%, s - some - 20-35%, l - little - 10-20%, t - trace - 0-10%; S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey)	COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			2		Start: 12:35 PM
1			3	***Sand (med - red/brown - fine - moist)***	19" rec
			5		0.6 ppm
2			11		
			12		
3			16	***Sand (med - red/brown - fine - moist)***	16" rec
			16	***some clay***	0.9 ppm
4			20		
			6		
5			8	***Sand (top 8" - med - brown - coarse - saturated)***	16" rec
			10	***Sand (bottom 8" - grey/black - coarse/gravely - product sheet)***	382 ppm
6			9		
			6		
7			7	***Sand (med - black - product sheen - saturated)***	21" rec
			6		1628 ppm
8			8		
			5		
9			8	***Sand (upper 12" - grey/black - wet)***	20" rec
			12	***Sand (lower 8" - red/brown - clay - wet)***	17.2 ppm
10			50/4		
			10		
11			16	***Sand (grey - round and angular gravel - saturated)***	11" rec
			47		12 pmm
12			50/2		
13			50/3	***Sand (coarse - grey - angular gravel - saturated)***	3" rec
					4.2 ppm
14					
			15		
15			23	***Gravel (angular gravel - grey - moist to saturated)***	14" rec
			50/4	***some Sand***	10.5 ppm
16					
17					
18					
19					
20					
21					
22					
23					
24					

C&S COMPANIES	**C&S Engineers, Inc.** 90 Broadway Buffalo New York 14203 www.cscos.com	**GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG**	***Well No.***	**BCP MW-05**
			Project No.:	K11.002.001
			Surface Elev.:	

Project Name:	979 (1001) Main Street	***Datum:***	26' bgs
Location:	MOB - Buffalo, NY	***Start Date:***	9/12/13
Client:	Kaleida Health	***Finish Date:***	9/12/13
Drilling Firm:	SJB	***Driller:*** 0	***Inspector:***
		Drill Rig: CME 45C	***Casing:*** 0

Notes: (provide description of observation well location, method of construction, development method and any other information)

The observation well was constructed in Bore Hole B-3 upon completing the soil boring to depth of 25 feet below ground surface (bgs). Hollow Stem Augers (HSA) were used as the casing and the well was constructed inside the augers. Filter pack material and seal material were poured separately down the inside of the augers while the augers were retracted. Measurements were taken to asure that neither the filter pack or seal materials were bridging between the well and HSA. The well was developed by pumping to remove fine materials.



2'-9" **Top Protective Casing**

2'-6" **Top of Riser**

0'-0" **26' bgs.**

Surface Backfill Material
- ☒ Sand
- ☐ Bentonite Slurry
- ☒ Cement/Bentonite Grout
- ☐ Concrete

6" **Bore Hole Diameter**

2" **Well Diameter**

Well Material
- ☒ PVC
- ☐ Stainless Steel

Backfill Material
- ☒ Soil Cuttings
- ☐ Bentonite Slurry
- ☒ Cement/Bentonite Grout
- ☐ Concrete

Depth To:

30' **Top of Seal**

Seal Material
- ☒ Bentonite Chips/Pellets
- ☐ Bentonite Slurry
- ☐ Cement/Bentonite Grout

40' **Top of Filter Pack**

30' **Top of Screen**

Screen Slot Size
- ☐ 010 in
- ☐ 015 in
- ☒ 020 in
- ☐ 025 in

Filter Material
- ☐ 00 Sand Pack
- ☐ 0 Sand Pack
- ☐ 1 Sand Pack
- ☐ 2 Sand Pack
- ☐ 3 Sand Pack
- ☐ 4 Sand Pack

40' **Bottom of Screen**

42' **Bottom of Bore Hole**

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

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BORING LOG

Boring No.	**BCP MW-06**
Sheet 1 of:	1
Project No.:	K11.002.001
Surface Elev.:	
Datum:	6. Surface
Start Date:	8/14/13
Finish Date:	8/14/13
Inspector:	N. Wohlabaugh

Project Name:	979 (1001) Main Street							
Location:	MOB - Buffalo, NY							
Client:	Kaleida Health							
Drilling Firm:	SJB			**Driller:**	**Tony**			
Groundwater	**Depth**	**Date & Time**		**Drill Rig:**	CME 45C			
While Drilling:				**Casing:**		**Rock Core:**	**Undist:**	
Before Casing Removal:				**Sampler:**		**Other:**		
After Casing Removal:				**Hammer:**	Auto			

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

c - coarse
m - medium
f - fine

a - and - 35-50%
s - some - 20-35%
l - little - 10-20%
t - trace - 0-10%

S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION	COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			8		Start: 8:15 AM
1			7	***Crushed Stone (dry)***	12" rec
			6		0.6 ppm
2			16		
			9		
3			10	***Crushed Stone (dry)***	15" rec
			10		0.0 ppm
4			17		
			5		
5			6	***Sand(medium/dark grey/brown - moist)***	10" rec
			6		33.4
6			8		
			11		
7			9	***Silty CLAY (red/brown - moist)***	18" rec
			11	***Sand(brown - fine - moist)***	43.0 ppm
8			14		
			4		10" rec
9			5	***Clayey SILT (red/brown - wet/saturated)***	53.0 ppm
			13	***Sand(brown - fine - wet/saturated)***	
10			38		
			1		
11			1	***Medium Sand (dark grey - saturated)***	11" rec
			3	***Some Silt/Gravel (saturated)***	1.8 ppm
12			7		
			5		
13			8	***Medium Sand (medium grey - saturated)***	24" rec
			10	***Sand (lower 6" black- saturated)***	2.9 ppm
14			11		
			1		
15			2	***Medium Sand (black - degraded oil smell - saturated)***	24" rec
			4	***Clay (red/brown - rotten - saturated)***	
16			5		
17					
18					
19					
20					
21					
22					
23					
24					

