Periodic Review Report- 2014/2015

Environmental Restoration Program
Former Service Station Site #E828143
8264 Ridge Road West
Town of Clarkson
Monroe County, New York

Prepared For:

Town of Clarkson
P.O. Box 858
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Prepared by:

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Executive Summary

The Former Service Station Site #E828143 (hereinafter referred to as the "Site"), located at 8264 Ridge Road West in the Town of Clarkson, Monroe County, New York is a 0.71 acre parcel (Figure 1). The Town of Clarkson acquired the Site through foreclosure in 2008 and is the current owner. The Site was historically used as an automotive service and gasoline station for at least 50 years and contained four (4) abandoned underground storage tanks (USTs). All structures and USTs were removed in May 2009 as interim remedial measures (IRMs) as part of a Remedial Investigation (RI). This periodic review report covers events and activities conducted at the Site in 2014 to 2015.

The RI analytical results indicated concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals in soil and sediment samples exceeding applicable soil cleanup objectives (SCOs). Results of the RI indicated a source area which appeared to be from historic fill material and/or deposition of run-off from up-gradient roadways and drainage areas. Areas of surface soil and sediment in exceedance of Commercial Use SCOs were covered as an IRM during the investigation.

Concentrations of petroleum-related compounds identified in the southwest section of the Site (benzene, ethylbenzene, toluene, and xylene) exceeded NYS Ambient Groundwater Standards in three (3) on-Site wells (MW-01, MW-02, and MW-04). MW-04, located down-gradient from the former USTS, contained the highest concentrations. Based on the results of this investigation, groundwater impacts appear to be limited to the former tank area and have not migrated off-site. Remedial action was recommended to address the Contaminants of Concern (COC) detected at levels exceeding applicable guidance criteria.

The Site was remediated in accordance with the State Assistance Contract (SAC) #C303810, Site # E828143, which was executed on October 3, 2008 and amended on January 31, 2013. Remedial activities occurred at the Site in April-July 2009 and September 2010 and were conducted in accordance with the NYSDEC-approved Interim Remedial Measures Work Plan dated January 2009 and the IRM Work Plan Addendum Letter dated September 2, 2010. Remedial activities included hazardous material removal and disposal, asbestos abatement, demolition of all Site buildings, slab removal, hydraulic lift removal, and floor drain and oil/water separator removal. Four (4) USTs and 368 tons of petroleum-impacted soil from tank pits were removed for disposal off-site. A soil cover system was placed over remaining contaminated soil/fill to prevent human exposure. In addition, a stone cover system was placed over contaminated drainage channel sediments remaining in the creek bed to prevent off-site migration and human exposure.

The effectiveness of the remedial program as outlined in the Site Management Plan (SMP) has been monitored through groundwater sampling, soil and stone cover system monitoring, and a site-wide inspection. Post-remedial groundwater sampling results indicate that contamination persists in groundwater in the area down-gradient from the former USTs. Groundwater samples

collected during this reporting period (May 19, 2015) showed concentrations of volatile organic compounds (VOCs) exceeding applicable groundwater standards in MW-04. A complete summary of analytical results can be found in Table 1.

In general, the implemented remedies to manage the residual contamination are effective, protective, and are progressing towards the remedial action objectives. The Institutional and Engineering Controls (ICs and ECs) and procedures outlined in the Monitoring Plan and Operation and Maintenance Plan were complied with during this reporting period.

1.0 Periodic Review Report

This Periodic Review Report (PRR) was prepared by Lu Engineers, on behalf of the Town of Clarkson, in accordance with the requirements set forth in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010 and the guidelines provided by the NYSDEC. The first PRR was required eighteen (18) months after the issuance of the Release and Covenant. The reporting period for this PRR is from September 2009 to May 2015. The following items are included in this PRR:

- Identification, assessment, and certification of all ECs/ICs required by the remedy for the Site;
- Results of the Site inspection and sampling events including applicable inspection forms and other records generated for the Site during the reporting period;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- Data summary tables of groundwater contaminants of concern by media;
- Laboratory analysis results, and the required laboratory data deliverables for each sample collected during the reporting period have been and will continue to be submitted electronically in a NYSDEC-approved EQuIS format;
- A Site evaluation, which includes the following:
    I. The compliance of the remedy with the requirements of the Site-specific Record of Decision (ROD);
    II. The operation and the effectiveness of each treatment unit, including identification of any needed repairs or modifications;
    III. Any new conclusions or observations regarding Site contamination based on inspection or lab data generated during the monitoring events;
    IV. Recommendations regarding any necessary changes to the remedy and/or SMP; and
    V. The overall performance and effectiveness of the remedy to date.

2.0 Site Overview

The site is located in the Town of Clarkson, County of Monroe, New York and is identified as block 0.54.14 and Lot 21 on the Town of Clarkson Tax Map. The Site is an approximately 0.71-acre area bounded by undeveloped land to the north, Ridge Road West (NYS Route 104) to the south, a residence to the east, and a drainage ditch and commercial property to the west (Figure 1).

From 1930 to the early 1970s, the Site was used as a retail gas station which included underground storage of petroleum. The masonry body shop/garage was constructed in the 1930s or 1940s and was used for vehicle maintenance operations until the late 1990s. Prior owners of the Site include: Webaco Oil Company (1953-1974), Charles C. Thomas (1974-2002), and Commercial Property Holdings, LLC (2002-2008). The Town of Clarkson acquired the Site during a foreclosure in April 2008.

Several Recognized Environmental Conditions (RECs) were identified during a Phase 1 Environmental Site Assessment (ESA) by Lu Engineers for the Town of Clarkson in February 2007. A Remedial Investigation (RI) was conducted by Lu Engineers between 2009-2010 to characterize the nature and extent of contamination at the Site. Three (3) 2,000-gallon gasoline USTs, located on the southwest corner of the Site, and one (1) 1,000-gallon UST were identified during the investigation. The tanks were partially filled with a water/gasoline mixture. A 275-gallon aboveground fuel tank was located adjacent to the garage.

Subsurface soil analytical results detected concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals (arsenic, barium, copper, lead, and mercury) exceeding Commercial Use Soil SCOs. The source of the PAHs and metals was attributed in part to historical fill material placed on the Site. Petroleum impacts are inferred to extend off-Site into the Route 104 right-of-way. Areas of soil and sediment in exeedance of Commercial Use SCOs were covered as an IRM during the investigation.

