PRE-DESIGN INVESTIGATION
SOIL BORING PROGRAM REPORT
FOR THE COLD SPRING FORMER MGP SITE
VILLAGE OF COLD SPRING, PUTNAM COUNTY, NEW YORK
SITE ID #340026

PREPARED FOR:

NYSDEC

DIVISION OF ENVIRONMENTAL REMEDIATION
REMEDIAL BUREAU E, SECTION A

PREPARED BY:

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1.0 INTRODUCTION

URS has been tasked to design the remediation for the Cold Spring Former MGP site under Work Assignment Number D007622-12 by the New York Department of Environmental Conservation (NYSDEC). In keeping with the February 2010 Record of Decision (ROD) for the site, the remedial program includes pre-design investigations that are necessary to confirm site conditions. The purpose of this pre-design boring program was to confirm the limits of excavation for MGP contaminated soil and to better define the location of remaining MGP structures (gas holder and foundation) present in the subsurface. The proposed limits of excavation were based on information provided in the 2010 ROD and Site Investigation/Remedial Alternatives Report issued by Dvirka and Bartilucci Consulting Engineers for the Village of Cold Spring in 2009. The proposed limits, as currently defined, are based on Alternative 3 presented in the 2009 report which called for the excavation of the "hot spot" source area where the most extensive MGP impacts were encountered. The proposed excavation area, as depicted in the ROD, is shown on Figure 1. Borings were installed at locations along the proposed excavation limits and samples were collected from the borings to evaluate the validity of the proposed excavation limits. Borings were also installed inside the limits in areas where previous geophysical surveys showed the locations of subsurface structures. The approximate locations of the subsurface structures are also shown on Figure 1.

2.0 DESCRIPTION OF FIELD ACTIVITIES

Drilling activities were conducted by Aztech Environmental on October 9 and 10, 2013. Drilling was performed using a track-mounted direct-push unit (Geoprobe® 6610 DT). Field activities were supervised full-time by a URS geologist. Drilling was performed on site and on a private residential property located immediately east of the site.

Soil samples were collected at thirteen boring locations along and outside of the proposed excavation perimeter as described in Section 3.0. Samples were sent to Test America Laboratories, Inc. for analysis of MGP-related contaminants [i.e., benzene, toluene, ethylbenzene, xylene (BTEX) and polycyclic aromatic hydrocarbons (PAHs)]. BTEX was analyzed according to Method 8260C and PAHs were analyzed according to Method 8270D. A Data Usability Summary Report (DUSR) with the analytical results is included in Appendix A. Boring logs are included in Appendix B.

Drilling activities for locating subsurface structures was limited to the afternoon of October 10. A total of eight borings within the proposed excavation perimeter were drilled to locate subsurface structures. Data from these borings is presented in Section 3.0. No soil samples were collected from these borings since they were installed well within the proposed limits of the excavation. In keeping with the purpose of the boring program, samples were only collected from borings located along the proposed excavation perimeter as discussed in the paragraph above.

3.0 RESULTS OF SOIL BORING PROGRAM

3.1 Soil Sampling

Eleven samples (X-01, X-03A, X-05, X-06, X-07, X-08, X-09, X-10, X-11, X-12, and X-13B) were collected along the perimeter of the proposed excavation and two samples (X-22 and X-23A) were collected on private residential property located immediately adjacent to the proposed excavation area. Soil samples are shown on Figure 1.

Tables 1 through 5 present the analytical results for the samples as compared to 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (SCOs) for five different criteria, namely, unrestricted, residential, restricted residential, commercial and industrial uses. These tables show the following:

- VOCs were detected infrequently and at low concentrations. No VOCS exceeded any of the five site use criteria.

- PAHs were detected at concentrations above the unrestricted use criteria in five samples (X-1(9-10'), X-10(0.5-1'), X-11(4.4-5.4'), X-12(4.4-5.4') and X-13B (5-5.6').

- PAHs were detected at concentrations above the other four use criteria at the same locations where the criteria for unrestricted use were exceeded, namely, X-1(9-10'), X-10(0.5-1'), X-11(4.4-5.4'), X-12(4.4-5.4') and X-13B (5-5.6').

When discussing contamination to the north and east, the ROD states that sidewalls of the excavation are expected to be clean (no visible tar and no confirmation samples with PAHs above 500 ppm). To the west and south the excavation is currently limited by the boat house and the stone wall. As shown on Table 1, total PAHs exceeded 500 ppm at only one location, X-13B. Boring X-13B is located to the south near the stone wall. Boring X-13B is also the only location where visible coal tar was noted during the boring program.

3.2 Borings to Locate Subsurface Structures

A total of eight borings were advanced to better define the locations of underground structures. Boring locations are shown on Figure 1. Data from the borings is summarized below. The data from 5 of the 7 borings shows that the MGP structures are present at about 5 to 6 feet bgs in the area where the borings were installed. Refusal at 1.1feet bgs at X-16 and 0.4 feet bgs at X-21 are believed to be a result of encountering boulders or other hard fill located above the structures.

BORING LOCATION	REFUSAL (FT BGS)
X-14	5.8
X-15	6.1
X-16	1.1
X-17	5.4
X-18	5.1
X-19	5.4
X-20	5.5
X-21	0.4

4.0 DESIGN PARAMETERS

Samples were collected on three sides of the proposed excavation area, namely the north side near New Street, the east side adjacent to the open area, and the south side near the stone wall remains and bedrock outcrop. Samples were also collected on the private residential property located east of the proposed excavation limits. Sample results from these areas are discussed below. Samples were not collected on the west side of the proposed excavation area near the boat house since the boat house limits the extent of excavation to the west.

- North Side: Samples collected along the north side included X-1, X-3A, X-5 and X-6. Sample X-1 was the only sample showing exceedances of the Subpart 375 SCOs. However, the concentration of total PAHs (49.9 ppm) was well below 500 ppm in this sample and there were no visible signs of coal tar reported for this boring. Based on the sampling results, the proposed excavation limit for the north side adequately meets the requirements for remediation and will remain the same.

- East Side: Samples collected along the east side included X-7, X-8 and X-9. None of these samples showed exceedances of the Subpart 375 SCOs. The highest concentration of total PAHs (2.489 ppm at X-9) was well below 500 ppm. There were no visible signs of coal tar in the borings. Based on the sampling results, the proposed excavation limit along the east side adjacent to the open area adequately meets the requirements for remediation and will remain the same.

- South Side: Samples collected along the south side included X-10, X-11, X-12 and X-13B. All these samples showed exceedances of the Subpart 375 SCOs. In addition, the concentration of total PAHs in sample X-13B at 3,822 ppm was well above 500 ppm. Visible coal tar was also detected at X-13B. In light of these results, the south excavation boundary will be moved approximately 10 feet to the south to the stone wall remains.

- Residential Property: Samples collected on the residential property included X-22 and X-23A. No VOCs or PAHs were detected at X-22 and minimal contamination (0.563 ppm total PAHs) was detected at X-23A. There were no exceedances of Subpart 375 SCOs in either of these

samples. These results along with the results from X-9 located near the residential property suggest that there is no significant source of contamination on the residential property. On this basis, it does not appear that the limits of excavation will extend far into the residential property.

Because of space restrictions, samples could not be collected on the entire east side of the proposed excavation to the west of the residential property, that is, the southeastern portion of the on-site property. Since no data is available, to be conservative it is assumed that contamination extends up to the property line of the residential property. This portion of the excavation boundary will be relocated about six feet to the east.

The revised ROD Alternative 3 (Partial Removal) excavation area for remediation based on the pre-design investigation sampling results discussed above is depicted on Figure 2.

TABLE 1
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, UNRESTRICTED CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-01	X-03A	X-05	X-06	X-07
Sample ID			X-1 (9-10)	X-3A (9-10)	X-5 (9-10)	X-6 (8-9)	X-7 (7-8)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			9.0-10.0	9.0-10.0	9.0-10.0	8.0-9.0	7.0-8.0
Date Sampled			10/09/13	10/09/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	60					
Ethylbenzene	UG/KG	1000	37 J				
Toluene	UG/KG	700	40 J				
Xylene (total)	UG/KG	260	19 J				
Total BTEX	UG/KG	-	96	ND	ND	ND	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	20000	2,200	22 J	20 J	4.5 J	
Acenaphthylene	UG/KG	100000	1,200		13 J		
Anthracene	UG/KG	100000	2,500	48 J	22 J	8.4 J	
Benzo(a)anthracene	UG/KG	1000	4,400		44 J		
Benzo(a)pyrene	UG/KG	1000	3,400				
Benzo(b)fluoranthene	UG/KG	1000	2,800				
Benzo(g,h,i)perylene	UG/KG	100000	1,800				
Benzo(k)fluoranthene	UG/KG	800	1,100				
Chrysene	UG/KG	1000	4,900		58 J		
Dibenz(a,h)anthracene	UG/KG	330	630 J				
Fluoranthene	UG/KG	100000	5,500	21 J	83 J	15 J	
Fluorene	UG/KG	30000	1,600				
Indeno(1,2,3-cd)pyrene	UG/KG	500	1,000				
Naphthalene	UG/KG	12000	270 J		43 J		
Phenanthrene	UG/KG	100000	5,600	48 J	140 J	58 J	
Pyrene	UG/KG	100000	11,000	33 J	96 J	23 J	
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	49,900	172	519	108.9	ND

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 1
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, UNRESTRICTED CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-08	X-09	X-10	X-11	X-12
Sample ID			X-8 (5-6)	X-9 (5-6)	X-10 (0.5-1.0)	X-11 (4.4-5.4)	X-12 (4.4-5.4)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-6.0	5.0-6.0	0.5-1.0	4.4-5.4	4.4-5.4
Date Sampled			10/10/13	10/10/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	60					
Ethylbenzene	UG/KG	1000				1.2 J	
Toluene	UG/KG	700				1.1 J	
Xylene (total)	UG/KG	260				3.2 J	
Total BTEX	UG/KG	-	ND	ND	ND	5.5	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	20000		5.4 J	1,400 J	7,000	
Acenaphthylene	UG/KG	100000		33 J	14,000	2,600	2,800 J
Anthracene	UG/KG	100000	74 J	38 J	3,300 J	7,700	1,200 J
Benzo(a)anthracene	UG/KG	1000	420 J	200 J	19,000	5,100	8,200
Benzo(a)pyrene	UG/KG	1000	610 J	230	19,000	4,100	7,700
Benzo(b)fluoranthene	UG/KG	1000	750 J	320	22,000	3,800	7,400
Benzo(g,h,i)perylene	UG/KG	100000	480 J	140 J	9,900	1,900	3,200 J
Benzo(k)fluoranthene	UG/KG	800	320 J	140 J	8,800	1,000 J	3,600
Chrysene	UG/KG	1000	400 J	230	21,000	5,200	7,600
Dibenz(a,h)anthracene	UG/KG	330		43 J	3,600 J	640 J	1,200 J
Fluoranthene	UG/KG	100000	620 J	410	15,000	8,200	8,000
Fluorene	UG/KG	30000			2,800 J	6,100	610 J
Indeno(1,2,3-cd)pyrene	UG/KG	500	400 J	130 J	8,900	1,300 J	2,900 J
Naphthalene	UG/KG	12000			1,600 J	5,200	
Phenanthrene	UG/KG	100000	340 J	190 J	3,000 J	24,000	490 J
Pyrene	UG/KG	100000	660 J	380	35,000	13,000	12,000
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	5,074	2,489.4	188,300	96,840	66,900

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 1
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, UNRESTRICTED CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-13B	X-22	X-23A
Sample ID			X-13B (5.0-5.6)	X-22 (14-15)	X-23A (14-15)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			5.0-5.6	14.0-15.0	14.0-15.0
Date Sampled			10/10/13	10/11/13	10/11/13
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
Benzene	UG/KG	60	NA		
Ethylbenzene	UG/KG	1000	NA		
Toluene	UG/KG	700	NA		
Xylene (total)	UG/KG	260	NA		
Total BTEX	UG/KG	-	NA	ND	ND
Semivolatile Organic Compounds					
Acenaphthene	UG/KG	20000	110,000 J		13 J
Acenaphthylene	UG/KG	100000	140,000		17 J
Anthracene	UG/KG	100000	230,000		7.2 J
Benzo(a)anthracene	UG/KG	1000	210,000		
Benzo(a)pyrene	UG/KG	1000	170,000		
Benzo(b)fluoranthene	UG/KG	1000	160,000		
Benzo(g,h,i)perylene	UG/KG	100000	82,000 J		
Benzo(k)fluoranthene	UG/KG	800	48,000 J		
Chrysene	UG/KG	1000	180,000		
Dibenz(a,h)anthracene	UG/KG	330			
Fluoranthene	UG/KG	100000	310,000		11 J
Fluorene	UG/KG	30000	34,000 J		
Indeno(1,2,3-cd)pyrene	UG/KG	500	58,000 J		
Naphthalene	UG/KG	12000	730,000		470
Phenanthrene	UG/KG	100000	830,000		25 J
Pyrene	UG/KG	100000	530,000		20 J
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	3,822,000	ND	563.2

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 2
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, RESIDENTIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-01	X-03A	X-05	X-06	X-07
Sample ID			X-1 (9-10)	X-3A (9-10)	X-5 (9-10)	X-6 (8-9)	X-7 (7-8)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			9.0-10.0	9.0-10.0	9.0-10.0	8.0-9.0	7.0-8.0
Date Sampled			10/09/13	10/09/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	2900					
Ethylbenzene	UG/KG	30000	37 J				
Toluene	UG/KG	100000	40 J				
Xylene (total)	UG/KG	100000	19 J				
Total BTEX	UG/KG	-	96	ND	ND	ND	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	100000	2,200	22 J	20 J	4.5 J	
Acenaphthylene	UG/KG	100000	1,200		13 J		
Anthracene	UG/KG	100000	2,500	48 J	22 J	8.4 J	
Benzo(a)anthracene	UG/KG	1000	4,400		44 J		
Benzo(a)pyrene	UG/KG	1000	3,400				
Benzo(b)fluoranthene	UG/KG	1000	2,800				
Benzo(g,h,i)perylene	UG/KG	100000	1,800				
Benzo(k)fluoranthene	UG/KG	1000	1,100				
Chrysene	UG/KG	1000	4,900		58 J		
Dibenz(a,h)anthracene	UG/KG	330	630 J				
Fluoranthene	UG/KG	100000	5,500	21 J	83 J	15 J	
Fluorene	UG/KG	100000	1,600				
Indeno(1,2,3-cd)pyrene	UG/KG	500	1,000				
Naphthalene	UG/KG	100000	270 J		43 J		
Phenanthrene	UG/KG	100000	5,600	48 J	140 J	58 J	
Pyrene	UG/KG	100000	11,000	33 J	96 J	23 J	
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	49,900	172	519	108.9	ND

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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NA - Not analyzed.