C&S Engineers, Inc.
90 Broadway
Buffalo New York 14203
www.cscos.com

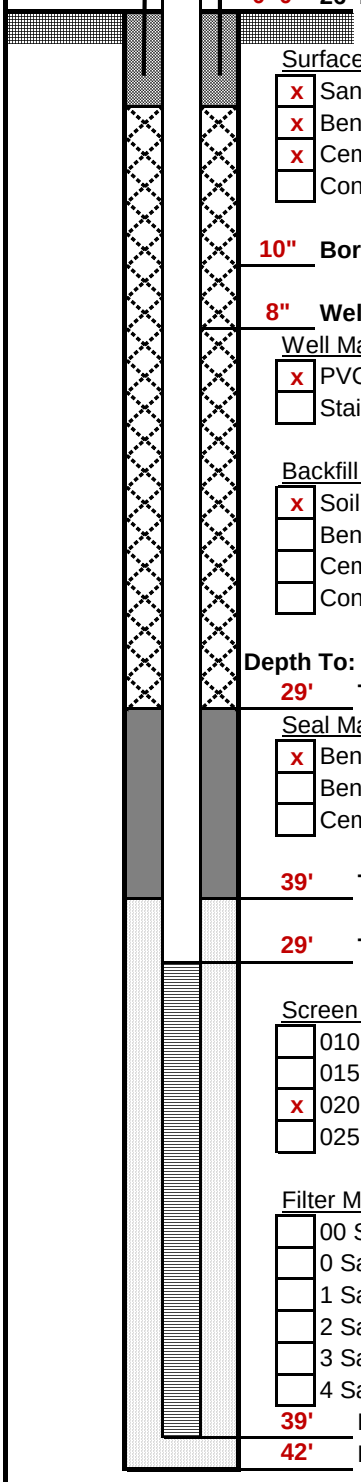
GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

Well No.	**BCP MW-06**
Project No.:	K11.002.001
Surface Elev.:	
Datum:	26' bgs
Start Date:	8/14/13
Finish Date:	8/14/13
Inspector:	
Casing:	0

Project Name: 979 (1001) Main Street
Location: MOB - Buffalo, NY
Client: Kaleida Health
Drilling Firm: SJB
Driller: 0
Drill Rig: CME 45C

Notes: (provide description of observation well location, method of construction, development method and any other information)

The observation well was constructed in Bore Hole B-3 upon completing the soil boring to depth of 25 feet below ground surface (bgs). Hollow Stem Augers (HSA) were used as the casing and the well was constructed inside the augers. Filter pack material and seal material were poured separately down the inside of the augers while the augers were retracted. Measurements were taken to asure that neither the filter pack or seal materials were bridging between the well and HSA. The well was developed by pumping to remove fine materials.



2'-9" **Top Protective Casing**
2'-6" **Top of Riser**
0'-0" **26' bgs.**

Surface Backfill Material
☒ Sand
☒ Bentonite Slurry
☒ Cement/Bentonite Grout
☐ Concrete

10" **Bore Hole Diameter**

8" **Well Diameter**

Well Material
☒ PVC
☐ Stainless Steel

Backfill Material
☒ Soil Cuttings
☐ Bentonite Slurry
☐ Cement/Bentonite Grout
☐ Concrete

Depth To:
29' **Top of Seal**

Seal Material
☒ Bentonite Chips/Pellets
☐ Bentonite Slurry
☐ Cement/Bentonite Grout

39' **Top of Filter Pack**

29' **Top of Screen**

Screen Slot Size
☐ 010 in
☐ 015 in
☒ 020 in
☐ 025 in

Filter Material
☐ 00 Sand Pack
☐ 0 Sand Pack
☐ 1 Sand Pack
☐ 2 Sand Pack
☐ 3 Sand Pack
☐ 4 Sand Pack

39' **Bottom of Screen**
42' **Bottom of Bore Hole**

Groundwater Measurement Data

Date	**Time**	**Depth to Water**	**Water Elevation**	**Tide Status**

C&S Engineers, Inc.
90 Broadway
Buffalo, New York 14203
Phone: 716-847-1630
Fax: 716-847-1454
www.cscos.com

BORING LOG

Boring No.	**BCP MW-07**
Sheet 1 of:	1
Project No.:	K11.002.001
Surface Elev.:	
Datum:	6. Surface
Start Date:	8/16/13
Finish Date:	8/16/13
Inspector:	N. Wohlabaugh

