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October 13, 2015

Mr. David Szymanski
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Avenue – 3rd Floor
Buffalo, New York 14203

RE: 2015 Periodic Review Report
Mineral Springs Road Former Manufactured Gas Plant Site

Dear Mr. Szymanski:

National Fuel Gas Distribution Corporation (National Fuel) completed construction on the remedial action for the Mineral Springs Road Former Manufactured Gas Plant (MGP) Site (Site) in 2001. Since then, National Fuel 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 National Fuel rather than an O&M Report to meet the reporting requirements of the O&M Plan.

1. Introduction

The Former MGP was constructed in the early 1920s and operated until the 1960s. Coal and oil gasification wastes, specifically coal tar hydrocarbons and blue-stained purifier residuals, were generated during plant operation. 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 Site from October 02, 2013 to October 02, 2015, and analytical data from 2001 (remedial action completion) through 2015. 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 remedy effectiveness is presented below.

In July 2013, soil impacted with purifier wastes was observed in the southwestern corner of the site near residential properties on Calais Street. National Fuel completed a series of Corrective Measure (CM) activities in the area where impacts were observed. Two CM Completion Reports (AECOM, October 2014 and GEI, March 2015) have been completed and issued to your department. Following these Corrective Measures, AECOM completed the PRR.

In addition, in March 2015, the collapse of an off-property storm sewer along the southern boundary of the site lead to soil disturbance in the area where a clay cap had been installed as an engineering control. In order to determine whether the clay cap's effectiveness had been impaired, CM investigation activities were performed. The results of that investigation showed that the cap

remains in place and effective. More details of CM activities performed are described later in this report.

Following completion of CM activities, the required effectiveness evaluation indicates that engineering and institutional controls are currently intact and effective and that the remedial action has been operated in accordance with the provisions of the O&M Plan. The annual site inspection indicated there were locations where maintenance issues needed to be addressed. These maintenance issues have since been addressed and repaired as necessary.

2. Site Overview

The Site lies in a flat, mixed industrial and residential area of West Seneca (and Buffalo), New York. The Site is an active National Fuel 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.

In 1990 and 1995, investigations and soil remediation activities 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 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 National Fuel submitted a Voluntary Cleanup Agreement (VCA) program application. VCA number B9-0538-98-08 was signed by National Fuel on June 2, 1999 and by NYSDEC on November 7, 1999. A Remedial Design Work Plan was subsequently developed by National Fuel 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 and 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, National Fuel 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.

Institutional and engineering controls are currently in place and effective.

3. 2014 and 2015 Site Activities

Routine O&M activities performed during 2014 and 2015 include the following:

- Annual inspections on April 28, 2014 and April 28, 2015.
- Groundwater monitoring events on April 21-22, 2014; August 28, 2014, April 27-28, 2015, and August 17, 2015.
- Submittal of groundwater and surface water monitoring reports on July 28, 2014, November 17, 2014, and July 7, 2015. The report for the August 2015 event is pending.
- Cap maintenance activities:
    - Asphalt cap crack filling and sealing ESNAC, B10AC, B8WAC, B3EAC, and B3SAC;
    - Mowing of ESHC and CC;
    - Filled animal burrow in CC and ESHC; and,
    - Fixed cable fence around CC.

CM activities completed along the western boundary of the site in 2014 and 2015 included performing additional investigation activities, excavating and capping impacted soils, installing a swale and berm, and installing additional perimeter fencing. Locations where CM activities were performed are shown on Figure 1. These activities included the following:

- In April 2014, investigation soil sampling was performed according to the specifications of CMWP Addendum #3 in the identified areas of the residential properties.
- Addendum #4 was submitted on September 10, 2014 describing proposed excavation on residential properties.
- In October 2014, additional soil sampling was performed on three residential properties to further define the limits of impacts in those areas.
- Soils were excavated and removed from each of the areas identified in CMWP Addendum #4.
- The backfilling and re-grading activities were performed in accordance with the specifications of the CMWP and addenda.
- The facility perimeter fence was replaced, and where necessary, repaired.
- Disturbed areas were seeded and mulched, then monitored until the vegetative layer was re-established.
- CM Completion Reports were submitted in October 2014 and March 2015.

Locations where CM activities were performed to address the collapsed storm sewer near the clay cap on the southern side of the site performed in 2015 are shown on Figure 1. These activities included the following:

- Inspection by the Engineer of Record on March 31, 2015.
- Submittal of a CMWP on April 8, 2015.
- Performance of soil boring activities described in the CMWP on May 8, 2015.

The soil borings were advanced to locate the outer limits of the clay cap, specifically the clay cut-off wall, constructed as part of the clay cap shown on Figure 1 near Building 14. A description of investigation activities and results is presented in Appendix A.

Other environmental activities which were completed at the Mineral Springs site in the period covered by this report include the following:

- Building 5 addition. A copy of the permit is included in Appendix B.
- Compressed natural gas (CNG) lines and electrical trenching performed in summer of 2014. AECOM was consulted when DNAPL was encountered. The figure included in Appendix C shows the locations where impacts were observed.
- Pipe yard excavation and re-grading, August 2015. Approximately 1500 cubic yards. of soils were excavated and stockpiled for testing due to visual observations. Analysis showed soils exceeded NYSDEC Industrial Soil Cleanup Objectives (SCOs) for benzo a pyrene. Disposal pending.
- Two 10,000 gal fuel USTs were removed and replaced. A figure showing the locations of the USTs is included in Appendix D. The closure report for UST removal has been submitted to NYSDEC.

4. Evaluation of Remedy Performance, Effectiveness, and Protectiveness

The objectives of the remedial action performed at the 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 the 2014 and 2015 annual inspections, described in the next section, identified routine maintenance issues which have been addressed. Following implementation of the CMs the caps are currently in place and are intact and 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 overall engineering controls remain intact and effective.

In January 1998, National Fuel performed a soil gas survey to evaluate potential exposures to workers inside buildings at the 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.

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Analytical Results and Conclusions

Groundwater monitoring was performed at the Mineral Springs Site semi-annually (in April and August) in 2014 and 2015. 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 2014 and 2015 sampling events is presented in the following sections. The analytical data is compared to the NYSDEC Technical Operational and Guidance Series (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998). Details of the results of these monitoring events are presented in the April 2014, August 2014, and April 2015 Groundwater and Surface Water Monitoring Reports, submitted to NYSDEC in July 2014, November 2014, and July 2015, respectively. The report for the August 2015 sampling event is pending.

Figures 2 through 5 provide groundwater contours indicating the direction of groundwater flow at the Site for April 2014, August 2014, April 2015, and August 2015, respectively. Appendix E presents the 2014-2015 surface water and groundwater analytical results, as well as historic data from 1995 through 2013. These figures and data provide the basis for the following evaluation sections.

Upgradient Site Perimeter

Upgradient Monitoring well MW-17 is located in the southeast corner of the Site. This well is sampled for benzene, ethylbenzene, toluene, and xylene (BTEX); polycyclic aromatic hydrocarbons (PAHs); and total and free cyanide to monitor upgradient groundwater quality. No BTEX compounds were detected in MW-17 in any of the four sampling events. One PAH compound (naphthalene) was detected in one sampling event (April 2014). Free cyanide was detected in one sampling event (August 2015). A summary of the PAH and cyanide detections follows:

- April 2014:
    - Naphthalene was detected at a concentration of 1.9 J µg/L, below the NYSDEC Groundwater Standard of 10 µg/L.
    - Total cyanide was detected at a concentration of 198 µg/L, which was less than the NYSDEC Groundwater Standard of 200 µg/L.
- August 2014:
    - Total cyanide was detected at a concentration of 160 J µg/L, which was less than the NYSDEC Groundwater Standard of 200 µg/L.
- April 2015:
    - Total cyanide was detected at a concentration of 220 µg/L, above the NYSDEC Groundwater Standard of 200 µg/L.
- August 2015:
    - Total cyanide was detected at a concentration of 89 µg/L, below the NYSDEC Groundwater Standard of 200 µg/L.
    - Free cyanide was detected at a concentration of 9.5 J µg/L. There is no NYSDEC Groundwater Standard for free cyanide.

Downgradient Site Perimeter

Six “sentinel” wells monitor groundwater quality downgradient of the Site remedial actions. These wells include MW-13, MW-14, MW-22 and MW-23 located just inside the northern property boundary near Mineral Springs Road and MW-20 and MW-21 located downgradient of the western Site boundary on Calais Street. The groundwater samples from these six wells are analyzed semi-annually for total and free cyanide. The results of monitoring in these wells are summarized below:

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- April 2014: Five of the six wells had total cyanide concentrations above the NYSDEC Groundwater Standard of 200 µg/L. Detected concentrations ranged from 453 µg/L at MW-21 to 746 µg/L at MW-22.
- August 2014: Five of the six wells had total cyanide concentrations above the NYSDEC Groundwater Standard. Detected concentrations ranged from 150 J- µg/L at MW-20 to 790 J- µg/L at MW-22.
- April 2015: Five of the six wells had total cyanide concentrations above the NYSDEC Groundwater Standard. Detected concentrations ranged from 490 µg/L at MW-23 to 890 µg/L at MW-20.
- August 2015: All six wells had total cyanide concentrations above the NYSDEC Groundwater Standard. Detected concentrations ranged from 400 µg/L at MW-13 to 990 µg/L at MW-22.

Free cyanide was detected as summarized below; however, there is no NYSDEC Groundwater Standard for free cyanide:

- April 2014: Free cyanide was detected in three wells at concentrations ranging from 2.0 J µg/L at MW-20 to 24 µg/L at MW-22.
- August 2014: Free cyanide was detected in one well (MW-22) at a concentration of 11.6 µg/L.
- April 2015: Free cyanide was detected in one well (MW-22) at a concentration of 11.2 J+ µg/L.
- August 2015: Free cyanide was detected in all six wells at concentrations ranging from 5.5 J µg/L at MW-21 to 22.3 J µg/L at MW-23.

Monitoring wells MW-13 and MW-23 are also sampled once annually for BTEX and PAHs during the August sampling event. The BTEX compound benzene is regularly detected in MW-13. A summary of the BTEX and PAH analytical results from the August sampling events follows:

- August 2014:
  - Naphthalene was detected at a concentration of 1.5 J µg/L in well MW-23, below the NYSDEC Groundwater Standard of 10 µg/L.
  - Benzene was detected at a concentration of 1.3 µg/L in well MW-13, above the NYSDEC Groundwater Standard of 1 µg/L.
- August 2015:
  - Phenanthrene was detected at a concentration of 0.52 µg/L in well MW-23, below the NYSDEC Groundwater Standard of 50 µg/L.
  - Benzene was detected at a concentration of 0.91 J µg/L in well MW-13, below the NYSDEC Groundwater Standard of 1 µg/L.

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.

As summarized below, both wells had total cyanide groundwater concentrations above the NYSDEC Groundwater Standard of 200 µg/L during each sampling event:

- April 2014: Total cyanide concentrations were reported as 526 J µg/L at MW-12 and 730 J µg/L at MW-16.
- August 2014: Total cyanide concentrations were reported as 580 J- µg/L at MW-12 and 1,300 J- µg/L at MW-16.
- April 2015: Total cyanide concentrations were reported as 570 µg/L at MW-12 and 1,100 µg/L at MW-16.
- August 2015: Total cyanide concentrations were reported as 890 µg/L at MW-12 and 1,500 µg/L at MW-16.

Free cyanide was detected as summarized below; however, there is no NYSDEC Groundwater Standard for free cyanide:

- April 2014: Free cyanide was detected in MW-12 at 7.5 µg/L and in MW-16 at 7.2 µg/L.
- August 2014: Free cyanide was detected in MW-12 at 10.2 µg/L and in MW-16 at 19.9 µg/L.
- April 2015: Free cyanide was detected in MW-16 at 13.0 J+ µg/L.
- August 2015: Free cyanide was detected in MW-12 at 9.1 J µg/L and in MW-16 at 20.4 J µg/L.

On-site Hydrocarbon Impacted Areas

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

BTEX compounds were not detected in either well MW-10 or MW-11A during the April sampling events. During the August sampling events BTEX compounds were not detected in well MW-10. A summary of BTEX detections for these wells follows:

- April 2014: BTEX compounds were detected above NYSDEC Groundwater Standards in MW-07 and MW-19.
- August 2014: BTEX compounds were detected above NYSDEC Groundwater Standards in MW-07, MW-11A, and MW-19.
- April 2015: BTEX compounds were detected above NYSDEC Groundwater Standards in MW-07 and MW-19.
- August 2015: BTEX compounds were detected above NYSDEC Groundwater Standards in MW-07, MW-11A, and MW-19.

Several PAH compounds were detected both above and below NYSDEC Groundwater Standards in these wells as summarized below:

- April 2014: The PAH compound naphthalene was detected in MW-10 and MW-11A at concentrations below NYSDEC Groundwater Standard. Several other PAH compounds were detected above NYSDEC Groundwater Standards in MW-07 and MW-19.
- August 2014: PAH compound naphthalene was detected in MW-07 and MW-19 at concentrations above the NYSDEC Groundwater Standard of 10 µg/L. Additionally, acenaphthene was detected in MW-07 above the NYSDEC Groundwater Standard of 20 µg/L.
- April 2015: PAH compound naphthalene was detected in MW-07 and MW-19 at concentrations above the NYSDEC Groundwater Standard of 10 µg/L. Additionally, acenaphthene was detected in MW-07 above the NYSDEC Groundwater Standard of 20 µg/L.
- August 2015: PAH compound naphthalene was detected in MW-07 and MW-19 above the NYSDEC Groundwater Standard of 10 µg/L, and acenaphthene was detected in MW-07 above the NYSDEC Groundwater Standard of 20 µg/L.

Surface Water

Two surface water samples, SW-01 and SW-02, are collected from the NYSDEC Class D Stream running along the south side of the site. Sample SW-01 is collected near the storm sewer inlet near Building 14 to monitor concentrations of COC in surface water downgradient of the Site. Sample SW-02 is collected at the EDD near the Class D Stream to monitor surface water downgradient of the EDD Cap. Surface water samples are analyzed total and free cyanide, BTEX and PAH.

BTEX compounds were not detected in either surface water sample in any of the four sampling events.

Several PAH compounds were detected in the surface water samples as summarized below:

- April 2014: In SW-01, the PAH compound benzo(a)pyrene was detected at a concentration of 0.61 µg/L, which was greater than the NYSDEC Guidance Value of 0.0012 µg/L. Other PAH compounds were detected in both surface water samples at concentrations that were less than the NYSDEC Standard or Guidance values.
- August 2014: Several PAH compounds were detected in SW-02 at concentrations that were less than the NYSDEC Standard or Guidance values. Benzo(a)anthracene was detected at a concentration of 2.7 µg/L, which was greater than the NYSDEC Guidance value of 0.23 µg/L. Benzo(a)pyrene was detected at a concentration of 4.2 µg/L, which was greater than the NYSDEC Guidance value of 0.0012 µg/L.
- April 2015: PAH compounds were not detected in either surface water sample.
- August 2015: Three PAH compounds were detected in SW-01: benzo(b)flouranthene at 3.1 µg/L, flouranthene at 3.3 µg/L, and pyrene at 2.8 J µg/L. A NYSDEC Class D Surface Water Standard is not listed for benzo(b)flouranthene or flouranthene. The pyrene detection was below the NYSDEC Class D Surface Water Guidance Value (no standard is listed) of 42 µg/L.

