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November 16, 2012

Mr. David Szymanski  
Project Manager  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway, 11th Floor  
Albany, NY 12233-7011



**RE: 2012 Periodic Review Report  
Mineral Springs Road Former Manufactured Gas Plant Site**

Dear Mr. Szymanski:

National Fuel Gas Distribution Corporation (NFG) completed construction on the remedial action for the Mineral Springs Road Former Manufactured Gas Plant (MGP) site (Mineral Springs Site) in 2001. Since then, NFG has performed operations and maintenance (O&M) activities for the remedy in accordance with the Final Engineering Report, Volume II – Operations and Maintenance (O&M) Plan, dated May 2002 (O&M Plan) for the project. Those activities have included preparation of annual O&M Reports, which have been submitted since 2002. Because of changes in NYSDEC reporting requirements, AECOM has prepared this Periodic Review Report (PRR) on behalf of NFG rather than an O&M Report to meet the reporting requirements of the O&M Plan.

## 1. Introduction

The former Mineral Springs MGP was built in the early 1920's and was operated until the 1960's. Coal and oil gasification wastes, particularly coal tar hydrocarbons and blue-stained purifier residuals, were generated during operation of the plant. Investigations were performed between 1990 and 1998 to evaluate environmental conditions at the site. Those investigations identified impacts to soil and groundwater by MGP residues, including organic constituents, dense non-aqueous phase liquids (DNAPL), and cyanide. Remedial activities including excavation, capping, DNAPL recovery, and institutional controls have been performed since 1997 to address these impacts.

This PRR presents and evaluates the results of annual O&M activities performed at the Mineral Springs Site from October 2011 to October 2012, and analytical data from 2001 (remedial action completion) through 2012. The annual O&M activities include annual inspections, groundwater and surface water monitoring, and maintenance and repair of engineering controls. Data collected during performance of these activities and an evaluation of the effectiveness of the remedy are presented below.

The results of the effectiveness evaluation show that the remedial action has been operated in accordance with the provisions of the O&M Plan and that engineering and institutional controls remain intact and effective.

The annual site inspection indicated there were a few locations where maintenance issues needed to be addressed. Except for sealing the asphalt cap south of Building 3, these activities have been completed as of November 14, 2012.

## 2. Site Overview

The Mineral Springs Site lies in a flat, mixed industrial and residential area of West Seneca (and Buffalo), New York. The Mineral Springs Site is an active NFG service center. Figure 1 shows the facility layout.

The stratigraphy of the site consists of 4- to 8-feet of soil and fill, approximately 10-feet of a nearly continuous upper confining clay layer (UCL), 10- to 15-feet of groundwater bearing silt, sand, and gravel, a lower confining **clay layer** (LCL), and bedrock. Overburden groundwater is typically encountered 5- to 12-feet below ground surface and fluctuates seasonally approximately 2 feet. Overburden groundwater flow is generally to the northwest towards Mineral Springs Road, Calais Street, and the Buffalo River. Average overburden groundwater velocity across the site is calculated to be approximately 0.06 feet per day.

The former Mineral Springs MGP was built in the early 1920's and was operated until the 1960's. Coal and oil gasification ~~wastes~~, particularly coal tar hydrocarbons and blue-stained purifier residuals, were generated during operation of the plant. In 1990 and 1995, investigations and soil remediations were performed near an oil-water separator pit in the central area of the site. In 1997 and 1998, a Preliminary ~~Site Assessment (PSA)~~ and a follow-up PSA Addendum were conducted. The assessments concluded that soil and groundwater at the site were impacted by MGP residues including dense non-aqueous phase liquids (DNAPL) and cyanide.

An interim remedial measure (IRM) was conducted at the Mineral Springs Site in December 1997. During the IRM, 407 tons of purifier residuals were removed from the southwest corner of the site. On August 4, 1998 NFG submitted a Voluntary Cleanup Agreement (VCA) program application. VCA number B9-0538-98-08 was signed by NFG on June 2, 1999 and by NYSDEC on November 7, 1999. A Remedial Design Work Plan was subsequently developed by NFG and NYSDEC. From May 2000 to June 2001, ~~the Remedial Design Work Plan~~ was implemented and the following remedial tasks were completed:

- Excavation and offsite disposal of 32,200 tons of contaminated soil, rubble, and purifier waste.
- Construction of engineering controls including 39,369 square feet of clay cap, 76,144 square feet of ~~geomembrane~~ cap, 130,890 square feet of asphalt cap over areas where purifier waste was located.
- Capping of hydrocarbon seeps within the Eastern Drainage Ditch (EDD), including construction of 640 linear feet of geosynthetic cap and 750 linear feet of clay cap.
- Installation of additional chain link security fence around the site perimeter.
- Implementation of site use and deed restrictions.
- Collection, treatment, and disposal of 207,000 gallons of contaminated groundwater.

During the annual site inspection in April 2007, NFG identified a faint blue stain in surface gravel near Building 8. In July 2007, a soil investigation in the area identified a subsurface lens of bluish stained soils. Based on the results of the investigation, an IRM Work Plan was prepared describing an IRM to address the ~~stained soil~~. The IRM Work Plan was submitted to NYSDEC in November 2008. The scope of the IRM included installation of a 24,000 square foot asphalt cap immediately to the east of the existing ~~Building 3 East Asphalt Cap (B3EAC)~~. Work to install the new cap took

place in June and July 2008. The new cap is designated as the Building 8 West Asphalt Cap (B8WAC), as shown on Figure 1.

### 3. Evaluation of Remedy Performance, Effectiveness, and Protectiveness

The objectives of the remedial action performed at the Mineral Springs Site include the following:

- Preventing human contact with compounds of concern (COC) in purifier waste, soil, and sediment.
- Preventing human contact or ingestion of COC in groundwater.
- Preventing leaching of COC from purifier waste to groundwater.
- Preventing leaching of COC from coal tar impacted soil to surface water.

Preventing human contact with COC was addressed by: excavating soil and purifier waste; capping areas where purifier waste was left in place; capping coal tar residues in the EDD; and, implementing institutional controls to limit site use, prevent use of groundwater, and provide protection for excavation workers. The effectiveness of the remedial action in meeting these objectives is evaluated by performing an annual inspection to verify that engineering controls remain intact and that site use has not changed. The results of this year's inspection, described in the next section, identified routine maintenance issues, but found that the caps remain in place and are intact and that the remedy is effective and protective.

Preventing leaching of COC to groundwater and surface water was addressed by: excavating soil and purifier waste; capping areas where purifier waste was left in place; capping coal tar residues in the EDD; and, removing DNAPL. The effectiveness of the remedial action in meeting these objectives is evaluated by performing an annual inspection and by implementing a groundwater and surface water monitoring program. As described above, the site inspection found that engineering controls remain intact and effective.

In January 1998, NFG performed a soil gas survey to evaluate potential exposures to workers inside buildings at the Mineral Springs Site. The report concluded that the results did not indicate a significant potential for exposure by site workers to excessive concentrations of airborne constituents resulting from soil gas migration into occupied building spaces.

#### Analytical Results and Conclusions

In 2012, groundwater monitoring was performed at the Mineral Springs Site in April and August. The sampling programs were performed in accordance with the 2002 O&M Plan. An evaluation of the groundwater and surface water monitoring results from data collected during the April 2012 and August 2012 sampling events is presented in the following sections. Details of the results of these monitoring events are presented in the April 2012 and August 2012 Groundwater and Surface Water Monitoring Reports, submitted to NYSDEC May 2012 and September 2012, respectively.

