

AECOM 257 West Genesee Street Suite 400 Buffalo, NY 14202 716.856.5636 tel 716.856.2545 fax

October 14, 2016

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: 2016 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 New York State Department of Environmental Conservation (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 September 16, 2015 to September 16, 2016, and analytical data from 2001 (remedial action completion) through 2016. The annual O&M activities include annual inspections, groundwater and surface water monitoring, and maintenance and repair of engineering controls. Data collected during the performance of these activities and an evaluation of the remedy effectiveness is presented below.

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

AECOM

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.

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.

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.

3. 2016 Site Activities

Routine O&M activities performed during 2016 include the following:

- Annual inspection on April 12, 2016.
- Groundwater monitoring events on April 11, 2016 and August 8-9, 2016.



- Submittal of groundwater and surface water monitoring reports on July 15, 2016 and September 26, 2016.
- Cap maintenance activities:
 - Mowing of Eastern Swale HDPE Cap (ESHC) and Clay Cap (CC); and,
 - Trapping and relocating woodchucks that have burrowed into the CC and at the Recovery Well and DNAPL Shed (RTW-1), and filling of the single animal burrow in the CC.

An activity not completed during 2016 was the repair, by Norfolk Southern (NS) Railroad, of the damaged storm sewer adjacent to, but just outside of, the southern property line and the CC area. Based on the results of an investigation that determined that the storm sewer was outside of the CC engineering control and the National Fuel property, AECOM submitted a letter to the NYSDEC on October 29, 2015 recommending that NS be allowed to perform repair activities provided that they did not damage the CC. On December 2, 2015, the NYSDEC provided AECOM with email approval of that action. However, NS has not yet performed this repair.

On August 5, 2016, National Fuel notified the NYSDEC of its intention to excavate for the construction of a natural gas compressor just north of the ESNAC (Appendix A). This work has been performed. No MGP-related impacts were noted in the soils or excavation. The excavated soils were staged on site, characterized, and are pending disposal as non-hazardous soils at Waste Management's Chaffee Landfill.

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.

The first two objectives were 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 remaining two objectives are 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 these remedial actions in meeting these objectives is evaluated by 1) performing an annual inspection to verify that engineering controls remain intact and that site use has not changed, and 2) by implementing a groundwater and surface water monitoring program.

Analytical Results

Groundwater monitoring was performed at the Mineral Springs Site semi-annually (in April and August) in 2016. 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 2016 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 2016 and August 2016 Groundwater and Surface Water Monitoring Reports, submitted to NYSDEC in July 2016 and September 2016, respectively.

Figures 2 and 3 provide groundwater contours indicating the direction of groundwater flow at the Site for April 2016 and August 2016, respectively. Appendix B presents the 2016 surface water and groundwater analytical results, as well as historic data from 1995 through 2015.

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 either of the two sampling events. One PAH compound (naphthalene) was detected in both sampling events. Total cyanide was detected in both of the two sampling events. A summary of the PAH and cyanide detections follows:

- April 2016:
 - $_{\odot}$ Naphthalene was detected at a concentration of 1.5 J+ $\mu g/L$, below the NYSDEC Groundwater Standard Value of 10 $\mu g/L$.
 - Total cyanide was detected at a concentration of 240 J µg/L, above the NYSDEC Groundwater Standard Value of 200 µg/L. Free cyanide was not detected.
- August 2016:
 - One PAH compound, naphthalene, was detected at 0.53 μg/L, below the NYSDEC Groundwater Standard Value of 10 μg/L.
 - Total cyanide was detected at a concentration of 60 μg/L, below the NYSDEC Groundwater Standard Value of 200 μg/L. Free cyanide was not detected.

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:

- April 2016: Four of the six wells had total cyanide concentrations above the NYSDEC Groundwater Standard of 200 µg/L. Detected concentrations ranged from 120 J µg/L at MW-23 to 1,600 µg/L at MW-22.
- August 2016: All six wells had total cyanide concentrations above the NYSDEC Groundwater Standard of 200 µg/L. Detected concentrations ranged from 300 µg/L at MW-23 to 760 µg/L at MW-22.

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

- April 2016: Free cyanide was detected in one well (MW-22) at a concentration of 8.3 J µg/L.
- August 2016: Free cyanide was not detected in any of the six wells.

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



- August 2016:
 - $\circ~$ Benzene was detected at a concentration of 1.8 μ g/L in well MW-13, above the NYSDEC Groundwater Standard of 1 μ g/L.
 - PAH compounds were not detected in either MW-13 or MW-23.

On-site Purifier Residuals Impacted Areas

Wells MW-12 and MW-16 monitor groundwater quality at the Eastern Swale HDPE Cap (ESHC) and the 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 μ g/L during each sampling event:

- April 2016: Total cyanide concentrations were reported as 640 J μ g/L at MW-12 and 1,700 μ g/L at MW-16.
- August 2016: Total cyanide concentrations were reported as 790 μ g/L at MW-12 and 1,700 μ g/L at MW-16.

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

- April 2016: Free cyanide concentrations were reported as 6.1 J μ g/L at MW-12 and 11 J μ g/L at MW-16.
- August 2016: Free cyanide concentrations were reported as 8 μg/L at MW-16. Free cyanide was not detected at MW-12 during the August 2016 sampling event.

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 well MW-10 during the April or August sampling events. A summary of BTEX detections for wells MW-07, MW-11A, and MW-19 follows:

- April 2016: BTEX compounds were detected above the NYSDEC Groundwater Standards in each well.
- August 2016: BTEX compounds were detected above NYSDEC Groundwater Standards in each well.

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

- April 2016: 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.
- August 2016: 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. Due to the dry conditions, the August 2016 SW-02 surface water sample was unable to be collected at the EDD near the Class D Stream. The EDD was observed to be dry so the sample was collected from a nearby area within the Class D Stream. Surface water samples are analyzed for BTEX, PAH, total and free cyanide.

BTEX compounds were not detected in either surface water sample during either sampling event.

One PAH compound was detected in the surface water samples collected during the April sampling event as summarized below:

 April 2016: Naphthalene was detected at 0.76 J+ μg/L. The naphthalene detection was below the NYSDEC Class D Surface Water Guidance Value (no standard is listed) of 110 μg/L.

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

- April 2016:
 - $_{\rm O}$ Total cyanide was detected in the SW-02 surface water sample at a concentration of 12 J $\mu g/L$ below the NYSDEC Class D Stream Standard of 9,000 $\mu g/L.$
 - Free cyanide was not detected in either SW-01 or SW-02.
- August 2016:
 - \circ Total cyanide was detected in the SW-01 surface water sample at a concentration of 92 J µg/L below the NYSDEC Class D Stream Standard of 9,000 µg/L.
 - $_{\odot}$ Free cyanide was detected in the SW-01 surface water sample at a concentration of 33 J $\mu g/L$ above the NYSDEC Class D Stream Standard of 22 $\mu g/L$.

Conclusions

The results of groundwater and surface water monitoring show that COC concentrations for this period are consistent with data collected since remediation was completed. Concentrations of free cyanide in groundwater in wells at the downgradient property boundary are stable. Concentrations of total cyanide in those wells remain at concentrations higher than NYSDEC standards. National Fuel will continue to monitor this trend.

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 October 2015) include the following:

- Annual inspection on April 12, 2016.
- Groundwater monitoring events on April 11, 2016 and August 8-9, 2016.



- Continued evaluation of the DNAPL recovery well system with only trace amounts (estimated at less than 1%) of DNAPL observed in April 2016 and August 2016.
- Submittal of the Groundwater and Surface Water Monitoring Reports for the monitoring events performed in 2016.
- Performance of maintenance activities to address issues identified during the annual inspection.

During the April 2016 annual inspection, observations of site conditions were recorded. The inspection checklists are included as Appendix C. Photographs taken during the inspections are included in Appendix D. An Institutional and Engineering Controls Certification Form is included in Appendix E.

2016 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 CC southeast of Building 14 by the collapse of a storm sewer on adjacent property. A boring program performed as described in a Corrective Measure Work Plan (CMWP) determined the location of the clay cut-off wall and outer edge of the clay cap. Based on those borings, it was determined that the cut-off wall and clay cap are not in the area of soil disturbed by the damaged storm sewer, and is intact. In April 2015, mechanical equipment was used to place stone in the area of the collapse to prevent any further loss of the overlying soils. During that work, the surface of the CC was disturbed. That area has since re-established a sufficient vegetative cover. This year's site inspection found that the engineering control is in place and effective.

The CC area has been mowed periodically to prevent tree growth. No blue-stained soils were observed during the inspection. The surface of the CC was intact and no sink holes were observed. An animal burrow was observed on the CC. The animal has been trapped and relocated, and the burrow has been filled.

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.

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 were observed to be intact with only minor cracking that did not warrant repairs at this point.

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.

Groundwater and Surface Water Monitoring

Groundwater and surface water monitoring results for the April 2016 and August 2016 monitoring events are presented in the groundwater and surface water monitoring reports, prepared by AECOM and submitted to NYSDEC on July 15, 2016 and September 26, 2016, respectively. A summary of groundwater and surface water analytical results for the period between August 1995 and August 2016 is tabulated in Appendix B. Sampling locations are shown on Figure 1. Discussions of the 2016 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. Engineering controls are intact, and the combination of engineering and institutional controls are effective. Institutional and Engineering Controls implemented during past remedial actions are in place and effective.

The results of groundwater and surface water monitoring show that COC concentrations for this period are consistent with data collected since remediation was completed. Concentrations of free cyanide in groundwater in wells at the downgradient property boundary are stable. Concentrations of total cyanide in those wells remain at concentrations higher than NYSDEC standards. National Fuel will continue to monitor this trend.

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 COC concentrations for this period are consistent with data collected since remediation was completed. Concentrations of free cyanide in groundwater in wells at the downgradient property boundary are stable. Concentrations



of total cyanide in those wells remain at concentrations higher than NYSDEC standards. National Fuel will continue to monitor this trend.