Project Name:	979 (1001) Main Street							
Location:	MOB - Buffalo, NY							
Client:	Kaleida Health							
Drilling Firm:	SJB			**Driller:**	**Tony**			
Groundwater	**Depth**	**Date & Time**		**Drill Rig:**	CME 45C			
While Drilling:				**Casing:**		**Rock Core:**		**Undist:**
Before Casing Removal:				**Sampler:**		**Other:**		
After Casing Removal:				**Hammer:**	Auto			

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

c - coarse
m - medium
f - fine

a - and - 35-50%
s - some - 20-35%
l - little - 10-20%
t - trace - 0-10%

S - Sand, $ - Silt, G - Gravel, C - Clay, cly - clayey

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION	COMMENTS (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
			3		Start: 2:45 PM
1			5	***Crushed Stone (grey - dry)***	12" rec
			5		0.4 ppm
2			9		
			19		
3			16	***Sand (fine - red/brown - dry to moist)***	15" rec
			18	***Silt (red/brown - dry to moist)***	1.0 ppm
4			18		
			12		
5			17	***Sand (fine - red/brown - moist)***	16" rec
			18	***Silt (red/brown - moist)***	0.2 ppm
6			20		
			24		
7			24	***Sand (fine - red/brown - wet to saturated)***	23" rec
			28	***Silt (red/brown - wet to saturated)***	0.5 ppm
8			37		
			14		
9			16	***Sand (fine - red/brown - saturated)***	21" rec
			22	***Silt (red/brown - saturated)***	0.8 ppm
10			39		
			16		
11			28	***Silt (red/brown - wet)***	18" rec
			32	***Clay (red/brown - wet)***	0.1 ppm
12			31		
			25		
13			17	***Silt (red/brown - saturated)***	24" rec
			26	***Clay (red/brown - saturated)***	0.0 ppm
14			33		
			20		
15			19	***Silt (red/brown - moist to wet)***	19" rec
			19	***Gravel (red/brown - moist to wet)***	0.0 ppm
16			21		
17					
18					
19					
20					
21					
22					
23					
24					

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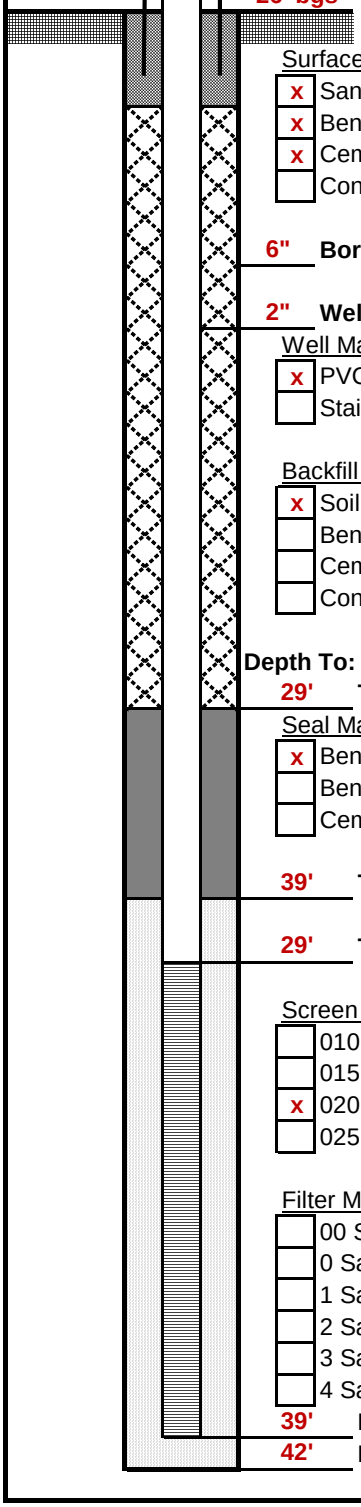
90 Broadway
Buffalo, New York 14203
www.cscos.com

GROUNDWATER OBSERVATION WELL CONSTRUCTION LOG

Project Name:	979 (1001) Main Street	***Well No.***	**BCP MW-07**
Location:	MOB - Buffalo, NY	**Project No.:**	K11.002.001
Client:	Kaleida Health	**Surface Elev.:**	
Drilling Firm:	SJB	**Datum:**	26' bgs
Driller:	0	**Start Date:**	8/16/13
Drill Rig:	CME 45C	**Finish Date:**	8/16/13
		Inspector:	
		Casing:	0

Notes: (provide description of observation well location, method of construction, development method and any other information)

The observation well was constructed in Bore Hole B-3 upon completing the soil boring to depth of 25 feet below ground surface (bgs). Hollow Stem Augers (HSA) were used as the casing and the well was constructed inside the augers. Filter pack material and seal material were poured separately down the inside of the augers while the augers were retracted. Measurements were taken to asure that neither the filter pack or seal materials were bridging between the well and HSA. The well was developed by pumping to remove fine materials.