Figures 2 and 3 provide groundwater contours indicating the direction of groundwater flow at the Mineral Springs Site for April 2012 and August 2012, respectively. Appendix A presents the 2012 surface water and groundwater analytical results, as well as historic data from 1995 through 2011. These figures and data provide the basis for the following evaluation sections.

### Upgradient Site Perimeter

Well MW-17 is located in the southeast corner of the Mineral Springs Site and monitors upgradient groundwater quality. Other than cyanide, MGP COC are not typically present in detectable concentrations in upgradient groundwater, although concentrations of several polynuclear aromatic hydrocarbon (PAH) compounds were detected at concentrations greater than groundwater standards<sup>1</sup> in 2010 and 2011. Concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) and PAHs were below detection limits during each of the 2012 groundwater sampling events.

### Downgradient Site Perimeter

Wells MW-13, MW-14, MW-22 and MW-23 are located just inside the northern property boundary near Mineral Springs Road. Wells MW-20 and MW-21 are located downgradient of the western boundary of the Mineral Springs Site on Calais Street. These six "sentinel" wells monitor groundwater quality downgradient of the Mineral Springs Site remedial actions. The groundwater samples from these six wells are analyzed for total and free cyanide during each monitoring event. Monitoring wells MW-13 and MW-23 are also analyzed annually for BTEX and PAHs; annual monitoring is performed during the August sampling event.

Total cyanide concentrations in four of the wells, MW-13, MW-14, MW-20, and MW-22, appear to show no significant change over time. However, in two of the wells, MW-21 and MW-23, there does appear to be a consistent reduction in total cyanide concentrations in groundwater over the period 1997 through 2012.

For MW-13, only benzene is typically detected in the BTEX suite. Although benzene was detected above the groundwater standard at this well in August 2012 (1.6 µg/L versus 1.0 µg/L standard), a review of historic data indicates a decreasing trend in benzene concentration over time, BTEX compounds are not normally detected in MW-23, and again were not detected in 2012.

PAH compounds are not typically detected in MW-13 or MW-23, and again were not detected above groundwater standards in 2012.

### On-site Purifier Residuals Impacted Areas

Wells MW-12 and MW-16 monitor groundwater quality at the Eastern Swale HDPE Cap (ESHC) and the Clay Cap (CC), respectively. These are locations of known subsurface deposits of purifier box residuals. These deposits were remediated by capping. Samples from these two wells are analyzed for total and free cyanide.

Analytical results for 2012 sampling events are consistent with results in recent years. As the table in Appendix A shows, there does not seem to be any significant change in the concentration of total cyanide in MW-12 over time. On the other hand, there does appear to have been a consistent increase in total cyanide in MW-16 since 2001. The cause of this change is not known.

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<sup>1</sup> Reference for NYSDEC groundwater and surface water standards: NYSDEC Technical Operational and Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998.

### On-site Hydrocarbon Impacted Areas

Wells MW-07, MW-10 (downgradient of the Separator Pits Excavation [SPE]), MW-11A (adjacent to the drainage ditch cap), and MW-19 (downgradient of the Northern and Eastern Tar Boils Excavations) monitor on-site groundwater quality. These are locations where subsurface soils impacted with hydrocarbon NAPL are found. Samples from these wells are analyzed for BTEX and PAH compounds.

BTEX compounds are generally non-detect or detected at low levels in MW-10. Concentrations of individual compounds commonly do not exceed groundwater standards. PAH compounds are typically also detected at low levels in this well. Concentrations of BTEX and PAH compounds were not measured above groundwater standards in 2012.

BTEX and PAH compounds are consistently detected at concentrations well above groundwater standards in wells MW-07, MW-11A, and MW-19. A review of historic analytical data indicates that there has been no significant change in concentrations of organic compounds in MW-11A or MW-19. However, there appears to be a decrease in both PAH and BTEX compounds in MW-07 since groundwater monitoring began. The results for samples collected in 2012 are consistent with the results measured in previous years.

### Surface Water

Surface water samples are collected near the Calais Street storm sewer inlet (S-01) to monitor concentrations of COC in surface water downgradient of the Mineral Springs Site, and at the EDD near the Class D Stream (S-02) to monitor surface water downgradient of the EDD Cap. Surface water samples are collected for total and free cyanide analyses, and BTEX and PAH analyses.

Total cyanide has never been detected at a concentration above the surface water standard of 9,000 µg/L in either sampling location.

BTEX compounds are typically not detected or detected at very low levels (i.e., well below standards) in surface water samples. Consistent with this trend, no BTEX compounds were detected in surface water samples in 2012.

PAHs are typically not detected or detected at very low levels in surface water samples. No PAH compounds were detected at downstream location S-01 in 2012; the most recent prior detection for any PAH compound was April 2008 (naphthalene; well below standard). However, since 2009, concentrations of two PAHs, benzo(a)anthracene and benzo(a)pyrene, have been detected at location S-02 above water quality standards on three different occasions, each time during the late summer monitoring event. In August 2012, benzo(a)anthracene was measured at an estimated concentration of 0.26 µg/L compared to the groundwater standard of 0.23 µg/L.

## 4. O&M Plan Compliance Report

The components of the O&M program for the Mineral Springs Site are established in the 2002 O&M Plan. These include groundwater and surface water monitoring, DNAPL recovery, annual inspections, maintenance and repair of engineering controls, and reporting. Details of this program are described in the O&M Plan and summarized in Table 1. Table 2, taken from the O&M Plan, summarizes the groundwater and surface water monitoring program.

O&M activities completed since the last PRR (dated October 2011) include the following:

- The annual site inspection was performed on April 19, 2012.
- Two groundwater and surface water monitoring rounds performed on April 18 and 19, 2012 and August 7 and 8, 2012.
- Continued operation of the DNAPL recovery system and removal of approximately 0.5 gallon (1 gallon overall) of water containing DNAPL blebs in April 2012 and August 2012.
- Submittal of the Groundwater and Surface Water Monitoring Reports for the monitoring events performed in April and August 2012.
- Performance of maintenance activities to address issues identified during the annual inspection.

During the April 2012 annual inspection, observations of site conditions were recorded. The inspection checklist is included as Appendix B. Photographs taken during the inspection are included in Appendix C. An Institutional and Engineering Controls Certification Form is attached in Appendix D.

## Annual Site Inspection

### Clay Caps

Clay caps, designated CC on Figure 1, are located southeast of Building 14 and in the Eastern Drainage Ditch north of the northern culvert and south of the southern culvert, designated EDD.

The clay cap southeast of Building 14 has been mowed periodically to prevent tree growth. No blue stained soils were observed during the inspection. The surface of the cap was intact and no sink holes or animal burrows were observed.

In the clay-capped sections of the EDD, no erosion, animal burrows, or hydrocarbon sheen were observed. Warning signs were in place and no woody plants were observed near the clay portion of the cap.

### Geomembrane Caps

Geomembrane caps, constructed of 40-mil high density polyethylene (HDPE) and soil or stone cover, are located in the Eastern Swale and in the EDD between the culverts. These caps are designated ESHC and EDD cap, respectively.

The ESHC has been mowed periodically. No plastic or geofabric, rutting, animal burrows, or blue-stained surface soil were visible. The 6 inch corrugated HDPE drain pipe exhibited minor damage consisting of three small holes, which were apparently caused by animal gnawing. The pipe was repaired.

The EDD cap includes an 18-inch diameter HDPE surface water drain pipe. There was no erosion, animal burrows, deep-rooted perennial plant species, or hydrocarbon sheen observed. The "no dig" signage was in place.

### Asphalt Caps

Asphalt caps are located south and east of Building 3, designated B3SAC and B3EAC respectively; north and south of the Eastern Swale, designated ESNAC and ESSAC; and west of Building 8, designated B8WAC. All caps except for B3SAC were observed to be intact with no significant cracking.