Total and free cyanide concentrations, when detected, were below the NYSDEC Class D Stream Standard of 9,000 µg/L and 22 µg/L, respectively. A summary of total and free cyanide analytical results is presented below:

- April 2014:

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  - Total cyanide was detected in SW-01 and SW-02 at a concentration of 11 J µg/L.
  - Free cyanide was not detected in SW-01. Free cyanide was detected in SW-02 at a concentration of 1.6 J µg/L.
- August 2014:
  - Total cyanide was detected in SW-01 and SW-02 at a concentration of 25 and 15 J- µg/L, respectively.
  - Free cyanide was not detected in SW-02. Free cyanide was detected in SW-01 at a concentration of 6.0 J+ µg/L.
- April 2015:
  - Total cyanide was detected in SW-01 and SW-02 at a concentration of 7.2 J and 96 µg/L, respectively.
  - Free cyanide was not detected in SW-01. Free cyanide was detected in SW-02 at a concentration of 30.1 µg/L.
- August 2015:
  - Total cyanide was detected in SW-01 and SW-02 at a concentration of 5.2 J and 160 µg/L, respectively.
  - Free cyanide was detected in both samples at a concentration of 7.2 J µg/L.

Conclusions

Consistent with groundwater analytical results since monitoring began, concentrations of MGP constituents in groundwater vary significantly both from one well to another and from the same wells over time. Concentrations of cyanide in a number of off-site downgradient wells have consistently been measured at levels greater than NYSDEC Groundwater Standards. Although there has been variation in concentrations, overall conditions at the Site are consistent with results measured before the remedial action was implemented.

5. 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 (with updated information), summarizes the groundwater and surface water monitoring program. O&M activities completed since the last PRR (dated November 2013) include the following:

- Annual site inspections were performed on April 28, 2014 and April 28, 2015
- Semi-annual groundwater and surface water monitoring rounds were performed on April 21-22, 2014; August 28, 2014, April 27-28, 2015, and August 17, 2015.
- Continued evaluation of the DNAPL recovery system and removal of approximately 0.5 gallon (1 gallon total) of water containing trace (less than 1%) DNAPL blebs in April 2014, August 2014, April 2015, and August 2015.
- Submittal of the Groundwater and Surface Water Monitoring Reports for the monitoring events performed in 2014 and 2015.
- Performance of maintenance activities to address issues identified during the annual inspection.
- As discussed previously, soils impacted by purifier waste were present outside of the perimeter fence on the western and southwestern site boundaries. Corrective measures

were implemented to address these issues. Completion reports have been submitted under separate cover.

During the April 2014 and 2015 annual inspections, observations of site conditions were recorded. The inspection checklists are included as Appendix F. Photographs taken during the inspections are included in Appendix G. An Institutional and Engineering Controls Certification Form is included in Appendix H.

2015 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.

As discussed previously, soil has been disturbed just beyond the southern edge of the clay cap southeast of Building 14 by the collapse of a storm sewer on adjacent property. A boring program performed as described in a CMWP has determined the location of the clay cut-off wall. Based on those borings, it was determined that the cut-off wall is not in the area of soil disturbed by the damaged storm sewer, and is intact. This finding confirms that the engineering control is in place and effective.

In April 2015, mechanical equipment was used to place stone in the area of the collapse to prevent any further loss of ground. During that work, the surface of the cap was disturbed. That area has since re-established a sufficient vegetative cover.

The cap 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. An animal burrow was observed just beyond the edge of the cap. 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.

HDPE 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 geotextile, rutting, or blue-stained surface soil were visible within the limits of the cap, except that the corrugated HDPE pipe that runs in a french drain on the surface of the cap was exposed in one location. A possible animal burrow was observed next to the drain pipe near the midpoint of the cap. This hole has been filled since the inspection.

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; to the north of Building 10, designated B10AC, and west of Building 8, designated B8WAC.

All caps except for Building 3 South Asphalt Cap (B3SAC) and B10AC were observed to be intact with no significant cracking. On the Eastern Swale North Asphalt Cap (ESNAC), minor cracks which were previously repaired had reopened, but since the site inspection, have been repaired.

The surface of B10AC showed cracking. The surface of B3SAC showed significant disturbance to the surface including areas of broken asphalt, the seals on previously repaired cracks appeared to be disturbed, and the joints between the new and old asphalt are not sealed. These areas have since been repaired and sealed since the inspection.

Other Areas

Throughout the remainder of the site, no tar boils or blue-stained soils were observed. No hydrocarbon sheens were observed in the Class D Stream or the EDD. The plastic pipe in the EDD is partially covered. 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 partially replaced as discussed in Section 2, and corrective measures have been implemented. A completion report will be submitted to the NYSDEC under separate cover.

Groundwater and Surface Water Monitoring

Groundwater and surface water monitoring results for the April 2014, August 2014, April 2015, and August 2015 monitoring events are presented in the groundwater and surface water monitoring reports, prepared by AECOM and submitted to NYSDEC on July 28, 2014, November 17, 2014, and July 7, 2015., respectively. The report for the August 2015 sampling event is pending. A summary of groundwater and surface water analytical results for the period between August 1995 and August 2015 is tabulated in Appendix E. Sampling locations are shown on Figure 1. Discussions of the 2014 and 2015 monitoring results for specific areas of the Site have been presented in Section 3 of this report.

Conclusions

Since the last PRR, O&M activities have been performed at the Site as specified in the O&M Plan. The deficiencies identified in the annual inspection have been addressed or will be addressed prior to the next inspection. National Fuel has been prompt in making repairs, performing maintenance, and implementing CM when significant issues have been identified. Engineering controls are intact, and the combination of engineering and institutional controls are effective. As discussed previously, corrective measures have been implemented near the southwestern corner of the site and along the western boundary. Institutional and Engineering Controls implemented during past remedial actions are in place and effective.

The groundwater monitoring results 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. NYSDEC and NYSDOH have requested an evaluation of whether the groundwater remedial action for the site has been effective. National Fuel will prepare an evaluation of present and historic groundwater data to address NYSDEC and NYSDOH concerns.

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6. Overall PRR Conclusions and Recommendations

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

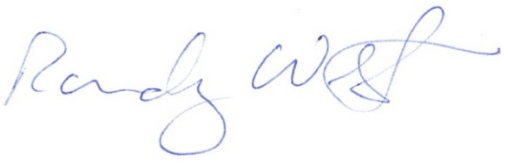
The results of groundwater and surface water monitoring show that groundwater concentrations have changed since remediation at the site was completed. At the downgradient property boundary, concentrations in two of the five wells have shown a decrease in the concentrations of cyanide. One has shown a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

A few minor maintenance issues related to the caps were identified during the April 2015 site inspection, which have since been addressed.

Corrective measures to address purifier waste impacted soils in the southwest corner near the west property line were implemented in November 2013. Corrective measures to remove fill materials that exceeded the NYSDEC Residential SCOs were implemented in October 2014. CM Completion Reports were submitted for approval under separate cover to provide details of the corrective actions implemented.

Please do not hesitate to call me with questions at 716-923-1222.

Sincerely yours,



Randolph West, P.E.
Senior Engineer

cc: B. Walker – National Fuel
T. Alexander – National Fuel
S. McLaughlin – NYSDOH (electronic submittal)
T. Raby, AECOM

Tables

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

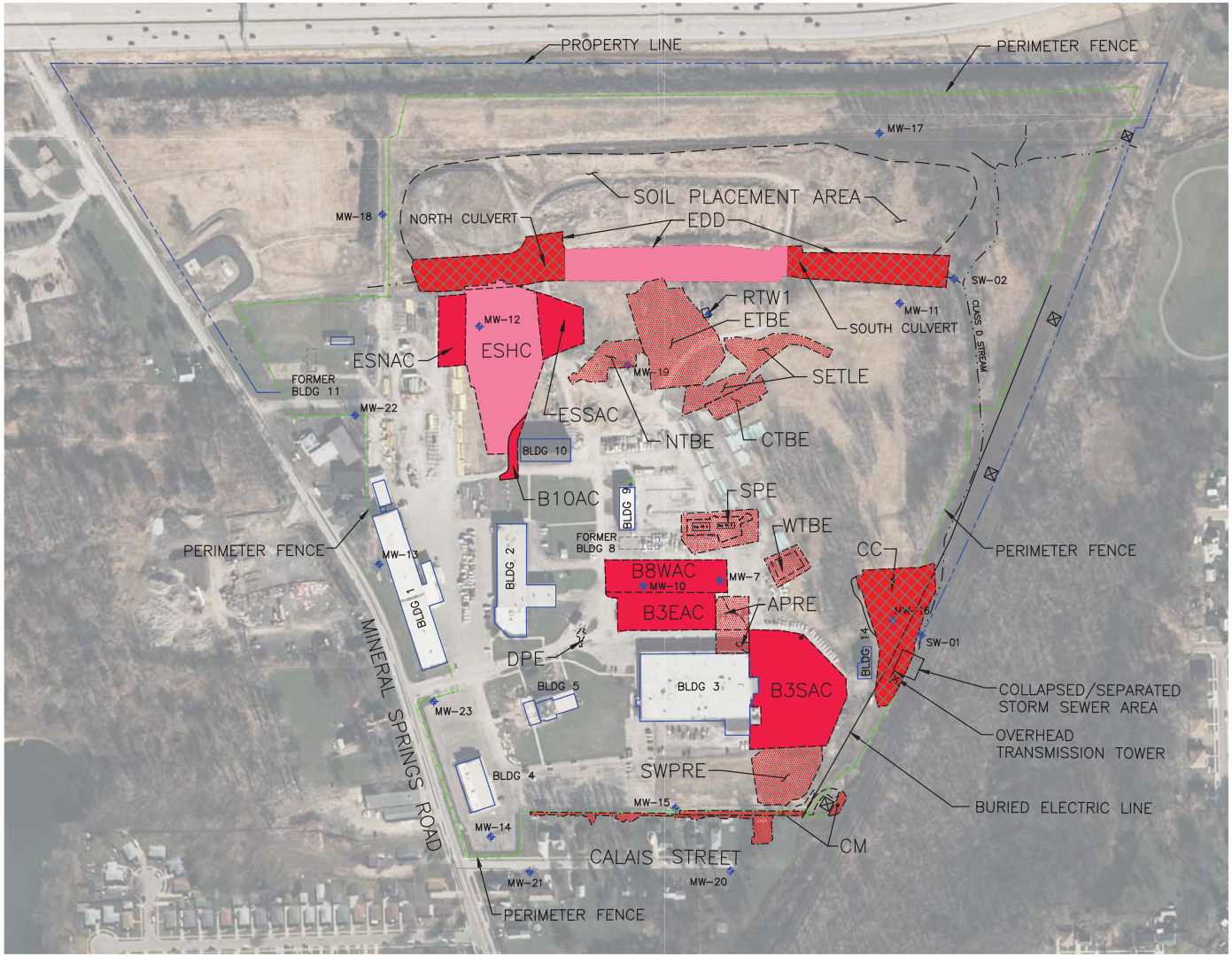
	Frequency	Description	Notes
Groundwater and Surface Water Monitoring	Twice a year	Groundwater and surface water monitoring as specified in Table 2. Monitoring typically takes place in April and August.	Scope in 2002 included monitoring three times a year. The frequency was modified in 2005 with NYSDEC approval.
DNAPL Recovery Test Well	Twice a year	DNAPL recovery from well RTW-1.	Continuous operations of RTW-1 were halted in 2002 with NYSDEC approval since only de minimis 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	As of October 2011, a Periodic Review Report (PRR) is submitted annually to meet current NYSDEC requirements.

Table 2
Water Sampling Summary Table
Mineral Springs Road MGP Site, 2013

Location	Cyanide, Total USEPA SW846 9012A	Cyanide, Free USEPA SW846 9016	BTEX USEPA SW846 8260B	PAHs USEPA SW846 8270C	Water Elevation	Benchmark Elevation (top of PVC casing)
Upgradient Site Perimeter						
MW-17	x	x	x	x	x	587.28
Downgradient Site Perimeter						
MW-13	x	x	annually	annually	x	591.85
MW-14	x	x			x	589.53
MW-15					x	590.93
MW-20	x	x			x	587.06
MW-21	x	x			x	587.84
MW-22	x	x			x	592.50
MW-23	x	x	annually	annually	x	589.28
Onsite Purifier Residuals Impacted Areas						
MW-12	x	x			x	591.40
MW-16	x	x			x	588.99
Onsite Hydrocarbon Impacted Areas						
MW-07			x	x	x	587.01
MW-10			x	x	x	587.61
MW-11A			x	x	x	589.78
MW-19			x	x	x	589.83
Onsite Surface Water						
SW-01	x	x	x	x	x	top of headwall = 587.0
SW-02	x	x	x	x		
QA/QC Samples (frequency)						
Trip Blank			x			(one per shipment)
Field Duplicate	x	x	x	x		(one per event)
Equipment Blank	x	x	x	x		(one per event)
DNAPL Recovery						
RTW-1						(purge well of accumulated DNAPL)
Total	13	13	10 or 12	9 or 11	15	
Container, Preservative	250 mL plastic, NaOH	250 mL plastic amber, NaOH	40 mL VOA vial, HCl (x3)	250 mL glass amber, NP (x2)		

Note: Sample methods and containers have been updated to the most current information. Benchmark elevations have been updated to reflect the 2007 survey, except for MW-20, which was resurveyed in August 2009 due to a repair.