TABLE 2
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, RESIDENTIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-08	X-09	X-10	X-11	X-12
Sample ID			X-8 (5-6)	X-9 (5-6)	X-10 (0.5-1.0)	X-11 (4.4-5.4)	X-12 (4.4-5.4)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-6.0	5.0-6.0	0.5-1.0	4.4-5.4	4.4-5.4
Date Sampled			10/10/13	10/10/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	2900					
Ethylbenzene	UG/KG	30000				1.2 J	
Toluene	UG/KG	100000				1.1 J	
Xylene (total)	UG/KG	100000				3.2 J	
Total BTEX	UG/KG	-	ND	ND	ND	5.5	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	100000		5.4 J	1,400 J	7,000	
Acenaphthylene	UG/KG	100000		33 J	14,000	2,600	2,800 J
Anthracene	UG/KG	100000	74 J	38 J	3,300 J	7,700	1,200 J
Benzo(a)anthracene	UG/KG	1000	420 J	200 J	19,000	5,100	8,200
Benzo(a)pyrene	UG/KG	1000	610 J	230	19,000	4,100	7,700
Benzo(b)fluoranthene	UG/KG	1000	750 J	320	22,000	3,800	7,400
Benzo(g,h,i)perylene	UG/KG	100000	480 J	140 J	9,900	1,900	3,200 J
Benzo(k)fluoranthene	UG/KG	1000	320 J	140 J	8,800	1,000 J	3,600
Chrysene	UG/KG	1000	400 J	230	21,000	5,200	7,600
Dibenz(a,h)anthracene	UG/KG	330		43 J	3,600 J	640 J	1,200 J
Fluoranthene	UG/KG	100000	620 J	410	15,000	8,200	8,000
Fluorene	UG/KG	100000			2,800 J	6,100	610 J
Indeno(1,2,3-cd)pyrene	UG/KG	500	400 J	130 J	8,900	1,300 J	2,900 J
Naphthalene	UG/KG	100000			1,600 J	5,200	
Phenanthrene	UG/KG	100000	340 J	190 J	3,000 J	24,000	490 J
Pyrene	UG/KG	100000	660 J	380	35,000	13,000	12,000
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	5,074	2,489.4	188,300	96,840	66,900

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 2
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, RESIDENTIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-13B	X-22	X-23A
Sample ID			X-13B (5.0-5.6)	X-22 (14-15)	X-23A (14-15)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			5.0-5.6	14.0-15.0	14.0-15.0
Date Sampled			10/10/13	10/11/13	10/11/13
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
Benzene	UG/KG	2900	NA		
Ethylbenzene	UG/KG	30000	NA		
Toluene	UG/KG	100000	NA		
Xylene (total)	UG/KG	100000	NA		
Total BTEX	UG/KG	-	NA	ND	ND
Semivolatile Organic Compounds					
Acenaphthene	UG/KG	100000	110,000 J		13 J
Acenaphthylene	UG/KG	100000	140,000		17 J
Anthracene	UG/KG	100000	230,000		7.2 J
Benzo(a)anthracene	UG/KG	1000	210,000		
Benzo(a)pyrene	UG/KG	1000	170,000		
Benzo(b)fluoranthene	UG/KG	1000	160,000		
Benzo(g,h,i)perylene	UG/KG	100000	82,000 J		
Benzo(k)fluoranthene	UG/KG	1000	48,000 J		
Chrysene	UG/KG	1000	180,000		
Dibenz(a,h)anthracene	UG/KG	330			
Fluoranthene	UG/KG	100000	310,000		11 J
Fluorene	UG/KG	100000	34,000 J		
Indeno(1,2,3-cd)pyrene	UG/KG	500	58,000 J		
Naphthalene	UG/KG	100000	730,000		470
Phenanthrene	UG/KG	100000	830,000		25 J
Pyrene	UG/KG	100000	530,000		20 J
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	3,822,000	ND	563.2

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 3
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, RESTRICTED RESIDENTIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-01	X-03A	X-05	X-06	X-07
Sample ID			X-1 (9-10)	X-3A (9-10)	X-5 (9-10)	X-6 (8-9)	X-7 (7-8)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			9.0-10.0	9.0-10.0	9.0-10.0	8.0-9.0	7.0-8.0
Date Sampled			10/09/13	10/09/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	4800					
Ethylbenzene	UG/KG	41000	37 J				
Toluene	UG/KG	100000	40 J				
Xylene (total)	UG/KG	100000	19 J				
Total BTEX	UG/KG	-	96	ND	ND	ND	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	100000	2,200	22 J	20 J	4.5 J	
Acenaphthylene	UG/KG	100000	1,200		13 J		
Anthracene	UG/KG	100000	2,500	48 J	22 J	8.4 J	
Benzo(a)anthracene	UG/KG	1000	4,400		44 J		
Benzo(a)pyrene	UG/KG	1000	3,400				
Benzo(b)fluoranthene	UG/KG	1000	2,800				
Benzo(g,h,i)perylene	UG/KG	100000	1,800				
Benzo(k)fluoranthene	UG/KG	3900	1,100				
Chrysene	UG/KG	3900	4,900		58 J		
Dibenz(a,h)anthracene	UG/KG	330	630 J				
Fluoranthene	UG/KG	100000	5,500	21 J	83 J	15 J	
Fluorene	UG/KG	100000	1,600				
Indeno(1,2,3-cd)pyrene	UG/KG	500	1,000				
Naphthalene	UG/KG	100000	270 J		43 J		
Phenanthrene	UG/KG	100000	5,600	48 J	140 J	58 J	
Pyrene	UG/KG	100000	11,000	33 J	96 J	23 J	
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	49,900	172	519	108.9	ND

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 3
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, RESTRICTED RESIDENTIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-08	X-09	X-10	X-11	X-12
Sample ID			X-8 (5-6)	X-9 (5-6)	X-10 (0.5-1.0)	X-11 (4.4-5.4)	X-12 (4.4-5.4)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-6.0	5.0-6.0	0.5-1.0	4.4-5.4	4.4-5.4
Date Sampled			10/10/13	10/10/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	4800					
Ethylbenzene	UG/KG	41000				1.2 J	
Toluene	UG/KG	100000				1.1 J	
Xylene (total)	UG/KG	100000				3.2 J	
Total BTEX	UG/KG	-	ND	ND	ND	5.5	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	100000		5.4 J	1,400 J	7,000	
Acenaphthylene	UG/KG	100000		33 J	14,000	2,600	2,800 J
Anthracene	UG/KG	100000	74 J	38 J	3,300 J	7,700	1,200 J
Benzo(a)anthracene	UG/KG	1000	420 J	200 J	19,000	5,100	8,200
Benzo(a)pyrene	UG/KG	1000	610 J	230	19,000	4,100	7,700
Benzo(b)fluoranthene	UG/KG	1000	750 J	320	22,000	3,800	7,400
Benzo(g,h,i)perylene	UG/KG	100000	480 J	140 J	9,900	1,900	3,200 J
Benzo(k)fluoranthene	UG/KG	3900	320 J	140 J	8,800	1,000 J	3,600
Chrysene	UG/KG	3900	400 J	230	21,000	5,200	7,600
Dibenz(a,h)anthracene	UG/KG	330		43 J	3,600 J	640 J	1,200 J
Fluoranthene	UG/KG	100000	620 J	410	15,000	8,200	8,000
Fluorene	UG/KG	100000			2,800 J	6,100	610 J
Indeno(1,2,3-cd)pyrene	UG/KG	500	400 J	130 J	8,900	1,300 J	2,900 J
Naphthalene	UG/KG	100000			1,600 J	5,200	
Phenanthrene	UG/KG	100000	340 J	190 J	3,000 J	24,000	490 J
Pyrene	UG/KG	100000	660 J	380	35,000	13,000	12,000
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	5,074	2,489.4	188,300	96,840	66,900

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 3
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, RESTRICTED RESIDENTIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-13B	X-22	X-23A
Sample ID			X-13B (5.0-5.6)	X-22 (14-15)	X-23A (14-15)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			5.0-5.6	14.0-15.0	14.0-15.0
Date Sampled			10/10/13	10/11/13	10/11/13
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
Benzene	UG/KG	4800	NA		
Ethylbenzene	UG/KG	41000	NA		
Toluene	UG/KG	100000	NA		
Xylene (total)	UG/KG	100000	NA		
Total BTEX	UG/KG	-	NA	ND	ND
Semivolatile Organic Compounds					
Acenaphthene	UG/KG	100000	110,000 J		13 J
Acenaphthylene	UG/KG	100000	140,000		17 J
Anthracene	UG/KG	100000	230,000		7.2 J
Benzo(a)anthracene	UG/KG	1000	210,000		
Benzo(a)pyrene	UG/KG	1000	170,000		
Benzo(b)fluoranthene	UG/KG	1000	160,000		
Benzo(g,h,i)perylene	UG/KG	100000	82,000 J		
Benzo(k)fluoranthene	UG/KG	3900	48,000 J		
Chrysene	UG/KG	3900	180,000		
Dibenz(a,h)anthracene	UG/KG	330			
Fluoranthene	UG/KG	100000	310,000		11 J
Fluorene	UG/KG	100000	34,000 J		
Indeno(1,2,3-cd)pyrene	UG/KG	500	58,000 J		
Naphthalene	UG/KG	100000	730,000		470
Phenanthrene	UG/KG	100000	830,000		25 J
Pyrene	UG/KG	100000	530,000		20 J
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	3,822,000	ND	563.2

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 4
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, COMMERCIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-01	X-03A	X-05	X-06	X-07
Sample ID			X-1 (9-10)	X-3A (9-10)	X-5 (9-10)	X-6 (8-9)	X-7 (7-8)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			9.0-10.0	9.0-10.0	9.0-10.0	8.0-9.0	7.0-8.0
Date Sampled			10/09/13	10/09/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	44000					
Ethylbenzene	UG/KG	3.90E+05	37 J				
Toluene	UG/KG	5.00E+05	40 J				
Xylene (total)	UG/KG	5.00E+05	19 J				
Total BTEX	UG/KG	-	96	ND	ND	ND	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	5.00E+05	2,200	22 J	20 J	4.5 J	
Acenaphthylene	UG/KG	5.00E+05	1,200		13 J		
Anthracene	UG/KG	5.00E+05	2,500	48 J	22 J	8.4 J	
Benzo(a)anthracene	UG/KG	5600	4,400		44 J		
Benzo(a)pyrene	UG/KG	1000	3,400				
Benzo(b)fluoranthene	UG/KG	5600	2,800				
Benzo(g,h,i)perylene	UG/KG	5.00E+05	1,800				
Benzo(k)fluoranthene	UG/KG	56000	1,100				
Chrysene	UG/KG	56000	4,900		58 J		
Dibenz(a,h)anthracene	UG/KG	560	630 J				
Fluoranthene	UG/KG	5.00E+05	5,500	21 J	83 J	15 J	
Fluorene	UG/KG	5.00E+05	1,600				
Indeno(1,2,3-cd)pyrene	UG/KG	5600	1,000				
Naphthalene	UG/KG	5.00E+05	270 J		43 J		
Phenanthrene	UG/KG	5.00E+05	5,600	48 J	140 J	58 J	
Pyrene	UG/KG	5.00E+05	11,000	33 J	96 J	23 J	
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	49,900	172	519	108.9	ND