2'-9" **Top Protective Casing**

2'-6" **Top of Riser**

26' bgs

Surface Backfill Material
☒ Sand
☒ Bentonite Slurry
☒ Cement/Bentonite Grout
☐ Concrete

6" **Bore Hole Diameter**

2" **Well Diameter**

Well Material
☒ PVC
☐ Stainless Steel

Backfill Material
☒ Soil Cuttings
☐ Bentonite Slurry
☐ Cement/Bentonite Grout
☐ Concrete

Depth To:

29' **Top of Seal**

Seal Material
☒ Bentonite Chips/Pellets
☐ Bentonite Slurry
☐ Cement/Bentonite Grout

39' **Top of Filter Pack**

29' **Top of Screen**

Screen Slot Size
☐ 010 in
☐ 015 in
☒ 020 in
☐ 025 in

Filter Material
☐ 00 Sand Pack
☐ 0 Sand Pack
☐ 1 Sand Pack
☐ 2 Sand Pack
☐ 3 Sand Pack
☐ 4 Sand Pack

39' **Bottom of Screen**

42' **Bottom of Bore Hole**

Groundwater Measurement Data

Date	Time	Depth to Water	Water Elevation	Tide Status

APPENDIX F – GROUNDWATER MONITORING WELL SAMPLING LOG FORM

C&S Engineers, Inc.
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212
Phone: 315-455-2000
Fax: 315-455-9667
www.cscos.com

Ground Water Sampling Log

Boring No.
Sheet 1 of:
Project No.:
Surface Elev.:
Datum:
Start Date:

Project Name:
Location:
Client:

Drilling Firm:			***Driller:***			***Finish Date:***	
Groundwater	***Depth***	***Date & Time***	***Drill Rig:***			***Inspector:***	
While Drilling:			***Casing:***				
Before Casing Removal:			***Sampler:***		***Casing Type***		
After Casing Removal:			***Hammer:***		***Sampling Device***		
Well Depth			***Well No.***		***Tubing Type***		
			Date		***Water Level***		
			Screen Length		***Measuring Point***		
			Well Diameter		***Other Info***		
Sampling Personnel							

Time	pH	Temp	Cond.	Dis. O_2	Turb.	[ ]Conc	Pump Rate	Notes

APPENDIX G – SITE WIDE INSPECTION FORM

FORMER MOBIL SERVICE STATION 99-MST - 979 MAIN STREET
SITE MANAGEMENT PLAN

NYSDEC SITE NUMBER: C915260

SITE-WIDE INSPECTION FORM

Date _____ **Inspector:** _____

Weather: _____ **Signature:** _____

Temperature: _____ **Company:** _____

Quarter: **First** **Second** **Third** **Fourth**
(Circle one)

Item Inspected	Maintenance Needed (Y/N)	Comments
General Site Conditions		
Concrete Cap		
Sheet Sheeting		
Asphalt Cover		

FORMER MOBIL SERVICE STATION 99-MST - 979 MAIN STREET
SITE MANAGEMENT PLAN

NYSDEC SITE NUMBER: C915260

INSPECTION FORM

Component	Item	Comments
Concrete Cap	Obvious subsidence, depressions or cracks Other:	
Asphalt Cover	Obvious subsidence, depressions or cracks Evidence of ponded water Evidence of sloughing/raveling along edges Other:	

FORMER MOBIL SERVICE STATION 99-MST - 979 MAIN STREET
SITE MANAGEMENT PLAN

NYSDEC SITE NUMBER: C915260

INSPECTION FORM

Component	Item	Comments
Monitoring Plan	Scheduled surface and groundwater monitoring Monitoring well conditions Surface and groundwater conditions Changes to the monitoring system Injection schedule and results Other:	
Site Records	Review of previous inspection reports Site records are up to date Other:	
Site Usage	Site is compliant with site usage requirements in the Deed Resriction Compliance with groundwater use restriction Other:	

Date: _____ **Inspector**: _____

APPENDIX H – QUALITY ASSURANCE PROJECT PLAN

Quality Assurance Project Plan & Field Sampling Plan

for

Former Mobil Service Station 99-MST – 979 Main Street (1001 Main Street)

Site Management Plan

Buffalo, New York

Prepared by

C&S Engineers, Inc.
141 Elm Street
Buffalo, New York 14203

September 2014

Sampling and Analysis Plan

Table of Contents

SECTION 1 INTRODUCTION

After completion of the remedial work described in the Remedial Action Work Plan, some contamination was left in the subsurface at this site. A Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished. The Engineering Controls described in the SMP includes in-situ chemical oxidation and groundwater monitoring from seven wells.

SECTION 2 QUALITY ASSURANCE PROJECT PLAN (QAPP)

2.1 Project Description

This Sampling and Analysis Plan includes identification of sampling locations and media, method of collection, handling, and preservation, and the protocol used for sample analysis. Environmental media to be sampled include soils and groundwater. The data will be utilized to form conclusions as to the presence, transport, and fate of site specific contaminants.

2.2 Data Quality Objectives

Data Quality Objectives (DQOs) are statements which describe the desired quality of data necessary to meet the objectives of the sampling program. The DQOs for the Meridian Brownfield site sampling program were formulated during the scoping effort and developed as part of this Sample and Analysis Plan. The general steps followed in preparation of the DQOs were as follows:

- *Identification of the media to be sampled* - Identifies the media being investigated (e.g., ground water, surface soil).
- *Identification of the data uses* - Identifies the intended use of the data according to the following:
  - Site Characterization - Data are used to determine the composition, nature, and extent of contamination.
  - Risk Assessment - Data are used to evaluate the actual or potential risks posed by

contaminants determined to be present on-site. Particular attention is given to sampling at locations where human exposure is possible.