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

Sincerely yours,

Radolphust

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 1Operations, Maintenance, and Monitoring Scope of WorkMineral Springs Former MGP Site

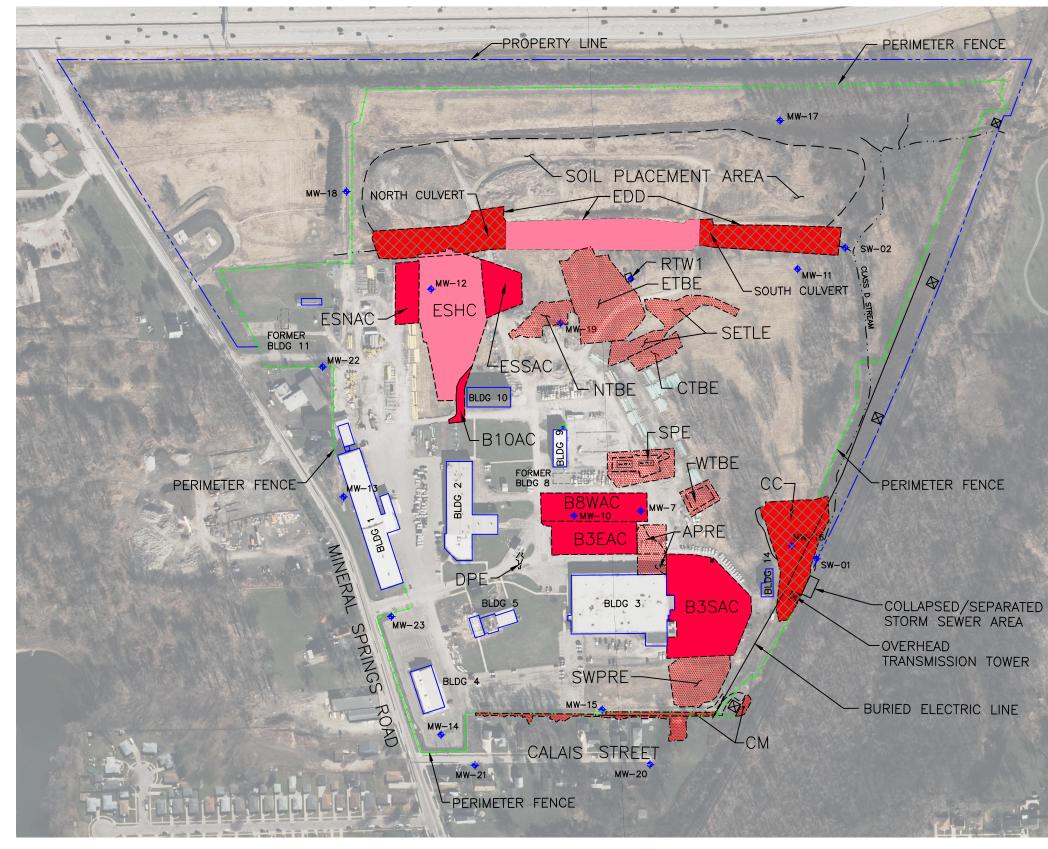
	Frequency	Description	Notes
Groundwater and Surface Water Monitoring	Twice a year	Groundwater and surface water monitoring as specified in Table 2. Monitoring typically takes place in April and August.	Scope in 2002 included monitoring three times a year. The frequency was modified in 2005 with NYSDEC 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	
Depending	Twice a year	Groundwater Monitoring Report	
Reporting	Annually	O&M Report	As of October 2011, a Periodic Review Report (PRR) is submitted annually to meet current NYSDEC requirements.

				e 2 Summary Tal ad MGP Site, 20		
Location	Cyanide, Total	Cyanide, Free	BTEX	PAHs	Water Elevation	Benchmark Elevation
	USEPA SW846 9014	USEPA SW846 9016	USEPA SW846 8260C	USEPA SW846 8270D		(top of PVC casing)
Upgradient Sit	te Perimeter					
MW-17	Х	Х	Х	х	Х	587.28
Downgradient	Site Perimet	er				
MW-13	Х	Х	annually	annually	Х	591.85
MW-14	Х	Х			Х	589.53
MW-15					Х	590.93
MW-20	Х	Х			Х	587.06
MW-21	Х	Х			Х	587.84
MW-22	Х	Х			Х	592.50
MW-23	Х	х	annually	annually	Х	589.28
Onsite Purifie	r Residuals II	mpacted Area	S			
MW-12	Х	х			Х	591.40
MW-16	Х	Х			Х	588.99
Onsite Hydrod	arbon Impac	ted Areas				
MW-07			Х	х	Х	587.01
MW-10			Х	Х	Х	587.61
MW-11A			Х	х	Х	589.78
MW-19			Х	х	Х	589.83
Onsite Surface	e Water					
SW-01	Х	Х	х	х	Х	top of headwall = 587.0
SW-02	Х	Х	Х	x		
QA/QC Sample						
Trip Blank		,	Х			(one per shipment)
Field Duplicate	х	Х	x	x		(one per event)
Equipment Blank	х	х	Х	x		(one per event)
	ery				(p)	of a course data of DNIA DLA
RTW-1					(purge weil	l 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