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 4
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, COMMERCIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-08	X-09	X-10	X-11	X-12
Sample ID			X-8 (5-6)	X-9 (5-6)	X-10 (0.5-1.0)	X-11 (4.4-5.4)	X-12 (4.4-5.4)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-6.0	5.0-6.0	0.5-1.0	4.4-5.4	4.4-5.4
Date Sampled			10/10/13	10/10/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	44000					
Ethylbenzene	UG/KG	3.90E+05				1.2 J	
Toluene	UG/KG	5.00E+05				1.1 J	
Xylene (total)	UG/KG	5.00E+05				3.2 J	
Total BTEX	UG/KG	-	ND	ND	ND	5.5	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	5.00E+05		5.4 J	1,400 J	7,000	
Acenaphthylene	UG/KG	5.00E+05		33 J	14,000	2,600	2,800 J
Anthracene	UG/KG	5.00E+05	74 J	38 J	3,300 J	7,700	1,200 J
Benzo(a)anthracene	UG/KG	5600	420 J	200 J	19,000	5,100	8,200
Benzo(a)pyrene	UG/KG	1000	610 J	230	19,000	4,100	7,700
Benzo(b)fluoranthene	UG/KG	5600	750 J	320	22,000	3,800	7,400
Benzo(g,h,i)perylene	UG/KG	5.00E+05	480 J	140 J	9,900	1,900	3,200 J
Benzo(k)fluoranthene	UG/KG	56000	320 J	140 J	8,800	1,000 J	3,600
Chrysene	UG/KG	56000	400 J	230	21,000	5,200	7,600
Dibenz(a,h)anthracene	UG/KG	560		43 J	3,600 J	640 J	1,200 J
Fluoranthene	UG/KG	5.00E+05	620 J	410	15,000	8,200	8,000
Fluorene	UG/KG	5.00E+05			2,800 J	6,100	610 J
Indeno(1,2,3-cd)pyrene	UG/KG	5600	400 J	130 J	8,900	1,300 J	2,900 J
Naphthalene	UG/KG	5.00E+05			1,600 J	5,200	
Phenanthrene	UG/KG	5.00E+05	340 J	190 J	3,000 J	24,000	490 J
Pyrene	UG/KG	5.00E+05	660 J	380	35,000	13,000	12,000
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	5,074	2,489.4	188,300	96,840	66,900

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 4
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, COMMERCIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-13B	X-22	X-23A
Sample ID			X-13B (5.0-5.6)	X-22 (14-15)	X-23A (14-15)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			5.0-5.6	14.0-15.0	14.0-15.0
Date Sampled			10/10/13	10/11/13	10/11/13
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
Benzene	UG/KG	44000	NA		
Ethylbenzene	UG/KG	3.90E+05	NA		
Toluene	UG/KG	5.00E+05	NA		
Xylene (total)	UG/KG	5.00E+05	NA		
Total BTEX	UG/KG	-	NA	ND	ND
Semivolatile Organic Compounds					
Acenaphthene	UG/KG	5.00E+05	110,000 J		13 J
Acenaphthylene	UG/KG	5.00E+05	140,000		17 J
Anthracene	UG/KG	5.00E+05	230,000		7.2 J
Benzo(a)anthracene	UG/KG	5600	210,000		
Benzo(a)pyrene	UG/KG	1000	170,000		
Benzo(b)fluoranthene	UG/KG	5600	160,000		
Benzo(g,h,i)perylene	UG/KG	5.00E+05	82,000 J		
Benzo(k)fluoranthene	UG/KG	56000	48,000 J		
Chrysene	UG/KG	56000	180,000		
Dibenz(a,h)anthracene	UG/KG	560			
Fluoranthene	UG/KG	5.00E+05	310,000		11 J
Fluorene	UG/KG	5.00E+05	34,000 J		
Indeno(1,2,3-cd)pyrene	UG/KG	5600	58,000 J		
Naphthalene	UG/KG	5.00E+05	730,000		470
Phenanthrene	UG/KG	5.00E+05	830,000		25 J
Pyrene	UG/KG	5.00E+05	530,000		20 J
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	3,822,000	ND	563.2

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Commercial, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 5
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, INDUSTRIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-01	X-03A	X-05	X-06	X-07
Sample ID			X-1 (9-10)	X-3A (9-10)	X-5 (9-10)	X-6 (8-9)	X-7 (7-8)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			9.0-10.0	9.0-10.0	9.0-10.0	8.0-9.0	7.0-8.0
Date Sampled			10/09/13	10/09/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	89000					
Ethylbenzene	UG/KG	7.80E+05	37 J				
Toluene	UG/KG	1.00E+06	40 J				
Xylene (total)	UG/KG	1.00E+06	19 J				
Total BTEX	UG/KG	-	96	ND	ND	ND	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	1.00E+06	2,200	22 J	20 J	4.5 J	
Acenaphthylene	UG/KG	1.00E+06	1,200		13 J		
Anthracene	UG/KG	1.00E+06	2,500	48 J	22 J	8.4 J	
Benzo(a)anthracene	UG/KG	11000	4,400		44 J		
Benzo(a)pyrene	UG/KG	1100	3,400				
Benzo(b)fluoranthene	UG/KG	11000	2,800				
Benzo(g,h,i)perylene	UG/KG	1.00E+06	1,800				
Benzo(k)fluoranthene	UG/KG	1.10E+05	1,100				
Chrysene	UG/KG	1.10E+05	4,900		58 J		
Dibenz(a,h)anthracene	UG/KG	1100	630 J				
Fluoranthene	UG/KG	1.00E+06	5,500	21 J	83 J	15 J	
Fluorene	UG/KG	1.00E+06	1,600				
Indeno(1,2,3-cd)pyrene	UG/KG	11000	1,000				
Naphthalene	UG/KG	1.00E+06	270 J		43 J		
Phenanthrene	UG/KG	1.00E+06	5,600	48 J	140 J	58 J	
Pyrene	UG/KG	1.00E+06	11,000	33 J	96 J	23 J	
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	49,900	172	519	108.9	ND

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 5
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, INDUSTRIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-08	X-09	X-10	X-11	X-12
Sample ID			X-8 (5-6)	X-9 (5-6)	X-10 (0.5-1.0)	X-11 (4.4-5.4)	X-12 (4.4-5.4)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-6.0	5.0-6.0	0.5-1.0	4.4-5.4	4.4-5.4
Date Sampled			10/10/13	10/10/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	89000					
Ethylbenzene	UG/KG	7.80E+05				1.2 J	
Toluene	UG/KG	1.00E+06				1.1 J	
Xylene (total)	UG/KG	1.00E+06				3.2 J	
Total BTEX	UG/KG	-	ND	ND	ND	5.5	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	1.00E+06		5.4 J	1,400 J	7,000	
Acenaphthylene	UG/KG	1.00E+06		33 J	14,000	2,600	2,800 J
Anthracene	UG/KG	1.00E+06	74 J	38 J	3,300 J	7,700	1,200 J
Benzo(a)anthracene	UG/KG	11000	420 J	200 J	19,000	5,100	8,200
Benzo(a)pyrene	UG/KG	1100	610 J	230	19,000	4,100	7,700
Benzo(b)fluoranthene	UG/KG	11000	750 J	320	22,000	3,800	7,400
Benzo(g,h,i)perylene	UG/KG	1.00E+06	480 J	140 J	9,900	1,900	3,200 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	320 J	140 J	8,800	1,000 J	3,600
Chrysene	UG/KG	1.10E+05	400 J	230	21,000	5,200	7,600
Dibenz(a,h)anthracene	UG/KG	1100		43 J	3,600 J	640 J	1,200 J
Fluoranthene	UG/KG	1.00E+06	620 J	410	15,000	8,200	8,000
Fluorene	UG/KG	1.00E+06			2,800 J	6,100	610 J
Indeno(1,2,3-cd)pyrene	UG/KG	11000	400 J	130 J	8,900	1,300 J	2,900 J
Naphthalene	UG/KG	1.00E+06			1,600 J	5,200	
Phenanthrene	UG/KG	1.00E+06	340 J	190 J	3,000 J	24,000	490 J
Pyrene	UG/KG	1.00E+06	660 J	380	35,000	13,000	12,000
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	5,074	2,489.4	188,300	96,840	66,900

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.

TABLE 5
SOIL ANALYTICAL RESULTS (DETECTED COMPOUNDS ONLY)
6 NYCRR PART 375, INDUSTRIAL CRITERIA
COLD SPRING FORMER MGP SITE

Location ID			X-13B	X-22	X-23A
Sample ID			X-13B (5.0-5.6)	X-22 (14-15)	X-23A (14-15)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			5.0-5.6	14.0-15.0	14.0-15.0
Date Sampled			10/10/13	10/11/13	10/11/13
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
Benzene	UG/KG	89000	NA		
Ethylbenzene	UG/KG	7.80E+05	NA		
Toluene	UG/KG	1.00E+06	NA		
Xylene (total)	UG/KG	1.00E+06	NA		
Total BTEX	UG/KG	-	NA	ND	ND
Semivolatile Organic Compounds					
Acenaphthene	UG/KG	1.00E+06	110,000 J		13 J
Acenaphthylene	UG/KG	1.00E+06	140,000		17 J
Anthracene	UG/KG	1.00E+06	230,000		7.2 J
Benzo(a)anthracene	UG/KG	11000	210,000		
Benzo(a)pyrene	UG/KG	1100	170,000		
Benzo(b)fluoranthene	UG/KG	11000	160,000		
Benzo(g,h,i)perylene	UG/KG	1.00E+06	82,000 J		
Benzo(k)fluoranthene	UG/KG	1.10E+05	48,000 J		
Chrysene	UG/KG	1.10E+05	180,000		
Dibenz(a,h)anthracene	UG/KG	1100			
Fluoranthene	UG/KG	1.00E+06	310,000		11 J
Fluorene	UG/KG	1.00E+06	34,000 J		
Indeno(1,2,3-cd)pyrene	UG/KG	11000	58,000 J		
Naphthalene	UG/KG	1.00E+06	730,000		470
Phenanthrene	UG/KG	1.00E+06	830,000		25 J
Pyrene	UG/KG	1.00E+06	530,000		20 J
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	3,822,000	ND	563.2

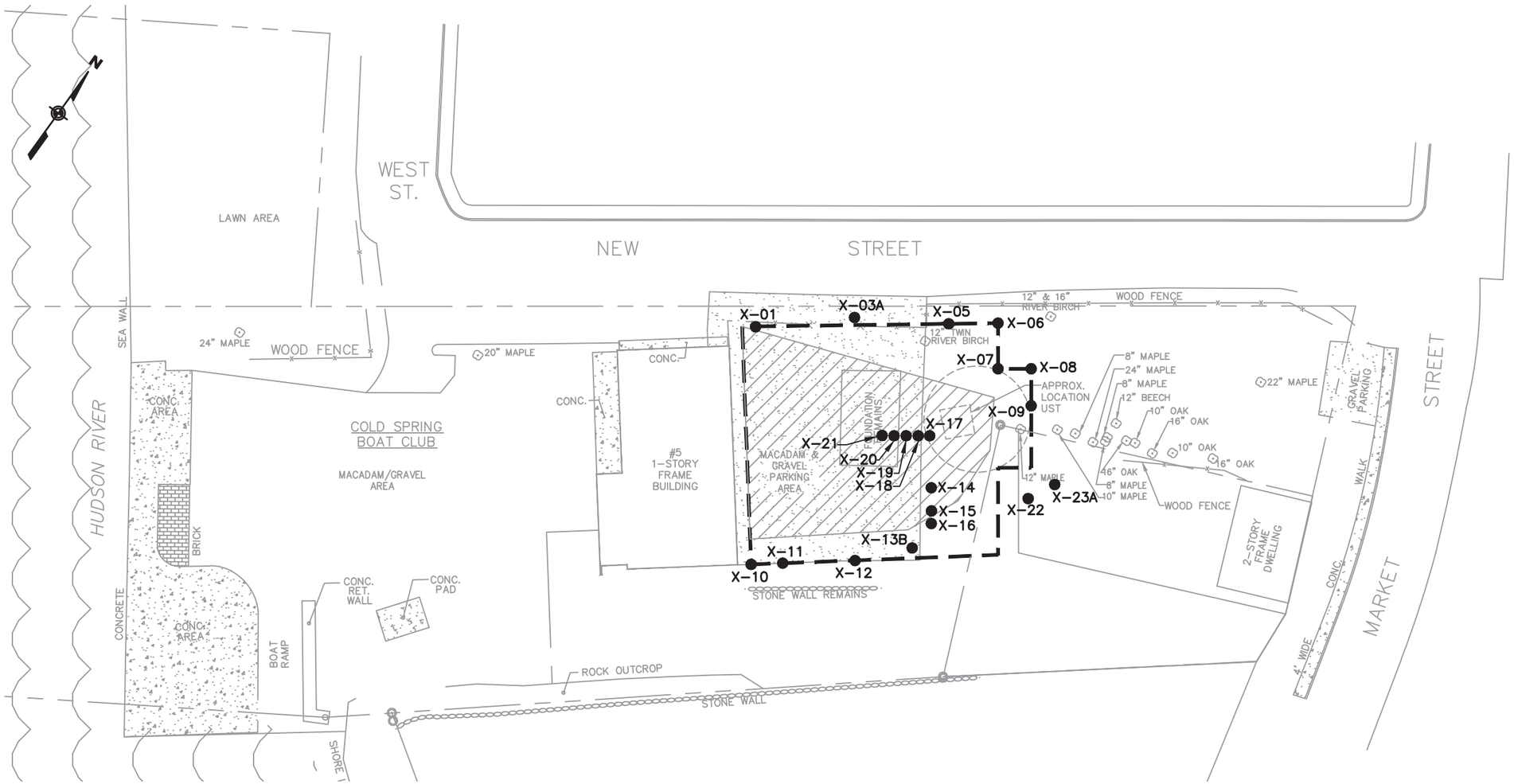
*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. Blank Cell or ND - Not Detected.