On the Building 3 South Asphalt Cap, significant settlement and cracking were observed in several locations and seals were missing from some previously sealed cracks. Repairs to the cap were completed during the week ending November 9, 2012 except as noted. The work included the following:

- Sawcut and remove approximately 3,000 square feet of cracked and stressed asphalt pavement.
- Regrade sub-base to eliminate low area that is holding water.
- Install a 4.5 inch asphalt binder layer and 1.5 inch topcoat.
- Apply asphalt sealer with sand and polymer hardener over approximately 60,000 square feet of existing asphalt pavement and re-stripe. The sealer work has been postponed until the spring of 2013 due to weather conditions including low temperature and rain.

#### **Other Areas**

Throughout the remainder of the site, no tar boils or blue-stained soils were observed. No hydrocarbon sheens were observed in the Glass D Stream or the EDD. The compacted backfill placed in the various former Tar Boils and Separator Pit excavations has been maintained as necessary to assure run-off control. These areas showed no ponding of surface water. The site perimeter security fence was observed to be intact.

#### **Groundwater and Surface Water Monitoring**

Groundwater and surface water monitoring results for the April 2012 and August 2012 monitoring events are presented in the groundwater and surface water monitoring reports, prepared by AECOM and submitted to NYSDEC in May 2012 and September 2012, respectively. A summary of groundwater and surface water analytical results for the period between August 1995 and August 2012 is tabulated in Appendix A. Sampling locations are shown on Figure 1. Discussion of the results of monitoring in specific areas of the site have been presented in previous sections of this report.

#### **Conclusions**

Since the last PRR, O&M activities described have been performed at the Mineral Springs Site as specified in the O&M Plan and no deficiencies have been identified. All engineering and institutional controls are intact and remain effective. NFG has been prompt in making repairs and performing maintenance when significant issues have been identified.

As discussed above, the results of groundwater monitoring indicate that there have been changes in groundwater concentrations of organic constituents and cyanide in some wells. Concentrations of cyanide in groundwater in the sentinel wells at the downgradient property boundary remain at concentrations somewhat higher than NYSDEC standards although significant reductions in concentrations were noted in two wells.

### **5. Overall PRR Conclusions and Recommendations**

As discussed above, the O&M program is being implemented in accordance with the provisions of the Mineral Springs Site O&M Plan. The results of the site inspection indicate that engineering and institutional controls remain intact and continue to be effective in meeting remedial objectives.

The results of groundwater and surface water monitoring show that groundwater concentrations have changed since remediation at the site was completed. At the downgradient property boundary, concentrations in two of the five wells have shown a decrease in the concentrations of cyanide. One

has shown a decrease in the concentration of BTEX. It is the conclusion of this report that the remedial action remains in place, effective, and protective.

A few maintenance issues related to the caps installed during the remedial action were identified during the April 2012 site inspection. Those issues have been addressed as of November 14, 2012 with the exception of asphalt sealer that will be applied in the spring of 2013. Please do not hesitate to call me with questions at 978-905-2161.

Sincerely yours,

A handwritten signature in black ink, consisting of a large, stylized 'C' followed by a series of loops and a final horizontal stroke.

Thomas P. Clark, P.E.  
Senior Engineer

cc: C. Burke – NFG  
T. Alexander – ~~NFG~~  
S. Messier – NYSDOH (electronic submittal)  
R. Kennedy – ~~Hogdson Russ LLP~~  
T. Raby, AECOM



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## Tables

**Table 1**  
**Operations, Maintenance, and Monitoring Scope of Work**  
**Mineral Springs Former MGP Site**

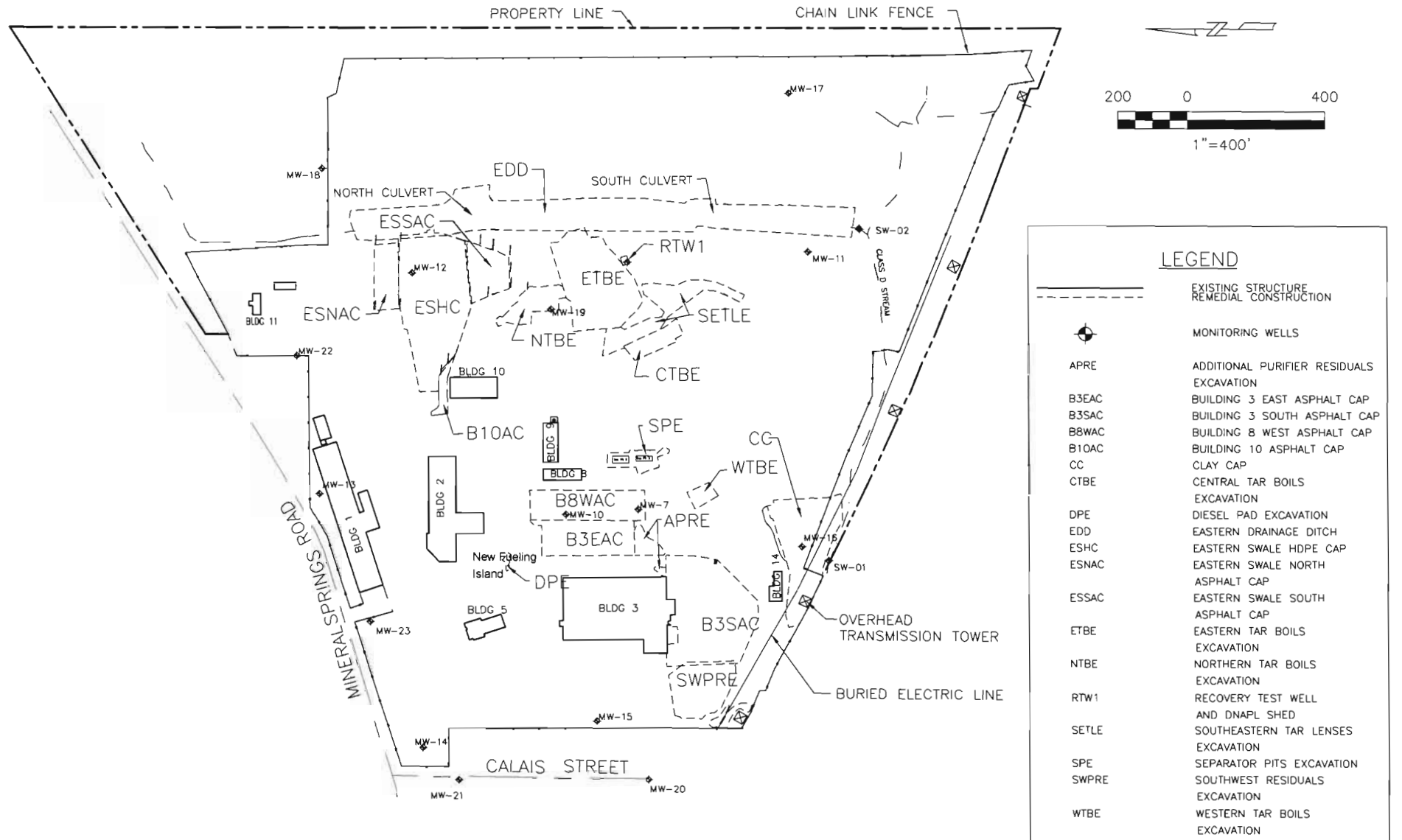
	Frequency	Description	Notes
Groundwater and Surface Water Monitoring	Twice a year	Groundwater and surface water monitoring as specified in Table 2. Monitoring takes place in April or May and July or August.	Scope in 2002 included monitoring three times a year. The frequency was modified in 2003 with NYSDEC approval.
DNAPL Recovery Test Well	Twice a year	DNAPL recovery from well RTW-1.	Continuous operations of RTW-1 was halted in 2002 with NYSDEC approval since only de minimus amount of DNAPL was being recovered
Site Inspections	Annual	Inspection of the following: Clay, geomembrane, and asphalt caps Ground surface for signs of tar or purifier residues Fencing Stream	
Maintenance and Repair	As needed	Activities determined based on inspection results	
Reporting	Twice a year	Groundwater Monitoring Report	
	Annually	O&M Report	Periodic Review Report (PRR) now submitted annually to meet new NYSDEC requirements