A	CON	1	

MINERA	L SPRINGS ROAD F	FA
N	IATIONAL FUEL GA	S
	60250836.300	
DATE: 6/23/15	DRWN: GRI	

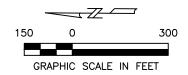
٩С	IL	17	ΓY

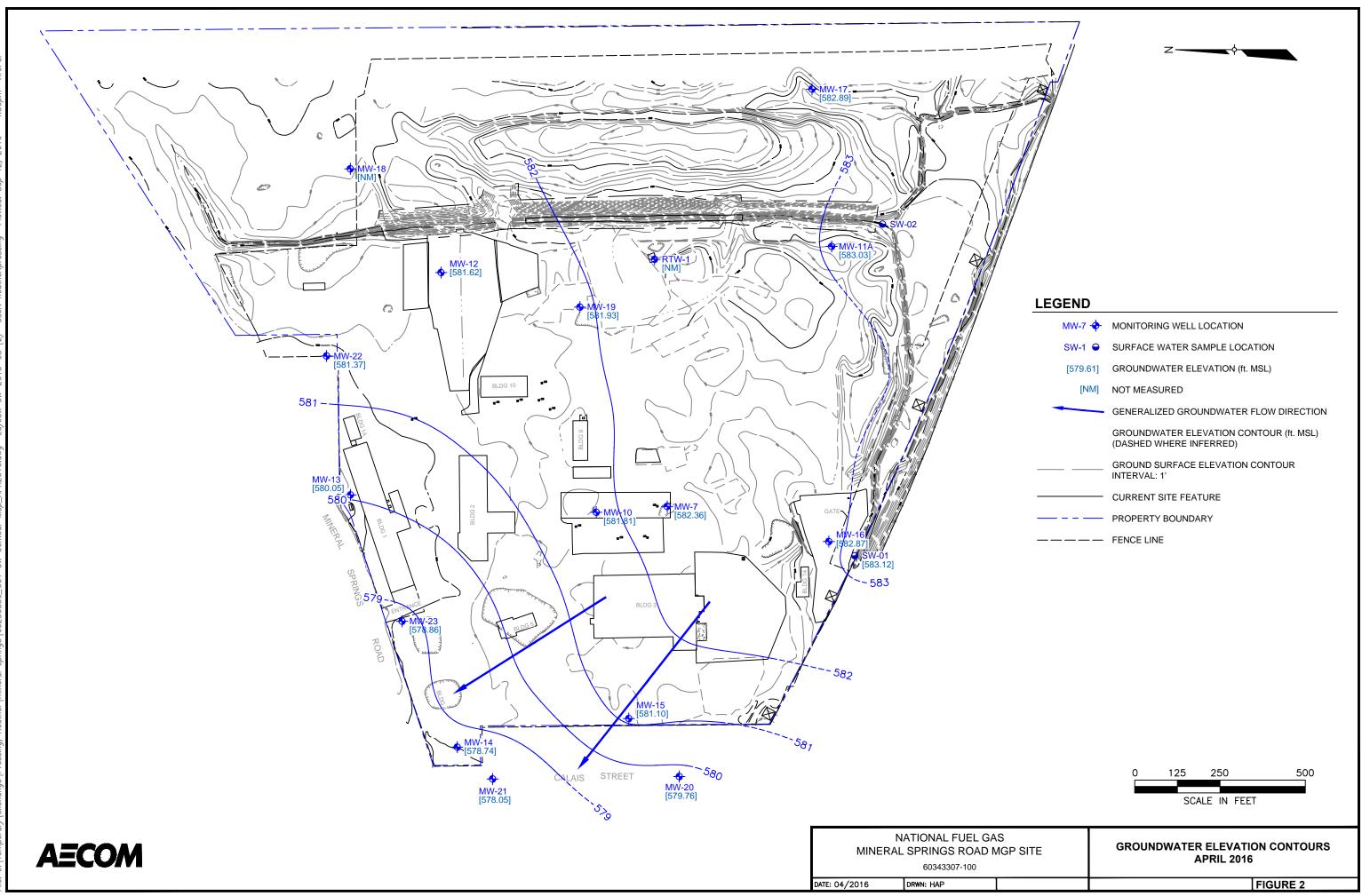
FIGURE

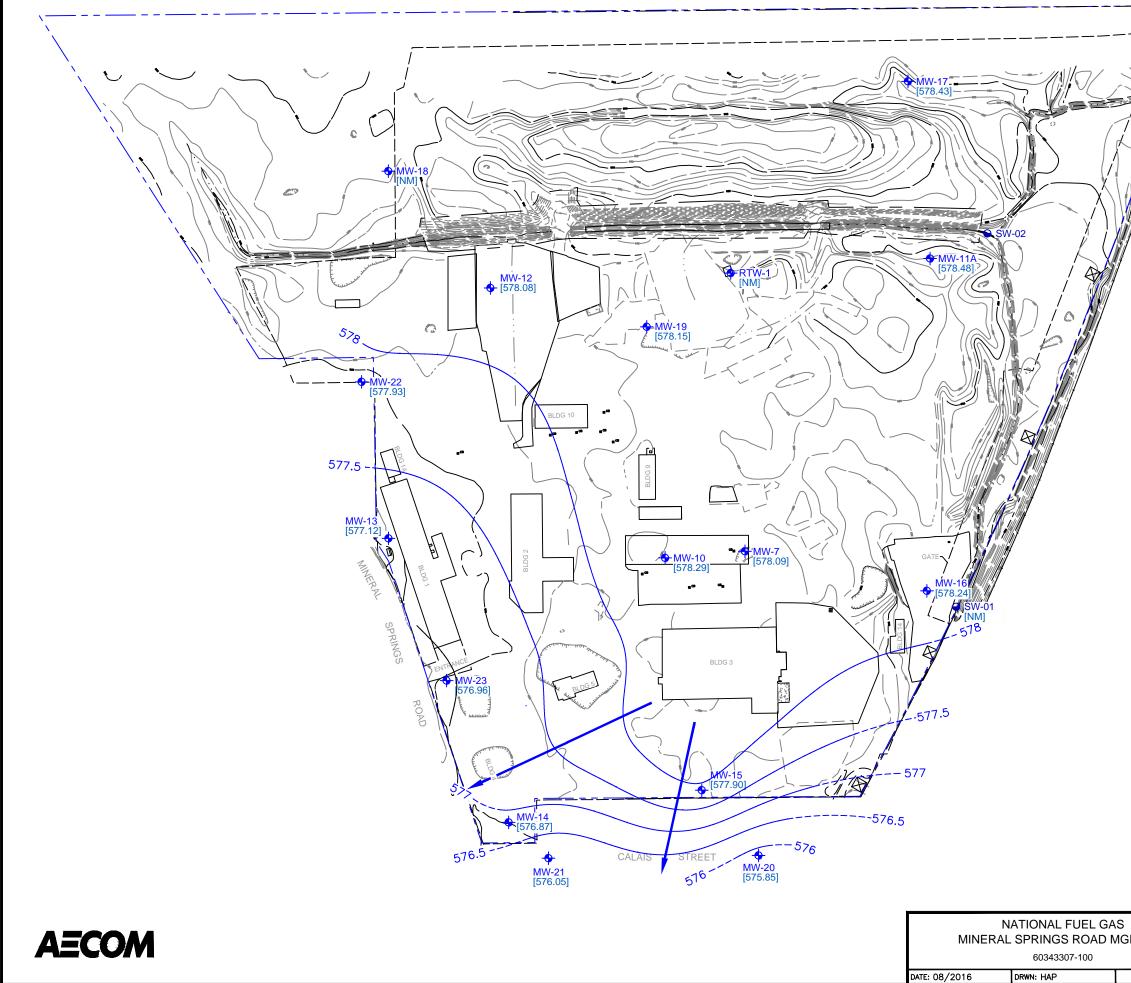
SITE

	PREVIOUSLY	REMEDIATED	AREAS	ARE	SHADED	RED
•						
- P2						

-	<u>LEGEND</u>
	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
СМ	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







LEGEND	
	MONITORING WELL LOCATION
SW-01	SURFACE WATER SAMPLE LOCATION
[579.6	GROUNDWATER ELEVATION (ft. MSL)
[N	M] 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
LOCATION S	E WATER ELEVATION FOR SURFACE WATER W-01 WAS UNABLE TO BE MEASURED DUE TO TION OF DEBRIS IN FRONT OF THE CULVERT
	0 125 250 500 SCALE IN FEET
S GP SITE	GROUNDWATER ELEVATION CONTOURS AUGUST 2016

FIGURE 3



Appendix A

New CNG Compressor Excavations Letter

August 5, 2016



Mr. David Szymanski Project Manager New York State Department of Environmental Conservation Division of Environmental Remediation 270 Michigan Avenue Buffalo, NY 14203-2915

RE: National Fuel Gas Mineral Springs Works 365 Mineral Springs Road New CNG Compressor Excavations

Dear Mr. Szymanski,

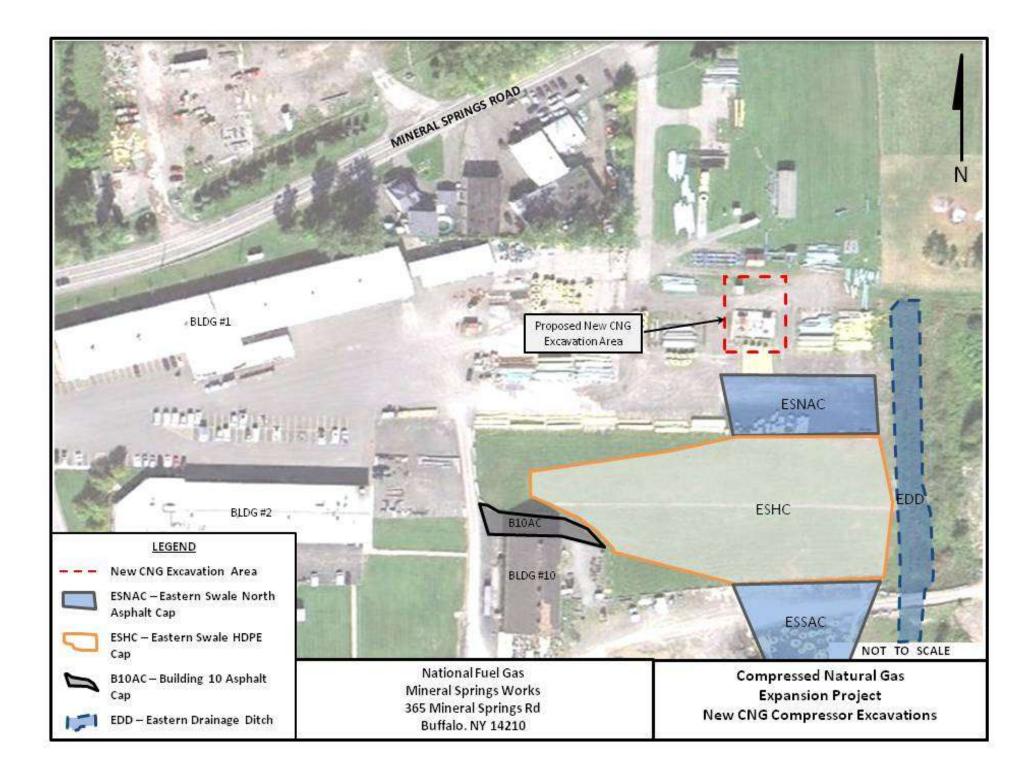
National fuel Gas is providing notification of excavations planned for the Compressed Natural Gas compressor for our CNG fueling station at the former Mineral Springs Works facility. National Fuel's contractor will be excavating utility trenches and a concrete pad for a new CNG compressor and electrical lines. These excavations are scheduled for the week of August 15, 2016. The location of the excavation area is shown on the attached figure. All excavations will be monitored for the presence of MGP related impacts through visual observations and PID screening. Any materials exhibiting potential impacts will be separated, characterized, and properly disposed of off-site. Any impacted areas, if encountered, will be noted and located by measuring from existing structures.

If you have any questions regarding site work associated with the CNG expansion, please don't hesitate to call me at 716-667-5559.

Sincerely,

Brad Walker Senior Environmental Analyst

cc: T. Raby (AECOM) T. Alexander (National Fuel Gas) P. White (National Fuel Gas)





Appendix B

Groundwater and Surface Water Monitoring Results

	MW-07	MW-07	MW-0	7 MW-0	7 MW-0	07 MW	-07 N	1W-07	MW-07	MW-07	7 MW-	07 MW-0	07 MW-	07 MW-	07 MW	V-07 M	1W-07	MW-07	MW-07	MW-07	7 MW-0	7 MW-0	7 MW-0	7 MW-07	7 MW-	07 MW	-07 N	/W-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	MW-07	7 MW-0	7 MW-0	7 MW-0	7 MW-0	7 MW-0	7 MW-0	MW-0	7 MW	-07 MW-
DATE	Aug-95	May-96	Jul-97	Feb-9	8 Jun-9	99 Apr	-00 A	pr-01	Jul-01	Nov-0	Apr-0	02 Jun-0	2 Nov-	02 Apr-0	03 Jul	I-03 N	lov-03	Mar-04	Jun-04	Nov-04	4 Apr-0	5 Jul-05	Apr-06	Aug-06	6 Apr-	07 Aug	-07 A	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-1	2 Apr-1	3 Aug-1	3 Apr-14	4 Aug-1	4 Apr-18	Aug-1	5 Apr-	-16 Aug-
															-																											-			
Benzene	3320	1210	4900		5100	0 52	00	4800	3900	3300	270	0 2200	300	0 210	0 19	900 3	3200	2800	2000	1700	2800	2000	2900	2600	200	0 190	00	490	1100	780	850	330	840	690	600	690	420	660	450	620	570	1,100	1,100) 66	0 1,10
Toluene	389	20	750		2000	0 27	00	2500	3400	1700	150	0 1200) 140	0 120	0 93	30 1	1700	1800	1300	930	1100	840	1100	570	620	0 10	00	270	590	420	250	96	44	210	37	77	6.9	210	9.2	94	14	110	30	32	2 14
Ethylbenzene	2400	410	2900		3700	0 36	00 3	3300	2000	2100	230	0 1900	220	0 190	0 19	900 2	2700	2500	2500	1800	2700	2200	3100	2500	250	0 200	00	410	1500	1100	1000	520	1200	1200	800	1000	470	1000	600	1800	870	1,900	1,600	0 1,10	00 1,30
Xylene (sum of isomers)	1038	63	1200		1800	0 19	00	1800	1600	1100	120	0 1100) 110	0 110	0 10	000 1	1400	1200	1400	1000	1600	1300	1800	1500	140	0 110	00	270	910	820	700	360	820	770	510	660	270	680	440	980	590	1,400	1,200) 66	0 780
Total BTEX	7147	1703	9750		1260	0 134	400 1	12400	10900	8200	770	0 6400) 770	0 630	0 57	730 9	9000	8300	7200	5430	8200	6340	8900	7170	652	0 510	00	1440	4100	3120	2800	1,306	2,904	2,870	1,947	2,427	1,16	7 2,55	0 1,49	9 3,49	4 2,044	4,510	3,930	2,4	52 3,19
Acenaphthene	240	150	180		180) 18	30	150	140	160	80	120	150) nd	16	60	120	160	180	160	130	220	120	130	nd	13	30	19	69	32	36	15	60	76	49	64	49	64	63	100	74	130	120	93	3 78
Acenaphthylene	nd	nd	nd		nd	n	d	nd	2.2	nd	nd	nd	nd	nd	n	nd	nd	nd	3	nd	nd	nd	nd	nd	nd	n	d	2.5	nd	0.63	nd	nd	nd	nd	nd	nd	nd	2.0	0.83	nd	nd	nd	nd	nc	d nd
Anthracene	nd	nd	nd		nd	n	d	nd	3.6	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	5.4	3.9	nd	3	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	nc	d nd
Benzo(a)Anthracene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Benzo(a)Pyrene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Benzo(b)Fluoranthene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Benzo(g,h,i)Perylene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Benzo(k)Fluoranthene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Chrysene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Dibenzo(a,h)Anthracene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	0.47	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Fluoranthene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	0.2	0.27	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Fluorene	nd	28	45		nd	n	d	nd	28	nd	nd	nd	33	nd	n	nd	27	nd	42	nd	24	46	32	24	nd	25	5	7.6	13	6.4	6.2	2.7	12	13	9.6	11	11	13	12	nd	nd	nd	nd	nc	d nd
Indeno(1,2,3-cd)Pyrene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd
Naphthalene	3270	3000	2400		4100	0 59	00	3400	3400	3600	220	0 2600	500	0 310	0 38	300 3	3200	3700	2700	4600	3500	3600	3000	3600	370	0 310	00	430	1000	1600	1400	650	1700	2100	1500	1700	870	1,700	0 1,100	2,500	1,600	3,40	3,000	2,20	00 1,60
Phenanthrene	nd	nd	37		nd	n	d	nd	32	nd	nd	nd	30	nd	n	nd	nd	nd	38	nd	nd	nd	33	28	nd	25	5	2.5	12	4.3	4.6	2.1	11	16	9.5	11	9.1	12	11	nd	nd	nd	nd	nc	d nd
Pyrene	nd	nd	nd		nd	n	d	nd	nd	nd	nd	nd	nd	nd	n	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	n	d	nd	nd	nd	nd	nd	0.28	nd	nd	nd	0.17	nd	nd	nd	nd	nd	nd	nc	d nd
2-Methylnaphthalene								180	190	200	100	180	230) nd	28	80	170	270	320	300	230	400	350	250	270	23	30	24	120	73	84	33	110	160	90	120	66	130	82	260	110	300	250	17	0 120
Total PAHs	3510	3178	2662		4280	0 60	80	3730	3796	3960	238	0 2900	544	3 310	0 42	240 3	3517	4130	3283	5060	3884	4266	3541	4036	397	0 35	13	488	1215.5	1684.33	3 1495	688.23	1834.95	2365	1610.08	8 1843.5	1006.5	7 1,922	.6 1,270.5	53 2,860	1,784	3,83	3,370	2,40	63 1,79
Cyanide, total (Exygen/ Tes	t America)		189																																										
Cyanide, total (Clarkson Uni	iv.)																																												
Cyanide, free (Exygen/ Test	t America)																																												
Cyanide, free (Clarkson Uni	v.)																																												
Water Elevation (feet)			580.13	581.6	8 579.8	34 581	.70 5	81.50	579.98	580.58	3 582.0	01 580.9	6 580.	26 581.	66 580	0.31 58	80.32	582.45	581.24	581.36	582.2	8 579.7	581.9	579.24	582.	58 578	.21 5	581.99	580.83	581.93	581.01	582.26	580.00	583.60	579.76	581.56	578.6	1 582.2	2 581.0	2 582.4	1 579.6	1 582.17	580.1	5 582.	.36 578
															-																					1									