NA - Not analyzed.



NOTES:

- SUSPECTED FORMER MGP STRUCTURE BASED ON COMPLETED GEOPHYSICAL SURVEY
- X-05● BORING COMPLETED IN 2013
- ROD ALTERNATIVE 3 EXCAVATION AREA
- BOAT HOUSE BUILDING FOOTPRINT
- SOURCE AREA TO BE REMOVED AS PART OF ROD ALTERNATIVE 3

40' 0 40'

SCALE IN FEET

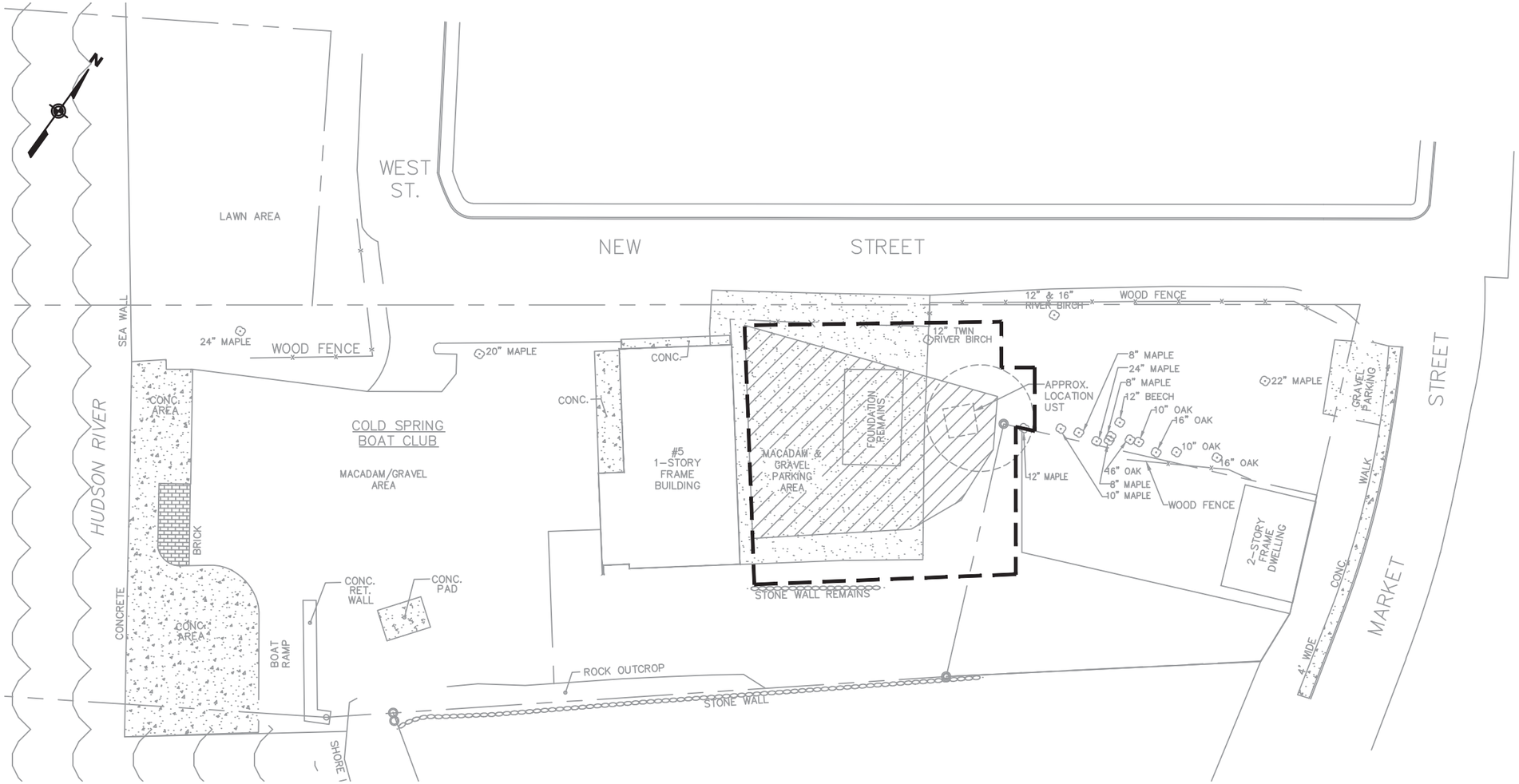
SOURCE:
DRAWING P-1001, DATED 9/11/08, PROVIDED BY WILLIAM D. YOUNGBLOOD, LAND SURVEYING, P.C.

COLD SPRING FORMER MGP SITE
SITE NO. 340026
2013 BORING LOCATIONS

URS

FIGURE 1

I:\11176853\CAD\NOV 2013\FIGURE 1.dwg, FIGURE 1, 1:1, 2/5/2014, 1-RAL



NOTES:

- SUSPECTED FORMER MGP STRUCTURE BASED ON COMPLETED GEOPHYSICAL SURVEY
- REVISED ROD ALTERNATIVE 3 EXCAVATION AREA
- BOAT HOUSE BUILDING FOOTPRINT
- SOURCE AREA TO BE REMOVED AS PART OF ROD ALTERNATIVE 3

40' 0 40'

SCALE IN FEET

SOURCE:
DRAWING P-1001, DATED 9/11/08, PROVIDED BY WILLIAM D. YOUNGBLOOD, LAND SURVEYING, P.C.

COLD SPRING FORMER MGP SITE
SITE NO. 340026
REVISED ROD ALTERNATIVE 3 EXCAVATION AREA

URS

FIGURE 2

I:\11176853\CAD\NOV 2013\FIGURE 2.dwg, FIGURE 2, 1:1, 2/5/2014, 1-RAL

APPENDIX A

DATA USABILITY SUMMARY REPORT (DUSR)

DATA USABILITY SUMMARY REPORT

SOIL SAMPLING
COLD SPRING FORMER MGP SITE
REMEDIAL DESIGN
COLD SPRING, NEW YORK
WORK ASSIGNMENT D007622-12
SITE NUMBER 340026

Analyses Performed by:

TESTAMERICA LABORATORIES, INC.
AMHERST, NY

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION

Prepared by:

URS CORPORATION
77 GOODELL STREET
BUFFALO, NY 14203

JANUARY 2014

TABLE OF CONTENTS

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 2B, Guidance for Data Deliverables and the Development of Data Usability Summary Reports,* May 2010. Discussed in this DUSR are analytical data for 13 soil samples collected October 9-11, 2013. The samples were collected in support of the Remedial Design task assigned to URS under NYSDEC Work Assignment D007622-12 for the Cold Spring Former MGP site (Site Number 340026), located in Village of Cold Spring, New York.

II. SAMPLE COLLECTION AND ANALYTICAL METHODOLOGIES

On October 9-11, 2013 thirteen soil samples were collected from soil borings located on and adjacent to the site. The samples were submitted to the NYSDEC Call-Out analytical laboratory - TestAmerica Laboratories, Inc. (TestAmerica) located in Amherst, NY, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. The soil samples were analyzed for the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene and xylene (BTEX) following United States Environmental Protection Agency (USEPA) Method 8260C and polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270D. Sample X-13B was only analyzed for PAHs because insufficient sample volume was submitted to the laboratory, as per the chain-of-custody.

III. DATA VALIDATION

A limited data validation consisting of a review of the deliverable completeness, quality control (QC) parameters, and verification of sample results, as required by the DUSR guidance document referenced above, was performed on the samples following the requirements of the analytical methods and the general guidelines presented in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by SW-846 Method 8260B,* HW-24, Revision 2, August 2008; and
- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry, SW-846 Method 8270D,* SOP HW-22, Rev. 4, August 2008.

Qualifications applied to the data include ‘J’ (estimated concentration) and ‘UJ’ (estimated quantitation limit). Only QC non-conformances affecting data usability are discussed in this report.

Table 1 summarizes the data qualifications applied to the sample results. The validated analytical results are presented on Table 2. Copies of the validated laboratory results (i.e., Form I's) are presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B.

IV. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory, and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

V. PRESERVATION / SAMPLE RECEIPT / HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody. All samples were analyzed within the required holding times, except for the BTEX analysis of sample X-1 (9-10) because of laboratory error. The detected results for ethylbenzene, toluene and xylene were qualified 'J' and the non-detect benzene result was qualified 'UJ' in sample X-1 (9-10).

VI. NONCONFORMANCES

Internal Standard Recoveries

Samples X-3A (9-10), X-5 (9-10), X-6 (8-9), X-7 (7-8), X-8 (5-6) and X-23A (14-15) exhibited low recovery of the PAH internal standard (IS) perylene-d_{12}. The laboratory did not reanalyze the samples. The associated PAHs were qualified 'J' or 'UJ' in these samples.

VII. SAMPLE RESULTS AND REPORTING

All quantitation/reporting limits were reported in accordance with method requirements and were adjusted for sample size, moisture content and dilution factors. Results less than the reporting limits were qualified 'J' by the laboratory.

All sample analyses were found to be compliant with the method criteria, except where previously noted. Those results qualified 'J' or 'UJ' are considered conditionally usable. All other sample results are usable as reported. URS does not recommend the recollection of any samples at this time.

Prepared By: George Kisluk, Senior Chemist GK **Date:** 1/22/14

Reviewed By: Peter R. Fairbanks, Senior Chemist PF **Date:** 1/22/14

DEFINITIONS OF USEPA DATA QUALIFIERS

U – The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

R – The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.

D – The sample result was reported from a secondary dilution analysis.

TABLE 1

SUMMARY OF DATA QUALIFICATIONS

COLD SPRING FORMER MGP SITE

SITE #340026, WORK ASSIGNMENT D007622-12

SAMPLE ID	FRACTION	ANALYTICAL DEVIATION	QUALIFICATION
X-1 (9-10)	BTEX	Holding time exceedance.	Qualify detects 'J' and non-detects 'UJ'.
X-3A (9-10), X-5 (9-10), X-6 (8-9), X-7 (7-8), X-8 (5-6) and X-23A (14-15)	PAHs: benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, dibenz(a,h)anthracene and indeno(1,2,3-cd)pyrene.	IS recovery below 50% but greater than 25%.	Qualify detects 'J' and non-detects 'UJ'.

TABLE 2
VALIDATED SOIL SAMPLE ANALYTICAL RESULTS
COLD SPRING FORMER MGP SITE
SITE #340026, WORK ASSIGNMENT D007622-12

Location ID			X-01	X-03A	X-05	X-06	X-07
Sample ID			X-1 (9-10)	X-3A (9-10)	X-5 (9-10)	X-6 (8-9)	X-7 (7-8)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			9.0-10.0	9.0-10.0	9.0-10.0	8.0-9.0	7.0-8.0
Date Sampled			10/09/13	10/09/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	60	100 UJ	9.0 U	8.0 U	6.4 U	5.9 U
Ethylbenzene	UG/KG	1000	37 J	9.0 U	8.0 U	6.4 U	5.9 U
Toluene	UG/KG	700	40 J	9.0 U	8.0 U	6.4 U	5.9 U
Xylene (total)	UG/KG	260	19 J	18 U	16 U	13 U	12 U
Total BTEX	UG/KG	-	96	ND	ND	ND	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	20000	2,200	22 J	20 J	4.5 J	210 U
Acenaphthylene	UG/KG	100000	1,200	310 U	13 J	210 U	210 U
Anthracene	UG/KG	100000	2,500	48 J	22 J	8.4 J	210 U
Benzo(a)anthracene	UG/KG	1000	4,400	310 U	44 J	210 U	210 U
Benzo(a)pyrene	UG/KG	1000	3,400	310 UJ	300 UJ	210 UJ	210 UJ
Benzo(b)fluoranthene	UG/KG	1000	2,800	310 UJ	300 UJ	210 UJ	210 UJ
Benzo(g,h,i)perylene	UG/KG	100000	1,800	310 UJ	300 UJ	210 UJ	210 UJ
Benzo(k)fluoranthene	UG/KG	800	1,100	310 UJ	300 UJ	210 UJ	210 UJ
Chrysene	UG/KG	1000	4,900	310 U	58 J	210 U	210 U
Dibenz(a,h)anthracene	UG/KG	330	630 J	310 UJ	300 UJ	210 UJ	210 UJ
Fluoranthene	UG/KG	100000	5,500	21 J	83 J	15 J	210 U
Fluorene	UG/KG	30000	1,600	310 U	300 U	210 U	210 U
Indeno(1,2,3-cd)pyrene	UG/KG	500	1,000	310 UJ	300 UJ	210 UJ	210 UJ
Naphthalene	UG/KG	12000	270 J	310 U	43 J	210 U	210 U
Phenanthrene	UG/KG	100000	5,600	48 J	140 J	58 J	210 U
Pyrene	UG/KG	100000	11,000	33 J	96 J	23 J	210 U
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	49,900	172	519	108.9	ND

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. ND - Not detected. NA - Not analyzed.

U - Not detected above the reported quantitation limit. UJ - Not detected. The reported quantitation limit is an estimated value.