- Health and Safety Plan (HSP) - Data are used to establish the level of protection needed for on-site workers during site characterization activities.
- Monitoring - Data are used during the monitoring of the remedial action to access the effectiveness of such action.
- PRP Enforcement - Data are used to help establish potentially responsible parties (PRP's).
- Evaluation of Alternatives - Data are used to evaluate various proposed remedial technologies and assist in proper design of alternatives.

- *Identification of the data types* - Identifies what types of analyses are to be performed.
- *Sample Collected* - Describes the sample types to be collected.
  - Environmental - Refers to a specific media sampled such as water, soil, air, or biological.
  - Source - Refers to sampling an actual contamination source.
  - Grab - A discrete sample representative of a specific location.
  - Composite - A sample that represents a mixture of a number of grab samples that represents the average properties over the extent of areas sampled.
  - Biased -Sampling that focuses on a specific area of expected contamination or uncontaminated area (background).
- *Identification of the data quality needs* - Identifies the analytical options available to support data collection activities and are identified as follows:
  - Level I: *Field Screening* - portable type instruments which provide real-time data.
  - Level II: *Field Analysis* - portable analytical instruments in an on-site lab or transported to the site.
  - Level III: *Standard Analytical Protocols* - standard analytical protocols or without the NYSDEC Analytical Services Protocol (ASP) (2000) deliverables/reportables documentation.
  - Level IV: *NYSDEC ASP Reportables/Deliverables* - rigorous QA/QC protocols and reportables/deliverables documentation; NYSDEC ASP (2000) Category B

deliverables.

- Level V: *Non-Standard* - methods which have been modified to meet specific site study or remediation needs or by use of some other specialized analytical methods that cannot be obtained through standard or typical avenues of analytical support.

- *Identification of Data Quality Factors* - Describes factors which influence the quality or quantity of data to be collected. Primary contaminants and associated levels of concern are identified concerning ARARs or potential risks. The required detection limit are also given or referenced.
- *Identification of QA/QC Samples* - Specifies additional samples to be collected to support Quality Assurance/Quality Control (QA/QC) procedures. Additional samples to be collected could include:
  - *Matrix Spike/Matrix Spike Duplicates* - Matrix spike and matrix spike duplicate samples are collected as a duplicate sample to which the analytical laboratory will add known amounts of target analytes. These QA/QC samples are intended to assess the extraction procedure used by the laboratory.
  - *Field Blanks* - Field (equipment) blanks are samples which are obtained by running analyte-free water through the sample collection equipment in a way that is identical to the sample collection procedures. Field blanks may be used during QA/QC procedures to evaluate if sampling equipment has contributed contaminants to the samples.
  - *Trip Blanks* - Trip blanks are samples which are prepared prior to the sampling event in the same type of sample container and are kept with the collected samples throughout the sampling event unit analysis. Trip blank vials are not opened in the field and are analyzed for volatile organics only.

2.3 Sampling Procedures

All sampling objectives, locations, and procedures have been included as the Field Sampling Plan and described in Section 3.0 of this Sampling and Analysis Plan. Items including Field Measurement Techniques, General Field Decontamination, and Sample Management have also been included within the Field Sampling Plan.

2.4 Laboratory Certification and Coordination

Contract Laboratory Protocol (CLP) certification is a tier of accreditation issued by the New York State Department of Health (NYSDOH) within the Solid and Hazardous Waste category. Such laboratories have demonstrated that they meet the requirements of the NYSDEC Analytical Services Protocol. All chemical analyses for samples from the site will be completed by a CLP laboratory capable of performing project specific analyses as indicated in this QA/QC plan. The project Quality Assurance / Quality Control (QA/QC) Officer will also be responsible for all project related laboratory coordination.

2.5 Analytical Methodologies

Sampling and analysis will be performed for the Target Compound List (TCL) parameters including volatiles. The specific analyses will be conducted according to the following NYSDEC ASP 2000 methodologies:

Parameter Group	Analysis Method
Volatiles	8260B

Trip blanks will accompany each shipment of aqueous samples for VOC analysis. Trip blanks are not necessary for soil samples. If several samples are collected for VOC analysis on any one day, all VOC samples will be packed in the same cooler with the trip blank. All data will be presented in Category B reportables / deliverables format.

2.6 Analytical Quality Control

Analytical quality control for this Project will be consistent with the methodology and quality assurance/quality control requirements in the NYSDEC ASP 2000. The following holding times calculated from the verified time of sample receipt (VTSR) at the laboratory will be required from the contracted analytical laboratory, regardless of sample matrix:

Parameter	Task	Holding Time
Volatiles	Analysis	7 days from VTSR

SECTION 3 FIELD SAMPLING PLAN

3.1 Sampling Locations

Groundwater

At three of the above described boring locations, when it is determined that a subsurface boring has attained an appropriate depth for well screening, monitoring wells will be installed in each soil boring. One sample of groundwater will be collected from each well.

3.2 Sampling Procedures

The following sections provide procedures for collecting a variety of samples, not all of which will be needed at this site.