**Table 2**  
**Water Sampling Summary Table**  
**Mineral Springs, 2001**

Location	Cyanide, Total	Cyanide, Free	BTEX	PAHs	Water Elevation	Benchmark Elevation (top of PVC casing)
	USEPA SW846 9012A	ASTM D4282-89	USEPA SW846 8260B	USEPA SW846 8270C		
<b>Upgradient Site Perimeter</b>						
MW-17	X	X	X	X	X	587.28
<b>Downgradient Site Perimeter</b>						
MW-13	X	X	annually	annually	X	591.85
MW-14	X	X			X	589.81
MW-15					X	590.93
MW-20	X	X			X	587.30
MW-21	X	X			X	587.88
MW-22	X	X			X	592.50
MW-23	X	X	annually	annually	X	589.28
<b>Onsite Purifier Residuals Impacted Areas</b>						
MW-12	X	X			X	591.40
MW-16	X	X			X	588.99
<b>Onsite Hydrocarbon Impacted Areas</b>						
MW-07			X	X	X	587.26
MW-10			X	X	X	587.61
MW-11			X	X	X	590.03
MW-19			X	X	X	589.83
<b>Onsite Surface Water</b>						
SW-01	X	X	X	X	X	top of headwall = 587.0
SW-02	X	X	X	X		
<b>QA/QC Samples (frequency)</b>						
Trip Blank			X			(one per shipment)
Field Duplicate	X	X	X	X		(one per event)
Equipment Blank	X	X	X	X		(one per event)
<b>DNAPL Recovery</b>						
RTW-1						(purge well of accumulated DNAPL)
Total	13	13	10 or 12	9 or 11	15	
Container, Preservative	500 ml plastic, NaOH	1 L plastic amber, NaOH	40 mL VOA vial, HCl (x2)	1 L glass amber, NP (x2)		

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## Figures



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MINERAL SPRINGS ROAD FORMER MGP SITE

04870-026-400

**SITE PLAN**

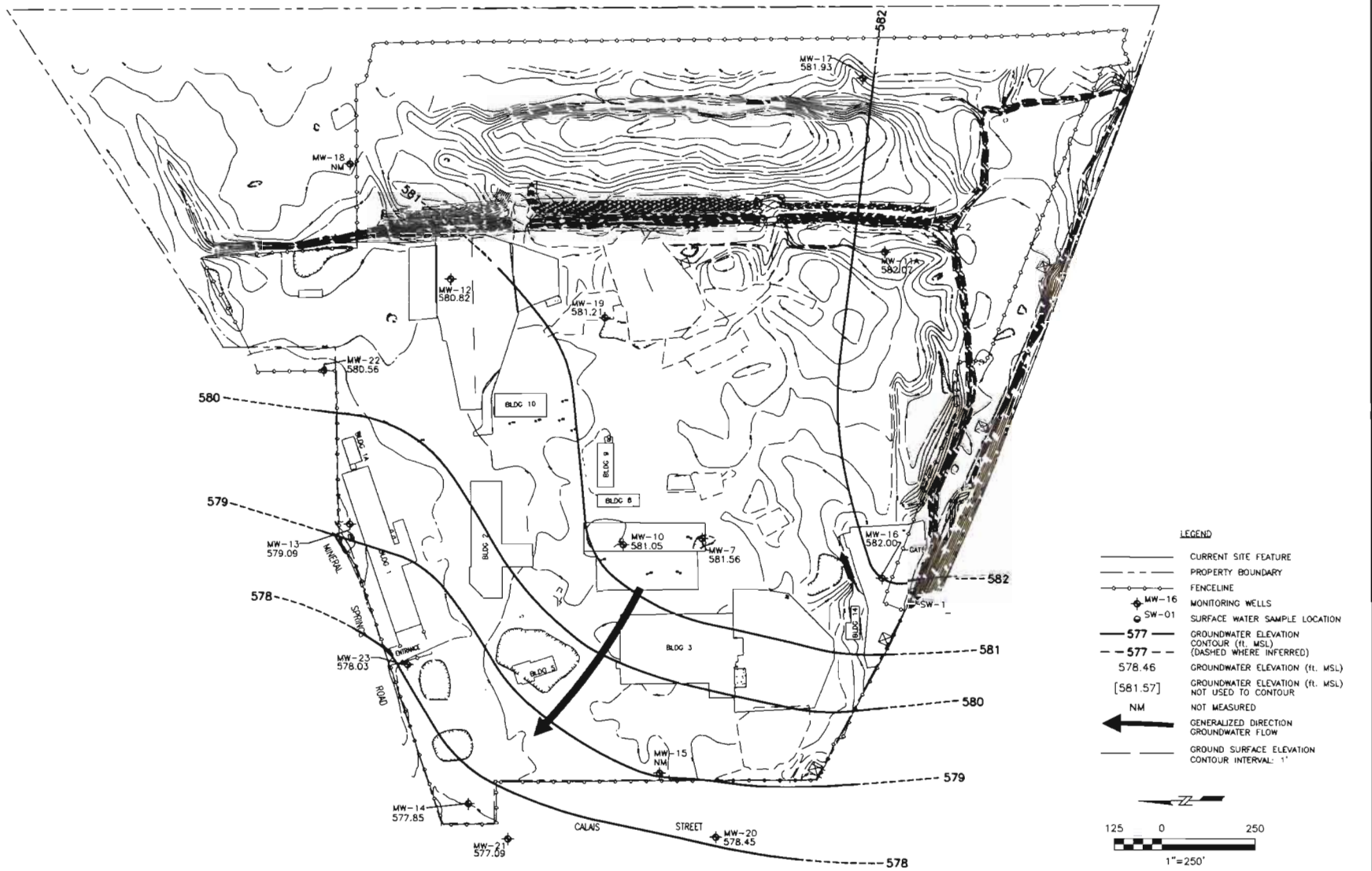
DATE: 09/10/09

DRWN: RCW/WFD

**FIGURE 1**

File: J:\Coastlines\CA00\60137322\GM-2012-4.dwg Layout: GM-4-2012 User: venshond Plotted: Oct 02, 2012 - 9:43am Xref's:

**AECOM**



NATIONAL FUEL GAS  
MINERAL SPRINGS ROAD MGP SITE  
60137322-300

GROUNDWATER ELEVATION CONTOURS  
APRIL 2012

DATE: 10/2012

DRWN: BcV/W-MA

FIGURE 2

**AECOM**



NOTE:  
GROUNDWATER ELEVATION FOR  
MONITORING WELL MW-10 WAS  
NOT USED IN THE GENERATION  
OF GROUNDWATER CONTOURS.