Made By: GEK 01/21/2014 Checked By: PRF 01/22/2014

Detection Limits shown are PQL

TABLE 2
VALIDATED SOIL SAMPLE ANALYTICAL RESULTS
COLD SPRING FORMER MGP SITE
SITE #340026, WORK ASSIGNMENT D007622-12

Location ID			X-08	X-09	X-10	X-11	X-12
Sample ID			X-8 (5-6)	X-9 (5-6)	X-10 (0.5-1.0)	X-11 (4.4-5.4)	X-12 (4.4-5.4)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-6.0	5.0-6.0	0.5-1.0	4.4-5.4	4.4-5.4
Date Sampled			10/10/13	10/10/13	10/10/13	10/10/13	10/10/13
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Benzene	UG/KG	60	6.8 U	6.0 U	6.6 U	5.0 U	5.2 U
Ethylbenzene	UG/KG	1000	6.8 U	6.0 U	6.6 U	1.2 J	5.2 U
Toluene	UG/KG	700	6.8 U	6.0 U	6.6 U	1.1 J	5.2 U
Xylene (total)	UG/KG	260	14 U	12 U	13 U	3.2 J	10 U
Total BTEX	UG/KG	-	ND	ND	ND	5.5	ND
Semivolatile Organic Compounds							
Acenaphthene	UG/KG	20000	1,200 U	5.4 J	1,400 J	7,000	3,600 U
Acenaphthylene	UG/KG	100000	1,200 U	33 J	14,000	2,600	2,800 J
Anthracene	UG/KG	100000	74 J	38 J	3,300 J	7,700	1,200 J
Benzo(a)anthracene	UG/KG	1000	420 J	200 J	19,000	5,100	8,200
Benzo(a)pyrene	UG/KG	1000	610 J	230	19,000	4,100	7,700
Benzo(b)fluoranthene	UG/KG	1000	750 J	320	22,000	3,800	7,400
Benzo(g,h,i)perylene	UG/KG	100000	480 J	140 J	9,900	1,900	3,200 J
Benzo(k)fluoranthene	UG/KG	800	320 J	140 J	8,800	1,000 J	3,600
Chrysene	UG/KG	1000	400 J	230	21,000	5,200	7,600
Dibenz(a,h)anthracene	UG/KG	330	1,200 UJ	43 J	3,600 J	640 J	1,200 J
Fluoranthene	UG/KG	100000	620 J	410	15,000	8,200	8,000
Fluorene	UG/KG	30000	1,200 U	210 U	2,800 J	6,100	610 J
Indeno(1,2,3-cd)pyrene	UG/KG	500	400 J	130 J	8,900	1,300 J	2,900 J
Naphthalene	UG/KG	12000	1,200 U	210 U	1,600 J	5,200	3,600 U
Phenanthrene	UG/KG	100000	340 J	190 J	3,000 J	24,000	490 J
Pyrene	UG/KG	100000	660 J	380	35,000	13,000	12,000
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	5,074	2,489.4	188,300	96,840	66,900

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. ND - Not detected. NA - Not analyzed.

U - Not detected above the reported quantitation limit. UJ - Not detected. The reported quantitation limit is an estimated value.

Made By: GEK 01/21/2014 Checked By: PRF 01/22/2014

Detection Limits shown are PQL

TABLE 2
VALIDATED SOIL SAMPLE ANALYTICAL RESULTS
COLD SPRING FORMER MGP SITE
SITE #340026, WORK ASSIGNMENT D007622-12

Location ID			X-13B	X-22	X-23A
Sample ID			X-13B (5.0-5.6)	X-22 (14-15)	X-23A (14-15)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			5.0-5.6	14.0-15.0	14.0-15.0
Date Sampled			10/10/13	10/11/13	10/11/13
Parameter	**Units**	**Criteria***			
Volatile Organic Compounds					
Benzene	UG/KG	60	NA	5.4 U	5.8 U
Ethylbenzene	UG/KG	1000	NA	5.4 U	5.8 U
Toluene	UG/KG	700	NA	5.4 U	5.8 U
Xylene (total)	UG/KG	260	NA	11 U	12 U
Total BTEX	UG/KG	-	NA	ND	ND
Semivolatile Organic Compounds					
Acenaphthene	UG/KG	20000	110,000 J	200 U	13 J
Acenaphthylene	UG/KG	100000	140,000	200 U	17 J
Anthracene	UG/KG	100000	230,000	200 U	7.2 J
Benzo(a)anthracene	UG/KG	1000	210,000	200 U	210 U
Benzo(a)pyrene	UG/KG	1000	170,000	200 U	210 UJ
Benzo(b)fluoranthene	UG/KG	1000	160,000	200 U	210 UJ
Benzo(g,h,i)perylene	UG/KG	100000	82,000 J	200 U	210 UJ
Benzo(k)fluoranthene	UG/KG	800	48,000 J	200 U	210 UJ
Chrysene	UG/KG	1000	180,000	200 U	210 U
Dibenz(a,h)anthracene	UG/KG	330	120,000 U	200 U	210 UJ
Fluoranthene	UG/KG	100000	310,000	200 U	11 J
Fluorene	UG/KG	30000	34,000 J	200 U	210 U
Indeno(1,2,3-cd)pyrene	UG/KG	500	58,000 J	200 U	210 UJ
Naphthalene	UG/KG	12000	730,000	200 U	470
Phenanthrene	UG/KG	100000	830,000	200 U	25 J
Pyrene	UG/KG	100000	530,000	200 U	20 J
Total Polynuclear Aromatic Hydrocarbons	UG/KG	-	3,822,000	ND	563.2

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, including CP-51 Table 1, Effective 12/2/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

J - The reported concentration is an estimated value. ND - Not detected. NA - Not analyzed.

U - Not detected above the reported quantitation limit. UJ - Not detected. The reported quantitation limit is an estimated value.

Made By: GEK 01/21/2014 Checked By: PRF 01/22/2014

Detection Limits shown are PQL

ATTACHMENT A

VALIDATED FORM I'S

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-1 (9-10) | Lab Sample ID: 480-47840-1

Matrix: Solid | Lab File ID: S31532.D

Analysis Method: 8260C | Date Collected: 10/09/2013 10:15

Sample wt/vol: 5.67(g) | Date Analyzed: 10/24/2013 19:51

Soil Aliquot Vol: 100 (uL) | Dilution Factor: 1

Soil Extract Vol.: 10(mL) | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 12.2 | Level: (low/med) Medium

Analysis Batch No.: 147158 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND	H UJ	100	4.8
108-88-3	Toluene	40	J H	100	27
100-41-4	Ethylbenzene	37	J H	100	29
179601-23-1	m-Xylene & p-Xylene	ND	H UJ	200	56
95-47-6	o-Xylene	19	J H	100	13
1330-20-7	Xylenes, Total	19	J H	200	17
STL00431	Total BTEX	ND	H UJ	200	100

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	115		50-149
17060-07-0	1,2-Dichloroethane-d4 (Surr)	119		53-146
460-00-4	4-Bromofluorobenzene (Surr)	116		49-148

dw 1/20/14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-3A (9-10) Lab Sample ID: 480-47840-2

Matrix: Solid Lab File ID: F2645.D

Analysis Method: 8260C Date Collected: 10/09/2013 16:20

Sample wt/vol: 5.13(g) Date Analyzed: 10/23/2013 05:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 46.0 Level: (low/med) Low

Analysis Batch No.: 146750 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		9.0	0.44
108-88-3	Toluene	ND		9.0	0.68
100-41-4	Ethylbenzene	ND		9.0	0.62
179601-23-1	m-Xylene & p-Xylene	ND		18	1.5
95-47-6	o-Xylene	ND		9.0	1.2
1330-20-7	Xylenes, Total	ND		18	1.5
STL00431	Total BTEX	ND		18	9.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	117		64-126
460-00-4	4-Bromofluorobenzene (Surr)	98		72-126

11/21/13

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-5 (9-10) Lab Sample ID: 480-47840-3

Matrix: Solid Lab File ID: F2646.D

Analysis Method: 8260C Date Collected: 10/10/2013 08:40

Sample wt/vol: 5.53(g) Date Analyzed: 10/23/2013 06:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 43.5 Level: (low/med) Low

Analysis Batch No.: 146750 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		8.0	0.39
108-88-3	Toluene	ND		8.0	0.60
100-41-4	Ethylbenzene	ND		8.0	0.55
179601-23-1	m-Xylene & p-Xylene	ND		16	1.3
95-47-6	o-Xylene	ND		8.0	1.0
1330-20-7	Xylenes, Total	ND		16	1.3
STL00431	Total BTEX	ND		16	8.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-126
460-00-4	4-Bromofluorobenzene (Surr)	100		72-126

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-6 (8-9) | Lab Sample ID: 480-47840-4

Matrix: Solid | Lab File ID: F2647.D

Analysis Method: 8260C | Date Collected: 10/10/2013 09:00

Sample wt/vol: 4.96(g) | Date Analyzed: 10/23/2013 06:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 20.8 | Level: (low/med) Low

Analysis Batch No.: 146750 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		6.4	0.31
108-88-3	Toluene	ND		6.4	0.48
100-41-4	Ethylbenzene	ND		6.4	0.44
179601-23-1	m-Xylene & p-Xylene	ND		13	1.1
95-47-6	o-Xylene	ND		6.4	0.83
1330-20-7	Xylenes, Total	ND		13	1.1
STL00431	Total BTEX	ND		13	6.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		64-126
460-00-4	4-Bromofluorobenzene (Surr)	98		72-126

1/21/14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-7 (7-8) Lab Sample ID: 480-47840-5

Matrix: Solid Lab File ID: F2648.D

Analysis Method: 8260C Date Collected: 10/10/2013 11:00

Sample wt/vol: 5.25(g) Date Analyzed: 10/23/2013 07:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 18.8 Level: (low/med) Low

Analysis Batch No.: 146750 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		5.9	0.29
108-88-3	Toluene	ND		5.9	0.44
100-41-4	Ethylbenzene	ND		5.9	0.40
179601-23-1	m-Xylene & p-Xylene	ND		12	0.99
95-47-6	o-Xylene	ND		5.9	0.77
1330-20-7	Xylenes, Total	ND		12	0.99
STL00431	Total BTEX	ND		12	5.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	99		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		64-126
460-00-4	4-Bromofluorobenzene (Surr)	101		72-126

11/21/14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-8 (5-6) Lab Sample ID: 480-47840-6

Matrix: Solid Lab File ID: F2649.D

Analysis Method: 8260C Date Collected: 10/10/2013 11:30

Sample wt/vol: 5.11(g) Date Analyzed: 10/23/2013 07:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 28.5 Level: (low/med) Low

Analysis Batch No.: 146750 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		6.8	0.34
108-88-3	Toluene	ND		6.8	0.52
100-41-4	Ethylbenzene	ND		6.8	0.47
179601-23-1	m-Xylene & p-Xylene	ND		14	1.1
95-47-6	o-Xylene	ND		6.8	0.89
1330-20-7	Xylenes, Total	ND		14	1.1
STL00431	Total BTEX	ND		14	6.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-126
460-00-4	4-Bromofluorobenzene (Surr)	99		72-126

1/24/14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-9 (5-6) Lab Sample ID: 480-47840-7

Matrix: Solid Lab File ID: F2650.D

Analysis Method: 8260C Date Collected: 10/10/2013 12:00

Sample wt/vol: 5.16(g) Date Analyzed: 10/23/2013 08:00

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 19.2 Level: (low/med) Low

Analysis Batch No.: 146750 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		6.0	0.29
108-88-3	Toluene	ND		6.0	0.45
100-41-4	Ethylbenzene	ND		6.0	0.41
179601-23-1	m-Xylene & p-Xylene	ND		12	1.0
95-47-6	o-Xylene	ND		6.0	0.78
1330-20-7	Xylenes, Total	ND		12	1.0
STL00431	Total BTEX	ND		12	6.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-126
460-00-4	4-Bromofluorobenzene (Surr)	102		72-126

11/20/14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-10 (0.5-1.0) Lab Sample ID: 480-47840-8

Matrix: Solid Lab File ID: F2651.D

Analysis Method: 8260C Date Collected: 10/10/2013 12:40

Sample wt/vol: 5.04(g) Date Analyzed: 10/23/2013 08:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 25.1 Level: (low/med) Low

Analysis Batch No.: 146750 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		6.6	0.32
108-88-3	Toluene	ND		6.6	0.50
100-41-4	Ethylbenzene	ND		6.6	0.46
179601-23-1	m-Xylene & p-Xylene	ND		13	1.1
95-47-6	o-Xylene	ND		6.6	0.87
1330-20-7	Xylenes, Total	ND		13	1.1
STL00431	Total BTEX	ND		13	6.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	103		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		64-126
460-00-4	4-Bromofluorobenzene (Surr)	96		72-126

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-11 (4.4-5.4) | Lab Sample ID: 480-47840-9