MW-10	MW-10	MW-10 M	N-10 MW	-10 MW	/-10 M\	N-10	MW-10	MW-10	D MW-10	D MW-1	10 MW-1	0 MW-1	0 MW-1	0 MW-10	MW-10	MW-10) MW-10) MW-10	MW-10	MW-10	MW-10	MW-10	MW-10	0 MW-10	MW-10	MVV-10	MW-10	MVV-10	MVV-10	MVV-10	MW-10	MW-10	MW-10) MW-1	0 MW-1	0 MW-1	0 MW-1	0 MW-	10 MW-1	0 MW-1	10 MW-	-10 MW
DATE	Aug-95	May-96 J	ul-97 Feb	-98 Jur	1-99 Ap	or-00	Apr-01	Jul-01	Nov-0	1 Apr-C)2 Jun-02	2 Nov-0	2 Apr-03	3 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-1	2 Apr-1	3 Aug-1	3 Apr-1	4 Aug-	14 Apr-1	5 Aug-1	15 Apr-	-16 Aug
Benzene	nd	nd	nd	n	d	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	nc	d no
Toluene	nd	nd	nd	n	d	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	nc	d no
Ethylbenzene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	0.9	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	1.3	nd	1.0	nd	nd	nd	nd	nc	d no										
Xylene (sum of isomers)	nd	nd	nd	n	d	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	nc	d no										
Total BTEX	0	0	0	(2	0	0	0	0	0.89	9 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	0) 0
Acenaphthene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d no
Acenaphthylene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d no
Anthracene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d no
Benzo(a)Anthracene	nd	nd	nd	n	d	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	nc	d no
Benzo(a)Pyrene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d no
Benzo(b)Fluoranthene	nd	nd	nd	n	d	nd	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	nc	d no
Benzo(g,h,i)Perylene	nd	nd	nd	n	d	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	nc	d no
Benzo(k)Fluoranthene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d no
Chrysene	nd	nd	nd	n	d	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	nc	d no
Dibenzo(a,h)Anthracene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d no
Fluoranthene	nd	nd	nd	n	d	nd	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	nc	d 0.3
Fluorene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d no
Indeno(1,2,3-cd)Pyrene	nd	nd	nd	n	d	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	nc	d no
Naphthalene	nd	nd	nd	n	d	nd	nd	nd	nd	nd	nd	2.1	nd	nd	nd	nd	nd	nd	0.78	nd	43	nd	nd	2.3	nd	0.65	2.2	nd	nd	1.0	1.6	6 0.9										
Phenanthrene	nd	nd	nd	n	d	nd	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	nc	d no
Pyrene	nd	nd	nd	n	d	nd	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	nc	d no
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	nc	d no
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	1.0	6 0.9
Cyanide, total (Exygen/ Te	est America)		334								_																															
Cyanide, total (Clarkson L	Jniv.)																																									
Cyanide, free (Exygen/ Te	est America)																																									
Cyanide, free (Clarkson U	Jniv.)																																					_				
Water Elevation (feet)		5	9.87 581	.44 579	9.33 58	1.19	581 07	579.64	580.10	581.6	51 580.5 ⁴	1 579.5	1 581.2	3 579.93	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	579.8	5 581 6	3 580 4	0 581 7	6 579.	31 581.6	4 580.1	15 581.	.81 578.

MW-11 / MW-11A	MW-11	MW-11 MW-11 MW-																																					
DATE	Aug-95	May-96 Jul-97 Feb-	98 Jun-99	Apr-0	0 Apr-0	1 Jul-01	Nov-01 Apr-02	2 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-1) Apr-1	Sep-11	Apr-12	Aug-1	2 Apr-1:	3 Aug-13	3 Apr-14	Aug-14	4 Apr-15	Aug-15	5 Apr-16	Aug-
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	8.8	44
oluene		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	nd	0.74
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	nd	2.3
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	nd	2
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	3 234.9	24.2	258	42.4	135.4	32.7	42.3	0	7.3	0	13.4	8.8	49.04
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	2.9	3.3
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	1.7	2.0
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	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
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
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
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
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
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
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
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	nd	0.48
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	0.6	0.53
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
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	nd	nd
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	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	0.66	0.73
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									
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	5.86	7.04
Cyanide, total (Exygen/ T	Test America)	1040					1340																														<u> </u>		<u> </u>
Cyanide, total (Clarkson l	Univ.)																																						
Cyanide, free (Exygen/ Te	Fest America)						nd																																
Cyanide, free (Clarkson L	Univ.)																																				+		<u></u>
Water Elevation (feet)		580.28 582.2	26 579.82	2 583.5	5 583.8	5 579.28	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	5 580.3	7 584.0	5 580.22	582.07	579.02	2 582.7	3 580.94	4 582.98	579.83	3 582.74	580.63	3 583.03	578.4

MW-12 DATE	Aug-95 May-	96 Jul-97 Feb-98 Jun-99 Apr-00 Ap			2 100.00	Nov-02	Apr 02	101-02	Nov 02	Mar-04		Nov 04												Aug 10	Apr. 11	Sep 11	Apr 12	Aug 12	Apr 12	Δυσ.12			MW-12			
	Aug-55 May		-01 Jui-0		2 3011-02	1100-02	Api-03	Jui-03	1100-03	Ivial-04	Juli-04	1100-04	Api-03	Jui-05	Api-00	Aug-00	Api-07	Aug-07	Αρι-00	Sep-00	Api-03	Aug-03	Api-10	Aug-10	Αρι-11	Sep-11		Aug-12	Api-13	Aug-15	Api-14	Aug-14		Aug-15	Api-10	Λuί
Benzene		17																															+			1
oluene		nd																																		
Ethylbenzene		nd																																		
(ylene (sum of isomers)		nd																																		
otal BTEX		17																																		
Acenaphthylene		nd																																		
Acenaphthene		nd																																		
Anthracene		nd							1																					1			1			
Benzo(a)Anthracene		nd																																		
Benzo(a)Pyrene		nd																												1						
Benzo(b)Fluoranthene		nd																																		
Benzo(g,h,i)Perylene		nd																																		1
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/ Te	est America)	375 294 380 4	34 1840) 393 522	2020	438	440	384	437	134	458	514	2110											708	837	720	670	480	530	540	526	580	570	890	640	79
Cyanide, total (Clarkson U	Iniv.)										461	491	425	413	440	415	459	454	473	550	472	449	550													
Cyanide, free (Exygen/ Te	st America)	nd r	d 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	6	n
Cyanide, free (Clarkson U	niv.)									6.7	nd	nd	3.3	2.9	2.6	nd	nd	6.8	25	7.2	4.1	4.7	nd													
Vater Elevation (feet)		579.45 581.07 578.98 580.90 580	72 579 3	0 579.54 581.4	0 580 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	581.62	579

MW-13	MW-13	MW-13	1W-13	/W-13 MW	-13 MW-	13 MW-1	3 MW-13	3 MW-13	8 MW-13	MW-13	MVV-13	MVV-13	10100-13	10100-13	10100-13	MVV-13	IVIVV-13	MVV-13	MW-13	MW-13	MW-13	MW-13	MW-13	10100-13	10100-13	10100-13	10100-13	MVV-13	10100-13	10100-13	100-13	10100-13	10100-13	10100-13	10100-13	10100-13	MW-13	MW-13	MW-13	MW-13	MW-1
DATE	Aug-95	May-96	Jul-97 F	eb-98 Jun	-99 Apr-0	00 Apr-0	1 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	Apr-16	Aug-1
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	$\left \right $	0.91		1.8
Toluene			nd	nd							nd			nd			nd		1		nd		nd	nd	1	-	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		nd
Xylene (sum of isomers)			nd	nd							nd			nd			nd				nd		nd	nd			nd		nd		nd		nd	1	nd	1	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		1.8
Acenaphthene			nd								nd			nd			nd				nd		nd	nd			nd		nd		nd		nd	J	nd	+	nd		nd		nd
Acenaphthylene			nd								nd			nd			nd			1	nd		nd	nd	1	1	nd		nd		nd		nd	1	nd	1	nd		nd		nd
Anthracene			nd								nd			nd			nd				nd		nd	nd			nd		nd		nd		nd		nd	1	nd		nd		nd
Benzo(a)Anthracene			nd								nd			nd			nd				nd		nd	nd			nd		nd		nd		nd		nd	1	nd		nd		nd
Benzo(a)Pyrene			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
Benzo(g,h,i)Perylene			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
Chrysene			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
Fluoranthene			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
Indeno(1,2,3-cd)Pyrene			nd								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		nd
Phenanthrene			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
2-Methylnaphthalene											nd			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		0
Cyanide, total (Exygen/ Te	est America)		323	35	56 280) 129	465	716	nd	157	399	142	423	528	175	108	280	103											449	nd	620	10	670	nd	530	nd	500	nd	400	nd	400
Cyanide, total (Clarkson U	Univ.)															145	234	55	363	61	300	3	664	54	467	27	327	nd													
Cyanide, free (Exygen/ Te	est 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	nd	nd
Cyanide, free (Clarkson L	Jniv.)														5.3	nd	nd	nd	3	nd	nd	nd	5.3	2.3	8.2	nd	nd	nd													
Water Elevation (feet)		-	578.17 5	579.72 577	.70 579.4	47 579.2	8 577.91	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	578.35	577.1