NATIONAL FUEL GAS  
MINERAL SPRINGS ROAD MGP SITE  
60137322-300

GROUNDWATER ELEVATION CONTOURS  
AUGUST 2012

DATE: 10/2012

DRAWN: BcV/W-MA

FIGURE 3

## **Appendix A**

### **Groundwater and Surface Water Monitoring Results**



**Mineral Springs  
Historical Analytical Data Summary  
All Units in ug/L**

	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12	
Benzene	3320	1210	4900		5100	5200	4800	3900	3300	2700	2200	3000	2100	1900	3200	2800	2000	1700	2800	2000	2900	2600	2000	1900	490	1100	780	850	330	840	690	600	690	420	
Toluene	389	20	750		2000	2700	2500	3400	1700	1500	1200	1400	1200	930	1700	1800	1300	930	1100	840	1100	570	620	100	270	590	420	250	96	44	210	37	77	6.9	
Ethylbenzene	2400	410	2900		3700	3600	3300	2000	2100	2300	1900	2200	1900	1900	2700	2500	2500	1800	2700	2200	3100	2500	2500	2000	410	1500	1100	1000	520	1200	1200	800	1000	470	
Xylene (sum of isomers)	1038	63	1200		1800	1900	1800	1600	1100	1200	1100	1100	1100	1000	1400	1200	1400	1000	1600	1300	1800	1500	1400	1100	270	910	820	700	360	820	770	510	660	270	
Total BTEX	7147	1703	9750		12600	13400	12400	10900	8200	7700	6400	7700	6300	5730	9000	8300	7200	5430	8200	6340	8900	7170	6520	5100	1440	4100	3120	2800	1306	2904	2870	1947	2427	1166.9	
Napthalene	3270	3000	2400		4100	5900	3400	3400	3600	2200	2800	5000	3100	3800	3200	3700	2700	4600	3500	3600	3000	3600	3700	3100	430	1000	1600	1400	650	1700	2100	1500	1700	870	
Acenaphthylene	nd	nd	nd		nd	nd	nd	2.2	nd	nd	nd	nd	nd	nd	nd	nd	3	nd	nd	nd	nd	nd	nd	nd	2.5	nd	0.63	nd	nd	nd	nd	nd	nd	nd	
Acenaphthene	240	150	180		180	160	150	140	160	80	120	150	nd	160	120	160	160	160	130	220	120	130	nd	130	19	69	32	36	15	60	76	49	64	49	
Fluorene	nd	28	45		nd	nd	nd	28	nd	nd	nd	33	nd	nd	27	nd	42	nd	24	46	32	24	nd	25	7.6	13	6.4	6.2	2.7	12	13	9.6	11	11	
Phenanthrene	nd	nd	37		nd	nd	nd	32	nd	nd	nd	30	nd	nd	nd	nd	38	nd	nd	nd	33	28	nd	25	2.5	12	4.3	4.6	2.1	11	16	9.5	11	9.1	
Anthracene	nd	nd	nd		nd	nd	nd	3.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	5.4	3.9	nd	3	2.5	1.5	nd	nd	0.23	1.4	nd	0.98	1.5	1.3	
Fluoranthene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.2	0.27	nd	nd	nd	nd	
Pyrene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.28	nd	nd	nd	nd	0.17	
Benzo(a)Anthracene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Chrysene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Benzo(b)Fluoranthene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Benzo(k)Fluoranthene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Benzo(a)Pyrene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Indeno(1,2,3-cd)Pyrene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Dibenzo(a,h)Anthracene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.47	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(g,h,i)Perylene	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
2-Methylnaphthalene					180	190	200		100	180	230	nd	280	170	270	320	300	230	400	350	250	270	230	24	120	73	84	33	110	160	90	120	66		
Total PAHs	3510	3178	2662		4280	6080	3730	3796	3960	2380	2900	5443	3100	4240	3517	4130	3283	5060	3684	4266	3541	4036	3970	3513	488	1215.5	1716.33	1531	703.23	1894.95	2365	1659.08	1907.5	1006.57	
Cyanide, total (Exygen/ Test America)		189																																	
Cyanide, total (Clarkson Univ.)																																			
Cyanide, free (Exygen/ Test America)																																			
Cyanide, free (Clarkson Univ.)																																			
Water Elevation (feet)		580.13	581.68	579.84	581.70	581.50	579.98	580.58	582.01	580.96	580.26	581.66	580.31	580.32	582.45	581.24	581.36	582.28	579.76	581.90	579.24	582.58	578.21	581.99	580.83	581.93	581.01	582.26	580.00	583.60	579.76	581.56	578.61		

**Mineral Springs  
Historical Analytical Data Summary  
All Units in ug/L**

MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12
Benzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.2	nd	nd	nd	nd	nd	0.83	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Toluene	nd	nd	nd	nd	nd	nd	nd	nd	0.89	nd	nd	0.81	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.9	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Xylene (sum of isomers)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.66	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total BTEX	0	0	0	0	0	0	0	0	0.89	0	0	2.91	0	0	0	0	0	0.83	0	0	0	0	0	1.96	0	0	0	0	0	0	0	0	0	0
Napthalene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	2.1	nd	nd	nd	nd	nd	nd	0.78	nd	43	nd	nd	2.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Acenaphthylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Acenaphthene	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	na	na	na	nd	nd	nd	na	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Fluorene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Phenanthrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	0.69	nd	nd	
Anthracene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.77	nd	na	
Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.53	nd	nd	
Benzo(a)Anthracene	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.27	nd	nd	nd	
Chrysene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.41	nd	nd	nd	
Benzo(b)Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.18	nd	nd	
Benzo(k)Fluoranthene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	
Benzo(a)Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	
Indeno(1,2,3-cd)Pyrene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.35	nd	nd	nd	
Dibenzo(a,h)Anthracene	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Benzo(g,h,i)Perylene	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	na	nd	nd	nd	nd	nd	nd	nd	nd	0.28	nd	nd	nd	
2-Methylnaphthalene						nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	3.8	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Total PAHs	0	0	0		0	0	0	0	0	0	2.1	0	0	0	0	0	0	0.78	0	46.8	0	0	2.3	0	0	0	0	0	0	1.31	2.17	0	0	0
Cyanide, total (Exygen/ Test America)				334																														
Cyanide, total (Clarkson Univ.)																																		
Cyanide, free (Exygen/ Test America)																																		
Cyanide, free (Clarkson Univ.)																																		
Water Elevation (feet)				579.87	581.44	579.33	581.19	581.07	579.64	580.10	581.61	580.51	579.51	581.23	579.93	579.16	581.92	580.80	580.90	581.78	579.53	581.15	580.04	582.06	578.19	581.51	580.45	581.10	580.82	580.49	580.96	583.39	579.53	581.05

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

[illegible]

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12			
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12		
Benzene			17																																	
Toluene			nd																																	
Ethylbenzene			nd																																	
Xylene (sum of isomers)			nd																																	
Total BTEX			17																																	
Napthalene			nd																																	
Acenaphthylene			nd																																	
Acenaphthene			nd																																	
Fluorene			nd																																	
Phenanthrene			nd																																	
Anthracene			nd																																	
Fluoranthene			nd																																	
Pyrene			nd																																	
Benzo(a)Anthracene			nd																																	
Chrysene			nd																																	
Benzo(b)Fluoranthene			nd																																	
Benzo(k)Fluoranthene			nd																																	
Benzo(a)Pyrene			nd																																	
Indeno(1,2,3-cd)Pyrene			nd																																	
Dibenzo(a,h)Anthracene			nd																																	
Benzo(g,h,i)Perylene			nd																																	
2-Methylnaphthalene																																				
Total PAHs			0																																	
Cyanide, total (Exygen/ Test America)		375		294	380	434	1840	393	522	2020	438	440	384	437	134	458	514	2110														708	837	720	670	480
Cyanide, total (Clarkson Univ.)																461	491	425		413	440	415	459	454	473	550	472	449	550							
Cyanide, free (Exygen/ Test America)					nd	nd	nd	nd	nd	58	7	nd	88	57		6	5	817														6.0	7.0	nd	10	23
Cyanide, free (Clarkson Univ.)																6.7	nd	nd	3.3	2.9	2.6	nd	nd	6.8	25	7.2	4.1	4.7	nd							
Water Elevation (feet)		579.45	581.07	578.98	580.90	580.72	579.30	579.54	581.40	580.30	579.29	580.82	579.59	579.75	581.55	580.39	580.51	581.48	579.27	580.96	579.78	581.88	578.7	581.25	580.16	581.10	580.35	581.45	579.50	583.27	579.21	580.82	578.49			