Matrix: Solid | Lab File ID: F2652.D

Analysis Method: 8260C | Date Collected: 10/10/2013 13:00

Sample wt/vol: 5.39(g) | Date Analyzed: 10/23/2013 08:52

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 7.4 | Level: (low/med) Low

Analysis Batch No.: 146750 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		5.0	0.25
108-88-3	Toluene	1.1	J	5.0	0.38
100-41-4	Ethylbenzene	1.2	J	5.0	0.35
179601-23-1	m-Xylene & p-Xylene	1.6	J	10	0.84
95-47-6	o-Xylene	1.6	J	5.0	0.65
1330-20-7	Xylenes, Total	3.2	J	10	0.84
STL00431	Total BTEX	5.5	J	10	5.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-126
460-00-4	4-Bromofluorobenzene (Surr)	99		72-126

lm 1/21/14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-12 (4.4-5.4) | Lab Sample ID: 480-47840-10

Matrix: Solid | Lab File ID: F2653.D

Analysis Method: 8260C | Date Collected: 10/10/2013 13:15

Sample wt/vol: 5.25(g) | Date Analyzed: 10/23/2013 09:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 8.2 | Level: (low/med) Low

Analysis Batch No.: 146750 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		5.2	0.25
108-88-3	Toluene	ND		5.2	0.39
100-41-4	Ethylbenzene	ND		5.2	0.36
179601-23-1	m-Xylene & p-Xylene	ND		10	0.87
95-47-6	o-Xylene	ND		5.2	0.68
1330-20-7	Xylenes, Total	ND		10	0.87
STL00431	Total BTEX	ND		10	5.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		64-126
460-00-4	4-Bromofluorobenzene (Surr)	101		72-126

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FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-22 (14-15) Lab Sample ID: 480-47840-12

Matrix: Solid Lab File ID: F2654.D

Analysis Method: 8260C Date Collected: 10/11/2013 08:20

Sample wt/vol: 5.47(g) Date Analyzed: 10/23/2013 09:42

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 14.6 Level: (low/med) Low

Analysis Batch No.: 146750 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		5.4	0.26
108-88-3	Toluene	ND		5.4	0.40
100-41-4	Ethylbenzene	ND		5.4	0.37
179601-23-1	m-Xylene & p-Xylene	ND		11	0.90
95-47-6	o-Xylene	ND		5.4	0.70
1330-20-7	Xylenes, Total	ND		11	0.90
STL00431	Total BTEX	ND		11	5.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	110		64-126
460-00-4	4-Bromofluorobenzene (Surr)	102		72-126

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FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-23A (14-15) Lab Sample ID: 480-47840-13

Matrix: Solid Lab File ID: F2655.D

Analysis Method: 8260C Date Collected: 10/11/2013 09:20

Sample wt/vol: 5.5(g) Date Analyzed: 10/23/2013 10:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: ZB-624 (60) ID: 0.25(mm)

% Moisture: 21.1 Level: (low/med) Low

Analysis Batch No.: 146750 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	ND		5.8	0.28
108-88-3	Toluene	ND		5.8	0.44
100-41-4	Ethylbenzene	ND		5.8	0.40
179601-23-1	m-Xylene & p-Xylene	ND		12	0.97
95-47-6	o-Xylene	ND		5.8	0.75
1330-20-7	Xylenes, Total	ND		12	0.97
STL00431	Total BTEX	ND		12	5.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		71-125
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-126
460-00-4	4-Bromofluorobenzene (Surr)	100		72-126

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-1 (9-10) | Lab Sample ID: 480-47840-1

Matrix: Solid | Lab File ID: X006447.D

Analysis Method: 8270D | Date Collected: 10/09/2013 10:15

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.68(g) | Date Analyzed: 10/16/2013 19:47

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 12.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145402 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	2200		950	11
208-96-8	Acenaphthylene	1200		950	7.7
120-12-7	Anthracene	2500		950	24
56-55-3	Benzo[a]anthracene	4400		950	16
50-32-8	Benzo[a]pyrene	3400		950	23
205-99-2	Benzo[b]fluoranthene	2800		950	18
191-24-2	Benzo[g,h,i]perylene	1800		950	11
207-08-9	Benzo[k]fluoranthene	1100		950	10
218-01-9	Chrysene	4900		950	9.4
53-70-3	Dibenz(a,h)anthracene	630	J	950	11
206-44-0	Fluoranthene	5500		950	14
86-73-7	Fluorene	1600		950	22
193-39-5	Indeno[1,2,3-cd]pyrene	1000		950	26
91-20-3	Naphthalene	270	J	950	16
85-01-8	Phenanthrene	5600		950	20
129-00-0	Pyrene	11000		950	6.1

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	98		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	79		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	105		65-153

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-3A (9-10) | Lab Sample ID: 480-47840-2

Matrix: Solid | Lab File ID: X006426.D

Analysis Method: 8270D | Date Collected: 10/09/2013 16:20

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.07(g) | Date Analyzed: 10/16/2013 10:47

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 46.0 | GPC Cleanup: (Y/N) N

Analysis Batch No.: 145199 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	22	J	310	3.7
208-96-8	Acenaphthylene	ND		310	2.6
120-12-7	Anthracene	48	J	310	8.0
56-55-3	Benzo[a]anthracene	ND		310	5.4
50-32-8	Benzo[a]pyrene	ND	UJ	310	7.5
205-99-2	Benzo[b]fluoranthene	ND		310	6.1
191-24-2	Benzo[g,h,i]perylene	ND		310	3.7
207-08-9	Benzo[k]fluoranthene	ND		310	3.4
218-01-9	Chrysene	ND		310	3.1
53-70-3	Dibenz(a,h)anthracene	ND	UJ	310	3.7
206-44-0	Fluoranthene	21	J	310	4.5
86-73-7	Fluorene	ND		310	7.2
193-39-5	Indeno[1,2,3-cd]pyrene	ND	UJ	310	8.6
91-20-3	Naphthalene	ND		310	5.2
85-01-8	Phenanthrene	48	J	310	6.5
129-00-0	Pyrene	33	J	310	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	82		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	73		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	113		65-153

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-5 (9-10) | Lab Sample ID: 480-47840-3

Matrix: Solid | Lab File ID: X006427.D

Analysis Method: 8270D | Date Collected: 10/10/2013 08:40

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.01(g) | Date Analyzed: 10/16/2013 11:12

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 43.5 | GPC Cleanup: (Y/N) N

Analysis Batch No.: 145199 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	20	J	300	3.5
208-96-8	Acenaphthylene	13	J	300	2.4
120-12-7	Anthracene	22	J	300	7.6
56-55-3	Benzo[a]anthracene	44	J	300	5.2
50-32-8	Benzo[a]pyrene	ND	UJ	300	7.2
205-99-2	Benzo[b]fluoranthene	ND		300	5.8
191-24-2	Benzo[g,h,i]perylene	ND		300	3.6
207-08-9	Benzo[k]fluoranthene	ND		300	3.3
218-01-9	Chrysene	58	J	300	3.0
53-70-3	Dibenz(a,h)anthracene	ND	UJ	300	3.5
206-44-0	Fluoranthene	83	J	300	4.3
86-73-7	Fluorene	ND		300	6.9
193-39-5	Indeno[1,2,3-cd]pyrene	ND	UJ	300	8.3
91-20-3	Naphthalene	43	J	300	5.0
85-01-8	Phenanthrene	140	J	300	6.3
129-00-0	Pyrene	96	J	300	1.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	78		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	65		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	119		65-153

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-6 (8-9) | Lab Sample ID: 480-47840-4

Matrix: Solid | Lab File ID: X006428.D

Analysis Method: 8270D | Date Collected: 10/10/2013 09:00

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.92(g) | Date Analyzed: 10/16/2013 11:37

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 20.8 | GPC Cleanup: (Y/N) N

Analysis Batch No.: 145199 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	4.5	J	210	2.4
208-96-8	Acenaphthylene	ND		210	1.7
120-12-7	Anthracene	8.4	J	210	5.3
56-55-3	Benzo[a]anthracene	ND		210	3.6
50-32-8	Benzo[a]pyrene	ND	UJ	210	5.0
205-99-2	Benzo[b]fluoranthene	ND		210	4.0
191-24-2	Benzo[g,h,i]perylene	ND		210	2.5
207-08-9	Benzo[k]fluoranthene	ND		210	2.3
218-01-9	Chrysene	ND		210	2.1
53-70-3	Dibenz(a,h)anthracene	ND	UJ	210	2.4
206-44-0	Fluoranthene	15	J	210	3.0
86-73-7	Fluorene	ND		210	4.8
193-39-5	Indeno[1,2,3-cd]pyrene	ND	UJ	210	5.7
91-20-3	Naphthalene	ND		210	3.4
85-01-8	Phenanthrene	58	J	210	4.3
129-00-0	Pyrene	23	J	210	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	80		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	70		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	113		65-153

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-7 (7-8) | Lab Sample ID: 480-47840-5

Matrix: Solid | Lab File ID: X006429.D

Analysis Method: 8270D | Date Collected: 10/10/2013 11:00

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.51(g) | Date Analyzed: 10/16/2013 12:02

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 18.8 | GPC Cleanup: (Y/N) N

Analysis Batch No.: 145199 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		210	2.4
208-96-8	Acenaphthylene	ND		210	1.7
120-12-7	Anthracene	ND		210	5.2
56-55-3	Benzo[a]anthracene	ND		210	3.5
50-32-8	Benzo[a]pyrene	ND	UJ	210	4.9
205-99-2	Benzo[b]fluoranthene	ND		210	4.0
191-24-2	Benzo[g,h,i]perylene	ND		210	2.5
207-08-9	Benzo[k]fluoranthene	ND		210	2.3
218-01-9	Chrysene	ND		210	2.0
53-70-3	Dibenz(a,h)anthracene	ND	UJ	210	2.4
206-44-0	Fluoranthene	ND		210	3.0
86-73-7	Fluorene	ND		210	4.7
193-39-5	Indeno[1,2,3-cd]pyrene	ND	UJ	210	5.7
91-20-3	Naphthalene	ND		210	3.4
85-01-8	Phenanthrene	ND		210	4.3
129-00-0	Pyrene	ND		210	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	85		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	78		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	118		65-153

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-8 (5-6) | Lab Sample ID: 480-47840-6

Matrix: Solid | Lab File ID: X006430.D

Analysis Method: 8270D | Date Collected: 10/10/2013 11:30

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.15(g) | Date Analyzed: 10/16/2013 12:27

Con. Extract Vol.: 1(mL) | Dilution Factor: 5

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 28.5 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145199 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		1200	14
208-96-8	Acenaphthylene	ND		1200	9.6
120-12-7	Anthracene	74	J	1200	30
56-55-3	Benzo[a]anthracene	420	J	1200	20
50-32-8	Benzo[a]pyrene	610	J ✓	1200	28
205-99-2	Benzo[b]fluoranthene	750	J ✓	1200	23
191-24-2	Benzo[g,h,i]perylene	480	J ✓	1200	14
207-08-9	Benzo[k]fluoranthene	320	J ✓	1200	13
218-01-9	Chrysene	400	J	1200	12
53-70-3	Dibenz(a,h)anthracene	ND	✓ UJ	1200	14
206-44-0	Fluoranthene	620	J	1200	17
86-73-7	Fluorene	ND		1200	27
193-39-5	Indeno[1,2,3-cd]pyrene	400	J ✓	1200	32
91-20-3	Naphthalene	ND		1200	20
85-01-8	Phenanthrene	340	J	1200	25
129-00-0	Pyrene	660	J	1200	7.6

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	86		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	71		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	114		65-153

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FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-9 (5-6) | Lab Sample ID: 480-47840-7

Matrix: Solid | Lab File ID: X006448.D

Analysis Method: 8270D | Date Collected: 10/10/2013 12:00

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.24(g) | Date Analyzed: 10/16/2013 20:12

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 19.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145402 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	5.4	J	210	2.4
208-96-8	Acenaphthylene	33	J	210	1.7
120-12-7	Anthracene	38	J	210	5.3
56-55-3	Benzo[a]anthracene	200	J	210	3.6
50-32-8	Benzo[a]pyrene	230		210	5.0
205-99-2	Benzo[b]fluoranthene	320		210	4.0
191-24-2	Benzo[g,h,i]perylene	140	J	210	2.5
207-08-9	Benzo[k]fluoranthene	140	J	210	2.3
218-01-9	Chrysene	230		210	2.1
53-70-3	Dibenz(a,h)anthracene	43	J	210	2.4
206-44-0	Fluoranthene	410		210	3.0
86-73-7	Fluorene	ND		210	4.8
193-39-5	Indeno[1,2,3-cd]pyrene	130	J	210	5.7
91-20-3	Naphthalene	ND		210	3.4
85-01-8	Phenanthrene	190	J	210	4.3
129-00-0	Pyrene	380		210	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	94		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	76		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	99		65-153

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-10 (0.5-1.0) | Lab Sample ID: 480-47840-8

Matrix: Solid | Lab File ID: X006449.D

Analysis Method: 8270D | Date Collected: 10/10/2013 12:40

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.52(g) | Date Analyzed: 10/16/2013 20:37

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 25.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145402 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	1400	J	4500	52
208-96-8	Acenaphthylene	14000		4500	36
120-12-7	Anthracene	3300	J	4500	110
56-55-3	Benzo[a]anthracene	19000		4500	76
50-32-8	Benzo[a]pyrene	19000		4500	110
205-99-2	Benzo[b]fluoranthene	22000		4500	86
191-24-2	Benzo[g,h,i]perylene	9900		4500	53
207-08-9	Benzo[k]fluoranthene	8800		4500	49
218-01-9	Chrysene	21000		4500	44
53-70-3	Dibenz(a,h)anthracene	3600	J	4500	52
206-44-0	Fluoranthene	15000		4500	64
86-73-7	Fluorene	2800	J	4500	100
193-39-5	Indeno[1,2,3-cd]pyrene	8900		4500	120
91-20-3	Naphthalene	1600	J	4500	74
85-01-8	Phenanthrene	3000	J	4500	93
129-00-0	Pyrene	35000		4500	29