3.2.1 Preparation for Sampling

The sample collection technique is of prime importance to assure the integrity of the collected sample. The following techniques include provisions so that:

- A representative sample is obtained;
- Contamination of the sample is minimized;
- The sample is properly preserved; and
- An acceptable Chain-of-Custody record is maintained.

The QA/QC Sampling Component of the Plan includes:

- Incorporation of accepted sampling techniques referenced in the sampling plan;
- Procedures for documenting any field actions contrary to the QA/QC Plan;
- Documentation of all preliminary activities such as equipment check-out, calibrations, and container storage and preparation;
- Documentation of field measurement quality control data (quality control procedures for such measurements shall be equivalent to corresponding QC procedures);
- Documentation of field activities;
- Documentation of post-field activities including sample shipment and receipt, field

team debriefing, and equipment check-in;

- Generation of quality control samples including duplicate samples, field blanks, equipment blanks, and trip blanks; and
- The use of these samples in the context of data evaluation with details of the methods employed (including statistical methods) and of the criteria upon which the information generated will be judged.

The personnel responsible for collection of groundwater, soil, miscellaneous media, and petroleum spill remediation/verification samples will be familiar with standard sampling procedures and follow the appropriate protocol. Field records will be maintained in bound notebooks with numbered pages to document daily instrument calibration, locations sampled, field observations, and weather conditions. Each page will be dated and signed by the sampler. Each notebook will be numbered and a log of notebooks will be maintained by the project manager.

Prior to sampling, all equipment must be procured and accommodations for sample container delivery, and sample shipment must be made. The following is a list of general equipment that would be on hand for sampling events. Special equipment for each sampling event is presented in the section describing that specific sampling event.

General Field Sampling Equipment

- Field Data Sheets
- Chain-of-Custody forms
- Engineers tape and folding ruler with 0.01 foot intervals
- Field Record Sheets
- Latex gloves
- Face-safety shield
- Tyvek coveralls
- Respirators
- Photoionization detector
- Bio-degradable phosphate free detergent
- Coolers (with ice)
- 55 gallon drums
- Sample bottles
- Aluminum foil
- Duct and filament tape
- Tap water
- Distilled water
- Laboratory grade methanol and hexane
- 5 gallon wash buckets
- Decontamination cloths
- Large disposal containers
- Large plastic sheets

3.2.2 Groundwater Sample Collection

Groundwater samples will be collected using dedicated, disposable low flow pump. All other

related sampling equipment will be properly decontaminated in the field. The following equipment will be available for sampling of monitoring wells in addition to the general sampling equipment list:

- Well Data Sheets
- Pump
- Electronic water level indicator
- Water Quality Meter
- Acid resistant gloves

The following activities will be completed before going into the field every day before the start of sampling:

1. Fill out appropriate section on Well Data Sheet for the wells to be sampled;
2. Obtain the sampling schedule for each well to be sampled;
3. Calibrate the Photoionization Detector (PID) with the calibration gas;
4. Determine the amount of sampling to be done for the day and prepare the necessary number of coolers;
5. Each well to be sampled will have designated coolers containing the pre-labeled, certified clean, sample bottles. The groundwater samples will be placed in the cooler labeled for the well from which they were taken. The bottle shall be labeled with large distinguishable letters, so that the groundwater samples will be placed in the proper cooler; and
6. Select the appropriate sample bottles for the day's sampling. The bottles shall be pre-marked with a sample parameter and preservatives. Reusable glass bottles will have been cleaned and prepared at the laboratory. The bottles for the various parameters to be analyzed from each well location will then be placed in a cooler.

The following steps describe the sample collection of groundwater:

1. Unlock and remove the well cap;
2. Test the air at the wellhead with the calibrated PID. If the gases from the well have caused the air in the breathing zone to read greater than 5 ppm, stop work and refer to the Health and Safety Plan. Record the reading on the Well Data Sheet;
3. In order to obtain a representative sample of the formation water, the well must be purged

of the static water within the well. Prior to purging, the static water level within the well must be measured and the measurement recorded on the Well Data Sheet. To determine the amount of water necessary to purge, find the liquid column height in the well to determine the total volume (three liquid column borehole volumes) of liquid to be purged;

4. Purge the well; lower pump slowly into the well until it is below the water surface. In accordance with NYSDEC Guidance, purge waters will be disposed within the vicinity of the respective well.
5. Record the amount of water purged in the field logbook and on the Well Data Sheet.
6. If the well goes dry during pumping, allow for full recovery (measure the water level) and then sample. If recovery takes more than twenty minutes, proceed to next well butreturn to sample within 24 hours.
7. Fill the appropriate sample bottles according to the sampling schedule for each well. While filling the sample bottles, record the well number, type, volume of container, and the preservatives used on the Ground Water Sampling Analyses form.
8. The preservatives for the various sampling parameters were previously added to the clean sample bottles by the laboratory. Some parameters may require additional special handling.
9. Volatile organics analyses samples must be free of air bubbles. When a bubble-free sample has been obtained, it must be immediately chilled.
10. Collect the matrix spike duplicates and trip blanks. Take samples according to sampling schedule presented in the Work Plan. Duplicate samples will include the field splitting of at least one groundwater sample for each sampling visit. This may require the extraction of twice the amount of water needed for duplication purposes. The creation of trip/field blanks and duplicates shall be performed at least once with each field batch with a minimum of once every twenty samples.
11. Record all pertinent information in field logbook and on the Well Data Sheet (include color, odor, sediment content of sample, etc.). Any situations at the site that have the potential to interfere with the analytical results should also be recorded here.