	MW-14																																			
DATE	Aug-95 May-96 Jul-97 Feb-98 Jun-99 Apr-00 Ap	or-01 Jul-	-01 No	ov-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 S	Sep-11	Apr-12	Aug-12	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15	Apr-16	Aug
lenzene	nd										1																									
oluene	nd																																			
thylbenzene	nd																																			
ylene (sum of isomers)	nd																																			
otal BTEX	0																																			
Acenaphthene	nd																																			
Acenaphthylene	nd																																			
Anthracene	nd																																			
Benzo(a)Anthracene	nd																																			
Benzo(a)Pyrene	nd																																			
Benzo(b)Fluoranthene	nd																																			
enzo(g,h,i)Perylene	nd																																			
enzo(k)Fluoranthene	nd																																			
Chrysene	nd																																			
Dibenzo(a,h)Anthracene	nd																																			
luoranthene	nd																																			
luorene	nd																																			
ndeno(1,2,3-cd)Pyrene	nd																																			
Naphthalene	nd																																			
Phenanthrene	nd																																			
Pyrene	nd																																			
2-Methylnaphthalene																																				
Fotal PAHs	0																																			
Cyanide, total (Exygen/ Test Ar	nerica) 644 427 800 9	914 37	78 4	149 886	416	487	664	962	583	nd	503	537												541	623	670	610	610	640	600	610	720	610	740	240	560
Cyanide, total (Clarkson Univ.)											514	571		423	305	281	404	422	374	486	425	422	480													
yanide, free (Exygen/ Test An	nerica) nd n	nd no	d i	nd nd	17	12	nd	9	7	nd	14	13												nd	nd	nd	1.7	nd	nd	nd	nd	nd	nd	5.7	nd	no
zyanide, free (Clarkson Univ.)										nd	nd	nd		nd	nd	nd	nd	nd	4	2.5	4.1	nd	nd													
Vater Elevation (feet)	577.36 579.19 577.03 578.44 57	8.21 577	.21 57	7.31 578.56	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 5	577.05	577.85	576.63	578.43	577.55	578.66	577.73	577.85	577.63	578.74	576
										+												-												+	+	+

MW-15	MW-15													MW-15				
DATE	Aug-95	May-96	Jul-97 F	eb-98 Jun-99 Apr-00 Apr-01 Jul-01 Nov-01 Apr-02 Jun-02	2 Nov-02	2 Apr-03	Jul-03	Nov-03	Mar-04	Jun-04	Nov-04	Apr-05	Jul-05	Apr-06 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-17	4 Apr-15	Aug-15	Apr-16	Aug
Benzene			nd														<u> </u>	
Toluene		-	nd							-							[
Ethylbenzene			nd													t		
Xylene (sum of isomers)			nd							-					-			
Total BTEX			0															
Naphthalene			nd															
Acenaphthylene	1		nd															
Acenaphthene			nd				1								-			
Fluorene			nd				1											
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/ Te	est America)		78.8													 		
Cyanide, total (Clarkson L	Univ.)																	
Cyanide, free (Exygen/ Te	est America)																	
Cyanide, free (Clarkson U	Univ.)															l		
Water Elevation (feet)			579.11 5	79.81 578.70 580.15 580.55 578.98 579.49 580.98 579.48	3 578.88	3 580.40	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 576.28 580.93 579.55 581.18 578.76	7 580.85	579.34	581.1	577

MW-16	MW-16			W-16 MW-16 M					-																															
DATE	Aug-95	May-96	Jul-97 F	eb-98 Jun-99 A	Apr-00 Ap	or-01 Jul-0	01 Nov-	01 Apr-0	2 Jun-02	Nov-02	2 Apr-03	3 Jul-03	Nov-0	B Mar-0	4 Jun-(04 Nov-0	14 Apr-0	5 Jul-(05 Apr-0	06 Aug-06	6 Apr-07	7 Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11 S	Sep-11	Apr-12	Aug-12	Apr-13	Aug-13	Apr-14	Aug-14	Apr-15	Aug-15	Apr-16	Aug
Benzene			nd																																			<u> </u>		-
oluene			nd						-				-																											
Ethylbenzene			nd																																					1
Xylene (sum of isomers)			nd									1									-																			
Fotal BTEX			0																																			<u> </u>		
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																																		'	1		
Benzo(k)Fluoranthene			nd																																					
Benzo(a)Pyrene			nd																																			<u> </u>		
Indeno(1,2,3-cd)Pyrene			nd																																		<u> </u>			
Dibenzo(a,h)Anthracene			nd																																			<u> </u>		
Benzo(g,h,i)Perylene			nd																																		'			
2-Methylnaphthalene									_													_															· '	<u> </u>		
Total PAHs			0																				-														'			
Cyanide, total (Exygen/ Te	est America)		346	459	360 2	214 214	1 138	8 174	23	187	203	130	220	254	297	293	307											602	617	700	840	750	880	740	730	1300	1100	1500	1700	170
Cyanide, total (Clarkson U	niv.)														332	2 297	305	29	266	368	317	429	467	540	531	504	566										<u> </u>	<u> </u>		
Cyanide, free (Exygen/ Te	st America)				nd	nd 147	7 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	11	8
Cyanide, free (Clarkson U	niv.)													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 5	31.49 579.66 5	81.81 58	31.59 580.0	06 580.	77 582.0	8 580.23	580.34	581.92	2 580.42	2 580.9	5 582.8	3 581.3	35 581.7	2 581.0	8 579.	91 582.1	14 580.56	582.87	7 578.25	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	582.87	578.

	MW-17	10100-17	IMVV-1	MVV-17	IVIVV-1	/ MW-	17 MW-	-17 MW	/-1/ MV	/٧-1/	WW-17	MW-17	MW-17	MVV-17	IMVV-17	10100-17	IMVV-1	7 MVV-1	/ IMVV-1	7 MVV-1	7 MW-1	7 MW-1	7 MW-1	7 MW-*	17 MVV-1	7 IVIVV-1	7 MVV-1	7 MVV-1	7 MVV-1	/ 10100-17	MVV-1	MIVV-1/	NIVV-17	MIVV-17	MVV-1	7 IMVV-1	7 IVIVV-1	7 IVIVV-1	7 IVIVV-1	7 MW-17	IMVV-1	7 MW-17	7 MW-*
DATE	Aug-95	May-96	Jul-97	Feb-98	Jun-99	Apr-C	00 Apr-	01 Jul	-01 No	ov-01	Apr-02	Jun-02	Nov-02	Apr-03	Jul-03	Nov-03	Mar-0	4 Jun-04	Nov-0	4 Apr-05	5 Jul-0	5 Apr-0	6 Aug-0	6 Apr-0)7 Aug-0	7 Apr-0	8 Sep-0	8 Apr-09	9 Aug-0	9 Apr-10	Aug-10) Apr-11	Sep-11	Apr-12	Aug-1	2 Apr-1	3 Aug-1	3 Apr-1	4 Aug-1	4 Apr-15	Aug-1	5 Apr-16	ک Aug-
Benzene				nd	nd	nd	nd	d n	d ı	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	nd	nd
Foluene				nd	nd	nd	nd	d n	d ı	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	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	d n	d ı	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	nd	nd
Xylene (sum of isomers)				nd	nd	nd	nd	d n	d ı	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	nd	nd
Total BTEX				0	0	0	0	C)	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	0	0
Acenaphthene				nd	nd	nd	nd	i n	d ı	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	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	i n	d ı	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	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	d n	d ı	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	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	d n	d ı	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	nd	nd
Benzo(a)Pyrene				nd	nd	nd	nd	d n	d ı	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	nd	nd
Benzo(b)Fluoranthene				nd	nd	nd	nd	d n	d ı	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	nd	nd
Benzo(g,h,i)Perylene				nd	nd	nd	nd	d n	d ı	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	nd	nd
Benzo(k)Fluoranthene				nd	nd	nd	nd	d n	d ı	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	nd	nd
Chrysene				nd	nd	nd	nd	d n	d ı	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	nd	nd
Dibenzo(a,h)Anthracene				nd	nd	nd	nd	i n	d ı	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	nd	nd
Fluoranthene				nd	nd	nd	nd	d n	d ı	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	nd	nd
Fluorene				nd	nd	nd	nd	d n	d ı	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	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	i n	d ı	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	nd	nd
Naphthalene				nd	nd	nd	nd	1 3	3 і	nd	nd	nd	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	1.5	0.5
Phenanthrene				nd	nd	nd	nd	i n	d ı	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	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	i n	d ı	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	nd	nd
2-Methylnaphthalene							nd	i n	d ı	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	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	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	1.5	0.53
Cyanide, total (Exygen/ T	Test America)			34	nd	27	65	5 3	8	74	185	127	108	185	50	66	378	106	160	217											93	297	230	210	81	160	98	198	160	220	89	240	60
Cyanide, total (Clarkson l	Univ.)																	142	162	260	161	263	183	369	148	285	144	279	148	242													
Cyanide, free (Exygen/ Te	Fest America)					nd	13	3 n	d ı	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	nd	nd
Cyanide, free (Clarkson L	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	3 581.9	90 581.	96 580).12 58	0.88	582.38	579.86	580.48	582.01	580.46	580.96	582.4	0 581.27	7 581.7	2 582.7	1 579.9	6 582.1	4 580.6	2 582.8	37 578.3	6 583.0	2 581.1	3 582.3	0 581.36	5 582.61	580.18	583.98	8 NM	581.93	578.92	2 582.6	8 580.7	7 582.8	6 579.6	8 582.58	3 580.4	6 582.89	9 578.