Petroleum-related VOCs (benzene, toluene, ethylbenzene, xylene) associated with the former gas station and USTs were detected in three (3) on-Site wells (MW-01, MW-02, MW-04) on the southwest portion of the Site at concentrations exceeding NYS Ambient Groundwater Standards. The highest levels were detected in MW-04 which is located down-gradient from the former USTs. Pesticide concentrations were identified in groundwater at levels exceeding 6 NYCRR Part 703 Class GA drinking water standards in two (2) wells. Based on the findings of the RI, it is inferred that no off-site groundwater contamination has occurred.

Remedial activities were completed at the Site between 2009 and 2010 in accordance with the NYSDEC-approved Interim Remedial Measures Work Plan dated January 2009 and the IRM Work Plan Addendum Letter dated September 2, 2010. The IRM consisted of the following:

- Hazardous material removal/disposal;
- Asbestos abatement;
- Building demolition, slab removal, and hydraulic lift removal;
- Pump island removal;

- Removal of three (3) 2,000-gallon and one (1) 1,000-gallon gasoline USTs;
- Excavation and disposal of 368 tons of petroleum-impacted soil;
- Placement of soil cover system to prevent human exposure to contaminated soil/fill; and
- Placement of stone cover system to prevent human exposure and off-Site migration of contaminated drainage channel sediments at the Site.

No potential soil vapor intrusion pathways were identified during this investigation; therefore, vapor intrusion sampling was not conducted.

The SMP requires Institutional Controls (ICs) in the form of an environmental easement that entails a) limiting the use and development of the Site to commercial or industrial use; b) compliance with the approved SMP; c) restriction on the use of groundwater as a source of potable water, without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH); and d) the Site owner or remedial party to complete and submit an annual certification of Institutional and Engineering Controls (ICs/ECs).

Long term management of the remaining contamination, as required by the Record of Decision (ROD) include the following plans for ECS; 1) Monitoring; 2) Operation and maintenance; and 3) Reporting. The specific ECS implemented at the Site include: a) annual groundwater sampling of monitoring wells MW-01, MW-02, MW-03, MW-04 for VOCs; and b) management and inspection of the existing soil cover system

3.0 Remedy Performance, Effectiveness, and Protectiveness

Post-remedial groundwater sampling indicates that groundwater contamination persists at the Site since the completion of the IRM. One sampling event was conducted in accordance with and as outlined in the SMP. The following is list of the remedial and post-remedial sampling events:

- September 2009 (per RIWP)
- May 2015 (per SMP)

Table 1, included as an attachment to this report, indicates VOC, SVOC, metals, PCBs, and pesticide concentrations in groundwater in September 2009 and only VOC concentrations in May 2015. Concentrations in groundwater samples were compared to the applicable NYSDEC 6 NYCRR Part 703.5 Class GA and TOGs 1.1.1 groundwater standards.

A significant decrease from 2009 with respect to VOC concentrations was observed in the post-remedial May 2015 groundwater sampling event in each well. Samples from MW-04 continue to exceed applicable groundwater standards through the 2015 sampling event. No exceedances in SVOCs were observed in the 2009. In addition, no PCBs were detected in the wells in 2009. Elevated concentrations of metals were detected in 2009 including barium, magnesium, manganese, and sodium. Groundwater samples were not analyzed for metals, SVOCs,

pesticides, and PCBs in 2015. It is noted that MW-02 was presumably destroyed during the Site cover activities. Attempts to locate MW-02 during the May 2015 groundwater sampling event were unsuccessful.

The ICs established for the Site have generally been and continue to be in compliance with the SMP. Though residual contamination exists in the soil and groundwater, these controls reduce the potential for human exposure. The ECs established for the Site are also effective in limiting the potential for human exposure to known Site contaminants.

4.0 Institutional Controls/Engineering Control Plan Compliance

Since remaining contaminated soil and groundwater exists beneath the Site, ICs/ECs are required to protect public health and the environment. The IC/EC Plan is one component of the SMP and is subject to revision by NYSDEC.

A series of Institutional Controls is required by the Record of Decision (ROD) 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 commercial and industrial 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. 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 property may only be used for commercial or industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.

- The property may not be used for a higher level of use, such as unrestricted or residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any buildings developed on the site, and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the property 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; and
- Annual groundwater monitoring will be conducted to assess the performance and effectiveness of the remedy, in accordance with the SMP.

Engineering Controls (ECs)

- Soil Cover System (Cap) – Exposure to remaining contamination in subsurface soil/fill at the Site is prevented by a soil cover system placed over the Site (the "Cap"). This cover system is comprised of clean soil, asphalt pavement, and/or stone. Procedures for maintaining the Cap are documented in the Operation and Maintenance Plan in Section 4 of the SMP.

  The Excavation Work Plan (EWP) in Appendix A of the SMP outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection, maintenance and monitoring of this cover are provided in the Monitoring Plan included in Section 4 of the SMP.

  In general, the Cap was in good condition as indicated on the Site Inspection Form (Attachment A). The creek bed stone covering had been displaced and requires maintenance. In addition, an exploratory excavation, approximately 30x35 feet and 4

feet below ground surface (bgs), was installed to locate MW-02. MW-02 was not located and the Cap was restored where the excavation occurred. No structures had been constructed on Site since the previous inspection and no change of use has occurred on Site since the last certification.

The required IC/EC certification has been completed as a component of this report and a copy is included as Attachment D.

5.0 Monitoring Plan Compliance Report

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the Site, the soil cover system, and all affected Site media identified in the table below.

Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Groundwater monitoring	Annual	Groundwater	EPA Method 8260 VOCs
Cover System Monitoring	Annual	Soil/Stone Cover System	Visual Inspection; determine whether maintenance is required

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

Monitoring activities completed during this reporting period (2009-2015) included the following:

- Annual groundwater sampling of Site wells MW-01, MW-02, MW-03, MW-04
- Annual inspection of the Site soil/stone cover system

Groundwater Sampling

The following table summarizes the details of the groundwater sampling program to be completed during each annual sampling event.