12. Lock well, inspect well site, and note any maintenance required.
13. Dispose of potentially contaminated materials in designated container for contaminated solids.

3.3 Field Measurement Techniques

Water Level Measurement - Water elevations will be taken on all wells prior to purging and sampling. All measurements will be taken within a 24-hour period to obtain consistent elevations and recorded on well data sheets. The procedure for measuring water levels in the monitoring wells is:

- Unlock and remove well cap;
- Test the atmosphere of the well with the calibrated PID. If the gases from the well have caused the air in the breathing zone to read greater than 5 ppm, stop work and refer to the Health and Safety Plan
- Measure water level to nearest 0.01 foot with a water level indicator (electronic).
- Water level indicators will be decontaminated before moving to next well. The tape and cable are decontaminated by washing in a bucket of distilled water-biodegradable phosphate free-detergent solution, followed by a rinse with distilled water.

Specific Conductance Measurement - A specific conductance meter will be field calibrated daily, using a 1M KCl reference solution, to 1413 µmhos/cm at 25 degrees centigrade. Sample aliquots for specific conductance and temperature will be obtained directly from the sampling point in 100 ml disposable beakers.

Photoionization Detector (PID) - The PID will be calibrated daily (and more often as required by the manufacturer's data) prior to use in the field, using calibration test gases.

3.4 General Decontamination

The following procedures will be performed for the decontamination of exploration equipment, sampling equipment, and personnel after each drilling/sampling event:

Drill rig, backhoe, and excavator - The drill rig, direct-push rig, backhoe, and/or excavator will be cleaned prior to their entrance and exit of the site. Greases and oils will not be used on any

down hole equipment during drilling or exploration activities.

Exploration equipment - To avoid cross contamination, use of a PID meter and cleaning between each sampling site will be employed on backhoe arms, buckets, hollow stem augers, casing drill rods, down-hole tools, and appurtenant equipment.

Split spoon sampler - The split spoon sampler will be scrubbed, cleaned, and put through a series of rinses between each sampling event. A number of split spoon samplers will be used so that one can be utilized for sampling while the others are being cleaned.

Reusable equipment - The following steps will be employed to decontaminate reusable equipment:

- Rinse equipment of soil or foreign material with potable water;
- Immerse and scrub equipment with bio-degradable phosphate-free detergent and potable water;
- Immerse and scrub in a potable water rinse without detergent;
- Immerse and scrub in deionized/distilled water;
- Saturate by spraying or immersion in laboratory-grade hexane;
- Air dry and wrap cleaned equipment in foil to carry to next monitoring site to prevent contamination of equipment during transfer; and
- The decontamination wash and rinse water will not be considered hazardous unless visual inspection or monitoring by the PID and other equipment indicate that contaminants may be present. The rinse waters can be discharged on-site if they are not contaminated. If contaminants are expected to be present, the rinsate waters should be placed in 55 gallon drums and stored on-site.

Disposable equipment - The following steps will be employed to decontaminate disposable equipment:

- Rinse with potable water;
- Remove all standing liquid from the piece of equipment;
- Dispose of the equipment in a dedicated container for contaminated solids; and
- Dispose of rinse water in 55 gallon drums if contaminants are found to be present.

Sample containers - upon filling and capping sample bottles, the outside of the bottle will be

wiped off with a clean paper towel. These towels will be disposed of in a dedicated container for contaminated solids.

Personnel decontamination - The following procedures will be used to decontaminate sampling personnel.

- After each sampling event chemical resistant gloves will be disposed of in a dedicated container for contaminated solids;
- At the end of each sampling day, Tyvek™ coveralls will be disposed of in a dedicated container for contaminated solids;
- Boots will be rinsed off with water to remove mud, clay, or any other contaminants; and
- Personnel will be required to follow procedures outlined in the Health and Safety Plan.

3.5 Sample Management Plan

3.5.1 Sample Management

The Sample Management Plan provides procedures to document and track samples and results obtained during this work effort. A series of pre-printed forms with the appropriate information serves as a vehicle for documentation and tracking.

In order to accomplish this task, the documentation materials will include sample labels, sample characterization and Chain-of-Custody sheets, daily field reports, and a sample log.

Sample Label - A sample label will be completed for each sample obtained and will be affixed to the sample container. The label is configured in a way to address various types of mediums. Information on the label includes, at a minimum, client name, location, sample description, sample number, date, time, grab sample, composite sample, notes, and sampler's name.

Sample Characterization & Chain-of-Custody Sheet - All pertinent field information will be entered onto the sample characterization and chain-of-custody sheets including client name, sample ID, sample description, location of sample, sampling method, number of containers, container type, analysis required, and preservation. The monitoring well form has space allotted for entering information regarding the well including depth to water, well volume, sample pH, temperature, color, etc. The Chain-of-Custody section of the form will document the sample's pathway of sample shipment which will include names of persons delivering/receiving, dates,

and times. The reverse side of this form will be used by the laboratory to document analysis performed on the sample. Copies of the completed forms will be retained by the Engineer and the analytical laboratory. The original sample characterization and Chain-of-Custody sheets will be submitted in the Remedial Investigation report along with the laboratory results.