MW-18	MW-18 MW-18 MW-18 MW-18 MW-18 MW-18 MW-18	8 MW-18	MW-18 M	W-18								
DATE	Aug-95 May-96 Jul-97 Feb-98 Jun-99 Apr-00 Apr-01	I Jul-01	Nov-01 A	pr-02								
Benzene	nd nd nd	nd	nd	nd								
Toluene	nd nd nd	1.1	nd	nd								
Ethylbenzene	nd nd nd	nd	nd	nd								
Xylene (sum of isomers)	nd nd nd	nd	nd	nd								
Total BTEX	0 0 0 0	1.1	0	0					 			
Naphthalene	nd nd nd	nd	nd	nd					 			
Acenaphthylene	nd nd nd	nd	nd	nd								
Acenaphthene	nd nd nd	nd	nd	nd								
Fluorene	nd nd nd	nd	nd	nd								
Phenanthrene	nd nd nd	nd	nd	nd								
Anthracene	nd nd nd	nd	nd	nd								
Fluoranthene	nd nd nd	nd	nd	nd								
Pyrene	nd nd nd	nd	nd	nd								
Benzo(a)Anthracene	nd nd nd	nd	nd	nd								
Chrysene	nd nd nd	nd	nd	nd								
Benzo(b)Fluoranthene	nd nd nd	nd	nd	nd								
Benzo(k)Fluoranthene	nd nd nd	nd	nd	nd								
Benzo(a)Pyrene	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								
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								
Cyanide, total (Exygen/ Tes	st America) nd nd 13	nd	nd	nd								_
Cyanide, total (Clarkson Ur	niv.)											
Cyanide, free (Exygen/ Tes	st America) nd nd	24	nd	nd								
Cyanide, free (Clarkson Un	niv.)											
Water Elevation (feet)	585.46 582.65 585.06 585.40	583.84	583.84 5	32.74								

MW-19	MW-19 MW-1	9 MW-19 MW	-19 MV	V-19	MW-19	MW-1	19 MW-	19 MW	-19 N	/W-19	MW-19	MW-19	MW-1	9 MW-19	9 MW-19	MW-	19 MV	V-19 I	/W-19	MW-19	MW-19	MW-19	MW-19	MW-1	9 MW-1	9 MW	-19 MW	-19 M	/W-19	MW-19	MW-19	MW-19	MW-19	MW-19	9 MW-19	9 MW-19	9 MW-19	9 MW-19	9 MW-19	MW-19	9 MW-19	9 MW-1	9 MW-	19 MW-1
DATE	Aug-95 May-9	6 Jul-97 Feb	-98 Jur	n-99 /	Apr-00	Apr-0)1 Jul-C	01 Nov	/-01 A	Apr-02	Jun-02	Nov-02	Apr-0	3 Jul-03	Nov-03	8 Mar-0	04 Jur	n-04 I	Nov-04	Apr-05	Jul-05	Apr-06	Aug-06	Apr-0	7 Aug-0)7 Apr	-08 Sep	-08 A	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12	Apr-13	Aug-1	B Apr-14	Aug-14	Apr-15	Aug-1	5 Apr-	16 Aug-1
Benzene			47	700	5700	6000	0 460	0 470	00	4800	3800	4200	4600		5300	490	0 60	000	5800	7500	5800	5800	5600	6700	4500) 52	00 370	00 :	3700	3700	4300	4700	4400	4200	3800	4300	4000	4800	5200	5800	5300	5400	470	0 4900
Toluene				nd	nd	nd		-		nd	nd	nd	nd		nd	nd		nd	nd	n			nd	nd	nd	nd	nd	nd	nd	nd	nd	2.9	nd	nd	nd	nd								
Ethylbenzene			_	nd	280	260				160	150	140	170		130	170		30	180	350	270	260	200	220	100	-			180	170	290	230	280	170	190	130	210	300	550	310	400	430		
Xylene (sum of isomers)					2200					580	470	540	560	-	400	440		000	660	950	770	730	810	710	470				470	450	340	190	nd	nd	nd	nd	nd	75	nd	nd	nd	nd		
Total BTEX					8180							4880	5330		5830				6640	8800	6840	6790	6610	7630					4350	4320	4930	5120	4680		3990	4430								
							-																			_		_																
Acenaphthene				nd	nd	nd				nd	nd	nd	nd	nd	nd	nd		nd	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	n			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd								
Anthracene			r	nd	nd	nd				nd	nd	nd	nd	nd	nd	nd		nd	nd	n			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc							
Benzo(a)Anthracene				nd	nd	nd	-	_		nd	nd	nd	nd	nd	nd	nd		nd	nd	n			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	n			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd								
Benzo(b)Fluoranthene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd	r	nd	nd	n	d no	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd							
Benzo(g,h,i)Perylene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd		nd	nd	n			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc							
Benzo(k)Fluoranthene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd		nd	nd	n	d no	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd								
Chrysene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd		nd	nd	n		d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd								
Dibenzo(a,h)Anthracene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd		nd	nd	n	d no	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd								
Fluoranthene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd	r	nd	nd	n	d no	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd						
Fluorene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd	r	nd	nd	n	d no	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd						
Indeno(1,2,3-cd)Pyrene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd	r	nd	nd	n	d no	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd								
Naphthalene			1,9	900	2,200	2,200	0 2,00	0 2,1	100	2,300	2,000	2,100	2,400	2,100	2,000	2,70	00 2	,900	2,800	3,000	2,600	2,800	3,600	3,10	0 4,60	0 4,	100 2,6	500	3,600	3,600	3,300	3,700	3,300	2,700	3,200	2,900	2,600	4,200	5,500	5,400	4,600	5,70	0 3,9	2,90
Phenanthrene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd	r	nd	nd	n	d no	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nc	d nd						
Pyrene			r	nd	nd	nd	nd	no	d	nd	nd	nd	nd	nd	nd	nd	l r	nd	nd	n	d no	d	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	d nd						
2-Methylnaphthalene						nd	0.82	2 no	d	nd	nd	nd	nd	nd	nd	nd	l r	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	nc	d nd
Total PAHs			19	900	2200	2200	200	1 210	00	2300	2000	2100	2400	2100	2000	270	0 29	900	2800	3000	2600	2806	3605	3100	4606	6 41	06 260	3.5 3	606.2	3606.7	3307.2	3707.87	3309.3	2706.1	3206.2	2911	2609.5	4,200) 5,71 ⁻	5,400	4,600	5,71	1 3,9	2,90
Cyanide, total (Exygen/ T	L Test America)		11	100																																								
Cyanide, total (Clarkson l	Univ.)																																											
Cyanide, free (Exygen/ Te	Test America)																																											
Cyanide, free (Clarkson L	Univ.)																																							-				
Water Elevation (feet)			57	7.43 5	581.36	581.1	3 579.6	63 580	0.12 5	581.73	579.73	579.83	581.2	4 580.01	580.19	582.0	00 580	0.79	580.98	581.90	579.57	581.42	580.15	582.2	6 578.2	2 58	1.6 580	.52 5	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	580.0	4 581.	.93 578.1
													+	+		-					1	1		· · · · · ·												1						1		

| 5 May-96 Ju
 | Jul-97 Feb-98 | Jun-99 /
nd 1
nd 1
nd 2
nd 1
nd 1
nd 1
nd 1
nd 1
nd 1
nd 1
nd 1 | Apr-00 A | | 01 Nov-01 | Apr-02 | Jun-02 | Nov-02 A | 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 A | ug-10 Ai | or-11 Sep | p-11 Apr | r-12 Aug | -12 Apr-1
 | 3 Aug-13 | Apr-14 | Aug-14 | Apr-15 | Aug-15 | Apr-16 |
|-----------------|---------------|--|----------|--|---|---|--|---|--
--
--

--
--

--
--
---|---
--
--
---|---
--
--

--

--
---|--
--
---|---|---
---|---|--|---|---
---|---|--|---|---|---|---|---|--|
| | | nd
nd
0
nd
nd
nd
nd
nd
nd
nd
nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd
nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd
nd
nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd
0
nd
nd
nd
nd
nd
nd
nd
nd
nd
nd
nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | 0
nd
nd
nd
nd
nd
nd
nd
nd
nd
nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd
nd
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

 | | 1

 |
 | 1

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | Τ |
| | | nd
nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | 1 | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | nd | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | | | | | |
 | | | | | |
 | | | | | | |
| | | 0 | | | | | | | |

 |

 |

 | |

 | |

 |
 |

 | |

 | | | | | | |
 | | | | | |
 | | | | | | |
| | | 344 | 450 | 295 439 | 9 46 | 455 | 361 | 8 | 506 | 399

 | 21

 | 501

 | 242 | 387

 | 644 |

 |
 |

 | |

 | | | |
 | | 139 | 690 56 | 60 79 | 90 28 | 30 730
 | 390 | 660 | 150 | 890 | 640 | 1000 |
| | | | | | | | | | |

 |

 |

 | 242 | 444

 | 402 | 160

 | 429
 | 172

 | 469 | 337

 | 494 | 115 | 418 | 268
 | 495 | | | | |
 | | | | | | |
| | | | nd | 13 nd | l nd | nd | 10 | 9 | nd | 44

 | 14

 | nd

 | nd | 53

 | 13 |

 |
 |

 | |

 | | | |
 | | nd | 6 n | nd 2. | .2 6 | .0 4.9
 | nd | 2.0 | nd | nd | 5.9 | nd |
| | | | | | | | | | |