Media Sampling and Analysis Summary

Sample Type	Sample Location	Analytical Parameters	Frequency	QA/QC	Total
Groundwater	MW-01, MW-02, MW-03, MW-04	TCL VOCs plus STARS list compounds by EPA Method 8260	Annual	N/A	4

The previously mentioned Site wells were sampled in 2009 and 2015 with dedicated bailers per the procedures outlined in the SMP. Each well was purged a minimum of three (3) well volumes prior to sampling. Groundwater quality measurements including temperature, turbidity, pH, conductivity and oxidation reduction potential (ORP) were collected during the purging process at each well. Purge water from each well was released to the ground surface near the well. At each well, samples were collected for TCL VOCs plus STARS list compounds by EPA Method 8260B. Groundwater sampling logs are included as Attachment B of this report.

Results of the groundwater sampling conducted during this period are summarized in Table 1 and in Figures 2 and 3. Table 1 presents the analytical results of VOCs, SVOCs, metals, PCBs, and pesticides detected in groundwater from September 2009 and only VOCs in May 2015 in comparison to applicable NYSDEC standards. Figure 2 illustrates the detected contaminant concentrations in groundwater that exceed applicable standards for September 2009. Figure 3 illustrates the detected VOCs and associated concentrations in groundwater that exceed applicable standards for May 2015. Each figure also illustrates groundwater contours based on water level measurements collected at each well during each sampling event. It is noted that groundwater flows primarily to the north.

The following sections summarize the analytical results for each year within this reporting period.

<u>2009</u>

Elevated concentrations of petroleum-related VOCs in September 2009 were detected in MW-01, MW-02, and MW-04 with MW-04 having the highest concentrations. Concentrations of metals, including barium, exceeding NYS Ambient Groundwater Standard or applicable NYSDEC guidance value were identified in all wells. Sample results from MW-01 and MW-03 indicated elevated concentrations of pesticides exceeding NYSDEC Guidance Values. Phenol was detected in MW-04 at a level not exceeding NYSDEC guidance values. PCBs were not detected in any the wells.

<u>2015</u>

VOC concentrations declined between September 2009 and May 2015 in MW-01, MW-03, and MW-04. Concentration levels of petroleum-related VOCs in MW-04 continue to exceed

applicable groundwater standards. MW-02 was not located and therefore not sampled during this event. In addition, wells were not sampled for SVOCs, PCBS, metals, and pesticides.

In this reporting period, concentrations of petroleum-related VOCs in MW-04 exceeded applicable groundwater standards. All laboratory analytical data is included as Attachment C of this report. Samples were analyzed at Paradigm Environmental Services, Inc., a NYSDOH ELAP-CLP certified laboratory (ELAP) located in Rochester, New York. All sampling methods and QA/QC measures were adhered to as outlined in the approved SMP.

6.0 Operation and Maintenance Plan Compliance Report

ECs in place at the Site are the soil cover system, referred to as the "Cap." Operation and maintenance is limited to periodic inspection of the Cap and SSDS, which are documented using the Site Inspection Form. Copies of the Site Inspection Form are included as Attachment A in this report. The Operation and Maintenance Plan located in the SMP describes the measures necessary to operate, monitor and maintain the mechanical components of the remedy selected for the Site. Descriptions of the Cap inspections and conditions are provided in Section 4.0 of this report.

7.0 Conclusions and Recommendations

IC/EC Compliance

The requirements and regulations set forth in the SMP for ICs were complied with during this reporting period. This includes the following:

Land Use Restriction – The Site is currently vacant and has met the requirements of this restriction in this reporting period.

Groundwater Use Restriction – The Site is currently vacant and does not use the Site groundwater in any capacity, therefore meeting the requirements of this restriction in this reporting period.

Site Management Plan (SMP) – The Site is currently in compliance with all components of the Site-specific SMP and all requirements have been met during this reporting period.

The requirements set forth in the SMP for all ECs were met during this reporting period. This includes the following:

Soil Cover System (Cap) – The Site Cap was in compliance with the SMP during this reporting period.

Based on post-remedial groundwater conducted to date, remaining groundwater contamination persists in MW-04 which is down-gradient from the former USTS. However, petroleum-related VOC levels have declined in MW-04 since September 2009. The previously discussed Site-specific ICs and ECs for the Site continue to meet the remedial objectives while establishing protection of public health and the environment. The continued effectiveness of the ICs/ECs have allowed the remedial objectives at the Site to be met for this reporting period.

It is recommended that the next PRR be submitted approximately one year from submittal of this PRR. To recover the Creek Bed, Lu Engineers recommends the addition of shot rock or a comparable material as well as new geotextile.

Tables

Former Service Station Site (#E828143)
Town of Clarkson
Summary of Validated Analytical Results