Figures



150 0 300

GRAPHIC SCALE IN FEET

LEGEND

	EXISTING STRUCTURE
	REMEDIAL CONSTRUCTION
	FORMER STRUCTURE
	EXISTING EXCAVATION LIMITS
	MONITORING WELLS
APRE	ADDITIONAL PURIFIER RESIDUALS EXCAVATION
B3EAC	BUILDING 3 EAST ASPHALT CAP
B3SAC	BUILDING 3 SOUTH ASPHALT CAP
B8WAC	BUILDING 8 WEST ASPHALT CAP
B10AC	BUILDING 10 ASPHALT CAP
CC	CLAY CAP
CM	CORRECTIVE MEASURE WEST PROPERTY LINE
CTBE	CENTRAL TAR BOILS EXCAVATION
DPE	DIESEL PAD EXCAVATION
EDD	EASTERN DRAINAGE DITCH
ESHC	EASTERN SWALE HDPE CAP
ESNAC	EASTERN SWALE NORTH ASPHALT CAP
ESSAC	EASTERN SWALE SOUTH ASPHALT CAP
ETBE	EASTERN TAR BOILS EXCAVATION
NTBE	NORTHERN TAR BOILS EXCAVATION
RTW1	RECOVERY TEST WELL AND DNAPL SHED
SETLE	SOUTHEASTERN TAR LENSES EXCAVATION
SPE	SEPARATOR PITS EXCAVATION
SWPRE	SOUTHWEST RESIDUALS EXCAVATION
WTBE	WESTERN TAR BOILS EXCAVATION
	CLAY CAP
	ASPHALT CAP
	HDPE CAP
	REMEDIAL EXCAVATION

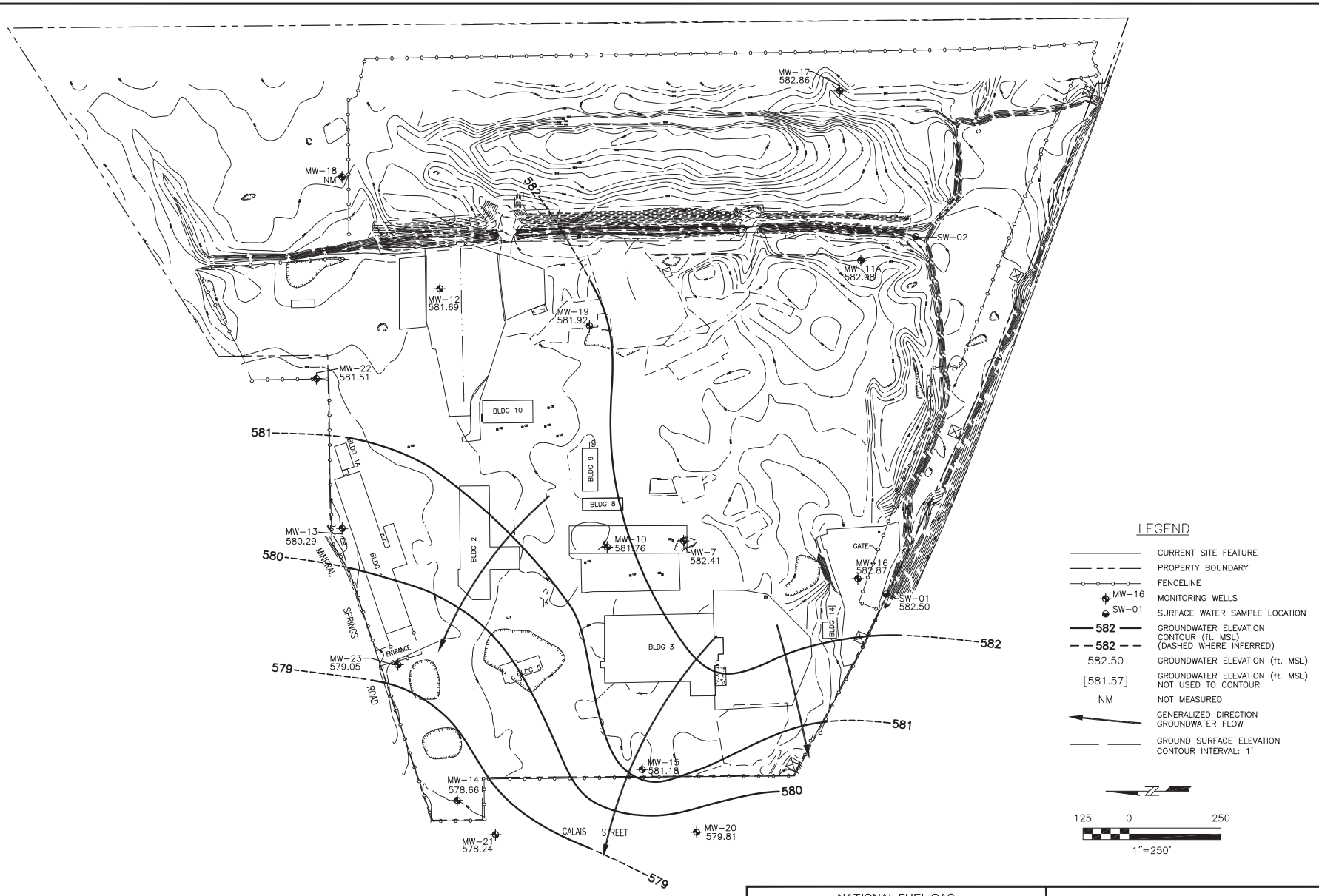
PREVIOUSLY REMEDIATED AREAS ARE SHADED RED

AECOM

MINERAL SPRINGS ROAD FACILITY
NATIONAL FUEL GAS
60250836.300

SITE FIGURE

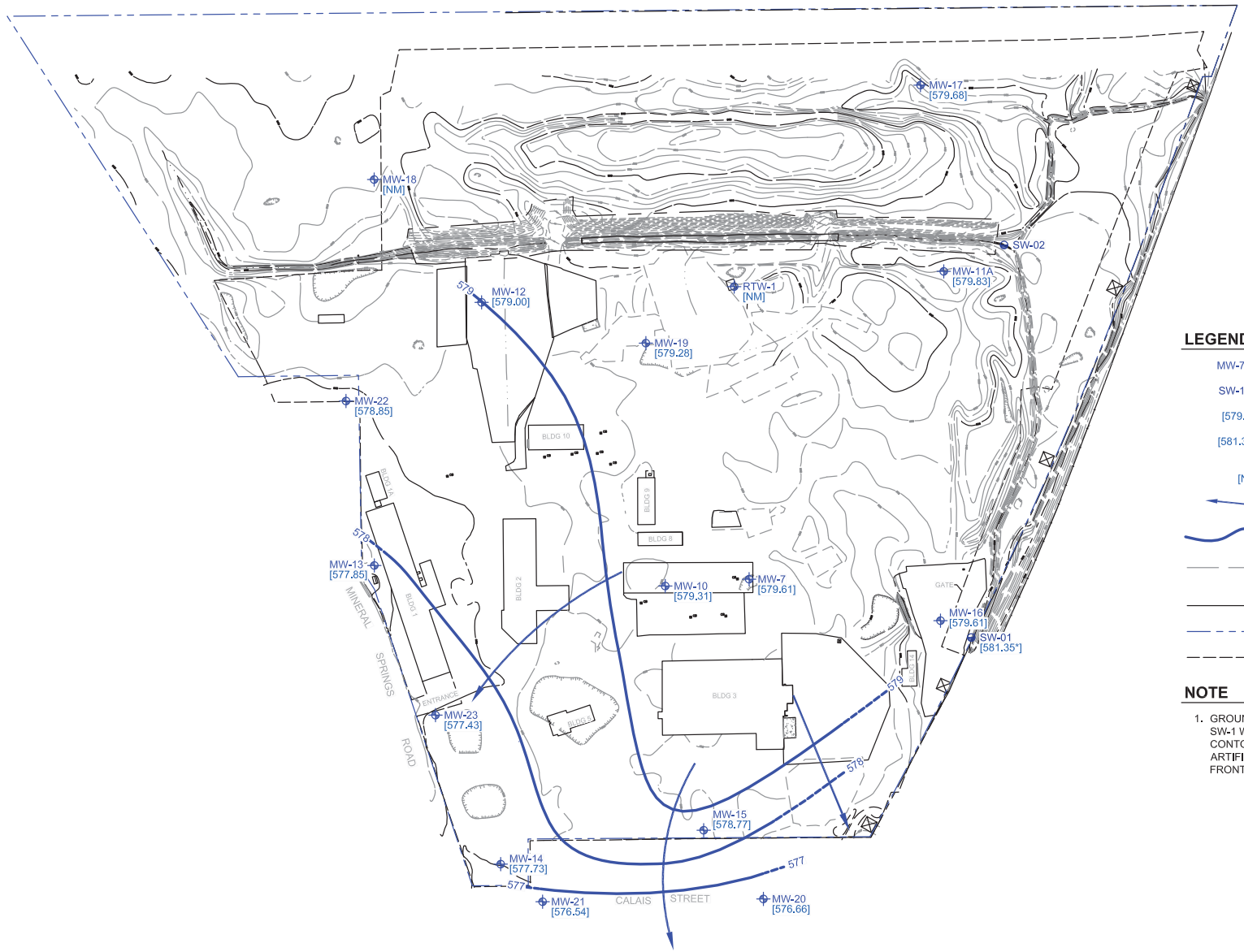
DATE: 6/23/15 | DRWN: GRI | FIGURE 1



AECOM

NATIONAL FUEL GAS MINERAL SPRINGS ROAD MGP SITE 60250836-100			**GROUNDWATER ELEVATION CONTOURS APRIL 2014**
DATE: 06/2014	DRWN: K.P.B.		Figure 2

File: J:\Cadfiles\CADD\60250836\GW-2014-4.dwg Layout: GW-2014-04 User: barryk Plotted: Jul 08, 2014 - 9:48am Xref's:



N

LEGEND

MW-7	MONITORING WELL LOCATION
SW-1	SURFACE WATER SAMPLE LOCATION
[579.61]	GROUNDWATER ELEVATION (ft. MSL)
[581.35*]	GROUNDWATER ELEVATION (ft.MSL) NOT USED TO CONTOUR
[NM]	NOT MEASURED
	GENERALIZED GROUNDWATER FLOW DIRECTION
	GROUNDWATER ELEVATION CONTOUR (ft. MSL) (DASHED WHERE INFERRED)
	GROUND SURFACE ELEVATION CONTOUR INTERVAL: 1'
	CURRENT SITE FEATURE
	PROPERTY BOUNDARY
	FENCE LINE

NOTE

1. GROUNDWATER ELEVATION FOR SURFACE WATER LOCATION SW-1 WAS NOT USED IN THE GENERATION OF GROUNDWATER CONTOURS. THE WATER LEVEL AT THIS LOCATION WAS ARTIFICIALLY HIGH DUE TO THE COLLECTION OF DEBRIS IN FRONT OF THE CULVERT GRATE.

0 125 250 500

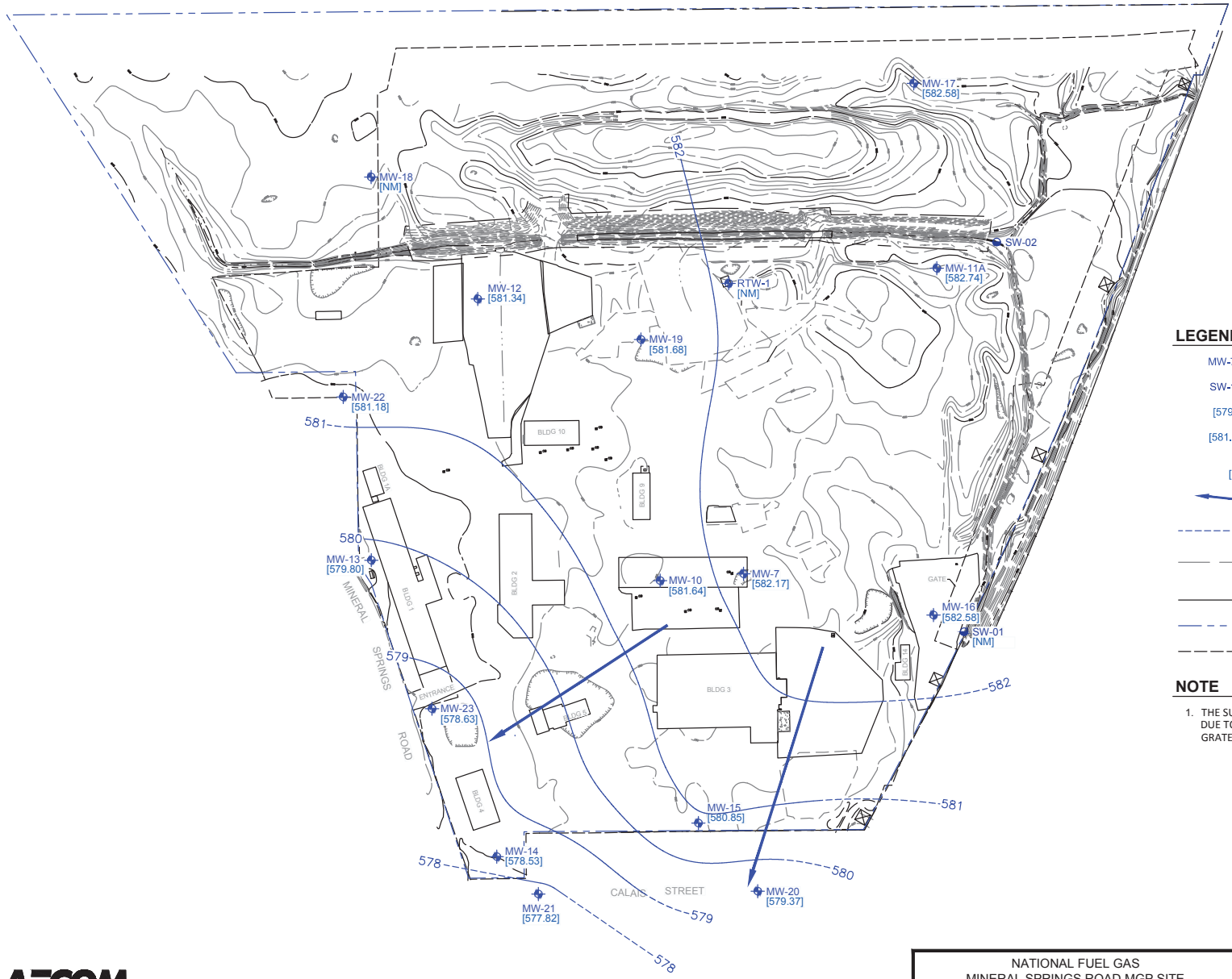
SCALE IN FEET

AECOM

NATIONAL FUEL GAS MINERAL SPRINGS ROAD MGP SITE 60250836-100			**GROUNDWATER ELEVATION CONTOURS AUGUST 2014**
DATE: 09/2014	DRWN: MLS		Figure 3

File: L:\Group\earth\Mineral Springs - Tami Raby\60250836_001 GW Contour Map_Aug2014.dwg Layout: 11x17 User: splawnm Plotted: Oct 30, 2014 - 2:24pm Xref's:

L:\Group\earth\Mineral Springs - Tami Raby\60250836_001 GW Contour Map_Aug2014.dwg, 10/30/2014 2:24:01 PM, splawnm



LEGEND

MW-7	MONITORING WELL LOCATION
SW-1	SURFACE WATER SAMPLE LOCATION
[579.61]	GROUNDWATER ELEVATION (ft. MSL)
[581.35*]	GROUNDWATER ELEVATION (ft.MSL) NOT USED TO CONTOUR
[NM]	NOT MEASURED
	GENERALIZED GROUNDWATER FLOW DIRECTION
	GROUNDWATER ELEVATION CONTOUR (ft. MSL) (DASHED WHERE INFERRED)
	GROUND SURFACE ELEVATION CONTOUR INTERVAL: 1'
	CURRENT SITE FEATURE
	PROPERTY BOUNDARY
	FENCE LINE