 |

 | nd

 | nd | nd

 | nd | nd

 | nd
 | nd

 | nd | 2.6

 | 3.2 | nd | nd | nd
 | nd | | | | |
 | | | | | | |
| | | 576.67 5 | 79.24 5 | 78.86 576.7 | 76 577.15 | 579.20 | 577.49 | 576.60 5 | 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 5 | 77.11 58 | 30.62 576 | 6.41 578 | 3.45 574 | .20 579.2
 | 5 577.23 | 579.81 | 579.28 | 579.37 | 580.04 | 579.76 |
| | | | nd nd 0 | nd ind ind ind ind ind ind ind ind ind i | nd nd nd nd 0 1 0 1 1 344 450 295 1 1 1 1 1 1 1 1 1 1 | nd nd nd nd | nd nd nd nd nd nd | nd 0 344 450 295 439 46 455 361 | nd < | nd nd <td< td=""><td>nd nd <th< td=""><td>nd nd <th< td=""><td>ind ind i</td><td>Image Image <th< td=""><td>Image: Solution of the state of the sta</td><td>Image Image <th< td=""><td>Image Image <th< td=""><td>Image Image <th< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Image Image <th< td=""><td>ind ind i</td><td>ind ind i</td><td>Image: Normal and series of the series of</td><td>ind ind i</td><td>Image: Index of the section of the secting the section of the section of the sec</td><td>ind ind i</td><td>Image: Image: Image:</td><td>Image: Image: Image:</td><td>a n</td><td>1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></td<> | nd nd <th< td=""><td>nd nd <th< td=""><td>ind ind i</td><td>Image Image <th< td=""><td>Image: Solution of the state of the sta</td><td>Image Image <th< td=""><td>Image Image <th< td=""><td>Image Image <th< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Image Image <th< td=""><td>ind ind i</td><td>ind ind i</td><td>Image: Normal and series of the series of</td><td>ind ind i</td><td>Image: Index of the section of the secting the section of the section of the sec</td><td>ind ind i</td><td>Image: Image: Image:</td><td>Image: Image: Image:</td><td>a n</td><td>1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<> | nd nd <th< td=""><td>ind ind i</td><td>Image Image <th< td=""><td>Image: Solution of the state of the sta</td><td>Image Image <th< td=""><td>Image Image <th< td=""><td>Image Image <th< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Image Image <th< td=""><td>ind ind i</td><td>ind ind i</td><td>Image: Normal and series of the series of</td><td>ind ind i</td><td>Image: Index of the section of the secting the section of the section of the sec</td><td>ind ind i</td><td>Image: Image: Image:</td><td>Image: Image: Image:</td><td>a n</td><td>1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<> | ind i | Image Image <th< td=""><td>Image: Solution of the state of the sta</td><td>Image Image <th< td=""><td>Image Image <th< td=""><td>Image Image <th< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Image Image <th< td=""><td>ind ind i</td><td>ind ind i</td><td>Image: Normal and series of the series of</td><td>ind ind i</td><td>Image: Index of the section of the secting the section of the section of the sec</td><td>ind ind i</td><td>Image: Image: Image:</td><td>Image: Image: Image:</td><td>a n</td><td>1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<></td></th<></td></th<></td></th<></td></th<></td></th<> | Image: Solution of the state of the sta | Image Image <th< td=""><td>Image Image <th< td=""><td>Image Image <th< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Image Image <th< td=""><td>ind ind i</td><td>ind ind i</td><td>Image: Normal and series of the series of</td><td>ind ind i</td><td>Image: Index of the section of the secting the section of the section of the sec</td><td>ind ind i</td><td>Image: Image: Image:</td><td>Image: Image: Image:</td><td>a n</td><td>1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<></td></th<></td></th<></td></th<></td></th<> | Image Image <th< td=""><td>Image Image <th< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Image Image <th< td=""><td>ind ind i</td><td>ind ind i</td><td>Image: Normal and series of the series of</td><td>ind ind i</td><td>Image: Index of the section of the secting the section of the section of the sec</td><td>ind ind i</td><td>Image: Image: Image:</td><td>Image: Image: Image:</td><td>a n</td><td>1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<></td></th<></td></th<></td></th<> | Image Image <th< td=""><td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td><td>Image Image <th< td=""><td>ind ind i</td><td>ind ind i</td><td>Image: Normal and series of the series of</td><td>ind ind i</td><td>Image: Index of the section of the secting the section of the section of the sec</td><td>ind ind i</td><td>Image: Image: Image:</td><td>Image: Image: Image:</td><td>a n</td><td>1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<></td></th<></td></th<> | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Image Image <th< td=""><td>ind ind i</td><td>ind ind i</td><td>Image: Normal and series of the series of</td><td>ind ind i</td><td>Image: Index of the section of the secting the section of the section of the sec</td><td>ind ind i</td><td>Image: Image: Image:</td><td>Image: Image: Image:</td><td>a n</td><td>1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<></td></th<> | ind i | ind i | Image: Normal and series of the series of | ind i | Image: Index of the section of the secting the section of the section of the sec | ind i | Image: | Image: | a n | 1 1 nd 1 nd 1 nd <td< td=""><td>1 1</td><td>ANN</td><td>and</td><td>and</td><td>ANN</td><td>A A<!--</td--></td></td<> | 1 | ANN | and | and | ANN | A </td |

MW-21	MW-21	MW-21 MW-21 MW-21 MW-21 MW-21 MW	-21 MW-2	21 MW-21 MW-2	1 MW-21	1 MW-21	MW-																													
DATE	Aug-95	May-96 Jul-97 Feb-98 Jun-99 Apr-00 Apr	-01 Jul-0	1 Nov-01 Apr-0	2 Jun-02	2 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	Apr-16	Aug-
Benzene		nd																																		<u> </u>
oluene		nd																																		
Ethylbenzene		nd																																		
(ylene (sum of isomers)		nd																																		
otal BTEX		0																																		
laphthalene		nd																																		
cenaphthylene		nd																																		
Acenaphthene		nd																									1									
luorene		nd																																		
Phenanthrene		nd																																		Í
Inthracene		nd																																		
luoranthene		nd																																		1
yrene		nd																																		
Benzo(a)Anthracene		nd																																		
Chrysene		nd																																		
Benzo(b)Fluoranthene		nd																																		
Benzo(k)Fluoranthene		nd																																		
Benzo(a)Pyrene		nd																																		
ndeno(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/ Te	est America)	511 560 89	8 558	535 756	674	670	637	708	569	714	741	740	664											433	539	420	480	420	490	460	453	430	500	440	430	320
Cyanide, total (Clarkson L	Jniv.)										749	709	688	545	404	448	574	560	543	417	485	441	508													
yanide, free (Exygen/ Te	est America)	nd 1	4 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	nd	n
yanide, free (Clarkson U	Jniv.)									nd	nd	nd	nd	2.6	nd	nd	nd	nd	18.5	4.2	nd	nd	nd												+	
Vater Elevation (feet)		576.51 578.08 577	.68 576.5	5 576.58 578.0	3 576.97	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	578.05	576
		370.31 378.08 377	.00 570.0	5 570.56 576.0	5 57 0.57	570.20	575.52	570.55	570.42	577.70	570.00	570.05	5/7.71	570.50	511.20	570.75	576.56	570.79	511.42	570.94	511.55	570.95	511.45	570.07	579.52	515.29	577.09	575.09	511.55	570.00	570.24	570.54	511.02	570.09	- 51	0.05

MW-22	MW-22	MW-22 M\	V-22 MW-2	2 MW-2	22 MW-2	2 MW	22 MW-2	2 MW-2	22 MW-2	22 MW-22	2 MW-22	2 MW-2	2 MW-22	2 MW-22	2 MW-22	2 MW-22	MW-22	MW-22 N	1W-22 I	MW-22 N	IW-22 M	W-22 M	W-22 M	W-22 M	IW-22 N	/W-22	MW-22	MW-22	MW-												
DATE	Aug-95	May-96 Ju	II-97 Feb-9	8 Jun-9	9 Apr-0	0 Apr-	01 Jul-0	1 Nov-0	01 Apr-C)2 Jun-02	2 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	9 Apr-10	Aug-10	Apr-11 S	ep-11	Apr-12 A	ug-12 A	pr-13 Au	ıg-13 A	pr-14 A	ug-14 A	Apr-15	Aug-15	Apr-16	Aug-
Benzene				6																																					-
oluene				nd	-												-				1				-	+		-													
Ethylbenzene				nd																																					<u> </u>
Kylene (sum of isomers)				nd													-							-																	
Fotal BTEX				6																																					
Vaphthalene				nd																						-															
Acenaphthylene				nd															1																						
Acenaphthene				nd																																					
Fluorene				nd																																					
Phenanthrene				nd																																					
Anthracene				nd																																					
luoranthene				nd																																					
yrene				nd																																					
Benzo(a)Anthracene				nd																																					
Chrysene				nd		İ																																			
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/ Te	est America)			487	600	101	0 734	460	703	1570	467	604	560	1080	741	504	803	941											778	1030	860	1,000	870	1,100	770	746	790	770	990	1,600	7
Cyanide, total (Clarkson L	Univ.)															676	759	628	534	587	540	642	641	666	785	704	690	771												<u> </u>	
Cyanide, free (Exygen/ Te	est America)				nd	nc	I 201	nd	nd	49	231	267	88	49	132	nd	207	99											nd	7	nd	5.5	26	9.2 1	4.1 2	24.0	11.6	11.2	6.5	8.3	nd
Cyanide, free (Clarkson U	Jniv.)	_								_					nd	8	nd	3.1	2.4	nd	nd	nd	4.3	5.9	3.3	3.1	3.4	nd													
Vater Elevation (feet)				578.8	0 580.7	0 580.	51 579.0	9 579.5	0 581.2	25 580.05	5 579.10	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	3 581.19	579.29	583.13 5	78.99	580.56 5	78.26 5	81.17 57	9.69 58	81.51 5	78.85 5	581.18	579.53	581.37	577.
					-	-							1	1	1	1	+	1	+	1	1		1	1		1	1														

MW-23	MW-23	MW-23 MV	N-23 MW-23 MW-23	MW-23 MW-	-23 MW-2	3 MW-23 M	W-23 MW-	23 MW-	23 MW-2	3 MW-23	MW-23 M	MW-23 M	W-23	MW-23 M	W-23	MW-23 MV	/-23 N	/W-23 M	IW-23 M	/W-23 M	₩-23 N	/W-23 MW-2															
DATE	Aug-95	May-96 Ju	II-97 Feb-98 Jun-99	Apr-00 Apr-	01 Jul-0	1 Nov-01 A	pr-02 Jun-0	02 Nov-	02 Apr-0	3 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 Se	ep-11	Apr-12 A	Jg-12	Apr-13 Au	j-13 /	Apr-14 A	ug-14 A	Apr-15 Au	.ig-15 A	Apr-16 Aug-16
Benzene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Toluene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Ethylbenzene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Xylene (sum of isomers)				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Total BTEX				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	r	nd		nd		nd	nd
Acenaphthylene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Anthracene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Benzo(a)Anthracene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Benzo(a)Pyrene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Benzo(b)Fluoranthene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Benzo(g,h,i)Perylene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Benzo(k)Fluoranthene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Chrysene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Dibenzo(a,h)Anthracene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Fluoranthene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Fluorene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Indeno(1,2,3-cd)Pyrene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Naphthalene				nd				nd			nd			nd				3.6				nd		nd		nd		nd		nd	1	1.2		1.5	0	0.52	nd
Phenanthrene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Pyrene				nd				nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
2-Methylnaphthalene								nd			nd			nd				nd				nd		nd		nd		nd		nd	r	nd		nd		nd	nd
Total PAHs				0				0			0			0				3.6				0		0		0		0		0	1	1.2		1.5		0.52	0
Cyanide, total (Exygen/ Te	est America)			480 658	8 469	654	480 425	728	3 356	620	729	587	446	437	274											299	307	360	220	330	570 7	80	684	670	490 4	480	120 300
Cyanide, total (Clarkson L	Univ.)												493	560	359	325	267	321	326	374	252	344	276	320	277												
Cyanide, free (Exygen/ Te	est America)			nd nd	d nd	nd	nd 12	10	nd	15	6	5	9	5	57											nd	6	4	2.4	nd	0.7 8	3.1	nd	nd	nd 2	22.3	nd nd
Cyanide, free (Clarkson U	Jniv.)											nd	3.2	11.7	nd	nd	nd																				
Water Elevation (feet)				578.66 578.	30 577.4	0 577.58 5	78.69 577.8	33 577.	18 578.1	1 577.40	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 57	77.09	578.03 5	76.78	578.59 57	7.67 {	579.05 5	77.43 5	578.63 57	77.75 €	578.86 576.96
												1	1							1	1	1		1													