Table 1- Groundwater Results

Detected Parameters[1]	Groundwater Standard[2]	MW-01 9/16/2009	MW-01 5/19/2015	MW-02 9/17/2009	MW-03 9/16/2009	MW-03 5/19/2015	MW-04 9/16/2009	MW-04 5/19/2015
EPA 8260 - Volatile Organics								
1,2,4-Trimethylbenzene	**5**	ND	ND	ND	0.76 J	ND	**16.0 J**	3.37
1,3,5-Trimethylbenzene	**5**	ND	ND	ND	ND	ND	ND	2.17
Acetone	**50***	ND	ND	10.0 J	ND	ND	**78.7 J**	ND
Benzene	**1**	**15.3**	ND	**2.09**	ND	ND	**353**	**14.5**
Chloroform	**7**	ND	ND	2.72	ND	ND	ND	ND
Ethylbenzene	**5**	ND	ND	ND	ND	ND	**30.2**	3.91
2-Hexanone	**50***	ND	ND	ND	4.23 J,B	ND	ND	ND
Isopropylbenzene	**5**	ND	ND	ND	ND	ND	**10.0 J**	**12.4**
m/p-Xylenes	**N/A**	ND	ND	ND	ND	ND	25.2	3.04
4-Methyl-2-pentanone	**N/A**	ND	ND	ND	3.78 J,B	ND	ND	ND
n-Butylbenzene	**5**	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	**5**	ND	ND	ND	ND	ND	**8.00 J**	**14.4**
Naphthalene	**10***	1.04 J,B	ND	ND	2.24 J,B	ND	ND	ND
o-Xylene	**N/A**	ND	ND	ND	0.53 J	ND	ND	ND
sec-Butylbenzene	**5**	ND	ND	ND	ND	ND	ND	**7.71**
Tetrachloroethene	**5**	2.83	ND	ND	ND	ND	ND	ND
Toluene	**5**	ND	ND	ND	ND	ND	**20.3**	ND
p-Isopropyltoluene	**N/A**	ND	ND	ND	ND	ND	ND	2.1
1,1,1-Trichloroethane	**5**	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	**1**	ND	ND	ND	ND	ND	**26.0**	ND
Trichloroethene	**5**	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	**5**	ND	ND	ND	ND	ND	**25.2**	ND
EPA 8270 - Semi-Volatile Organics								
Phenol	**1**	ND		ND	ND		7.97 J	
TAL Metals								
Aluminum	**N/A**	ND		11,800	ND		ND	
Barium	**1,000**	**1,060**		**1,380**	856		**1,510**	
Calcium	**N/A**	186,000		198,000	133,000		155,000	
Chromium	**50**	ND		10	ND		ND	
Iron	**300**	ND		16,100	ND		**366**	
Lead	**25**	ND		9.000	ND		ND	
Magnesium	**35,000***	**46,700**		**38,700**	23,600		27,900	
Manganese	**300**	**580**		**1,300**	ND		**5,450**	
Potassium	**N/A**	35,000 N,M		20,900 N	10,700 N		19,500 N	
Selenium	**10**	<0.005		<0.005	<0.005		<0.005	
Silver	**50**	<0.010		<0.010	<0.010		<0.010	
Sodium	**20,000**	**465,000**		**253,000**	**262,000**		**514,000**	
Thallium	**0.5***	ND		ND	7		9	
Vanadium	**N/A**	ND		22	ND		ND	
EPA 8082 - PCBs (none detected above laboratory detection limits)								
EPA 8081 - Pesticides								
4,4'-DDD	**0.3**	0.069 J,B			ND			
4,4'-DDE	**0.2**	ND			0.055 J			
4,4'-DDT	**0.2**	0.083 J			0.072 J			
Aldrin	**ND**	**0.053 J**			ND			
alpha-Chlordane	**0.1**	0.041 J			ND			
beta-BHC	**N/A**	ND			ND			
Dieldrin	**0.004**	**0.039 J**			**0.036 J**			
Endosulfan II	**N/A**	ND			0.039 J,B			
Endosulfan Sulfate	**N/A**	0.049 J			ND			
Endrin	**ND**	**0.034 J**			ND			
Endrin aldehyde	**5**	0.061 J			ND			
gamma-BHC (Lindane)	**N/A**	0.033 J			ND			
gamma-Chlordane		0.088 J,B			0.075 J,B			
Methoxychlor	**35**	0.058 J,B			0.035 J,B			

1 all values shown in micrograms per liter (ug/L)
2- NYS Ambient Groundwater Standard (6 NYCRR Part 703.5)
* - NYSDEC Guidance Value (TOGS 1.1.1)
J- value is estimated
B- compound detected in associated method blank
N- compound was "tentatively identified"
M- matrix spike recoveries outside QC limits; matrix bias indicated
~ value detected above NYS Ambient Groundwater Standard or applic
NYSDEC Guidance Value

Figures

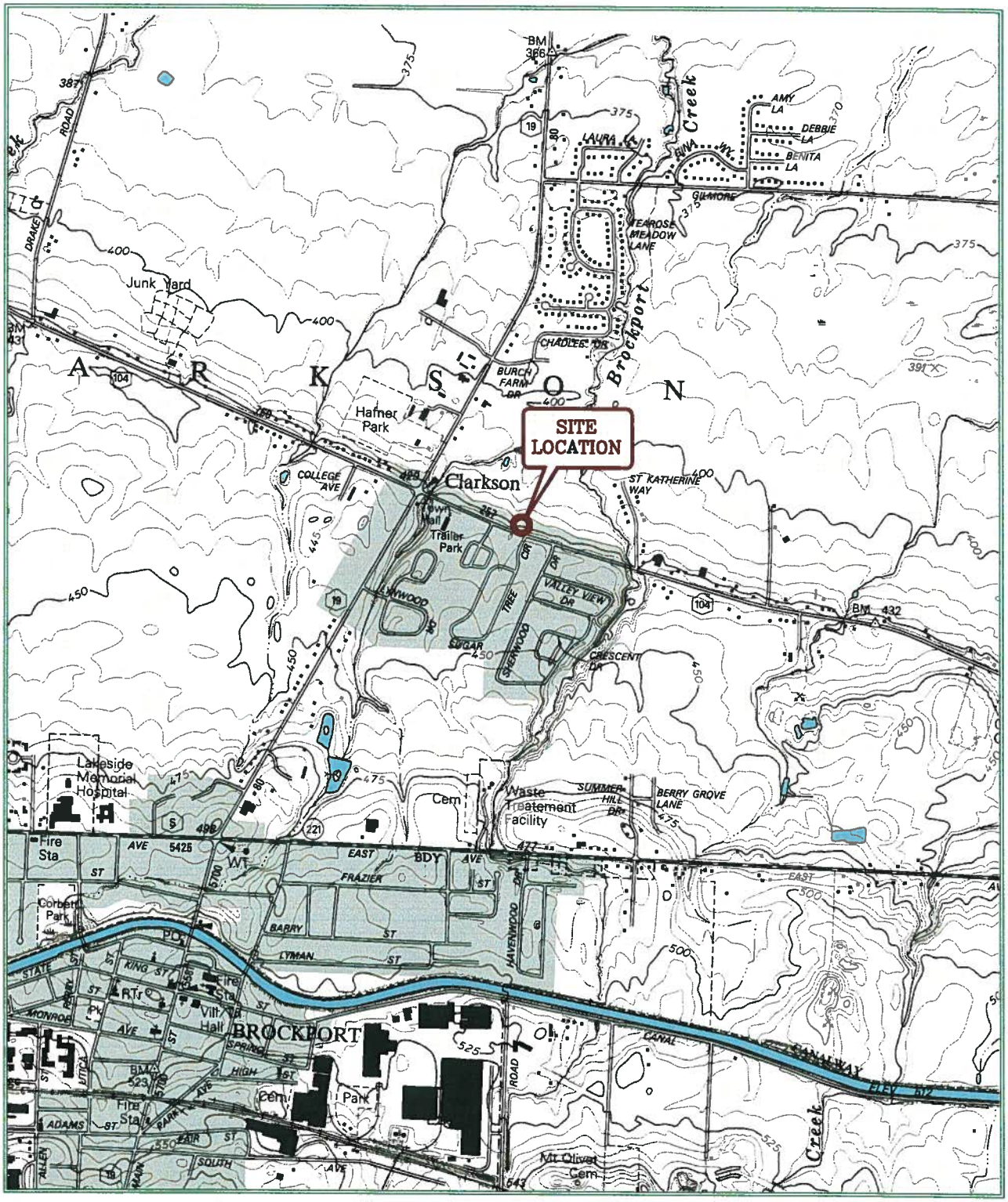

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FIGURE 1.