NOTE

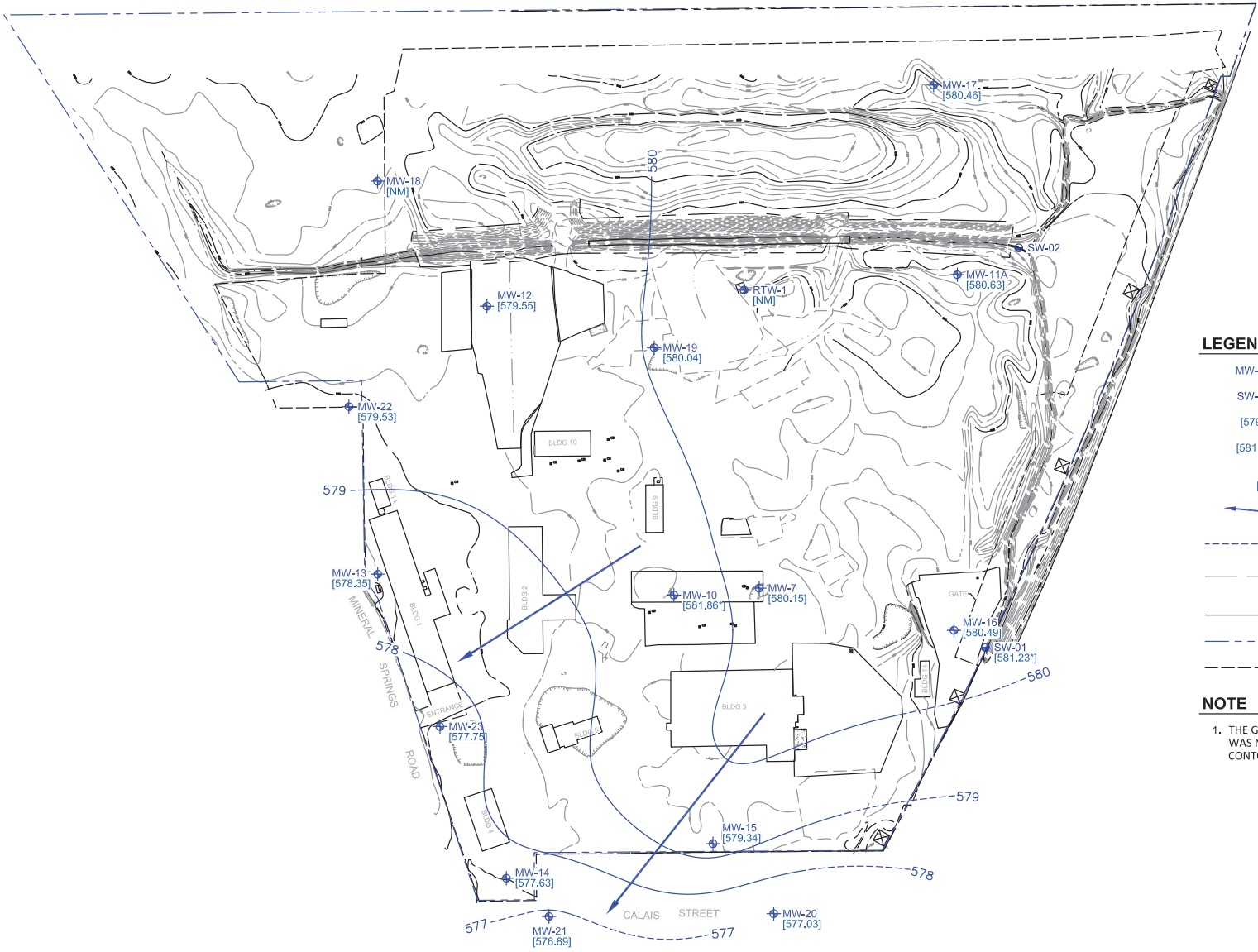
1. THE SURFACE WATER ELEVATION WAS UNABLE TO BE MEASURED DUE TO THE COLLECTION OF DEBRIS IN FRONT OF THE CULVERT GRATE.

0 125 250 500
SCALE IN FEET

AECOM

NATIONAL FUEL GAS MINERAL SPRINGS ROAD MGP SITE 60343307-100			**GROUNDWATER ELEVATION CONTOURS APRIL 2015**
DATE: 06/2015	DRWN: HAP		Figure 4

File: J:\Temporary\exchange\Pressing, Heather\From TU\JJ\60250836_001 GW Contour Map_Apr2015.dwg Layout: 11x17 User: heather_pressing Plotted: Jun 26, 2015 – 1:23pm Xref's:



LEGEND

MW-7	MONITORING WELL LOCATION
SW-1	SURFACE WATER SAMPLE LOCATION
[579.61]	GROUNDWATER ELEVATION (ft. MSL)
[581.35*]	GROUNDWATER ELEVATION (ft.MSL) NOT USED TO CONTOUR
[NM]	NOT MEASURED
	GENERALIZED GROUNDWATER FLOW DIRECTION
	GROUNDWATER ELEVATION CONTOUR (ft. MSL) (DASHED WHERE INFERRED)
	GROUND SURFACE ELEVATION CONTOUR INTERVAL: 1'
	CURRENT SITE FEATURE
	PROPERTY BOUNDARY
	FENCE LINE

NOTE

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

0 125 250 500
SCALE IN FEET

AECOM

NATIONAL FUEL GAS MINERAL SPRINGS ROAD MGP SITE 60343307-100			**GROUNDWATER ELEVATION CONTOURS AUGUST 2015**
DATE: 08/2015	DRWN: HAP		Figure 5

Appendix A

Clay Cap Boring Results

AECOM
257 West Genesee St.
Suite 400
Buffalo, NY 14202-2657
www.aecom.com

716 856 5636 tel
716 856 2545 fax

Memorandum

To	Brad Walker	Page	1
CC			
Subject	Summary Report for Clay Cut-off Wall and Clay Cap Direct-push Technology Investigation Related to the Norfolk Southern Sewer Failure		
From	Tamara Raby		
Date	October 7, 2015		

As you are aware, the storm sewer that runs east-west on the Norfolk Southern (NS) Railroad property, adjacent to National Fuel Gas Distribution Corporation's (National Fuel) Mineral Springs former MGP site (site), has collapsed or separated. The location where this collapse/separation took place is next to a clay cap and clay cut-off wall constructed as an engineering control (EC) during the 2001 remedial action (see Figure 1). Since the culvert collapse/separation was discovered, a limited area of undermining of the ground surface next to the storm sewer and on the National Fuel property has been observed. Subsequently, on April 8, 2015, National Fuel placed stone within the undermined area on the National Fuel property.

On April 8, 2015, AECOM Technical Services, Inc. (AECOM), on behalf of National Fuel, submitted a Corrective Measures Work Plan (CMWP) to New York State Department of Environmental Conservation (NYSDEC). The CMWP stated that until the storm sewer is repaired and drainage is restored, National Fuel would complete several items. One item that the CMWP called for was the performance of an investigation using direct-push technology (DPT) drilling (e.g., Geoprobe™) to locate the clay cut-off wall and edge of the clay cap in relationship to the observed undermining. This letter provides documentation of the clay cut-off wall/clay cap DPT investigation results.

1. Background

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.

On August 4, 1998 National Fuel Gas submitted a Voluntary Cleanup Agreement (VCA) program application. VCA number B9-0538-98-08 was signed by National Fuel on June 2, 1999 and by NYSDEC on November 7, 1999. A Remedial Design Work Plan was developed by National Fuel and NYSDEC. From May 2000 to June 2001, the Work Plan was implemented. The objectives of the remedial activities performed in the clay cap area include the following:

- Preventing human contact with constituents of concern (COC) in purifier waste and soil;
- Preventing leaching of COC from purifier waste to groundwater and surface water; and,
- Preventing erosion of impacted soil from the cap area to surface water.

The Work Plan included the following elements related to the clay cap:

- Excavation and offsite disposal of soil and purifier waste;
- Construction of an EC including the clay cap over areas where purifier waste was located;
- Installation of additional security fence around the site perimeter; and,
- Implementation of site use and deed restrictions.

Capping included construction of a clay cap containment structure that encompassed an area of approximately 39,370 square feet and involved nine inches of compacted clay and three inches of topsoil at the top of the containment as well as a four to eight foot deep compacted clay cut-off wall running along the south edge of the cap next to the NS property and the storm sewer that failed.

Since the remedial action was completed in 2001, National Fuel has performed operation and maintenance (O&M) of the clay cap in accordance with the requirements of the 2002 O&M Plan. These include inspections, maintenance and repair of the clay cap, and reporting. These activities are documented by submittal of a Periodic Review Report (PRR) annually.

2. Existing Conditions

The storm sewer that runs east-west and adjacent to the southern boundary of the National Fuel property consists of a 72 inch reinforced concrete pipe. The pipe is the conveyance for storm and surface water which runs in the unnamed stream located along the southern side of the site. The stream enters the pipe east of the location where the failure took place and discharges to the City of Buffalo storm sewer on the residential property near the southwest corner of the National Fuel property.

Several small settlement holes have developed next to the National Fuel property line in the past few years. It is believed that the holes developed from large gaps between pipe sections which allowed water to escape and undermine nearby soil. Based on visual observations, those settlement holes did not impact the integrity of the clay cap. Previous settlement holes had been limited in size and were only identified on the side of the pipe nearest the National Fuel property.

National Fuel identified that a larger settlement hole had developed on March 16, 2015 and notified NYSDEC of what had taken place by phone and in an email dated March 20, 2015. Figure 1 shows the location of the affected storm sewer. The new settlement hole is present on both sides of the pipe and is much larger than previous ones. There has been significant loss of earth on both sides of the pipe, and a section of the pipe with a gap between pipe sections is now exposed. Next to the pipe, a hole has been formed which appears to be two to three feet deep and about 10 feet long. Access to the area is not possible to take better measurements because of NS access requirements.

The loss of earth around the pipe has undermined and caused settlement and loss of earth on the National Fuel property. Brad Walker of National Fuel and Thomas Clark of AECOM, the engineer of record for the site, visited the site on March 31, 2015 to observe conditions and determine what actions need to be implemented. A shovel was used to dig shallow holes around the settlement holes

formed by the loss of earth. A clay cap was observed in the sidewalls of the settlement holes, but the clay cut-off wall was not observed. No signs of blue-green staining typical of soil impacted by purifier wastes were observed. When the cap was constructed, the clay cut-off wall was constructed beyond the area of MGP impacted soils. Although the clay cap was observed, and MGP impacted soil was not observed in the settlement holes, it was still not possible to certify that the clay cap EC was in place and remained effective as it was not clear if the settlement occurred outside the clay cut-off wall. The purpose of the DPT investigation reported herein was to determine the location of the clay cut-off wall in relationship to the settlement that has occurred.

3. Direct-Push Drilling Technology Investigation

The DPT investigation was conducted on May 8, 2015 to locate the clay cut-off wall and limit of the clay cap in relationship to the observed settlement of the ground surface on the National Fuel property, next to the storm sewer collapse/separation on NS property. Nothnagle Drilling, Inc., LLC (Nothnagle) of Scottsville, New York, under subcontract to AECOM, performed the DPT soil borings under the supervision of an AECOM field geologist. Prior to beginning the site investigation, Nothnagle contacted NYS Dig Safely One Call utility clearance to mark out utilities up to the property boundary and National Fuel checked their records for existing utilities in the investigation area on National Fuel property. Additionally, in response to being notified of the investigation by National Fuel, National Grid marked out the onsite underground high voltage electric line.

Three transects of soil borings were advanced in the vicinity of the observed settlement. Seven borings were advanced in transect T1, five borings in transect T2, and three borings in transect T3.Borings were identified by transect number followed by a sequential identifier; e.g., the first boring in transect T1 was identified as T1-A. The soil boring locations are presented in **Figure 2** and the boring logs are presented in **Appendix 1**. Soil borings were backfilled with the certified-clean clay used in the 2013/2014 fence replacement area corrective measures work.

The clay cut-off wall was identified in borings T1-G, T2-E, and T3-A. The clay cut-off wall is located approximately 8-10 feet north of the settlement holes that are located adjacent to or south of the National Fuel Gas property fence. Therefore, the results of the DPT investigation indicate that the EC which includes clay cap/cut-off wall and the portion of the clay cap that covers cyanide impacted soil remains intact and continues to be effective in meeting its remedial objective.

4. Waste Management

Investigative derived waste (soil cuttings) was staged onsite in a properly labeled, secure 5-gallon bucket on-site for future disposal by National Fuel.

5. Community Air Monitoring Plan

Air monitoring was performed to verify that contaminants from the site did not impact nearby residents or visitors during the investigation in accordance with the NYSDOH's Generic CAMP (NYSDOH, 2000). Temporary monitoring stations were installed to provide continuous real-time monitoring at the upwind and downwind work perimeters. Monitoring was performed for volatile organic compounds (VOC) and airborne particulates (PM-10). **Figure 2** depicts the approximate location of the two monitoring stations.

AECOM

VOC and dust monitoring were carried out during all ground intrusive activities. The dust concentrations at the air monitoring stations did not exceed the response levels. VOCs were not detected and therefore did not exceed response levels. The VOC and dust monitoring data are summarized in **Table 1** and **Table 2**, respectively.

If you have any questions or comments, please do not hesitate to call me at (716) 923-1113.

Encl: Summary of CAMP PID Monitoring Data (Table 1)
Summary of CAMP Dust Monitoring Data (Table 2)
Site Plan (Figure 1)
Clay Cut-off Wall and Clay Cap Investigation Area (Figure 2)
Boring Logs (Appendix 1)

Table 1
Summary of CAMP PID Monitoring Data
Clay Cut-off Wall and Clay Cap Investigation
May 8, 2015
Mineral Springs Road Former MGP