Daily Field Reports - Daily activities will be recorded on the Inspection Report form. The purpose of this form will be to summarize the work performed on the site each day. The completed forms will be submitted to the Project Manager on a daily basis for short term site activity and on a weekly basis for site activities of a longer duration.

Sample Log - The sample log will be utilized to track each individual sample obtained at the site. The upper portion, "Field Identification" will be completed the day the sample is taken. The form will accompany the sample characterization and Chain-of-Custody form to the laboratory. Personnel at the laboratory will complete the middle section of this form and return it to the Engineer, who will use the document to track incoming results. The bottom of the sheet has space allocated to enter "Recommended Actions" based on laboratory results.

3.5.2 Sample Handling

Each collected sample will be dispensed into the appropriate sample containers for the type of analysis to be performed. Appropriate sample preservatives will be added to the sample containers by the contracted analytical laboratory prior to the delivery into the field, except in cases where the sample preservative must be added after sample collection. All samples that require cool storage will be immediately placed in coolers with appropriate packaging materials so as to protect the breakage of sample containers during shipment. The sample coolers will be filled with cubed ice (no "Blue Ice") prior to leaving the sample collection location. In the instance that a local analytical laboratory is contracted, the samples will be hand delivered to the laboratory each sampling day. The chain-of-custody forms will be signed by the laboratory personnel picking up the samples and placed within the coolers. In the instance that an analytical laboratory is contracted which is not based locally and a common carrier is used for sample shipment, the chain-of-custody forms will be signed by the sampler and the carrier personnel and placed inside of the coolers. Careful packaging techniques will be used to prevent sample

containers from breakage during shipment. Materials such as cardboard, foam wrap, or Styrofoam may be used as packaging materials. All samples will be delivered to the contracted analytical laboratory on the day they were collected and will be received by the laboratory within 24 hours of sample collection. The samples will be collected with sufficient time allowed at the end of the day for the analytical laboratory to properly process the sample chain-of-custody form.

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APPENDIX I - RESPONSIBILITIES OF

OWNER AND REMEDIAL PARTY

Responsibilities

The responsibilities for implementing the Site Management Plan ("SMP") for the Former Mobil Service Station 99-MST - 979 Main Street Site (the "Site"), number C915260, are divided between the Site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as:

Kaleida Properties and Kaleida Health (the "owner")
726 Exchange Street
Larkin Building
Buffalo, New York 14210

Al Kruger
(716) 859-8552

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:

F.L.C 50 High Street Corporation (the "Remedial Party")
Centerpointe Corporate Park
350 Essjay Road
Williamsville, New York 14221

Denise Juron-Borgese
(716) 631-8000

Conventus Partners, LLC (the "Lessee")
Centerpointe Corporate Park
350 Essjay Road
Williamsville, New York 14221

Denise Juron-Borgese
(716) 631-8000

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the Site.

Site Owner's Responsibilities:

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the Site.

2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in a(n) Environmental Easement remain in place and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the Site's Periodic Review Report (PRR) certification to the NYSDEC.

3) In the event the Site is delisted, the owner remains bound by the Environmental Easement, and shall submit, upon request by the NYSDEC, a written certification that the Environmental Easement is still in place and has been complied with.

4) The owner shall grant access to the Site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.

5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. In the event that damage to the remedial components or vandalism is evident, the owner shall notify the site's RP and NYSDEC in accordance with the timeframes indicated in Section 2.4.2-Notifications.

6) In the event some action or inaction by the owner adversely impacts the Site, the owner must notify the Site's RP and the NYSDEC in accordance with the time frame indicated in Section 2.4.2- Notifications and (ii) coordinate the performance of necessary corrective actions with the RP.

7) The owner must notify the RP and the NYSDEC of any change in ownership of the Site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the Site property. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section and Notification requirements for a change in use are detailed in Section 2.4 of the SMP. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

8) The lessee will maintain fences, conduct mowing, etc on behalf of the RP. The RP remains ultimately responsible for maintaining the engineering controls.

9) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the Site, whether produced by the NYSDEC, RP, or owner, to the tenants on the Site. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

Remedial Party Responsibilities

1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the Site.

2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to,

periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.

3) Before accessing the Site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the SMP, a copy of any data generated during the Site visit and/or any final report produced.

4) If the NYSDEC determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved SMP to the owner(s).

5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html .

6) The RP shall notify the NYSDEC of any damage to or modification of the systems as required under Section 2.4.2- Notifications of the SMP.

7) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC for approval an amended SMP.

8) Any change in use, change in ownership, change in Site classification (*e.g*., delisting), reduction or expansion of remediation, and other significant changes related to the Site may result in a change in responsibilities and, therefore, necessitate an update to the SMP and/or updated legal documents. The RP shall contact the Department to discuss the need to update such documents.

Change in RP ownership and/or control and/or Site ownership does not affect the RP's obligations with respect to the site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future owners of the Site and RPs and their successors and assigns are required to carry out the activities set forth above.