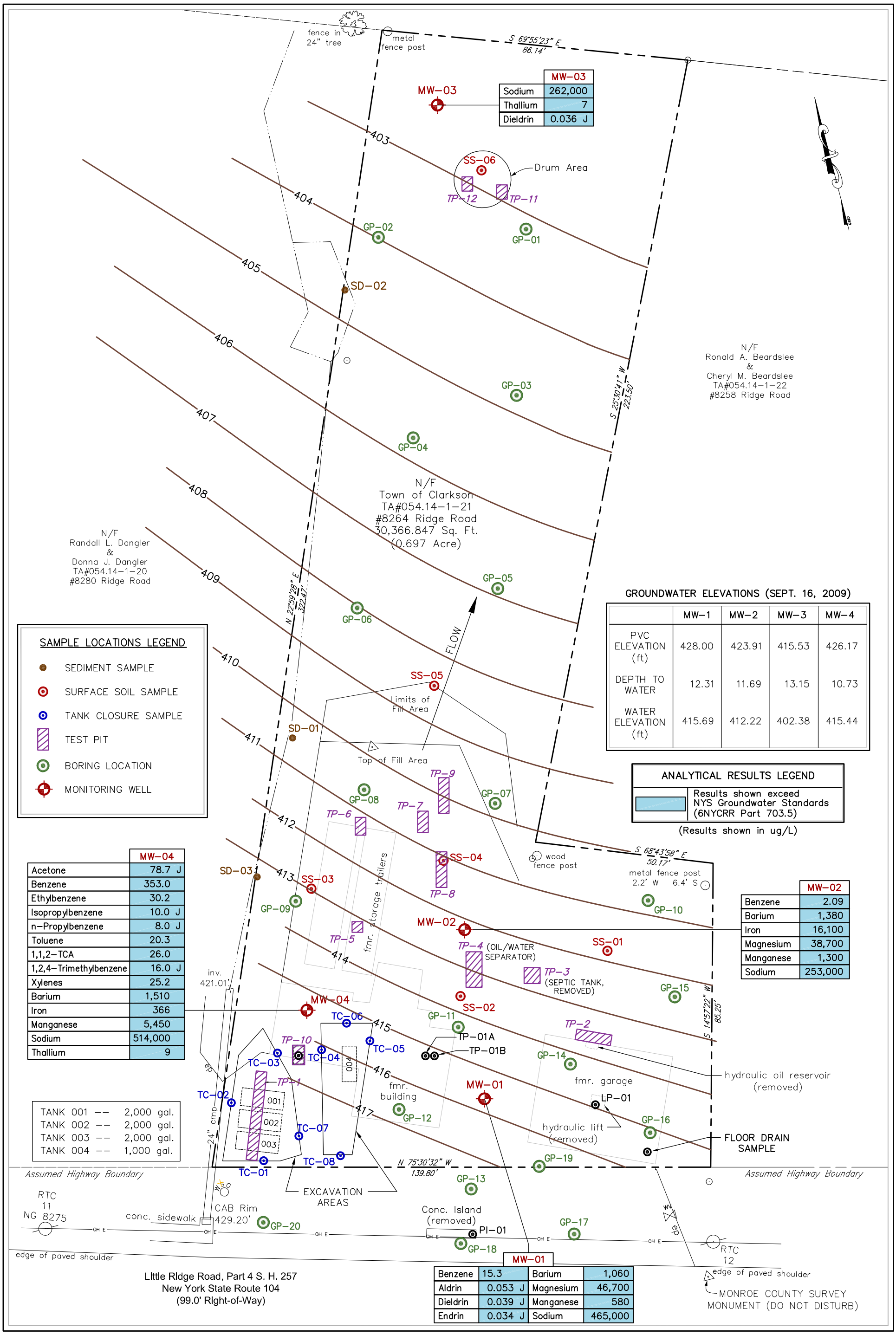
SITE LOCATION MAP

FMR. GAS STATION -- REMEDIAL INVESTIGATION
8264 RIDGE ROAD WEST
TOWN OF CLARKSON NEW YORK

DATE:	JULY 2010
SCALE:	1:24,000
DRAWN BY:	DLS

MAP SOURCE: NYS DOT RASTER QUADRANGLE
BROCKPORT / MONROE COUNTY
DOT EDITION DATE: 1997 / USGS CONTOUR DATA: 1971

J:\Projects\40500 Clarkson\40503 Brownfield Inv-Cleanup\Cadd\RI Report\Fig.1_SiteMap & HospRte.dwg, 8/11/2010 9:06:49 AM, diane'AC2009



	MW-1	MW-2	MW-3	MW-4
PVC ELEVATION (ft)	428.00	423.91	415.53	426.17
DEPTH TO WATER	12.31	11.69	13.15	10.73
WATER ELEVATION (ft)	415.69	412.22	402.38	415.44

	MW-04
Acetone	78.7 J
Benzene	353.0
Ethylbenzene	30.2
Isopropylbenzene	10.0 J
n-Propylbenzene	8.0 J
Toluene	20.3
1,1,2-TCA	26.0
1,2,4-Trimethylbenzene	16.0 J
Xylenes	25.2
Barium	1,510
Iron	366
Manganese	5,450
Sodium	514,000
Thallium	9

	MW-02
Benzene	2.09
Barium	1,380
Iron	16,100
Magnesium	38,700
Manganese	1,300
Sodium	253,000

Benzene	15.3	Barium	1,060
Aldrin	0.053 J	Magnesium	46,700
Dieldrin	0.039 J	Manganese	580
Endrin	0.034 J	Sodium	465,000