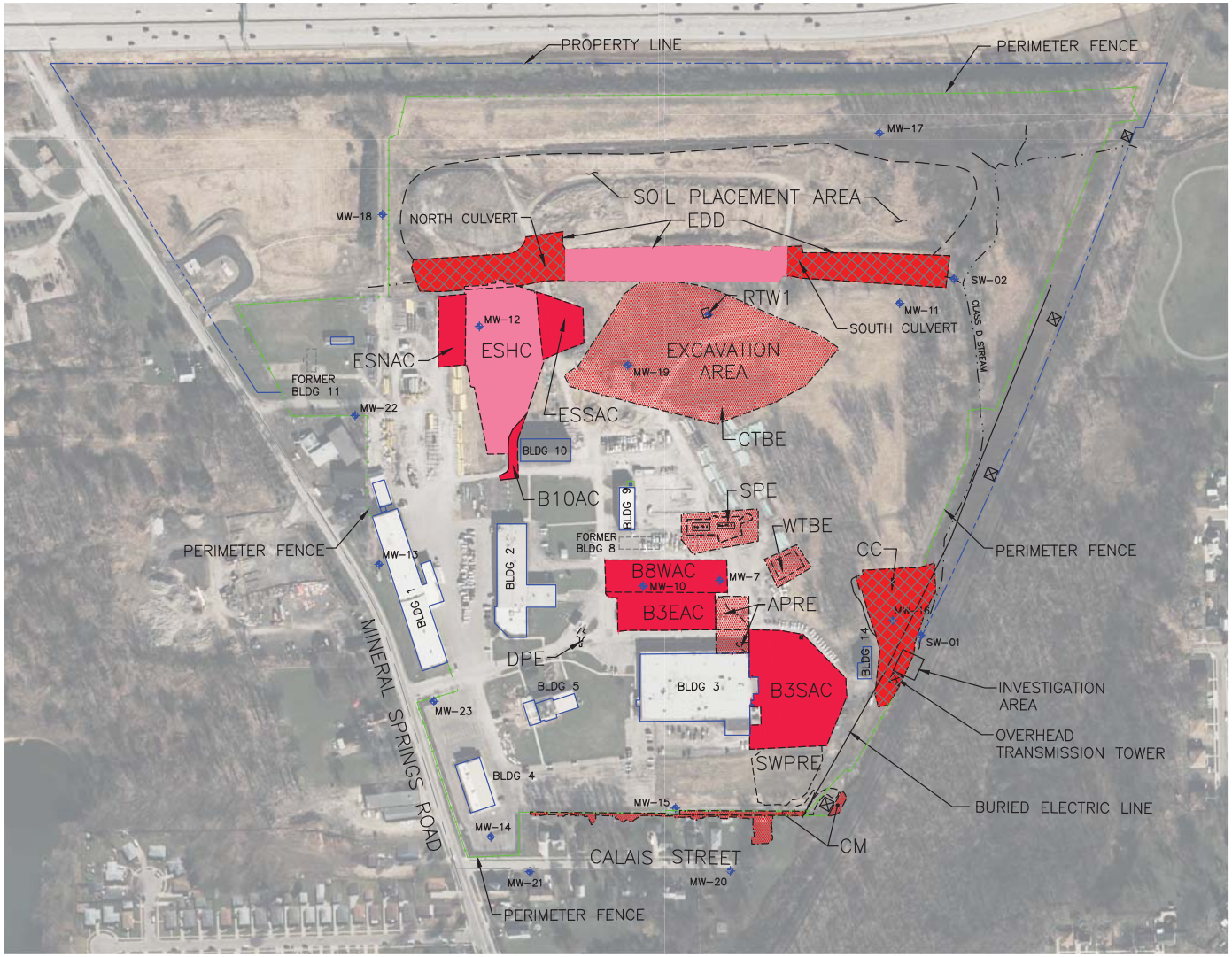
Date/Time	Elapsed Time [hrs:min:sec]	15-Minute Average [ppm]	15-Minute Average [ppm]
		Upwind PID	Downwind PID
5/8/2015 8:20	0:15:00	0.2	0.1
5/8/2015 8:35	0:30:00	0.2	0.2
5/8/2015 8:50	0:45:00	0.3	0.2
5/8/2015 9:05	1:00:00	0.3	0.3
5/8/2015 9:20	1:15:00	0.3	0.3
5/8/2015 9:35	1:30:00	0.4	0.3
5/8/2015 9:50	1:45:00	0.4	0.3
5/8/2015 10:05	2:00:00	0.4	0.3
5/8/2015 10:20	2:15:00	0.4	0.3
5/8/2015 10:35	2:30:00	0.3	0.3
5/8/2015 10:50	2:45:00	0.3	0.3
5/8/2015 11:05	3:00:00	0.3	0.3
5/8/2015 11:20	3:15:00	0.3	0.3
5/8/2015 11:35	3:30:00	0.3	0.3
5/8/2015 11:50	3:45:00	0.3	0.3
5/8/2015 12:05	4:00:00	0.3	0.3
5/8/2015 12:20	4:15:00	0.3	0.3
5/8/2015 12:35	4:30:00	0.2	0.3
5/8/2015 12:50	4:45:00	0.2	0.3
5/8/2015 13:05	5:00:00	0.2	0.3
5/8/2015 13:20	5:15:00	0.2	0.3

ppm - parts per million
hrs - hours
min - minutes
sec - seconds
PID - photoionization detector
Reponse level - >1.0 ppm above background as a 15-minute average

Table 2
Summary of CAMP Dust Monitoring Data
Clay Cut-off Wall and Clay Cap Investigation
May 8, 2015
Mineral Springs Road Former MGP

Date	Elapsed Time [hrs:min:sec]	15-Minute Average [µg/m^3]	
		Upwind Station	Downwind Station
5/8/2015	0:15:00	34	37
	0:30:00	31	26
	0:45:00	25	21
	1:00:00	24	21
	1:15:00	22	18
	1:30:00	20	16
	1:45:00	20	16
	2:00:00	21	17
	2:15:00	21	15
	2:30:00	21	14
	2:45:00	19	13
	3:00:00	17	12
	3:15:00	16	11
	3:30:00	17	12
	3:45:00	18	14
	4:00:00	19	14
	4:15:00	19	14
	4:30:00	19	14
	4:45:00	19	15
	5:00:00	20	15

µg/m^3 - micrograms per cubic meter
hrs - hours
min - minutes
sec - seconds
Reponse level - >100 µg/m3 above background as a 15-minute average



150 0 300

GRAPHIC SCALE IN FEET

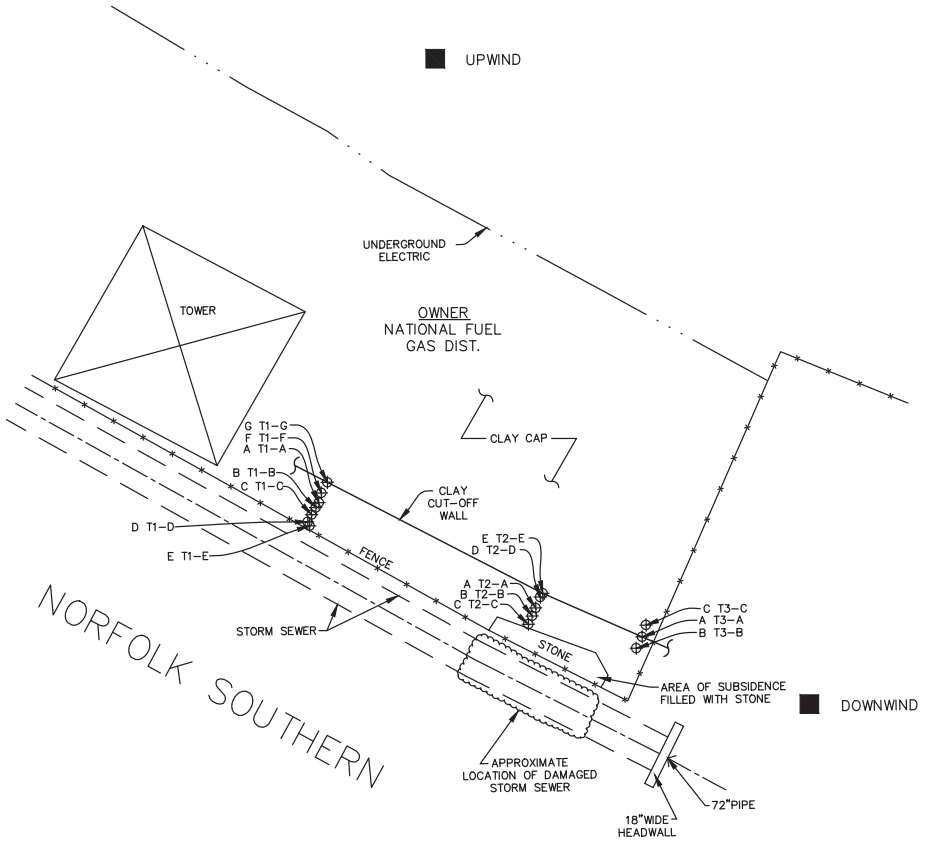
LEGEND

	EXISTING STRUCTURE
	REMEDIAL CONSTRUCTION
	FORMER STRUCTURE
	EXISTING EXCAVATION LIMITS
	MONITORING WELLS
APRE	ADDITIONAL PURIFIER RESIDUALS EXCAVATION
B3EAC	BUILDING 3 EAST ASPHALT CAP
B3SAC	BUILDING 3 SOUTH ASPHALT CAP
B8WAC	BUILDING 8 WEST ASPHALT CAP
B10AC	BUILDING 10 ASPHALT CAP
CC	CLAY CAP
CM	CORRECTIVE MEASURE WEST PROPERTY LINE
CTBE	CENTRAL TAR BOILS EXCAVATION
DPE	DIESEL PAD EXCAVATION
EDD	EASTERN DRAINAGE DITCH
ESHC	EASTERN SWALE HDPE CAP
ESNAC	EASTERN SWALE NORTH ASPHALT CAP
ESSAC	EASTERN SWALE SOUTH ASPHALT CAP
ETBE	EASTERN TAR BOILS EXCAVATION
NTBE	NORTHERN TAR BOILS EXCAVATION
RTW1	RECOVERY TEST WELL AND DNAPL SHED
SETLE	SOUTHEASTERN TAR LENSES EXCAVATION
SPE	SEPARATOR PITS EXCAVATION
SWPRE	SOUTHWEST RESIDUALS EXCAVATION
WTBE	WESTERN TAR BOILS EXCAVATION
	CLAY CAP
	ASPHALT CAP
	HDPE CAP
	REMEDIAL EXCAVATION

PREVIOUSLY REMEDIATED AREAS ARE SHADED RED

AECOM

MINERAL SPRINGS ROAD FACILITY NATIONAL FUEL GAS 60250836.300			SITE FIGURE
DATE: 6/23/15	DRWN: GRI		FIGURE 1



LEGEND

■ CAMP MONITORING STATION

NOTES:

1. CLAY CUT–OFF WALL FOUND TO BE LOCATED FROM BORING LOCATIONS (G T1–G) TO (E T2–E) TO (C T3–C).

2. EXHIBIT MAP PREPARED BY NUSSBAUMER & CLARK INC. DATED 5–20–15, JOB NO. 14J2–0126–17

3. STORM SEWER LINE IS SHOWN AT ITS APPROXIMATE LOCATION AND IS NOT A SURVEYED ITEM.

20′ 0 20′

SCALE IN FEET

AECOM

MINERAL SPRINGS ROAD FACILITY NATIONAL FUEL GAS 60250836.300			**CLAY CUT-OFF WALL AND CLAY CAP INVESTIGATION AREA**
DATE: 7/14/15	DRWN: GRI		**FIGURE 2**

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T1-A	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 1 - closest to Electric line tower	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 9:00
	Weather: 75 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 9:15
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	4.0	0.1	CL	0-1" Topsoil/grass - dry 1"-1.3' CLAY, Light Red-brown w/ rootlets, dry. (CAP)		
2					ML	1.3'-2.5' SILT, medium grey-brown, little cinders, dry. (FILL)		
3						2.5'-3.5' CLAY, Grey,rust,tan-brown, dry.		
4					CL	3.5-4.0' CLAY, Grey, little mottling, moist. (NATIVE)		
5						E.O.B. @ 4' bgs		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)
f - fine; m - medium; c - coarse
NA - not applicable
SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T1-B	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 1 - closest to Electric line tower	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 9:15
	Weather: 75 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 9:30
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-3'	4' Macrocore	2.7	0.3	CL	0-1" Topsoil/grass - dry 1"-11" CLAY, Light Red-brown, medium dense, dry. (CAP)		
2					ML	11" -2.7' SILT, medium brown, little f-m sand, little clay, little cinders, slag, dry to moist. (FILL)		
3								
4						E.O.B. @ 3' bgs		
5								
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8								
9								
10								
11								
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14								
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16								
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END OF BORING @ 3' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)
f - fine; m - medium; c - coarse
NA - not applicable
SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T1-C	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 1 - closest to Electric line tower	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 9:30
	Weather: 75 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 9:45
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-3'	4' Macrocore	2.0	0.5	CL	0-1" Topsoil/grass - dry 1"-1.0' CLAY, Light Red-brown, silty w/ rootlets, medium dense, dry. (CAP)		
2					ML	1.0-2.0' SILT, medium brown, little f-m sand, little clay, little cinders, slag, dry to moist. (FILL)		
3								
4						E.O.B. @ 3' bgs		
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END OF BORING @ 3' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T1-D	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 1 - closest to Electric line tower	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 9:50
	Weather: 75 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 9:55
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-3'	4' Macrocore	3.0	0.3	CL	0-1" Topsoil/grass - dry 1"-1.5' CLAY, Light Red-brown, silty, medium dense, dry. (CAP)		
2					ML	1.5'-1.7' SILT, brown, brick fragment, cinders, slag, dry.(FILL)		
3					CL	1.7'-3.0' CLAY, red-brown, tan, brown mottled, slag, cinders.		
4						E.O.B. @ 3' bgs		
5								
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11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

END OF BORING @ 3' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T1-E	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 1 - closest to Electric line tower	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 9:55
	Weather: 75 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 10:00
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	1.7	0.4	CL	0-3" Topsoil/grass - dry 3"-1.5' CLAY, Light Red-brown, dry. (CAP)		
2								
3					CL	1.5'-1.7' CLAY, mottled, dry.		
4								
5						E.O.B. @ 4' bgs		
6								
7								
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10								
11								
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13								
14								
15								
16								
17								
18								
19								
20								

END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T1-F	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 1 - closest to Electric line tower	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 10:00
	Weather: 75 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 10:10
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	3.3	0.5	CL	0-1" Topsoil/grass - dry 1"-1.2' CLAY, Light Red-brown, medium dense, dry. (CAP)		
2					SW-ML	1.2'-1.4' SAND, Red-brown silty, dry.		
3					ML	1.4'-3.3' SILT, Brown, little f-m sand, little clay, cinders & slag, medium dense to soft, dry.		
4								
5						E.O.B. @ 4' bgs		
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END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas		***BORING ID:*** SB-T1-G
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 1 - closest to Electric line tower		*Sheet:* 1 of 1
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 12:25
	Weather: 80 deg F, sunny	*Date/Time Finished:*	05/08/15 12:35
Logged By: E. Laity			
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	3.7	0.0	CL	0-0.2' Topsoil/grass, roots - dry 0.2'-0.9' CLAY, Light Red-brown, medium dense, dry. (CAP)		
2					CL	0.9'-3.7' CLAY, Red-brown silty, little f. gravel and f. sand, dry. (CLAY WALL)		
3								
4								
5						E.O.B. @ 4' bgs		
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END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)
f - fine; m - medium; c - coarse
NA - not applicable
SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T2-A	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 2	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 11:00
	Weather: 80 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 11:10
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	2.4	0.5	CL	0-1.0' CLAY, Light Red-brown, medium dense, dry first few inches dry topsoil/grass. (CAP)		
2					SW	1.0'-1.6' f-c SAND, dark brown, w/ cinders/brick/slag pieces (FILL)		
3					CL	1.6'-2.4' CLAY, Grey, trace mottling, and cinders at bottom, loose, dry.		
4								
5						E.O.B. @4' bgs		
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18								
19								
20								