DATE															SW-01		SW-01	10			1 SW-01	SW-01		SW-01				SW-01	SW-01	SW-01	SW-01	SW-01		SW-01	SW-01	1 SW-01	0		SW-0
)	Aug-95	May-96	Jul-97 Fe	eb-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	6 Aug-06	6 Apr-07	7 Aug-07	Apr-08	Sep-08	Apr-09	Aug-09	Apr-10	Aug-10	Apr-11	Sep-11	Apr-12	Aug-12	2 Apr-13	Aug-13	Apr-14	Aug-14	4 Apr-15	Aug-15	5 Apr-16	Aug-1
Benzene			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.44	nd	nd	nd	nd	nd	nd	nd	Dry	nd	0.15	nd	nd	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	Diy	nd	0.22	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	0.23	nd		nd	0.6	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd						
Xylene (sum of isomers)			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	0.54	nd	nd	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	0	0
Acenaphthene			nd	nd	1.1	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										
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										
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										
Benzo(a)Pyrene			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	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	1	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	0.53	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	0.56	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										
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										
Fluoranthene			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.5	nd	nd	nd		nd	nd	1.8	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										
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										
Naphthalene			nd	nd	2.9	nd	nd	nd	1.6	nd	32	nd	nd		2.3	nd	nd	1.2	nd	nd	nd	0.76	nd																
Phenanthrene			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	nd	nd										
Pyrene			nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.4	nd	nd	nd		nd	nd	1.3	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										
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	0.76	0
Cyanide, total (Exygen/ Te	l Fest 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	nd	92
Cyanide, total (Clarkson L	Univ.)													46	53	10	5	4	24	nd		14	5	25	23	3.6								_		_		_	
Cyanide, free (Exygen/ Te	est 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	nd	33
Cyanide, free (Clarkson U	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	5 582.5	581.35	5 NM	581.23	3 583.12	NM

Appendix A - Groundwater and Surface Water Monitoring Results 2016 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	2 SW-02	2 SW-02	2 SW-0	02 SW-0	2 SW-02	2 SW-0	02 SW-02	2 SW-02	2 SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	SW-02	2 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	2 SW-02
DATE	Aug-95	May-96 Jul-97	Feb-98	3 Jun-99	Apr-00) Apr-0)1 Jul-0'	1 Nov-01	1 Apr-C	02 Jun-02	Nov-02	2 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	Apr-16	6 Aug-16
Benzene		nd		nd	6	2	nd	nd	1.2	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	Dry	nd																	
Toluene		nd		nd	8	2	nd	nd	0.25	5 nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd		nd	nd	nd	0.23	0.18	7.2	nd											
Ethylbenzene		nd		nd	15	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																	
Total BTEX		0	ļ	0	53	4	0	0	1.45	5 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
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 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	0.19	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	0.49	nd	1.5	nd	nd	nd	0.26	nd	nd	nd	2.7	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	0.49	nd	1.1	nd	4.2	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	1.2	nd	1.3	nd	1.7	nd	nd	nd	nd	1.4	8.3	nd	3.1	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	0.55	nd	1.5	nd	2.2	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	1.2	nd	nd	nd	nd	nd	nd	0.69	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
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	0.45	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
Fluorene		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	1.9	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	2.2	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	2.4	nd	nd	nd	nd								
Pyrene		nd	1	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
2-Methylnaphthalene						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	0.0	0.0
	act Amorica)	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	12	nd
Cyanide, total (Exygen/Te		11.5		nd	380	121	na		130		1440	17	30	02	40				nd		nd	nd		06	86	16	141	4.4	309	nu	93	40	14	90	nu	11	10	90	160	12	nd
Cyanide, total (Clarkson U	,				114		اريم		10		40				200	nd	50	nd	nd	3	nd	nd		86	00	16	141	4.4		0	44	44		200	0.70	10		20.4	7.0		
Cyanide, free (Exygen/ Te Cyanide, free (Clarkson Ui					111	nd	nd	nd	16	nd	42	nd	nd	nd	20 19.2	nd nd	12 6.2	nd nd	nd	2.3	nd	8.6		50.7	10.1	nd	3.0	nd	nd	6	11	11	nd	26	0.76	1.6	nd	30.1	7.2	nd	nd
	-		1													-	-			1					-		1						1					1			
Water Elevation (feet, appr	roximate)		1	580.3	580.9	580.	6 580.5	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 C

Annual Site Inspection Form

Annual Site Inspection Form

Mineral Springs Road Former MGP

Inspection by Randolph West	Affiliation: AECOM
Signature:	Date: April 12, 2016 (Inspection Date)
ASPHALT CAP SOUTH OF BUILDING #3	CLAY CAP BEHIND BUILDING #14
Cracks or ruts ? Erosion at edges ? Blue-stained soil ? Comments: Some degradation of asphalt cap caused by clean-up of minor fuel oil spill ASPHALT CAP EAST OF BUILDING #3 Also B8WAC, B10AC Cracks or ruts ? Erosion at edges ? Blue-stained soil ? Comments: Minor cracking within paved areas - cracks	Animal dens ? Erosion ? Trees ? Blue-stained soil ? Comments: Animal burrow near foundation of transmission tower EASTERN DRAINAGE DITCH EDD Animal dens ? Erosion ? Trees ? Yes No Blue-stained soil ? Yes No
ASPHALT CAP NORTH OF EASTERN SWALE ESNAC Cracks or ruts ? Yes No Erosion at edges ? Yes No Blue-stained soil ? Yes No	Blue-stained soil ? Yes No Hydrocarbon sheen ? Yes No Inadequate Signage ? Yes No Trash / Debris ? Yes No Comments: High water levels in creek create standing water in south portion of EDD
Comments: ASPHALT CAP SOUTH OF EASTERN SWALE ESSAC Cracks or ruts ? Yes No Erosion at edges ? Yes No Blue-stained soil ? Yes No Comments:	BACKFILLED EXCAVATIONS Excessive settlement ? Yes Ponding of surface water ? Yes Tar boils ? Yes Blue-stained soil ? Yes Comments: Yes
HDPE/SOIL CAP IN EASTERN SWALE ESHC Cracks or ruts ? Yes No Erosion at edges ? Yes No Blue-stained soil ? Yes No Comments:	CLASS D STREAM Hydrocarbon sheen ? Yes No Comments: SITE FENCE Damage / Holes ? Yes No
	Comments:



Appendix D

Photographs





Looking east at Eastern Swale North Asphalt Cap (ESNAC), showing repairs made last year (2015).





Looking east at French drain in Eastern Swale HDPE Cap (ESHC). Repairs made last year have been successful.





Looking east at the Building 10 Asphalt Cap (B10AC). Cracks in distance not fully penetrating the asphalt cap.





Looking west at Eastern Swale South Asphalt Cap (ESSAC). No problems noted.





Looking east at small area of standing water at the oultet to the north culvert to the mid-section of the Eastern Drainage Ditch (EDD).





Looking north along mid-section of EDD from road over south culvert





Looking south at ditch downstream of south culvert in the south portion of the EDD





Looking west at Clay Cap (CC) area.





Animal burrow noted at the foot of the overhead transmission tower in the Clay Cap area.





Looking north over boundary between Building 3 Asphalt East Cap (B3EAC) and Building 8 Asphalt West Cap (B8WAC), in good repair.





Looking south over Corrective Measures (CM) area along back of properties on Calais St. (to the right).

PHOTOGRAPH LOG NATIONAL FUEL MINERAL SPRINGS ROAD SITE 2016 ANNUAL INSPECTION



Appendix E

Institutional and Engineering Controls Certification Form



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



Sit	e No. V00195	Site Details	Box 1	
Sit	e Name NFG - Mineral Springs MGP			
City Co	e Address: 365 Mineral Springs Road r/Town: West Seneca unty: Erie e Acreage: 80.0	Zip Code: 14210		
Re	porting Period: September 16, 2015 to Se	eptember 16, 2016		
			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 tax map amendment during this Reportin		a □	X
3.	Has there been any change of use at the (see 6NYCRR 375-1.11(d))?	site during this Reporting Period		X
4.	Have any federal, state, and/or local perr for or at the property during this Reporting		ed□	X
	If you answered YES to questions 2 th that documentation has been previous			
5.	Is the site currently undergoing developm	nent?		X
			Box 2	
			YES	NO
6.	Is the current site use consistent with the Commercial and Industrial	use(s) listed below?	X	
7.	Are all ICs/ECs in place and functioning a	as designed?	X	
	DO NOT COMPLETE THE REST	TION 6 OR 7 IS NO, sign and date below T OF THIS FORM. Otherwise continue.		
AC	orrective Measures Work Plan must be s	upmitted along with this form to address	s these issues.	
Siq	nature of Owner, Remedial Party or Designa	ted Representative Date		

Description of Institutional Controls

Parcel	Owner
123.16-2-8	National Fuel Gas Distribution Corp.

Institutional Control 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.

Description of Engineering Controls

Parcel 123.16-2-8 Engineering Control Cover System Fencing/Access Control Box 3

Box 4

	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								
	\mathbf{X} \Box								
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								
	\mathbf{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 O	WNER OR DESIGNATED REPRESENTAT	FIVE SIGNATURE
I certify that all information	on and statements in Boxes 1,2, and 3 are	true. I understand that a false
statement made herein i	s punishable as a Class "A" misdemeanor,	, pursuant to Section 210.45 of the
Penal Law.		
TREPAN E U	A27 - 215	
I JEFFREY R H	at 365 MINERAL	SPRINGS RD, BUFFALD, N.Y.
print name	print business	address
am certifying as	OWNER	(Owner or Remedial Party
	0	
for the Site named in the	Site Details Section of this form.	
/		
Kell		
		10-12-16.
Signature of Owner, Ren	nedial Party, or Designated Representative	e Date
Rendering Certification		

	IC/EC CERTIFICATIONS	
Pr	rofessional Engineer Signature	Box 7
	and 5 are true. I understand that a false stand reason or, pursuant to Section 210.45 of the Penal	
Randolph West	AECOM; 257 W. Genesee St.,	, Buffalo NY 14202
print name	print business address	
am certifying as a Professional Engine And And And And And And And And And And	or the Owner or	dial Party)