MW-01

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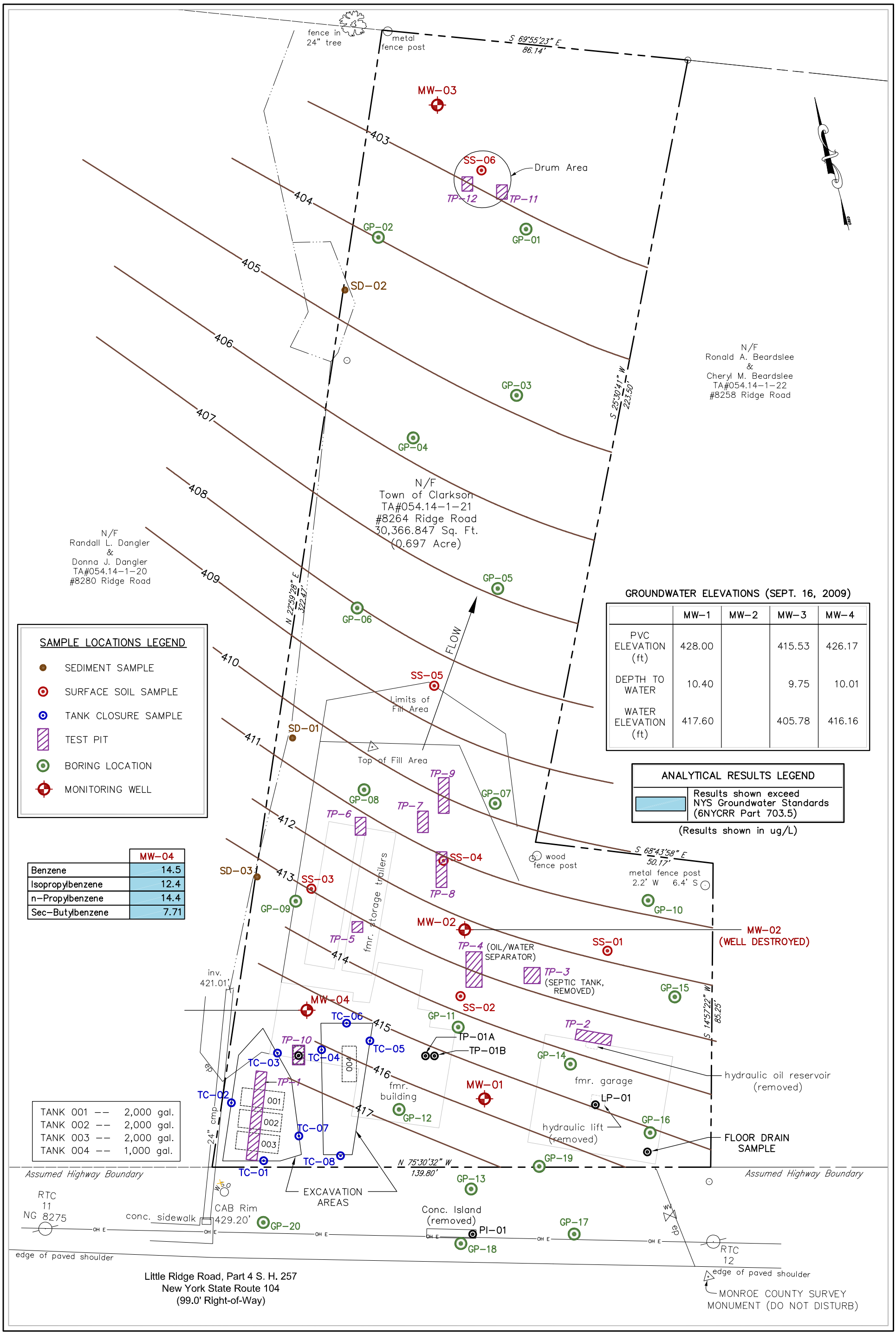
FIGURE 2.
BASELINE GROUNDWATER RESULTS & CONTOUR MAP
FORMER GAS / SERVICE STATION
8264 RIDGE ROAD WEST
TOWN OF CLARKSON | MONROE COUNTY | NEW YORK

DATE: FEBRUARY 2013
SCALE: 1"= 25'
DESIGNED/DRAWN/CHECKED LN/JM/GA
P.N. 40503 ERP Site# E828143



	MW-1	MW-2	MW-3	MW-4
PVC ELEVATION (ft)	428.00		415.53	426.17
DEPTH TO WATER	10.40		9.75	10.01
WATER ELEVATION (ft)	417.60		405.78	416.16

	MW-04
Benzene	14.5
Isopropylbenzene	12.4
n-Propylbenzene	14.4
Sec-Butylbenzene	7.71

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FIGURE 3.

GROUNDWATER RESULTS & CONTOUR MAP

FORMER GAS / SERVICE STATION
8264 RIDGE ROAD WEST
TOWN OF CLARKSON | MONROE COUNTY | NEW YORK

DATE:	NOVEMBER 2015
SCALE:	1"= 25'
DESIGNED/DRAWN/CHECKED	AC/JM/GA
P.N. 40503	ERP Site# E828143

B - Groundwater Sampling Logs

Low Flow Groundwater Sampling Field Record

Lu Engineers
ENVIRONMENTAL • TRANSPORTATION • CIVIL

Project Name Clarkson ERP Site
Location ID MW-01
Activity Time 1300

Field Sample ID MW01-051915
Sample Time 1340

Job # 40503
Sampling Event # __
Date 5/19/15

SAMPLING NOTES

Initial Depth to Water 10.40 feet
Final Depth to Water 9.68 feet
Screen Length 10.00 feet
Total Volume Purged _____ gallons

Measurement Point TOR
Well Depth 22.00 feet
Pump Intake Depth _____
PID Well Head _____

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

PURGE DATA

± 10% ± 0.1 ±0.10% ± 3% ±10 mV

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
1307	10.20	180	11.9	7.00	0.23	2.3	4.965	-69.6	
1312	9.98	"	11.8	7.04	0.12	2.9	4.399	-77.4	
1317	9.90	"	11.7	7.04	0.06	5.0	4.134	-81.1	
1322	9.90	"	11.6	7.04	0.04	7.4	3.955	-82.9	
1327	9.85	"	11.8	7.05	0.03	10.2	3.845	-84.4	
1332	9.71	"	11.8	7.07	0.03	11.4	3.852	-84.5	
Sample @ 1340									