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12
Benzene			4	nd									1.8		3.7			1.2				1.9		2.1	nd			1		0.44		0.72		1.8
Toluene			nd	nd									nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Ethylbenzene			nd	nd									nd		nd			nd				nd		0.38	nd			nd		nd		nd		nd
Xylene (sum of isomers)			nd	nd									nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Total BTEX			4	0									1.8		3.7			1.2				1.9		2.48	0			1		0.44		0.72		1.6
Naphthalene			nd										nd		nd			nd				2.8		0.88	nd			nd		nd		nd		nd
Acenaphthylene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Acenaphthene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Fluorene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Phenanthrene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Anthracene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Fluoranthene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Pyrene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Benzo(a)Anthracene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Chrysene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Benzo(b)Fluoranthene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Benzo(k)Fluoranthene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Benzo(a)Pyrene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Indeno(1,2,3-cd)Pyrene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Dibenzo(a,h)Anthracene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Benzo(g,h,i)Perylene			nd										nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
2-Methylnaphthalene													nd		nd			nd				nd		nd	nd			nd		nd		nd		nd
Total PAHs			0										0		0			0				2.8		0.88	0			0		0		0		0
Cyanide, total (Exygen/ Test America)			323		356	280	129	465	716	na	157	399	142	423	528	175	108	280	103															670
Cyanide, total (Clarkson Univ.)																	145	234	55	363	61	300	3	664	54	467	27	327	nd					449
Cyanide, free (Exygen/ Test America)							na	33	119	nd	nd	96	13	nd	51	22	22	nd	45															620
Cyanide, free (Clarkson Univ.)																	5.3	nd	nd	nd	3	nd	nd	nd	5.3	2.3	8.2	nd	nd	nd				10
Water Elevation (feet)			578.17	579.72	577.70	579.47	579.28	577.91	578.23	579.90	578.80	577.83	579.23	578.13	578.18	579.78	578.69	578.80	579.87	577.95	579.42	578.30	580.29	577.3	579.65	578.95	579.44	578.59	579.65	578.10	581.97	577.73	579.09	577.19

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

[illegible]

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

[illegible]

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12
Benzene			nd																															
Toluene			nd																															
Ethylbenzene			nd																															
Xylene (sum of isomers)			nd																															
Total BTEX			0																															
Napthalene			nd																															
Acenaphthylene			nd																															
Acenaphthene			nd																															
Fluorene			nd																															
Phenanthrene			nd																															
Anthracene			nd																															
Fluoranthene			nd																															
Pyrene			nd																															
Benzo(a)Anthracene			nd																															
Chrysene			nd																															
Benzo(b)Fluoranthene			nd																															
Benzo(k)Fluoranthene			nd																															
Benzo(a)Pyrene			nd																															
Indeno(1,2,3-cd)Pyrene			nd																															
Dibenzo(a,h)Anthracene			nd																															
Benzo(g,h,i)Perylene			nd																															
2-Methylnaphthalene																																		
Total PAHs			0																															
Cyanide, total (Exygen/ Test America)		346		459	360	214	214	138	174	23	187	203	130	220	254	297	293	307												602	617	700	840	750
Cyanide, total (Clarkson Univ.)																332	297	305	299	266	368	317	429	467	540	531	504	566						
Cyanide, free (Exygen/ Test America)					nd	nd	147	nd	nd	17	13	nd	89	20	95	12	104	nd												7.0	9.0	7.0	9.5	37
Cyanide, free (Clarkson Univ.)															3.4	2.8	nd	nd	nd	nd	nd	nd	4	6.9	5.0	5.5	4.4	2.4						
Water Elevation (feet)		580.17	581.49	579.66	581.81	581.59	580.06	580.77	582.08	580.23	580.34	581.92	580.42	580.95	582.83	581.35	581.72	581.08	579.91	582.14	580.56	582.87	578.25	581.82	581.7	582.26	581.28	582.21	580.23	584.06	580.04	582.00	576.28	



Mineral Springs  
Historical Analytical Data Summary  
All Units in ug/L

MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	MW-17	
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12
Benzene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.32	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Toluene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Xylene (sum of isomers)				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.63	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total BTEX		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.32	0	0	0	0	0	0	0	1.73	0	0	0	0	0	0	0	0	0	0
Naphthalene				nd	nd	nd	nd	3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Acenaphthylene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Acenaphthene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluorene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Phenanthrene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Anthracene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Fluoranthene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.73	nd	nd
Pyrene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.75	nd	nd
Benzo(a)Anthracene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.61	nd	1.3	nd	nd
Chrysene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.63	nd	1.3	nd	nd
Benzo(b)Fluoranthene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.54	nd	2	nd	nd
Benzo(k)Fluoranthene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.59	nd	1.5	nd	nd
Benzo(a)Pyrene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.50	nd	1.80	nd	nd
Indeno(1,2,3-cd)Pyrene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.76	nd	4.4	nd	nd
Dibenzo(a,h)Anthracene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.83	nd	4.7	nd	nd
Benzo(g,h,i)Perylene				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.7	nd	1.6	nd	nd
2-Methylnaphthalene						nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total PAHs		0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.16	0	20.08	0	0
Cyanide, total (Exogen/ Test Ameca)			34	nd	27	65	38	74	185	127	108	185	50	66	378	106	160	217												93	287	230	210	81
Cyanide, total (Clarkson Univ.)																	142	162	260	161	263	183	369	148	285	144	279	148	242					
Cyanide, free (Exogen/ Test America)					nd	13	nd	nd	nd	nd	nd	nd	16	nd	nd	nd	nd	61												nd	4	nd	0.98	nd
Cyanide, free (Clarkson Univ.)																nd	nd	nd	nd	nd	5.2	nd	nd	nd	5.9	nd	5.0	nd	nd					
Water Elevation (feet)				582.36	579.73	581.90	581.96	580.12	580.88	582.38	579.86	580.48	582.01	580.46	580.96	582.40	581.27	581.72	582.71	579.96	582.14	580.62	582.87	578.36	583.02	581.13	582.30	581.36	582.61	580.18	583.98	NM	581.93	578.92