END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T2-B	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 2	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 11:20
	Weather: 80 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 11:25
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	2.4	0.0	CL	0-0.1' Grass/Topsoil, dry 0.1'-0.7' CLAY, Light Red-brown, medium dense, dry (CAP)		
2					SW	0.7'-1.2' f-c SAND, dark brown, w/ cinders, little f. gravel (FILL)		
3					CL	1.2'-2.4' CLAY, Grey, little brown & rust mottling, little silt, cinders, dry.		
4								
5						E.O.B. @ 4' bgs		
6								
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END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas		***BORING ID:*** SB-T2-C
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 2		*Sheet:* 1 of 1
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 11:30
	Weather: 80 deg F, sunny	*Date/Time Finished:*	05/08/15 11:35
Logged By: E. Laity			
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	2.5	0.1	CL	0-0.3' Grass/Topsoil, dry 0.3'-0.6' CLAY, Light Red-brown, medium dense, dry (CAP)		
2					SW	0.6'-1.5' f-c SAND,brown, little f. gravel, loose, dry (FILL)		
3					CL	1.5'-2.5' CLAY, Grey, little brown, tan, & rust mottling, little silt, cinders, dry.		
4								
5						E.O.B. @ 4' bgs		
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END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T2-D	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 2	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 11:40
	Weather: 80 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 11:50
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	2.7	0.1	CL	0-0.2' Grass/Topsoil, dry 0.2'-0.7' CLAY, Light Red-brown, medium dense, dry (CAP)		
2					CL	0.7'-1.8' CLAY, Red-brown, silty, little f. sand, trace m. gravel @ 0.8' bsg, dry (Edge of CLAY WALL)		
3					CL	1.8'-2.7' CLAY, Grey, little brown & rust mottling, cinders @ 2.5', dry.		
4								
5						E.O.B. @ 4' bgs 0.7-1.8 suspected to be the edge of the claywall trench. Moving up hill into cap by 6" for next boring.		
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19								
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END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas		***BORING ID:*** SB-T2-E
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 2		*Sheet:* 1 of 1
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 11:50
	Weather: 80 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 12:00
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	3.4	0.3	CL	0-0.2' Grass/Topsoil, dry 0.2'-0.6' CLAY, Light Red-brown, medium dense, dry (CAP)		
2								
3					CL	0.6'-3.4' CLAY, Red-brown, silty, (CLAY WALL)		
4								
5						E.O.B. @ 4' bgs		
6								
7								
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12								
13								
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15								
16								
17								
18								
19								
20								

END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T3-A	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 3 - closest to East Fence	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 10:30
	Weather: 80 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 10:40
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	2.8	0.5	CL	0-10" CLAY, Light Red-brown, medium dense, dry grass/topsoil at top. (CAP)		
2					CL	10"-2.8' CLAY, Red-brown, silty, little f. sand, little f. gravel, t. dk grey/black staining at 2.7' (CLAY WALL)		
3								
4								
5						E.O.B. @ 4' bgs		
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18								
19								
20								

END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T3-B	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 3 - closest to East Fence	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 10:45
	Weather: 80 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 10:50
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	3.0	0.5	CL	0-0.9' CLAY, Light Red-brown, medium dense, dry grass/topsoil at top. (CAP)		
2					ML	0.9'-3.0' SILT, Grey-brown, little f-m sand, little clay, slag, cinders, little mottling, black cindery sand at 3.0' bsg.		
3								
4								
5						E.O.B. @4' bgs		
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END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

AECOM	*Client:* National Fuel Gas	***BORING ID:*** SB-T3-C	
	Project Number: 60343307		
	Boring Location: Mineral Springs - West Seneca, NY		
	Transect 3 - closest to East Fence	*Sheet:* 1 of 1	
	Drilling Method: Geoprobe	*Date/Time Started:*	05/08/15 10:55
	Weather: 80 deg F, sunny		
Logged By: E. Laity		*Date/Time Finished:*	05/08/15 11:00
Drilled By: Nothnagle - Jeff Schweitzer (driller)			

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4'	4' Macrocore	2.7	0.5	CL	0-1.0' CLAY, Light Red-brown, medium dense, dry grass/topsoil at top. (CAP)		
2					SW	1-1.3' SAND, Redbrown, fine, little f-m gravel.		
3					SW	1.5-2.0 f-m SAND, Brown, silty, litlte f-m grey gravel, dry.		
4					ML	2.0'-2.5' SILT, Grey-brown, cinders, little purifier wood chips w/ little blue staining.		
5					SP	2.5-2.7' SAND sized black cinders.		
6						E.O.B. @ 4' bgs		
7								
8								
9								
10								
11								
12								
13								
14								
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16								
17								
18								
19								
20								

END OF BORING @ 4' below ground surface (bgs)

NOTES:

* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: TMR Date: 07/13/15

Appendix B

Building 5 Expansion Permit

Town of West Seneca
Application for Building Permit

Date: 01/31/2014

Permit Number: 20140019

SBL # 123.16-2-8

APPLICATION IS HEREBY MADE to the TOWN OF WEST SENECA Building Department for the issuance of a permit pursuant to the New York State Uniform Fire Uniform Fire Prevention and Building Code, for the construction of buildings, additions or alterations, repairs, or for the removal or demolition, as herein described. The Contractor agrees to comply with all applicable laws, ordinances, or regulations governing building activities in the TOWN OF WEST SENECA and will also allow all inspectors to enter the premises for inspections. The Contractor also understands that under no circumstances shall personal belongings or furnishings be brought into any new house or addition, without first obtaining a Certificate of Occupancy from the Building Department.

Contractor			Kirst Construction Inc.	7170 Boston State Rd North		Boston	NY	14110
Owner			Dist-National Fuel Gas	6363 Main St		Williamsville	NY	14221

Address of Construction: 365 Mineral Springs Rd

Project Description: Addition to Existing Building - Includes New Bathroom

You are also aware of the required inspections and responsible to schedule them.

PAID
Dat 1/31/14 CK# 4518

Signature

PLANS MUST BE AVAILABLE ON THE JOB SITE.
This building permit shall become void (6) months from the date of issuance.

Commercial Additions	3920.00	01/31/2014

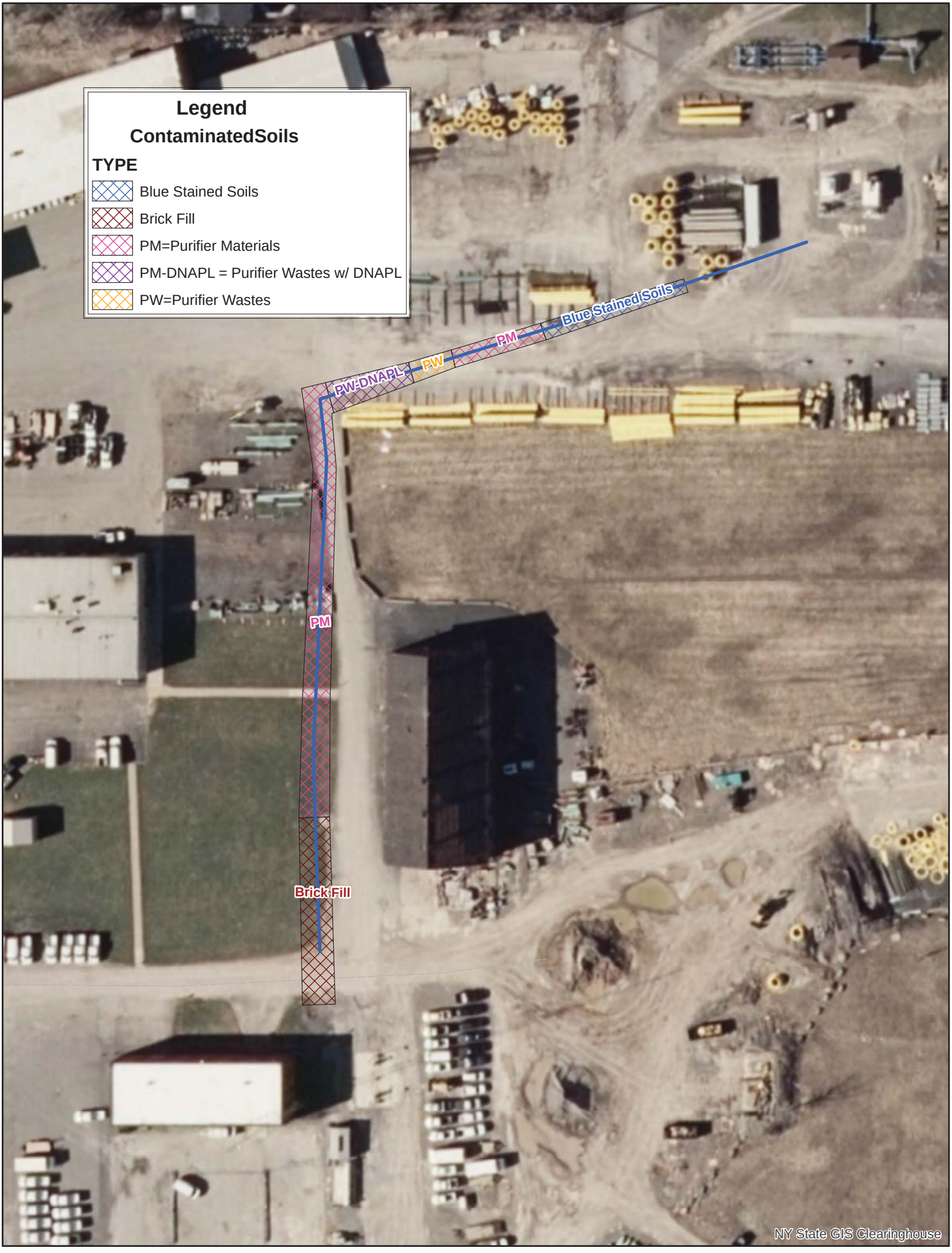
Check	3920.00	01/31/2014

The application of Dist-National Fuel Gas Dated 01/31/2014 is hereby APPROVED and permission GRANTED for the construction, reconstruction or alteration of a building and/or accessory structure as set forth above and on the plans approved by the Building Department.

RECEIVED
FEB 03 2014
KIRST
CONSTRUCTION, INC.

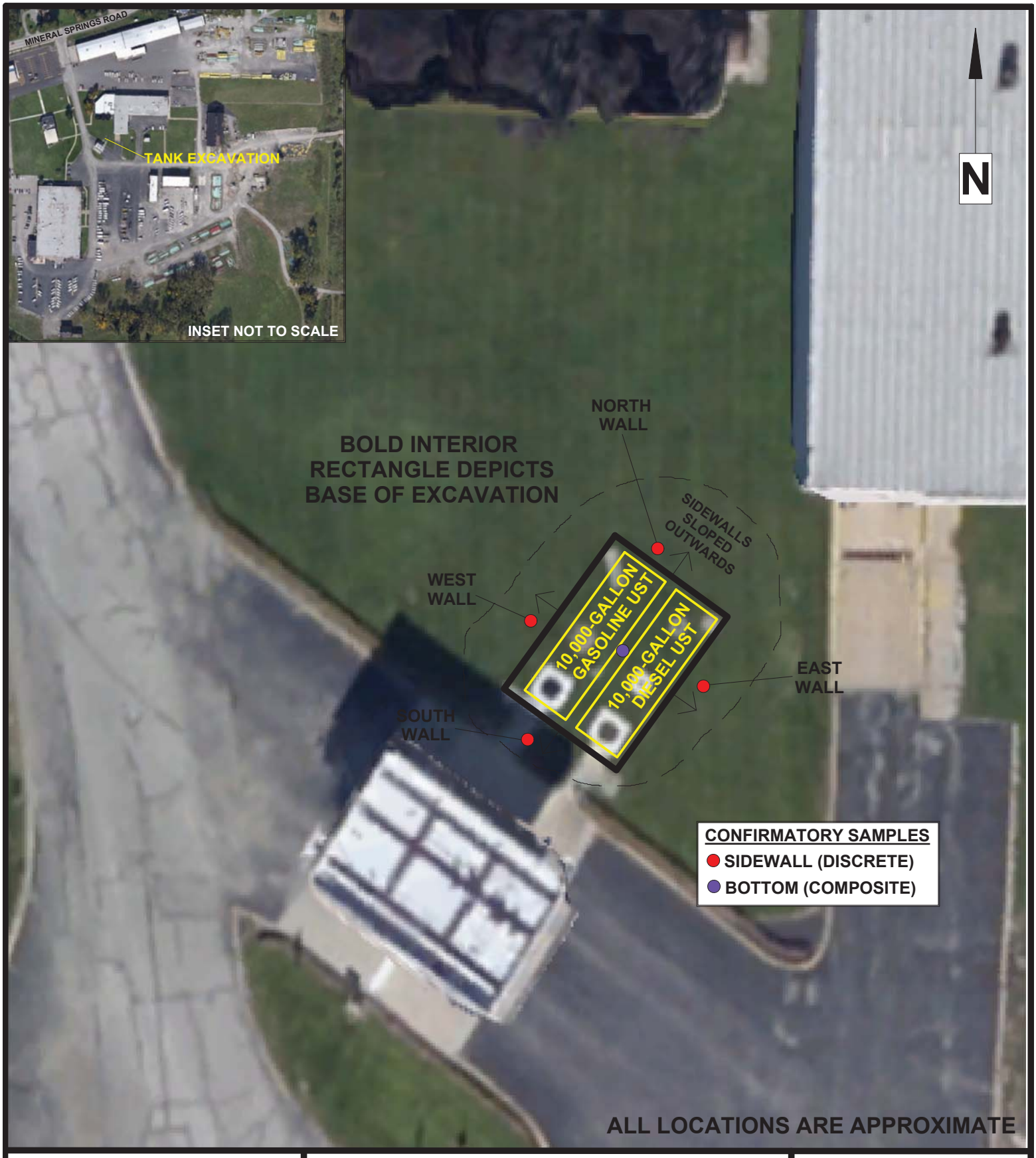
Appendix C

CNG Trench Impacts


Legend
ContaminatedSoils
TYPE
Blue Stained Soils
Brick Fill
PM=Purifier Materials
PM-DNAPL = Purifier Wastes w/ DNAPL
PW=Purifier Wastes
PW-DNAPL
PW
PM
Blue Stained Soils
PM
Brick Fill
NY State GIS Clearinghouse

Appendix D

Underground Storage Tank Figure



LCS INC.