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	86		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	76		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	112		65-153

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-11 (4.4-5.4) | Lab Sample ID: 480-47840-9

Matrix: Solid | Lab File ID: X006450.D

Analysis Method: 8270D | Date Collected: 10/10/2013 13:00

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.53(g) | Date Analyzed: 10/16/2013 21:02

Con. Extract Vol.: 1(mL) | Dilution Factor: 10

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 7.4 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145402 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	7000		1800	21
208-96-8	Acenaphthylene	2600		1800	15
120-12-7	Anthracene	7700		1800	46
56-55-3	Benzo[a]anthracene	5100		1800	31
50-32-8	Benzo[a]pyrene	4100		1800	43
205-99-2	Benzo[b]fluoranthene	3800		1800	35
191-24-2	Benzo[g,h,i]perylene	1900		1800	21
207-08-9	Benzo[k]fluoranthene	1000	J	1800	20
218-01-9	Chrysene	5200		1800	18
53-70-3	Dibenz(a,h)anthracene	640	J	1800	21
206-44-0	Fluoranthene	8200		1800	26
86-73-7	Fluorene	6100		1800	41
193-39-5	Indeno[1,2,3-cd]pyrene	1300	J	1800	50
91-20-3	Naphthalene	5200		1800	30
85-01-8	Phenanthrene	24000		1800	38
129-00-0	Pyrene	13000		1800	12

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	85		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	74		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	97		65-153

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-12 (4.4-5.4) | Lab Sample ID: 480-47840-10

Matrix: Solid | Lab File ID: X006451.D

Analysis Method: 8270D | Date Collected: 10/10/2013 13:15

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.65(g) | Date Analyzed: 10/16/2013 21:27

Con. Extract Vol.: 1(mL) | Dilution Factor: 20

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 8.2 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145402 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		3600	42
208-96-8	Acenaphthylene	2800	J	3600	29
120-12-7	Anthracene	1200	J	3600	92
56-55-3	Benzo[a]anthracene	8200		3600	62
50-32-8	Benzo[a]pyrene	7700		3600	87
205-99-2	Benzo[b]fluoranthene	7400		3600	70
191-24-2	Benzo[g,h,i]perylene	3200	J	3600	43
207-08-9	Benzo[k]fluoranthene	3600		3600	40
218-01-9	Chrysene	7600		3600	36
53-70-3	Dibenz(a,h)anthracene	1200	J	3600	42
206-44-0	Fluoranthene	8000		3600	52
86-73-7	Fluorene	610	J	3600	83
193-39-5	Indeno[1,2,3-cd]pyrene	2900	J	3600	100
91-20-3	Naphthalene	ND		3600	60
85-01-8	Phenanthrene	490	J	3600	76
129-00-0	Pyrene	12000		3600	23

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	84		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	70		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	86		65-153

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-13 (5.0-5.6) | Lab Sample ID: 480-47840-11

Matrix: Solid | Lab File ID: X006452.D

Analysis Method: 8270D | Date Collected: 10/10/2013 13:45

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +15.14(g) | Date Analyzed: 10/16/2013 21:52

Con. Extract Vol.: 1(mL) | Dilution Factor: 200

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 43.0 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145402 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	110000	J	120000	1400
208-96-8	Acenaphthylene	140000		120000	960
120-12-7	Anthracene	230000		120000	3000
56-55-3	Benzo[a]anthracene	210000		120000	2000
50-32-8	Benzo[a]pyrene	170000		120000	2800
205-99-2	Benzo[b]fluoranthene	160000		120000	2300
191-24-2	Benzo[g,h,i]perylene	82000	J	120000	1400
207-08-9	Benzo[k]fluoranthene	48000	J	120000	1300
218-01-9	Chrysene	180000		120000	1200
53-70-3	Dibenz(a,h)anthracene	ND		120000	1400
206-44-0	Fluoranthene	310000		120000	1700
86-73-7	Fluorene	34000	J	120000	2700
193-39-5	Indeno[1,2,3-cd]pyrene	58000	J	120000	3200
91-20-3	Naphthalene	730000		120000	2000
85-01-8	Phenanthrene	830000		120000	2500
129-00-0	Pyrene	530000		120000	760

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	0	X	37-120
4165-60-0	Nitrobenzene-d5 (Surr)	0	X	34-132
1718-51-0	p-Terphenyl-d14 (Surr)	0	X	65-153

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-22 (14-15) | Lab Sample ID: 480-47840-12

Matrix: Solid | Lab File ID: X006419.D

Analysis Method: 8270D | Date Collected: 10/11/2013 08:20

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.46(g) | Date Analyzed: 10/16/2013 07:53

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 14.6 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145199 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	ND		200	2.3
208-96-8	Acenaphthylene	ND		200	1.6
120-12-7	Anthracene	ND		200	5.0
56-55-3	Benzo[a]anthracene	ND		200	3.4
50-32-8	Benzo[a]pyrene	ND		200	4.7
205-99-2	Benzo[b]fluoranthene	ND		200	3.8
191-24-2	Benzo[g,h,i]perylene	ND		200	2.3
207-08-9	Benzo[k]fluoranthene	ND		200	2.1
218-01-9	Chrysene	ND		200	1.9
53-70-3	Dibenz(a,h)anthracene	ND		200	2.3
206-44-0	Fluoranthene	ND		200	2.8
86-73-7	Fluorene	ND		200	4.5
193-39-5	Indeno[1,2,3-cd]pyrene	ND		200	5.4
91-20-3	Naphthalene	ND		200	3.2
85-01-8	Phenanthrene	ND		200	4.1
129-00-0	Pyrene	ND		200	1.3

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	86		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	69		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	102		65-153

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Buffalo | Job No.: 480-47840-1

SDG No.:

Client Sample ID: X-23A (14-15) | Lab Sample ID: 480-47840-13

Matrix: Solid | Lab File ID: X006436.D

Analysis Method: 8270D | Date Collected: 10/11/2013 09:20

Extract. Method: 3550C | Date Extracted: 10/15/2013 08:51

Sample wt/vol: +30.10(g) | Date Analyzed: 10/16/2013 14:59

Con. Extract Vol.: 1(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 21.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 145199 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
83-32-9	Acenaphthene	13	J	210	2.5
208-96-8	Acenaphthylene	17	J	210	1.7
120-12-7	Anthracene	7.2	J	210	5.5
56-55-3	Benzo[a]anthracene	ND		210	3.7
50-32-8	Benzo[a]pyrene	ND	UJ	210	5.1
205-99-2	Benzo[b]fluoranthene	ND		210	4.1
191-24-2	Benzo[g,h,i]perylene	ND		210	2.6
207-08-9	Benzo[k]fluoranthene	ND		210	2.3
218-01-9	Chrysene	ND		210	2.1
53-70-3	Dibenz(a,h)anthracene	ND	UJ	210	2.5
206-44-0	Fluoranthene	11	J	210	3.1
86-73-7	Fluorene	ND		210	4.9
193-39-5	Indeno[1,2,3-cd]pyrene	ND	UJ	210	5.9
91-20-3	Naphthalene	470		210	3.5
85-01-8	Phenanthrene	25	J	210	4.5
129-00-0	Pyrene	20	J	210	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl	79		37-120
4165-60-0	Nitrobenzene-d5 (Surr)	71		34-132
1718-51-0	p-Terphenyl-d14 (Surr)	122		65-153

1/21/14

ATTACHMENT B

SUPPORT DOCUMENTATION

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 480-47840-1

Job Description: Cold Spring MGP #340026

For:
New York State D.E.C.
625 Broadway
11th Floor
Albany, NY 12233-3256

Attention: Mr. Dave Chiusano

Approved for release.
Joe V Giacomazza
Project Administrator
10/30/2013 2:24 PM

Designee for
Sally J Hoffman, Project Manager II
10 Hazelwood Drive, Amherst, NY, 14228-2298
(716)504-9839
sally.hoffman@testamericainc.com
10/30/2013

cc: Mr. George Kisluk

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 11176952 | SITE NAME COLD SPRING

SAMPLERS (PRINT/SIGNATURE) TIM BURMEIER / Tim Burmeier

DELIVERY SERVICE: FEDEX AIRBILL NO.:

LAB TEST AMERICA

COOLER ____ of ____

PAGE ____ of ____

TESTS: 8260C BTEX/MOISTURE; 8270D PAH

BOTTLE TYPE AND PRESERVATIVE: 2oz GLASS; 4oz GLASS

LOCATION IDENTIFIER	DATE	TIME	COMP/GRAB	SAMPLE ID	MATRIX	TOTAL NO.# OF CONTAINERS	2oz GLASS	4oz GLASS	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IRPIMS ONLY)
X-1	10-9-13	10:15	G	X-1 (9-10)	SO	4	3	1		N1	9	10	
X-3A	10-9-13	16:20	G	X-3A (9-10)	SO	4	3	1		1	9	10	
X-5	10-16-13	8:40	G	X-5 (9-10)	SO	4	3	1			9	10	
X-6	10-10-13	9:00	G	X-6 (8-9)	SO	4	3	1			8	9	
X-7	10-10-13	11:00	G	X-7 (7-8)	SO	4	3	1			7	8	
X-8	10-10-13	11:30	G	X-8 (5-6)	SO	4	3	1			5	6	
X-9	10-10-13	12:00	G	X-9 (5-6)	SO	4	3	1			5	6	
X-10	10-10-13	12:40	G	X-10 (0.5-1.0)	SO	4	3	1			0.5	1.0	
X-11	10-10-13	13:00	G	X-11 (4.4-5.4)	SO	4	3	1			4.4	5.4	
X-12	10-10-13	13:15	G	X-12 (4.4-5.4)	SO	4	3	1			4.4	5.4	
X-13B	10-10-13	1345	G	X-13 (5.0-5.6)	SO	1	1			V	5.0	5.6	

MATRIX CODES

AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES

TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
Tim Burmeier	10-10-13	14:00	Barb Barrett	10-10-13	1400
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Barb Barrett	10 11-13	13 40		10/11/13	1340

SPECIAL INSTRUCTIONS: 2.7#1

Distribution: Original accompanies shipment, copy to coordinator field files

Relinquished: 10/11/13

Rcvd: 10.12.13 0200 TL

URSF-075C/1 OF 1/CofCR/GCM

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10/30/2013

CHAIN OF CUSTODY RECORD

URS

PROJECT NO. 11176953

SITE NAME COURTYARD 19 MARKET ST

SAMPLERS (PRINT/SIGNATURE) TIM BURMEISTER / Tim Burmeister

DELIVERY SERVICE: COURIER AIRBILL NO.:

TESTS: 8260C BTEX / 8270C PAH

BOTTLE TYPE AND PRESERVATIVE: 2oz Glass / 4oz Glass

LAB

COOLER ____ of ____

PAGE ____ of ____

LOCATION IDENTIFIER	DATE	TIME	COMP/ GRAB	SAMPLE ID	MATRIX	TOTAL NO.# OF CONTAINERS	2oz Glass	4oz Glass	REMARKS	SAMPLE TYPE	BEGINNING DEPTH (IN FEET)	ENDING DEPTH (IN FEET)	FIELD LOT NO.# (IRPIMS ONLY)
X-22	10-11-13	9:20	G	X-22 (14-15)	SO	4	3	1		N1	14	15	
X-23A	10-11-13	9:20	G	X-23A (14-15)	SO	4	3	1		N1	14	15	

MATRIX CODES: AA - AMBIENT AIR; SE - SEDIMENT; SH - HAZARDOUS SOLID WASTE; SL - SLUDGE; WP - DRINKING WATER; WW - WASTE WATER; WG - GROUND WATER; SO - SOIL; DC - DRILL CUTTINGS; WL - LEACHATE; GS - SOIL GAS; WC - DRILLING WATER; WO - OCEAN WATER; WS - SURFACE WATER; WQ - WATER FIELD QC; LH - HAZARDOUS LIQUID WASTE; LF - FLOATING/FREE PRODUCT ON GW TABLE

SAMPLE TYPE CODES: TB# - TRIP BLANK; SD# - MATRIX SPIKE DUPLICATE; RB# - RINSE BLANK; FR# - FIELD REPLICATE; N# - NORMAL ENVIRONMENTAL SAMPLE; MS# - MATRIX SPIKE; (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
Tim Burmeister	10-11-13	9:45	Scott Barrett	10-11-13	9:45
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)	DATE	TIME
Scott Barrett	10-11-13	13:46		10/11/13	13:46

SPECIAL INSTRUCTIONS: 2.7#1

Distribution: Original accompanies shipment, copy to coordinator field files

Relinquished 10/11/13

RCVD: 10-12-13 0200 TAL

URSF-075C/1 OF 1/CofCR/GCM

Job Narrative
480-47840-1

Receipt
The samples were received on 10/12/2013 2:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.7° C.