**Mineral Springs  
Historical Analytical Data Summary  
All Units in ug/L**

MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18	MW-18
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02
Benzene				nd	nd	nd	nd	nd	nd	nd
Toluene				nd	nd	nd	nd	1.1	nd	nd
Ethylbenzene				nd	nd	nd	nd	nd	nd	nd
Xylene (sum of isomers)				nd	nd	nd	nd	nd	nd	nd
Total BTEX				0	0	0	0	1.1	0	0
Naphthalene				nd	nd	nd	nd	nd	nd	nd
Acenaphthylene				nd	nd	nd	nd	nd	nd	nd
Acenaphthene				nd	nd	nd	nd	nd	nd	nd
Fluorene				nd	nd	nd	nd	nd	nd	nd
Phenanthrene				nd	nd	nd	nd	nd	nd	nd
Anthracene				nd	nd	nd	nd	nd	nd	nd
Fluoranthene				nd	nd	nd	nd	nd	nd	nd
Pyrene				nd	nd	nd	nd	nd	nd	nd
Benzo(a)Anthracene				nd	nd	nd	nd	nd	nd	nd
Chrysene				nd	nd	nd	nd	nd	nd	nd
Benzo(b)Fluoranthene				nd	nd	nd	nd	nd	nd	nd
Benzo(k)Fluoranthene				nd	nd	nd	nd	nd	nd	nd
Benzo(a)Pyrene				nd	nd	nd	nd	nd	nd	nd
Indeno(1,2,3-cd)Pyrene				nd	nd	nd	nd	nd	nd	nd
Dibenzo(a,h)Anthracene				nd	nd	nd	nd	nd	nd	nd
Benzo(g,h,i)Perylene				nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene							nd	nd	nd	nd
Total PAHs				0	0	0	0	0	0	0
Cyanide, total (Exygen/ Test America)				nd	nd	nd	13	nd	nd	nd
Cyanide, total (Clarkson Univ.)										
Cyanide, free (Exygen/ Test America)						nd	nd	24	nd	nd
Cyanide, free (Clarkson Univ.)										
Water Elevation (feet)				585.46	582.65	585.06	585.40	583.84	583.84	582.74

Mineral Springs  
Historical Analytical Data Summary  
All Units in ug/L

[illegible]

Mineral Springs  
Historical Analytical Data Summary  
All Units in ug/L

[illegible]

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

[illegible]

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

[illegible]

**Mineral Springs**  
**Historical Analytical Data Summary**  
**All Units in ug/L**

MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	MW-23	
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12
Benzene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Toluene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Ethylbenzene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Xylene (sum of isomers)						nd						nd			nd				nd						nd		nd		nd			nd		nd
Total BTEX						0						0			0				0						0		0		0			0		0
Napthalene						nd						nd			nd				3.6						nd		nd		nd			nd		nd
Acenaphthylene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Acenaphthene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Fluorene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Phenanthrene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Anthracene						nd						na			nd				nd						nd		nd		nd			nd		nd
Fluoranthene						nd						nd			na				nd						nd		nd		nd			nd		nd
Pyrene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Benzo(a)Anthracene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Chrysene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Benzo(b)Fluoranthene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Benzo(k)Fluoranthene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Benzo(a)Pyrene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Indeno(1,2,3-cd)Pyrene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Dibenzo(a,h)Anthracene						nd						nd			nd				nd						nd		nd		nd			nd		nd
Benzo(g,h,i)Perylene						nd						nd			nd				nd						nd		nd		nd			nd		nd
2-Methylnaphthalene												nd			nd				nd						nd		nd		nd			nd		nd
Total PAHs						0						0			0				3.6						0		0		0			0		0
Cyanide, total (Exygen/ Test America)						480	658	469	654	480	425	728	356	620	729	587	446	437	274										299	307	360	220	330	
Cyanide, total (Clarkson Univ.)																	493	560	359	325	267	321	326	374	252	344	276	320	277					
Cyanide, free (Exygen/ Test America)						nd	nd	nd	nd	nd	12	10	nd	15	6	5	9	5	57										nd	6	4	2.4	nd	
Cyanide, free (Clarkson Univ.)																nd	nd	nd	nd	na	nd	nd	nd	nd	3.2	11.7	nd	nd	nd					
Water Elevation (feet)						578.66	578.30	577.40	577.58	578.69	577.83	577.18	578.11	577.40	577.29	578.54	577.83	577.91	578.61	577.44	578.19	577.63	578.95	577.19	578.37	577.83	578.16	577.95	578.44	577.53	580.42	577.09	578.03	576.78

**Mineral Springs  
Historical Analytical Data Summary  
All Units in ug/L**

SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01	SW-01		
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-00	Apr-01	Jul-01	Nov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-07	Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12	
Benzene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	0.44	nd	nd	nd	nd	nd	nd	Dry	nd	nd	nd	nd	nd	nd	nd	nd	0.15	nd	nd	
Toluene			nd				nd	nd	nd	nd	2	nd	nd	nd	nd	0.38	nd	nd	nd	0.47	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	0.22	nd	nd	
Ethylbenzene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.23	nd		nd	nd	nd	nd	nd	nd	nd	nd	0.6	nd	nd	
Xylene (sum of isomers)			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	0.54	nd	nd		
Total BTEX			0				0	0	0	0	2	0	0	0	0	0.82	0	0	0	0.47	0	0.23	0		0	0	0	0	0	0	0	1.51	0	0	
Naphthalene			nd				nd	2.9	nd	nd	nd	1.6	nd	nd	nd	nd	nd	nd	nd	32	nd	nd		2.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Acenaphthylene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Acenaphthene			nd				nd	1.1	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Fluorene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Phenanthrene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Anthracene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	
Fluoranthene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.5	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.4	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(a)Anthracene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Chrysene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(b)Fluoranthene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(k)Fluoranthene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(a)Pyrene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Indeno(1,2,3-cd)Pyrene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Dibenzo(a,h)Anthracene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Benzo(g,h,i)Perylene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene							nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total PAHs			0				0	4	0	0	0	1.6	0	0	0	0	0	0	0	0.9	32	0	0		2.3	0	0	0	0	0	0	0	0	0	0
Cyanide, total (Exogen/ Test Ameca)		12.2					21	55	35	8	405	21	13	88	36	989	40	38	9											12.6	30.3	11	16	96	
Cyanide, total (Clarkson Univ.)																	46	53	10	5	4	24	nd		14	5	25	23	3.6						
Cyanide, free (Exogen/ Test Ameca)							nd	16	nd	nd	29	6	nd	10	nd	86	6	19	nd											nd	6	nd	1.5	21	
Cyanide, free (Clarkson Univ.)																98.1	nd	nd	3.2	2.4	2.3	2.4	5		nd	nd	nd	nd	2.6						
Water Elevation (feet)					579.80	580.40	580.10	580.00	580.10	581.00	579.60	579.80	580.70	581.40	582.00	582.30	580.60	581.30	581.30	579.90	581.60	580.20	582.80		581.57	581.80	581.55	580.83	582.25	580.19	580.19	580.19	581.6	580.6	



## Mineral Springs

[illegible]

## **Appendix B**

### **Annual Site Inspection Form**

**Annual Site Inspection Form****Mineral Springs Road Former MGP**Inspection by: Thomas P. Clark, P.E.Affiliation: AECOM Environment, Inc.

Signature: \_\_\_\_\_

Date: April 19, 2012 (Inspection date)**ASPHALT CAP SOUTH OF BUILDING #3 (B3SAC)**

Cracks or ruts ?                      Yes    ☐ No  
Erosion at edges ?                      Yes    ☐ No  
Blue-stained soil ?                      Yes    ☐ No

**Comments:**

Significant settlement and cracking observed in several locations. Seal missing from some previously sealed cracks.

**CLAY CAP BEHIND BUILDING #14 (CC)**

Animal dens ?                      Yes    ☐ No  
Erosion ?                      Yes    ☐ No  
Trees ?                      Yes    ☐ No  
Blue-stained soil ?                      Yes    ☐ No

**Comments:**

Cap surface intact. No animal burrows or stained soil. No sink holes.

**ASPHALT CAP EAST OF BUILDING #3 (B3EAC)**

Cracks or ruts ?                      Yes    ☐ No  
Erosion at edges ?                      Yes    ☐ No  
Blue-stained soil ?                      Yes    ☐ No

**Comments:**

Cap in good condition. Previously sealed cracks intact. A few minor new cracks. No significant ponding.