FIGURE 2 - TANK EXCAVATION

365 MINERAL SPRINGS ROAD
WEST SENECA, NEW YORK

Drawn by: MP

Checked by: DBR

0 20 30
Approximate Scale in Feet

LCS Project #14R3361.26

Appendix E

Groundwater and Surface Water Monitoring Results

Appendix B - Groundwater and Surface Water Monitoring Results
2014-2015 Periodic Review Report
Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/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	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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
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	660	450	620	570	1,100	1,100
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	210	9.2	94	14	110	30
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	1000	600	1800	870	1,900	1,600
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	680	440	980	590	1,400	1,200
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	2550	1499.2	3494	2044	4510	3930
Acenaphthene	240	150	180		180	180	150	140	160	80	120	150	nd	160	120	160	180	160	130	220	120	130	nd	130	19	69	32	36	15	60	76	49	64	49	64	63	100	74	130	120
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	2.0	0.83	nd	nd	nd	nd
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	1.6	1.7	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	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	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	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	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	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	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	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	0.2	0.27	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
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	13	12	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	nd	nd	nd	nd	nd	nd
Naphthalene	3270	3000	2400		4100	5900	3400	3400	3600	2200	2600	5000	3100	3800	3200	3700	2700	4600	3500	3600	3000	3600	3700	3100	430	1000	1600	1400	650	1700	2100	1500	1700	870	1,700	1,100	2,500	1,600	3,400	3,000
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	12	11	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	nd	0.28	nd	nd	nd	0.17	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	130	82	260	110	300	250
Total PAHs	3510	3178	2662		4280	6080	3730	3796	3960	2380	2900	5443	3100	4240	3517	4130	3283	5060	3884	4266	3541	4036	3970	3513	488	1215.5	1684.33	1495	688.23	1834.95	2365	1610.08	1843.5	1006.57	1,922.6	1,270.53	2,860	1,784	3,830	3,370
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	582.22	581.02	582.41	579.61	582.17	580.15

Appendix B - Groundwater and Surface Water Monitoring Results
2014-2015 Periodic Review Report
Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/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	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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
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	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	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	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	1.0	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	nd	0.66	nd	nd	nd	nd	nd	nd	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	1.96	0	0	0	0	0	0	0	0	0	0	0	1.0	0	0	0	0
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	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	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	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	0.27	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	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	0.18	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	0.28	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	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	0.41	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	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	0.77	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	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	0.35	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene	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	0.65	2.2	nd	nd	1.0
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	0.69	nd	nd	nd	nd	nd	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	nd	nd	0.53	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	3.8	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	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	1.31	2.17	0	0	0	0	0.65	2.2	0	0	1.0
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	580.56	583.39	579.53	581.05	579.85	581.63	580.40	581.76	579.31	581.64	580.15

Appendix B - Groundwater and Surface Water Monitoring Results
2014-2015 Periodic Review Report
Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/L)

MW-11 / MW-11A	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A	MW-11A
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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene			35		nd	nd	nd	nd		nd	nd	nd	nd	350	80	50	270	150	140	250	67	140	100	180	230	210	190	200	77	150	15	170	31	85	20	32	nd	7.3	nd	12
Toluene			17		nd	nd	nd	68		nd	3.8	nd	nd	230	1.2	0.7	35	nd	1.2	7	0.56	1.2	0.99	nd	5.5	nd	nd	nd	0.78	1.9	nd	nd	nd	1.4	nd	nd	nd	nd	nd	nd
Ethylbenzene			94		nd	nd	nd	nd		nd	nd	nd	nd	650	3.5	6.9	30	5.4	9.6	38	2.5	8.7	2.8	5.5	69	71	67	80	35	56	5.7	63	7.1	34	7.3	5.7	nd	nd	nd	nd
Xylene (sum of isomers)			83		7	nd	nd	nd		nd	nd	nd	nd	410	9.1	9.2	38	16	16	30	8.1	14	5.5	29	41	30	24	28	21	27	3.5	25	4.3	15	5.4	4.6	nd	nd	nd	1.4
Total BTEX			229		7	0	0	68		0	4	0	0	1640	94	67	373	171	167	325	78	164	109	215	346	311	281	308	133.78	234.9	24.2	258	42.4	135.4	32.7	42.3	0	7.3	0	13.4
Acenaphthylene			9		2	nd	nd	nd		nd	nd	nd	nd	12	8.4	nd	7.9	9.4	2.8	8.9	5.1	nd	5.8	0.93	6.9	3.4	3.7	4.6	2.4	3.8	0.72	2.8	1.3	2.2	2.9	4.7	nd	4	nd	3.4
Acenaphthene			7		nd	nd	nd	nd		nd	nd	nd	nd	4.4	3.1	1.2	4.5	5.9	4.5	5.6	nd	nd	nd	2.7	5.6	5	4.1	6.1	3.1	5.1	2.6	4.6	2.0	3.8	1.4	2.1	nd	2.0	nd	1.8
Anthracene			nd		nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	0.5	1.6	nd	nd	nd	nd	nd	nd	2.2	nd	nd	nd	nd	0.3	0.24	nd	nd	nd	nd	0.43	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	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	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	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	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	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	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	nd	nd	nd	nd	nd	nd	nd
Fluoranthene			nd		nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	0.3	nd	nd	nd	nd	0.57	nd	nd	0.32	0.52	0.24	0.51	0.45	0.42	nd	0.40	0.36	0.95	nd	nd	nd	0.70
Fluorene			nd		nd	nd	nd	nd		nd	nd	nd	nd	2.2	nd	nd	1.9	2.3	1.3	1.7	1.5	nd	nd	nd	5.1	0.86	0.89	1.6	0.72	1.2	0.83	nd	nd	0.91	0.52	1.4	nd	0.73	nd	0.64
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	nd	nd	nd
Naphthalene			140		12	nd	nd	nd		nd	nd	nd	nd	150	130	nd	39	31	nd	20	2.9	nd	nd	0.79	7.1	2.5	4.1	9.3	0.78	2.6	0.28	4	nd	0.81	0.29	0.57	0.6	nd	1.4	1.20
Phenanthrene			nd		nd	nd	nd	nd		nd	nd	nd	nd	2.7	2.2	nd	3.7	6.4	nd	2	nd	nd	nd	nd	1.5	nd	nd	2.8	nd	0.56	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene			nd		nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	0.3	0.73	0.46	0.33	nd	nd	nd	1.2	nd	nd	0.36	0.75	0.27	0.52	0.71	0.56	nd	0.51	0.58	1.3	nd	1	nd	1
2-Methylnaphthalene							nd	nd		nd	nd	nd	nd	31	4.4	nd	0.26	nd	nd	0.15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total PAHs			156		14	0	0	0		0	0	0	0	202	148	1	58	57	9	39	10	0	6	6	28	11.76	13.47	25.67	7.51	14.59	5.83	12.38	3.3	8.63	6.05	11.45	0.64	7.73	1.40	8.74
Cyanide, total (Exygen/ Test America)			1040						1340																																							
Cyanide, total (Clarkson Univ.)																																														
Cyanide, free (Exygen/ Test America)									nd																																					
Cyanide, free (Clarkson Univ.)																																													
Water Elevation (feet)			580.28	582.26	579.82	583.55	583.85	579.28	581.30	583.85	581.32	581.03	582.97	580.70	581.11	583.03	581.54	581.87	582.74	580.09	582.38	580.78	583.07	578.46	582.43	581.32	582.35	581.46	582.85	580.37	584.05	580.22	582.07	579.02	582.78	580.94	582.98	579.83	582.74	580.63

Appendix B - Groundwater and Surface Water Monitoring Results
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Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/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	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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene			17																																					
Toluene			nd																																					
Ethylbenzene			nd																																					
Xylene (sum of isomers)			nd																																					
Total BTEX			17																																					
Acenaphthylene			nd																																					
Acenaphthene			nd																																					
Anthracene			nd																																					
Benzo(a)Anthracene			nd																																					
Benzo(a)Pyrene			nd																																					
Benzo(b)Fluoranthene			nd																																					
Benzo(g,h,i)Perylene			nd																																					
Benzo(k)Fluoranthene			nd																																					
Chrysene			nd																																					
Dibenzo(a,h)Anthracene			nd																																					
Fluoranthene			nd																																					
Fluorene			nd																																					
Indeno(1,2,3-cd)Pyrene			nd																																					
Naphthalene			nd																																					
Phenanthrene			nd																																					
Pyrene			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	530	540	526	580	570	890
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	19	6	5	817											6.0	7.0	nd	10	23	10	14	7.5	10	nd	9
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	581.40	579.87	581.69	579.87	581.34	579.87

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Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/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	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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene			4	nd								1.8			3.7			1.2				1.9		2.1	nd			1		0.44		0.72		1.6		2.8		1.3		0.91
Toluene			nd	nd								nd			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		nd		nd		nd
Xylene (sum of isomers)			nd	nd								nd			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		2.8		1.3		0.91
Acenaphthene			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
Anthracene			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
Benzo(a)Pyrene			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
Benzo(g,h,i)Perylene			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
Chrysene			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
Fluoranthene			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
Indeno(1,2,3-cd)Pyrene			nd									nd			nd			nd				nd		nd	nd			nd		nd		nd		nd		nd		nd		nd
Naphthalene			nd									nd			nd			nd				2.8		0.88	nd			nd		nd		nd		nd		nd		nd		nd
Phenanthrene			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
2-Methylnaphthalene												nd			nd			nd				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		0		0		0
Cyanide, total (Exygen/ Test America)			323		356	280	129	465	716	nd	157	399	142	423	528	175	108	280	103											449	nd	620	10	670	nd	530	nd	500	nd	400
Cyanide, total (Clarkson Univ.)																	145	234	55	363	61	300	3	664	54	467	27	327	nd											
Cyanide, free (Exygen/ Test America)						nd	33	119	nd	nd	96	13	nd	51	22	22	nd	nd	45											nd	nd	nd	0.87	21	nd	5.7	nd	nd	nd	7.4
Cyanide, free (Clarkson Univ.)																5.3	nd	nd	nd	3	nd	nd	nd	5.3	2.3	8.2	nd	nd	nd											
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	579.74	578.43	580.29	577.85	578.53	578.35

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(All Units in µg/L)

MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14
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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene			nd																																					
Toluene			nd																																					
Ethylbenzene			nd																																					
Xylene (sum of isomers)			nd																																					
Total BTEX			0																																					
Acenaphthene			nd																																					
Acenaphthylene			nd																																					
Anthracene			nd																																					
Benzo(a)Anthracene			nd																																					
Benzo(a)Pyrene			nd																																					
Benzo(b)Fluoranthene			nd																																					
Benzo(g,h,i)Perylene			nd																																					
Benzo(k)Fluoranthene			nd																																					
Chrysene			nd																																					
Dibenzo(a,h)Anthracene			nd																																					
Fluoranthene			nd																																					
Fluorene			nd																																					
Indeno(1,2,3-cd)Pyrene			nd																																					
Naphthalene			nd																																					
Phenanthrene			nd																																					
Pyrene			nd																																					
2-Methylnaphthalene																																								
Total PAHs			0																																					
Cyanide, total (Exygen/ Test America)			644		427	800	914	378	449	886	416	487	664	962	583	nd	503	537												541	623	670	610	610	640	600	610	720	610	740
Cyanide, total (Clarkson Univ.)																	514	571		423	305	281	404	422	374	486	425	422	480											
Cyanide, free (Exygen/ Test America)						nd	nd	nd	nd	nd	17	12	nd	9	7	nd	14	13												nd	nd	nd	1.7	nd	nd	nd	nd	nd	nd	5.7
Cyanide, free (Clarkson Univ.)																nd	nd	nd		nd	nd	nd	nd	nd	4	2.5	4.1	nd	nd											
Water Elevation (feet)			577.36	579.19	577.03	578.44	578.21	577.21	577.31	578.56	577.61	576.76	577.92	577.23	577.11	578.15	577.55	577.46		577.07	577.99	577.29	577.89	577.43	577.87	576.48	577.57	577.15	578.05	577.27	579.98	577.05	577.85	576.63	578.43	577.55	578.66	577.73	577.85	577.63

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Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/L)

MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15
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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene			nd																																				
Toluene			nd																																				
Ethylbenzene			nd																																				
Xylene (sum of isomers)			nd																																				
Total BTEX			0																																				
Naphthalene			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)			78.8																																				
Cyanide, total (Clarkson Univ.)																																							
Cyanide, free (Exygen/ Test America)																																							
Cyanide, free (Clarkson Univ.)																																							
Water Elevation (feet)			579.11	579.81	578.70	580.15	580.55	578.98	579.49	580.98	579.48	578.88	580.40	579.11	579.30	581.04	579.99	---	580.54	579.45	580.54	579.36	---	577.89	580.60	579.65	580.61	579.65	580.87	579.18	582.58	578.76	NM	576.28	580.93	579.55	581.18	578.77	580.85	579.34

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Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/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	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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene			nd																																					
Toluene			nd																																					
Ethylbenzene			nd																																					
Xylene (sum of isomers)			nd																																					
Total BTEX			0																																					
Naphthalene			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	880	740	730	1300	1100	1500
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	32.0	9.5	7.2	20	13.0	20
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	582.59	580.78	582.87	579.61	582.58	580.49

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(All Units in µg/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	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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
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	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	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	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	0.63	nd	nd	nd	nd	nd	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	0.32	0	0	0	0	0	0	0	1.73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	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	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	0.61	nd	1.3	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	0.50	nd	1.80	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	0.54	nd	2	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	0.7	nd	1.6	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	0.59	nd	1.5	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	0.63	nd	1.3	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	0.83	nd	4.7	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	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	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	0.76	nd	4.4	nd	nd	nd	nd	nd	nd	nd	nd
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	nd	0.75	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	nd	nd	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	nd	0.75	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	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	5.16	0	20.08	0	0	0	0.75	0	0	0	0
Cyanide, total (Exygen/ Test America)				34	nd	27	65	38	74	185	127	108	185	50	66	378	106	160	217											93	297	230	210	81	160	98	198	160	220	89
Cyanide, total (Clarkson Univ.)																	142	162	260	161	263	183	369	148	285	144	279	148	242											
Cyanide, free (Exygen/ Test America)						nd	13	nd	nd	nd	nd	nd	nd	16	nd	nd	nd	nd	61											nd	4	nd	0.98	nd	1.20	nd	nd	nd	nd	9.5
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	582.68	580.77	582.86	579.68	582.58	580.46

Appendix B - Groundwater and Surface Water Monitoring Results
2014-2015 Periodic Review Report
Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/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

Appendix B - Groundwater and Surface Water Monitoring Results
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Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/L)

MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19	MW-19
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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene					4700	5700	6000	4600	4700	4800	3800	4200	4600		5300	4900	6000	5800	7500	5800	5800	5600	6700	4500	5200	3700	3700	3700	4300	4700	4400	4200	3800	4300	4000	4800	5200	5800	5300	5400
Toluene					nd	nd	nd	160	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	2.9	nd	nd	nd	nd
Ethylbenzene					nd	280	260	nd	nd	160	150	140	170		130	170	330	180	350	270	260	200	220	100	210	120	180	170	290	230	280	170	190	130	210	300	550	310	400	430
Xylene (sum of isomers)					1500	2200	1500	930	660	580	470	540	560		400	440	1000	660	950	770	730	810	710	470	780	510	470	450	340	190	nd	nd	nd	nd	nd	75	nd	nd	nd	nd
Total BTEX					6200	8180	7760	5690	5360	5540	4420	4880	5330		5830	5510	7330	6640	8800	6840	6790	6610	7630	5070	6190	4330	4350	4320	4930	5120	4680	4370	3990	4430	4210	5178	5750	6110	5700	5830
Acenaphthene					nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.5	nd	nd	nd	nd	0.27	nd	nd	nd	nd	nd	nd	0.74	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	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	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	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	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	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	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	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	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	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	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	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	nd	nd	nd
Naphthalene					1900	2200	2200	2000	2100	2300	2000	2100	2400	2100	2000	2700	2900	2800	3000	2600	2800	3600	3100	4600	4100	2600	3600	3600	3300	3700	3300	2700	3200	2900	2600	4200	5500	5400	4600	5700
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	nd	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	nd	nd	nd	nd	nd	nd	nd	nd	nd
2-Methylnaphthalene							nd	0.82	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	5.5	4.8	nd	5.5	4.7	3.5	6.2	6.7	7.2	7.6	9.3	6.1	6.2	11	9.5	nd	210	nd	nd	11
Total PAHs					1900	2200	2200	2001	2100	2300	2000	2100	2400	2100	2000	2700	2900	2800	3000	2600	2806	3605	3100	4606	4106	2603.5	3606.2	3606.7	3307.2	3707.87	3309.3	2706.1	3206.2	2911	2609.5	4200	5711	5400	4600	5711
Cyanide, total (Exygen/ Test America)					1100																												---	---	---	---	---	---	---	---
Cyanide, total (Clarkson Univ.)																																								
Cyanide, free (Exygen/ Test America)																																	---	---	---	---	---	---	---	---
Cyanide, free (Clarkson Univ.)																																								
Water Elevation (feet)					577.43	581.36	581.13	579.63	580.12	581.73	579.73	579.83	581.24	580.01	580.19	582.00	580.79	580.98	581.90	579.57	581.42	580.15	582.26	578.2	581.6	580.52	581.46	580.70	581.8	579.78	583.45	579.54	581.21	578.62	581.47	580.27	581.92	579.28	581.68	580.04