Purge Observations: Slight Petroleum odor, clear
Purge Water Containerized: no

EQUIPMENT DOCUMENTATION

Type of Pump: Geopump
Type of Tubing: ¼" HDPE
Type of Water Quality Meter: YSI Quattro; LaMotte 2020

Calibrated: Yes

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 ~~3~~ x 40 ml	✓

LOCATION NOTES

Well was under ~12" of soil

Signature: _____
Checked By: _____

Low Flow Groundwater Sampling Field Record

Lu Engineers

Project Name Clarkson ERP Site
Location ID MW-03
Activity Time 1135

Field Sample ID MW-03-051915
Sample Time 1210

Job # 40503
Sampling Event #
Date 5/19/15

SAMPLING NOTES

Initial Depth to Water 9.75 feet
Final Depth to Water 10.05 feet
Screen Length 10 feet
Total Volume Purged 0.25 gallons

Measurement Point TOR
Well Depth 16 feet
Pump Intake Depth
PID Well Head

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

PURGE DATA

Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
1145	9.85	200	10.7	6.97	1.04	14.1	1.579	76.6	
1150	9.89	200	10.6	6.97	0.55	11.4	1.610	-13.3	
1155	9.95	200	10.7	6.91	0.29	10.7	1.681	-6.8	
1200	9.99	200	10.6	6.90	0.25	9.8	1.688	-6.4	
1205	10.03	200	10.6	6.90	0.24	10.2	1.689	-6.0	
1210	SAMPLE								

Purge Observations: Clear, no odor
Purge Water Containerized: No per SAP

EQUIPMENT DOCUMENTATION

Type of Pump: Geopump
Type of Tubing: ¼" HDPE
Type of Water Quality Meter: YSI Quattro; LaMotte 2020

Calibrated: Yes

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 x 40 ml	✓

LOCATION NOTES

Signature:
Checked By:

Low Flow Groundwater Sampling Field Record

Lu Engineers
ENVIRONMENTAL · TRANSPORTATION · CIVIL

Project Name Clarkson ERP Site
Location ID MW-04
Activity Time 0920

Field Sample ID MW-04-051915
Sample Time 1025

Job # 40503
Sampling Event # --
Date 5/19/15

SAMPLING NOTES

Initial Depth to Water 10.01 feet
Final Depth to Water 12.20 feet
Screen Length 10 feet
Total Volume Purged _____ gallons
[purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter]
Volume of Water in casing – 2" diameter = 0.163 gallons per foot of depth, 4" diameter = 0.653 gallons per foot of depth

Measurement Point TOR
Well Depth 19.68 feet
Pump Intake Depth _____
PID Well Head _____

Well Diameter 2"
Well Integrity:
Cap ✓
Casing ✓
Locked ✓
Collar ✓

PURGE DATA

				±0.1	±10%	±10%	±3%	±10mV	
Time	Depth to Water (ft)	Purge Rate (ml/min)	Temp. (deg. C)	pH (units)	Dissolved O2 (mg/L)	Turbidity (NTU)	Cond. (mS/cm)	ORP (mV)	Comments
0933	10.80	200	10.5	6.61	0.33	4.5	3.779	-145.5	
0938	11.10	185	10.5	6.62	0.15	2.2	3.770	-150.9	
0943	11.55	↓	10.4	6.63	0.06	1.7	3.733	-154.8	
0948	11.80		10.6	6.64	0.05	1.2	3.701	-156.9	
0953	12.00		10.6	6.64	0.03	1.3	3.639	-160.5	
0958	12.01		10.7	6.64	0.03	1.2	3.595	-165.1	
1003	12.18		10.9	6.65	0.01	1.3	3.589	-167.7	
1008	12.21	↓	11.2	6.65	0.01	1.5	3.577	-172.2	
1014	12.24		11.5	6.65	0.00	1.7	3.568	-175.2	
1025	SAMPLE								

Purge Observations: slight petroleum odor, clear
Purge Water Containerized: _____

EQUIPMENT DOCUMENTATION

Type of Pump: GEO PUMP
Type of Tubing: ¼" HDPE
Type of Water Quality Meter: YSI Quattro; LaMotte 2020

Calibrated: yes

ANALYTICAL PARAMETERS

Parameter	Volumes	Sample Collected
VOCs	2 x 40 ml	✓

LOCATION NOTES

Signature: _____
Checked By: _____

C - Analytical Data

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

Lu Engineers, Inc.

For Lab Project ID

151961

Referencing

40503

Prepared

Tuesday, May 26, 2015

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

KRHansen

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 151961

Client: Lu Engineers, Inc.

Project Reference: 40503

Sample Identifier: MW-04-051915
Lab Sample ID: 151961-01 **Date Sampled:** 5/19/2015
Matrix: Groundwater **Date Received:** 5/19/2015

Volatile Organics (Petroleum)

Analyte	Result	Units	Qualifier	Date Analyzed
1,2,4-Trimethylbenzene	**3.37**	ug/L		5/22/2015 14:16
1,3,5-Trimethylbenzene	**2.17**	ug/L		5/22/2015 14:16
Benzene	**14.5**	ug/L		5/22/2015 14:16
Ethylbenzene	**3.91**	ug/L		5/22/2015 14:16
Isopropylbenzene	**12.4**	ug/L		5/22/2015 14:16
m,p-Xylene	**3.04**	ug/L		5/22/2015 14:16
Methyl tert-butyl Ether	< 2.00	ug/L		5/22/2015 14:16
Naphthalene	< 5.00	ug/L		5/22/2015 14:16
n-Butylbenzene	< 2.00	ug/L		5/22/2015 14:16
n-Propylbenzene	**14.4**	ug/L		5/22/2015 14:16
o-Xylene	< 2.00	ug/L		5/22/2015 14:16
p-Isopropyltoluene	**2.10**	ug/L		5/22/2015 14:16
sec-Butylbenzene	**7.71**	ug/L		5/22/2015 14:16
tert-Butylbenzene	< 2.00	ug/L		5/22/2015 14:16
Toluene	< 2.00	ug/L		5/22/2015 14:16

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**95.4**	82.3 - 115		5/22/2015 14:16
4-Bromofluorobenzene	**110**	85.5 - 111		5/22/2015 14:16
Pentafluorobenzene	**110**	91.2 - 107	*	5/22/2015 14:16
Toluene-D8	**104**	90.9 - 108		5/22/2015 14:16

Method Reference(s): EPA 8260C
EPA 5030
Data File: x23017.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 151961

Client: Lu Engineers, Inc.