**EASTERN DRAINAGE DITCH (EDD)**

Animal dens ?                      Yes    ☐ No  
Erosion ?                      Yes    ☐ No  
Trees ?                      Yes    ☐ No  
Blue-stained soil ?                      Yes    ☐ No  
Hydrocarbon sheen ?                      Yes    ☐ No  
Inadequate Signage ?                      Yes    ☐ No  
Trash / Debris ?                      Yes    ☐ No

**Comments:**

Ditch in good condition. No sheen or erosion noted. Warning signs in place. No woody plants near clay portion of cap.

**ASPHALT CAP NORTH OF EASTERN SWALE (ESNAC)**

Cracks or ruts ?                      Yes    ☐ No  
Erosion at edges ?                      Yes    ☐ No  
Blue-stained soil ?                      Yes    ☐ No

**Comments:**

Cap in good condition. Crack sealing in good condition.

**BACKFILLED EXCAVATIONS (NTBE, CTBE, ETBE, SETLE)**

Excessive settlement ?                      Yes    ☐ No  
Ponding of surface water ?                      Yes    ☐ No  
Tar boils ?                      Yes    ☐ No  
Blue-stained soil ?                      Yes    ☐ No

**Comments:**

No settlement, erosion, blue soil, or seeps observed.

**ASPHALT CAP SOUTH OF EASTERN SWALE (ESSAC)**

Cracks or ruts ?                      Yes    ☐ No  
Erosion at edges ?                      Yes    ☐ No  
Blue-stained soil ?                      Yes    ☐ No

**Comments:**

Cap in good condition. No significant cracking.

**CLASS D STREAM**

Hydrocarbon sheen ?                      Yes    ☐ No

**Comments:**

No sheen or erosion observed.

**HDPE/SOIL CAP IN EASTERN SWALE (ESHC)**

Cracks or ruts ?                      Yes    ☐ No  
Erosion at edges ?                      Yes    ☐ No  
Blue-stained soil ?                      Yes    ☐ No

**Comments:**

Cap in good condition. No ponding after heavy rain. Damaged HDPE drainage pipe visible at end of drainage ditch. No seeps or blue stained soil observed.

**SITE FENCE**

Damage / Holes ?                      Yes    ☐ No

**Comments:**

The fence is intact along the property line in all locations.

## **Appendix C**

### **Photographs**

## PHOTOGRAPHIC LOG

**Client Name:**  
National Fuel Gas Distribution Corp.

**Site Location:**  
365 Mineral Springs Road, Buffalo, New York

**Project No.**  
60137322

**Photo No.**  
**1**

**Date:**  
4/19/12

**Direction Photo Taken:**

Looking East

**Description:**

Eastern Swale HDPE Cap. No issues identified.



**Photo No.**  
**2**

**Date:**  
4/26/11

**Direction Photo Taken:**

Looking South

**Description:**

Eastern Drainage Ditch. No issues identified.



## PHOTOGRAPHIC LOG

**Client Name:**  
National Fuel Gas Distribution Corp.

**Site Location:**  
365 Mineral Springs Road, Buffalo, New York

**Project No.**  
60137322

**Photo No.**  
**3**

**Date:**  
4/19/12

**Direction Photo Taken:**

Looking  
East

**Description:**

Eastern Swale South  
Asphalt Cap. No issues  
identified.



**Photo No.**  
**4**

**Date:**  
4/19/12

**Direction Photo Taken:**

Facing East.


**Description:**

Fence by Clay Cap. No  
issues identified.






## PHOTOGRAPHIC LOG

<b>Client Name:</b> National Fuel Gas Distribution Corp.		<b>Site Location:</b> 365 Mineral Springs Road, Buffalo, New York	<b>Project No.</b> 60137322
<b>Photo No.</b> <b>5</b>	<b>Date:</b> 4/19/12		
<b>Direction Photo Taken:</b>  Facing South.			
<b>Description:</b>  Building 3 South Asphalt Cap. Note required repairs.			

## PHOTOGRAPHIC LOG

<b>Client Name:</b> National Fuel Gas Distribution Corp.		<b>Site Location:</b> 365 Mineral Springs Road, Buffalo, New York	<b>Project No.</b> 60137322
<b>Photo No.</b> <b>6</b>	<b>Date:</b> 11/2/12		
<b>Direction Photo Taken:</b>  Facing South.			
<b>Description:</b>  Building 3 South Asphalt Cap. Note repaired area.			

## **Appendix D**

### **Institutional and Engineering Controls Certification Form**





Enclosure 2  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Site Management Periodic Review Report Notice**  
**Institutional and Engineering Controls Certification Form**



<b>Site No.</b>	<b>V00195</b>	<b>Site Details</b>	<b>Box 1</b>
 <b>Site Name NFG - Mineral Springs MGP</b>			
Site Address: 365 Mineral Springs Road    Zip Code: 14210			
City/Town: West Seneca			
County: Erie			
Site Acreage: 80.0			
Reporting Period: October 02, 2011 to October 02, 2012			
			<b>YES    NO</b>
1. Is the information above correct?			<input checked="" type="checkbox"/> <input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.			
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?			<input type="checkbox"/> <input checked="" type="checkbox"/>
3. Has there been any <b>change of use at the site</b> during this Reporting Period (see 6NYCRR 375-1.11(d))?			<input type="checkbox"/> <input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?			<input type="checkbox"/> <input checked="" type="checkbox"/>
<b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b>			
5. Is the site currently undergoing development?			<input type="checkbox"/> <input checked="" type="checkbox"/>

			<b>Box 2</b>
			<b>YES    NO</b>
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial			<input checked="" type="checkbox"/> <input type="checkbox"/>
7. Are all ICs/ECs in place and functioning as designed?			<input checked="" type="checkbox"/> <input type="checkbox"/>

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

**SITE NO. V00195**

**Box 3**

**Description of Institutional Controls**

Parcel

Owner

Institutional Control

**123.16-2-8**

National Fuel Gas Distribution Corp.

Ground Water Use Restriction  
Landuse Restriction

**Box 4**

**Description of Engineering Controls**

Parcel

Engineering Control

**123.16-2-8**

Cover System  
Fencing/Access Control

**Engineering Control Details for Site No. V00195**

**Parcel: 123.16-2-8**

- i. All identified capped areas shall continue to be protective of public health and the environment, and shall continue to be maintained and monitored to be consistent with industrial/commercial use.
- ii. The owner of the Property shall prohibit the Property from ever being used for purposes other than for an industrial/commercial operation, office, warehouse and garage facility and for the services associated with such use without the express written waiver of such prohibition by the Relevant Agency.
- iii. The owner of the Property shall prohibit the use of the groundwater underlying the Property without treatment rendering it safe for drinking water or industrial purposes, as appropriate, unless the user first obtains permission to do so from the Relevant Agency.

**Periodic Review Report (PRR) Certification Statements**

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control ~~listed~~ in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

\_\_\_\_\_  
Date

IC CERTIFICATIONS  
SITE NO. V00195

Box 6

**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jay Wlesch at 6363 Main St Williamsville NY 14220  
print name print business address

am certifying as Designated rep (Owner or Remedial Party)

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

CMB [Signature]  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

11/19/12  
Date

IC/EC CERTIFICATIONS

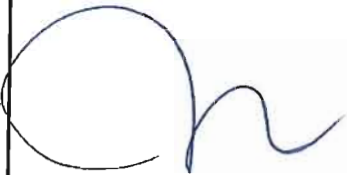
Box 7

Professional Engineer Signature

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

I Thomas P. Clark at 250 Apollo Dr., Chelmsford, MA 01824,  
print name print business address

am certifying as a Professional Engineer for the National Fuel Gas Distribution Company  
Remedial Party)



Signature of Professional Engineer, for the Owner or  
Remedial Party, Rendering Certification



Stamp  
(Required for PE)

11/14/12  
Date