Appendix B - Groundwater and Surface Water Monitoring Results
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Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/L)

MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20	MW-20
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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene					nd																																			
Toluene					nd																																			
Ethylbenzene					nd																																			
Xylene (sum of isomers)					nd																																			
Total BTEX					0																																			
Acenaphthene					nd																																			
Acenaphthylene					nd																																			
Anthracene					nd																																			
Benzo(a)Anthracene					nd																																			
Benzo(a)Pyrene					nd																																			
Benzo(b)Fluoranthene					nd																																			
Benzo(g,h,i)Perylene					nd																																			
Benzo(k)Fluoranthene					nd																																			
Chrysene					nd																																			
Dibenzo(a,h)Anthracene					nd																																			
Fluoranthene					nd																																			
Fluorene					nd																																			
Indeno(1,2,3-cd)Pyrene					nd																																			
Naphthalene					nd																																			
Phenanthrene					nd																																			
Pyrene					nd																																			
2-Methylnaphthalene																																								
Total PAHs					0																																			
Cyanide, total (Exygen/ Test America)					344	450	295	439	46	455	361	8	506	399	21	501	242	387	644											139	690	560	790	280	730	390	660	150	890	640
Cyanide, total (Clarkson Univ.)																	242	444	402	160	429	172	469	337	494	115	418	268	495											
Cyanide, free (Exygen/ Test America)						nd	13	nd	nd	nd	10	9	nd	44	14	nd	nd	53	13											nd	6	nd	2.2	6.0	4.9	nd	2.0	nd	nd	5.9
Cyanide, free (Clarkson Univ.)																nd	nd	nd	nd	nd	nd	nd	nd	2.6	3.2	nd	nd	nd	nd											
Water Elevation (feet)					576.67	579.24	578.86	576.76	577.15	579.20	577.49	576.60	578.34	576.90	577.16	578.96	577.42	577.82	578.82	576.60	578.20	577.07	579.03	575.78	578.43	577.4	578.78	577.87	578.9	577.11	580.62	576.41	578.45	574.20	579.25	577.23	579.81	579.28	579.37	580.04

Appendix B - Groundwater and Surface Water Monitoring Results
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Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/L)

MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21	MW-21
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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene					nd																																			
Toluene					nd																																			
Ethylbenzene					nd																																			
Xylene (sum of isomers)					nd																																			
Total BTEX					0																																			
Naphthalene					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)					511	560	898	558	535	756	674	670	637	708	569	714	741	740	664											433	539	420	480	420	490	460	453	430	500	440
Cyanide, total (Clarkson Univ.)																	749	709	688	545	404	448	574	560	543	417	485	441	508											
Cyanide, free (Exygen/ Test America)						nd	14	nd	nd	24	12	13	nd	11	nd	nd	nd	7	20											nd	6	nd	1.6	nd	nd	nd	2.1	nd	nd	5.5
Cyanide, free (Clarkson Univ.)																nd	nd	nd	nd	2.6	nd	nd	nd	nd	18.5	4.2	nd	nd	nd											
Water Elevation (feet)					576.51	578.08	577.68	576.55	576.58	578.03	576.97	576.28	575.32	576.55	576.42	577.70	576.86	576.85	577.71	576.38	577.28	576.75	578.38	576.79	577.42	576.94	577.35	576.93	577.43	576.67	579.32	575.29	577.09	575.89	577.59	576.80	578.24	576.54	577.82	576.89

Appendix B - Groundwater and Surface Water Monitoring Results
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Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/L)

MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22	MW-22
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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene					6																																			
Toluene					nd																																			
Ethylbenzene					nd																																			
Xylene (sum of isomers)					nd																																			
Total BTEX					6																																			
Naphthalene					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)					487	600	1010	734	460	703	1570	467	604	560	1080	741	504	803	941											778	1030	860	1,000	870	1,100	770	746	790	770	990
Cyanide, total (Clarkson Univ.)																	676	759	628	534	587	540	642	641	666	785	704	690	771											
Cyanide, free (Exygen/ Test America)						nd	nd	201	nd	nd	49	231	267	88	49	132	nd	207	99											nd	7	nd	5.5	26	9.2	14.1	24.0	11.6	11.2	7
Cyanide, free (Clarkson Univ.)																nd	8	nd	3.1	2.4	nd	nd	nd	4.3	5.9	3.3	3.1	3.4	nd											
Water Elevation (feet)					578.80	580.70	580.51	579.09	579.50	581.25	580.05	579.10	580.62	579.42	579.47	581.27	580.05	580.22	581.28	579.13	580.69	579.60	581.75	578.02	581.03	579.93	580.86	580.03	581.19	579.29	583.13	578.99	580.56	578.26	581.17	579.69	581.51	578.85	581.18	579.53

Appendix B - Groundwater and Surface Water Monitoring Results
2014-2015 Periodic Review Report
Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/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	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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene						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
Ethylbenzene						nd						nd			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
Total BTEX						0						0			0			0				0				0		0		0		0		0		0		0		0
Acenaphthene						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
Anthracene						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
Benzo(a)Pyrene						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
Benzo(g,h,i)Perylene						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
Chrysene						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
Fluoranthene						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
Indeno(1,2,3-cd)Pyrene						nd						nd			nd			nd				nd				nd		nd		nd		nd		nd		nd		nd		nd
Naphthalene						nd						nd			nd			nd				3.6				nd		nd		nd		nd		nd		1.2		1.5		0.52
Phenanthrene						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
2-Methylnaphthalene												nd			nd			nd				nd				nd		nd		nd		nd		nd		nd		nd		nd
Total PAHs						0						0			0			0				3.6				0		0		0		0		0		1.2		1.5		0.52
Cyanide, total (Exygen/ Test America)						480	658	469	654	480	425	728	356	620	729	587	446	437	274											299	307	360	220	330	570	780	684	670	490	480
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	0.7	8.1	nd	nd	nd	22.3
Cyanide, free (Clarkson Univ.)																nd	nd	nd	nd	nd	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	578.59	577.67	579.05	577.43	578.63	577.75

Appendix B - Groundwater and Surface Water Monitoring Results
2014-2015 Periodic Review Report
Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/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	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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene			nd				nd	nd	nd	nd	nd	nd	nd	nd	nd	0.44	nd	nd	nd	nd	nd	nd	nd	Dry	nd	nd	nd	nd	nd	nd	nd	0.15	nd	nd	nd	nd	nd	nd	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	nd	nd	nd	nd	nd	nd
Ethylbenzene			nd				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	0.6	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	nd	nd	nd	nd	0.54	nd	nd	nd	nd	nd	nd	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	0	0	0	0	0	0
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	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	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	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	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	0.61	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	1	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	0.53	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	0.56	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	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	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	nd	1.8	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	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	nd
Naphthalene			nd				nd	2.9	nd	nd	nd	1.6	nd	nd	nd	nd	nd	nd	nd	nd	32	nd	nd		2.3	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.2	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	0.64	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	nd	1.3	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	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	0	7.64	0	0	0
Cyanide, total (Exygen/ Test America)			12.2				21	55	35	8	405	21	13	88	36	989	40	38	9											12.6	30.3	11	16	96	14	nd	11	25	7.2	5.2
Cyanide, total (Clarkson Univ.)																	46	53	10	5	4	24	nd		14	5	25	23	3.6											
Cyanide, free (Exygen/ Test America)							nd	16	nd	nd	29	6	nd	10	nd	86	6	19	nd											nd	6	nd	1.5	21	2.5	nd	nd	6	nd	7
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	581.95	581.65	582.5	581.35	NM	581.23

Appendix B - Groundwater and Surface Water Monitoring Results
2014-2015 Periodic Review Report
Mineral Springs Road Former Manufactured Gas Plant Site

(All Units in µg/L)

SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02
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	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15
Benzene			nd		nd	6	2	nd	nd	1.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	Dry	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Toluene			nd		nd	8	2	nd	nd	0.25	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	0.23	0.18	7.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Ethylbenzene			nd		nd	15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Xylene (sum of isomers)			nd		nd	24	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	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 BTEX			0		0	53	4	0	0	1.45	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0.23	0.18	7.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	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	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	0.19	nd	nd	nd	nd	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	0.49	nd	1.5	nd	nd	nd	0.26	nd	nd	nd	2.7	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	0.63	nd	1.1	nd	nd	nd	nd	nd	nd	nd	4.2	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	1.2	nd	1.3	nd	1.7	nd	nd	nd	nd	1.4	8.3	nd	3.1	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	0.55	nd	1.5	nd	nd	nd	nd	nd	nd	nd	2.2	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	1.2	nd	nd	nd	nd	nd	nd	0.69	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	0.85	nd	1.2	nd	nd	nd	0.30	nd	nd	nd	4.70	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	1.3	nd	nd	nd	nd	nd	nd	nd	0.45	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	1.2	nd	0.63	nd	1.2	nd	0.50	nd	nd	2.40	8.20	nd	3.3	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	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	1.3	nd	nd	nd	nd	nd	nd	nd	1.9	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Naphthalene			nd		nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		0.94	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	2.2	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	0.72	nd	nd	nd	nd	nd	nd	nd	nd	nd	2.4	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Pyrene			nd		nd	nd	nd	0.77	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	1.1	nd	0.55	nd	0.92	nd	0.33	nd	nd	1.8	6.5	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	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Total PAHs			0		0	0	0	0.77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0.94	0	0	1.82	0	11.77	0	3.82	0	1.39	0	0	6	43.75	0	6.4							
Cyanide, total (Exygen/ Test America)			77.5		nd	380	121	nd	7	130	nd	1440	17	30	62	48	nd	24	nd											369	nd	93	45	14	95	nd	11	15	96	160							
Cyanide, total (Clarkson Univ.)																	nd	50	nd	nd	3	nd	nd		86	86	16	141	4.4																			
Cyanide, free (Exygen/ Test America)						111	nd	nd	nd	16	nd	42	nd	nd	nd	20	nd	12	nd											nd	6	11	11	nd	26	0.76	1.6	nd	30.1	7.2							
Cyanide, free (Clarkson Univ.)																19.2	nd	6.2	nd	nd	2.3	nd	8.6		50.7	10.1	nd	3.0	nd																			
Water Elevation (feet, approximate)					580.3	580.9	580.6	580.5	580.6	581.5	580.1	580.3	581.1	581.8	582.4	582.7	581.0	581.7	581.7	580.3	582.0	580.6	583.2		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Appendix F

Annual Site Inspection Form

Annual Site Inspection Form

Mineral Springs Road Former MGP

Inspection by: Randolph West, P.E. **Affiliation:** AECOM Environment, Inc.

Signature: _____ **Date:** April 28, 2015 (Inspection Date)

ASPHALT CAP SOUTH OF BUILDING #3

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

Comments:

ASPHALT CAP EAST OF BUILDING #3

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

Comments:

ASPHALT CAP NORTH OF EASTERN SWALE

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

Comments:

ASPHALT CAP SOUTH OF EASTERN SWALE

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

Comments:

HDPE/SOIL CAP IN EASTERN SWALE

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

Comments:

Animal burrow observed. Corrugated drainage pipe exposed in french drain.

CLAY CAP BEHIND BUILDING #14

Animal dens ?	Yes	(No)
Erosion ?	Yes	(No)
Trees ?	Yes	(No)
Blue-stained soil ?	Yes	(No)

Comments:

Cap surface has been disturbed by collapse of storm sewer On railroad property next to National Fuel property.

EASTERN DRAINAGE DITCH

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:

BACKFILLED EXCAVATIONS

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

Comments:

CLASS D STREAM

Hydrocarbon sheen ?	Yes	(No)

Comments:

SITE FENCE

Damage / Holes ?	Yes	(No)

Comments:

Appendix G

Photographs

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
National Fuel Gas Distribution Corp.	365 Mineral Springs Road, Buffalo, New York	60137322

Photo No.	Date:
1	4/28/15

Direction Photo Taken:

Description:

Longitudinal crack in Eastern Swale North Ashalt Cap (ESNAC).

Photo No.	Date:
2	4/28/15

Direction Photo Taken:

Description:

French drain on Eastern Swale HDPE cap (ESHC)

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
National Fuel Gas Distribution Corp.	365 Mineral Springs Road, Buffalo, New York	60137322

Photo No.	Date:
3	4/28/15

Direction Photo Taken:

Description:

Minor exposure of corrugated drain pipe within French drain of ESHC

Photo No.	Date:
4	4/28/15

Direction Photo Taken:

Description:

Cracks in Building 10 Asphalt Cap (B10AC

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
National Fuel Gas Distribution Corp.	365 Mineral Springs Road, Buffalo, New York	60137322

Photo No.	Date:
5	4/28/15

Direction Photo Taken:

Description:

Animal burrow just beyond edge of Clay Cap (CC).

Photo No.	Date:
6	4/28/15

Direction Photo Taken:

Description:

Pothole/cracks in Building 3 South Asphalt Cap (B3SAC)

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
National Fuel Gas Distribution Corp.	365 Mineral Springs Road, Buffalo, New York	60137322

Photo No.	Date:
7	4/28/15

Direction Photo Taken:

Description:

Pothole/cracks in Building 3 South Asphalt Cap (B3SAC

Photo No.	Date:
8	4/28/15

Direction Photo Taken:

Equipment tracks and ruts on CC

Appendix H

Institutional and Engineering Controls Certification Form

DRAFT

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

Site Details **Box 1**

Site No. V00195

Site Name NFG - Mineral Springs MGP

Site Address: 365 Mineral Springs Road Zip Code: 14210
City/Town: West Seneca
County: Erie
Site Acreage: 80.0

Reporting Period: October 02, ~~2012~~ 2013 to ~~September 16, 2015~~ October 2, 2015

	YES	NO
1. Is the information above correct?	X	☐
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?	☐	X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	X	☐
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	☐
7. Are all ICs/ECs in place and functioning as designed?	X	☐

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

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.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
123.16-2-8	Cover System Fencing/Access Control

Box 5

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 compete.

YES	NO
X	☐

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
X	☐

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 W Lesch at 6363 Main St Williamsville NY
print name print business address

am certifying as Owner (Owner or Remedial Party)

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

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

10/16/15
Date

IC/EC CERTIFICATIONS

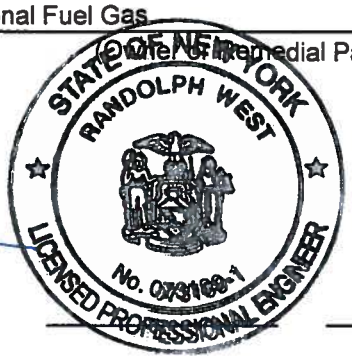
Box 7

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 Randolph West (print name) at AECOM, 257 W. Genesee St., Buffalo NY 14202 (print business address),

am certifying as a Professional Engineer for the National Fuel Gas (Owner or Remedial Party)



Randolph West — 10/12/15

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification | Stamp (Required for PE) | Date