Project Reference: 40503

Sample Identifier: MW-03-051915
Lab Sample ID: 151961-02 **Date Sampled:** 5/19/2015
Matrix: Groundwater **Date Received:** 5/19/2015

Volatile Organics (Petroleum)

Analyte	Result	Units	Qualifier	Date Analyzed
1,2,4-Trimethylbenzene	< 2.00	ug/L		5/20/2015 20:23
1,3,5-Trimethylbenzene	< 2.00	ug/L		5/20/2015 20:23
Benzene	< 0.700	ug/L		5/20/2015 20:23
Ethylbenzene	< 2.00	ug/L		5/20/2015 20:23
Isopropylbenzene	< 2.00	ug/L		5/20/2015 20:23
m,p-Xylene	< 2.00	ug/L		5/20/2015 20:23
Methyl tert-butyl Ether	< 2.00	ug/L		5/20/2015 20:23
Naphthalene	< 5.00	ug/L		5/20/2015 20:23
n-Butylbenzene	< 2.00	ug/L		5/20/2015 20:23
n-Propylbenzene	< 2.00	ug/L		5/20/2015 20:23
o-Xylene	< 2.00	ug/L		5/20/2015 20:23
p-Isopropyltoluene	< 2.00	ug/L		5/20/2015 20:23
sec-Butylbenzene	< 2.00	ug/L		5/20/2015 20:23
tert-Butylbenzene	< 2.00	ug/L		5/20/2015 20:23
Toluene	< 2.00	ug/L		5/20/2015 20:23

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**104**	82.3 - 115		5/20/2015 20:23
4-Bromofluorobenzene	**86.4**	85.5 - 111		5/20/2015 20:23
Pentafluorobenzene	**102**	91.2 - 107		5/20/2015 20:23
Toluene-D8	**92.3**	90.9 - 108		5/20/2015 20:23

Method Reference(s): EPA 8260C
EPA 5030
Data File: x22963.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 151961

Client: Lu Engineers, Inc.

Project Reference: 40503

Sample Identifier: MW-01-051915
Lab Sample ID: 151961-03 **Date Sampled:** 5/19/2015
Matrix: Groundwater **Date Received:** 5/19/2015

Volatile Organics (Petroleum)

Analyte	Result	Units	Qualifier	Date Analyzed
1,2,4-Trimethylbenzene	< 2.00	ug/L		5/20/2015 20:47
1,3,5-Trimethylbenzene	< 2.00	ug/L		5/20/2015 20:47
Benzene	< 0.700	ug/L		5/20/2015 20:47
Ethylbenzene	< 2.00	ug/L		5/20/2015 20:47
Isopropylbenzene	< 2.00	ug/L		5/20/2015 20:47
m,p-Xylene	< 2.00	ug/L		5/20/2015 20:47
Methyl tert-butyl Ether	< 2.00	ug/L		5/20/2015 20:47
Naphthalene	< 5.00	ug/L		5/20/2015 20:47
n-Butylbenzene	< 2.00	ug/L		5/20/2015 20:47
n-Propylbenzene	< 2.00	ug/L		5/20/2015 20:47
o-Xylene	< 2.00	ug/L		5/20/2015 20:47
p-Isopropyltoluene	< 2.00	ug/L		5/20/2015 20:47
sec-Butylbenzene	< 2.00	ug/L		5/20/2015 20:47
tert-Butylbenzene	< 2.00	ug/L		5/20/2015 20:47
Toluene	< 2.00	ug/L		5/20/2015 20:47

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**103**	82.3 - 115		5/20/2015 20:47
4-Bromofluorobenzene	**99.6**	85.5 - 111		5/20/2015 20:47
Pentafluorobenzene	**107**	91.2 - 107		5/20/2015 20:47
Toluene-D8	**99.7**	90.9 - 108		5/20/2015 20:47

Method Reference(s): EPA 8260C
EPA 5030
Data File: x22964.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

REPORT TO:		INVOICE TO:		LAB PROJECT ID
CLIENT: LU ENGINEERS		CLIENT: SAME		151961
ADDRESS: 171 SULLYS TRAIL STE 202		ADDRESS:		Quotation #: ~~40503~~ M.S.
CITY: PITTSFORD STATE: NY ZIP: 14534		CITY: STATE: ZIP:		Email: gregandrus@lwengineers.com
PHONE: 585-385-7417		PHONE:		
ATTN: GREG ANDRUS		ATTN:		

PROJECT REFERENCE

40503

Matrix Codes:

AQ - Aqueous Liquid	**WA** - Water	**DW** - Drinking Water	**SO** - Soil	**SD** - Solid	**WP** - Wipe	**OL** - Oil
NQ - Non-Aqueous Liquid	**WG** - Groundwater	**WW** - Wastewater	**SL** - Sludge	**PT** - Paint	**CK** - Caulk	**AR** - Air

REQUESTED ANALYSIS

	DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	8260 + STARS									REMARKS	PARADIGM LAB SAMPLE NUMBER	
1	5/19/15	1025		X	MW-04-051915	WG	2	X											01
2	5/19/15	1210		X	MW-03-051915	WG	2	X											02
3	5/19/15	1340		X	MW-01-051915	WG	2	X											03
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	X	Batch QC		Basic EDD	
Rush 3 day		Category A	~~X~~	NYSDEC EDD	
Rush 2 day		Category B			
Rush 1 day					
Other please indicate:		Other please indicate:		Other EDD please indicate:	

Sampled By: ARI CHERNETSKY - LW ENG.	Date/Time: 5/19/15 1437	Total Cost:
Relinquished By:	Date/Time: 5/19/15 1437	
Received By:	Date/Time: 5/19/15 14:37	P.I.F.
Received @ Lab By:	Date/Time: 5/19/15 15:43	

8°C iced started in field 5/19/15 14:58

Chain of Custody Supplement

Client: Lu Engineers

Completed by: Glenn Pezzulo

Lab Project ID: 151961

Date: 5/19/15

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt: Yes	No	N/A
Container Type	X	X 5035	
Comments			
Transferred to method-compliant container			X
Headspace (<1 mL)	X		
Comments			
Preservation	X		
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		
Comments	8°C iced started in field		
Sufficient Sample Quantity	X		
Comments			

D - Institutional and Engineering Controls Certification Form