GC/MS VOA
Method(s) 8260C: Reported analyte concentrations in the following samples are below 200ug/kg and may be biased low due to the samples not being collected according to 5035-L/5035A-L low-level specifications: X-10 (0.5-1.0) (480-47840-8), X-11 (4.4-5.4) (480-47840-9), X-12 (4.4-5.4) (480-47840-10), X-22 (14-15) (480-47840-12), X-23A (14-15) (480-47840-13), X-3A (9-10) (480-47840-2), X-5 (9-10) (480-47840-3), X-6 (8-9) (480-47840-4), X-7 (7-8) (480-47840-5), X-8 (5-6) (480-47840-6), X-9 (5-6) (480-47840-7).

Method(s) 8260C: The following sample was analyzed medium level due to the nature of the sample matrix: X-1 (9-10) (480-47840-1). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was analyzed outside of analytical holding time due to analyst oversight and high sample volume: X-1 (9-10) (480-47840-1).

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: X-8 (5-6) (480-47840-6). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: Due to matrix interference, internal standard response for the following samples exceeded the lower control limit: X-23A (14-15) (480-47840-13), X-3A (9-10) (480-47840-2), X-5 (9-10) (480-47840-3), X-6 (8-9) (480-47840-4), X-7 (7-8) (480-47840-5), X-8 (5-6) (480-47840-6). As such, the sample results may be biased high. The analytes associated with the failing internal standard were below the reporting limit, therefore the data has been qualified and reported.

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 144976 was outside control limits. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix and abundance of target analytes: X-10 (0.5-1.0) (480-47840-8), X-12 (4.4-5.4) (480-47840-10), X-13B (5.0-5.6) (480-47840-11). As such, surrogate recoveries were reduced to a level in which they do not provide useful information. Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The following samples were diluted due to the nature of the sample matrix: X-1 (9-10) (480-47840-1), X-11 (4.4-5.4) (480-47840-9). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Organic Prep
Method(s) 3550C: A significant amount of liquid was present in the following samples: X-1 (9-10) (480-47840-1), X-10 (0.5-1.0) (480-47840-8), X-13B (5.0-5.6) (480-47840-11), X-23A (14-15) (480-47840-13), X-5 (9-10) (480-47840-3), X-6 (8-9) (480-47840-4). These samples were decanted prior to preparation.

Method(s) 3550C: Due to the matrix, the initial volume used for the following sample deviated from the standard procedure: X-13B (5.0-5.6) (480-47840-11). The reporting limits (RLs) have been adjusted proportionately.

No other analytical or quality issues were noted.

FORM VIII

GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Buffalo Job No.: 480-47840-1

SDG No.:

Sample No.: CCVIS 480-145199/3 Date Analyzed: 10/16/2013 05:25

Instrument ID: HP5973X GC Column: RXI-5Sil MS ID: 0.25(mm)

Lab File ID (Standard): X006413.D Heated Purge: (Y/N) N

Calibration ID: 15846

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		587769	6.53	551515	10.12	456054	13.12
UPPER LIMIT		1175538	7.03	1103030	10.62	912108	13.62
LOWER LIMIT		293885	6.03	275758	9.62	228027	12.62
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 480-144976/1-A		353561	6.53	299008	10.11	231752	13.10
LCS 480-144976/2-A		348376	6.52	329144	10.12	272392	13.12
480-47840-12 MS	X-22 (14-15) MS	366705	6.53	353695	10.13	291689	13.12
480-47840-12 MSD	X-22 (14-15) MSD	348406	6.53	349509	10.13	344227	13.13
480-47840-12	X-22 (14-15)	357961	6.53	337348	10.12	265798	13.11
480-47840-2	X-3A (9-10)	379234	6.53	360554	10.12	207561*	13.12
480-47840-3	X-5 (9-10)	368076	6.54	328797	10.14	184517*	13.14
480-47840-4	X-6 (8-9)	378610	6.54	347984	10.14	196177*	13.13
480-47840-5	X-7 (7-8)	342055	6.54	306123	10.14	181262*	13.13
480-47840-6	X-8 (5-6)	353673	6.54	311287	10.14	181420*	13.13
480-47840-13	X-23A (14-15)	352366	6.53	292074	10.13	171767*	13.12

PHN = Phenanthrene-d10

PHN = Phenanthrene-d10

CRY = Chrysene-d12

CRY = Chrysene-d12

PRY = Perylene-d12

PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area

RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270D

APPENDIX B

BORING LOGS

URS Corporation

TEST BORING LOG

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site	BORING NO. : X-1
CLIENT: New York State Department of Environmental Conservation	SHEET: 1 OF 1
BORING CONTRACTOR: Aztech Environmental	JOB NO. : 11176853
GROUNDWATER: 0.5 ft bgs	NORTHING: EASTING:
	GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED:	10/9/13
DATE FINISHED:	10/9/13
DRILLER:	R. Hammond
GEOLOGIST:	T. Burmeier
REVIEWED BY:	T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		28	Dk Gray		Silty fine to coarse SAND MGP sheen in shoe at 5 ft bgs	FILL	2.0	Wet at 0.5'
-5		2		36	Dk Gray to Brown		Silty fine GRAVEL, sheen on water, moderate odor	FILL	50	
-10		3		60	Dk Brown		faint odor CLAY, trace wood and fine gravel, no odor	CL	2.0	
-15		4		44	Dk Gray to Brown		Fine Sandy SILT, some fine gravel, moderate odor	ML	0.4	
-20		5		33					1.5	
-25							Refusal at 20.9 ft bgs.			

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 9.0 to 10.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-3A

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 1 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/9/13

DATE FINISHED: 10/9/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		38	Gray / Black		ASPHALT Fine GRAVEL and SAND (sub-base material) SILT and GRAVEL Silty fine to coarse SAND and ASH	FILL / SW	1.0	Wet at 1'
-5		2		38	Gray / Black		Fine to coarse SAND, some silt, slight sheen CLAY, trace wood fragments, slight odor	CL	1.0	
-10		3		46	Brown		Silty CLAY, trace wood fragments, slight MGP odor Clayey fine SAND, trace coarse sand and fine gravel, no odor	SC	1.0	
-15		4		70	Yellow to Brown				0.9	
-20		5		NA	Brown		Silty fine to coarse SAND	SM	2.5	
-25							Refusal at 23.7 ft bgs.			

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 9.0 to 10.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-5

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 1 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/10/13

DATE FINISHED: 10/10/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		30	Dk to Lt Brown		Silty TOPSOIL Silty fine SAND, trace fine gravel	SM	9.2	Wet at 1'
-5		2		38	Brown		Silty coarse SAND, some fine gravel, trace fine sand		--	
					Black		CLAY, faint odor	CL		
-10		3		66	Brown		Silty fine GRAVEL Clayey GRAVEL	GM GC	1.0	
					Yellowish Brown		Silty CLAY, some very fine sand, no odor trace coarse sand and clay at 14 ft bgs	CL		
-15		4		10	Brown		Silty coarse GRAVEL, no odor/staining	GM	--	
-20							Boring completed at 20 ft bgs.			
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 9.0 to 10.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-6

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 2.4 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
						Macrocore		
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/10/13

DATE FINISHED: 10/10/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		48	Dk Brown / Yellow to Brown		TOPSOIL Silty fine to coarse SAND, trace white ash Clayey SILT with shell fragments	FILL	1.4	Moist Wet at 2.4'
-5		2		36	Black		SILT and fine to coarse SAND 2" piece of concrete at 9.5 ft bgs		1.4	
-10		3		100	Brown Yellow to Brown		Silty CLAY and GRAVEL, faint odor Clayey SILT, trace to some very fine sand, no odor some silty clay at 14.5 ft bgs	CL/GM ML	1.4	
-15		4		10	Brown		Silty CLAY, trace coarse gravel	CL	--	
-20							Boring completed at 20 ft bgs.			
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 8.0 to 9.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-7

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 2.2 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/10/13

DATE FINISHED: 10/10/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		44	Black		Silty TOPSOIL	FILL	1.0	Moist
							Granular SILT and fine GRAVEL, trace brick	ML		Very Moist
							Clayey SILT, no odor			Wet at 2.2'
-5		2		58	Gray to Brown / Yellowish Brown		Silty fine GRAVEL, no odor	GM	1.2	
							Silty CLAY, no odor	CL		
-10		3		100			trace fine sand		1.7	
					Brown		Clayey SILT, some medium sand	ML		
-15		4		56			SILT and fine to coarse SAND, trace fine gravel	SM	--	
-20							Boring completed at 20 ft bgs.			
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 7.0 to 8.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-8

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 2 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/10/13

DATE FINISHED: 10/10/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		30	Dk Brown / Brown		Silty sand TOPSOIL / Silty SAND, trace fine gravel / Silty CLAY, trace fine to coarse sand	SM / CL	--	Wet at 2'
-5		2		90	Grayish Brown / Yellow to Brown		Silty fine SAND, trace fine gravel / Silty CLAY, trace fine gravel / Silty fine to coarse SAND, no odor	SM / CL / SM	2.3	
-10		3		14	Yellow to Brown to Gray		Fine sandy SILT	ML	2.3	
-15		4		84	Brown		Fine SAND / Fine sandy SILT, trace fine gravel	SP / ML	--	
-20							Refusal at 19.3 ft bgs.			
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 5.0 to 6.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-9

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 4.5 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/10/13

DATE FINISHED: 10/10/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		54	Dk Brown to Yellow Brown		Silty sand TOPSOIL Clayey SILT, trace fine gravel and brick Clayey SILT, some very fine sand, no odor	FILL ML	1.0	Wet at 4.5'
-5		2		NA	Yellowish Brown to Gray		Mottled silty CLAY, trace fine sand, no odor Silty fine to medium SAND	CL SM	1.0	
-10		3		89	Yellow to Brown		Silty CLAY, trace fine gravel	CL	--	
-15							Refusal at 14.4 ft bgs.			
-20										
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 5.0 to 6.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-10

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER:

DATE	TIME	LEVEL	TYPE	CAS.	SAMPLER	CORE	TUBE
			TYPE		Macrocore		
			DIA.		2"		
			WT.				
			FALL				
			* POCKET PENETROMETER READING				

GROUND ELEVATION:

DATE STARTED: 10/10/13

DATE FINISHED: 10/10/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		30	Black		Fine GRAVEL and SILT Silty fine GRAVEL, trace yellow to brown weathered granite, no odor	GM	1.0	
-5							Refusal at 3.7 ft bgs. Granite fragments in shoe.			
-10										
-15										
-20										
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 0.5 to 1.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site	BORING NO. : X-11
CLIENT: New York State Department of Environmental Conservation	SHEET: 1 OF 1
BORING CONTRACTOR: Aztech Environmental	JOB NO. : 11176853
GROUNDWATER: 5 ft bgs	NORTHING: EASTING:
	GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED:	10/10/13
DATE FINISHED:	10/10/13
DRILLER:	R. Hammond
GEOLOGIST:	T. Burmeier
REVIEWED BY:	T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		40	Dk Brown to Black		Silty SAND, some fine gravel and coal some granite gravel at 2 ft bgs	SM	0.0	Moist
-5		2		100	Black		Silty GRAVEL, MGP odor	GM	6.0	Wet at 5'
							Refusal at 5.4 ft bgs.			
-10										
-15										
-20										
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 4.4 to 5.4 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-12

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 5 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/10/13

DATE FINISHED: 10/10/13

DRILLER: R.Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		28	Dk Brn / Gray / Dk Brown		Silty fine to coarse SAND / Silty GRAVEL / Silty fine to coarse SAND and fine GRAVEL	SM / GM / SM/GM	--	Moist
-5		2		100			Refusal at 5.4 ft bgs.		--	Wet at 5'
-10										
-15										
-20										
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.

URS Corporation

TEST BORING LOG

BORING NO. : X-13B

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 1 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/10/13

DATE FINISHED: 10/10/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		16	Dk Brown		Silty fine SAND and fine GRAVEL	SM/GM	6.0	Wet at 1'
-5		2		100	Black		Silty GRAVEL with coal tar	GM	63	
							Refusal at 5.6 ft bgs.			
-10										
-15										
-20										
-25										

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.

URS Corporation

TEST BORING LOG

BORING NO. : X-22

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site | **SHEET: 1 OF 2**

CLIENT: New York State Department of Environmental Conservation | **JOB NO. : 11176853**

BORING CONTRACTOR: Aztech Environmental | **NORTHING: EASTING:**

GROUNDWATER: 9 ft bgs | **GROUND ELEVATION:**

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE		Macrocore		
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED:	10/11/13
DATE FINISHED:	10/11/13
DRILLER:	R. Hammond
GEOLOGIST:	T. Burmeier
REVIEWED BY:	T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		16	Dk Brown		Organic friable silty TOPSOIL, trace gravel, no odor	PT	2.1	Moist
-5		2		86	Yellow to Brown		Silty CLAY, trace to some fine sand, no odor	CL	--	Very Moist
							Silty fine SAND	SM		Wet at 9'
-10		3		36			Fine GRAVEL, trace silt, no odor	GW	2.1	
							Fine SAND, some silt, trace gravel, no odor	SP		
-15		4		26			SILT and fine to coarse SAND, no odor	ML/SW	2.1	
-20		5		30					--	
-25					Brown		Silty fine to coarse SAND and fine	SM/GM		

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 14.0 to 15.0 feet bgs for BTEX and PAH analysis.

URS Corporation

TEST BORING LOG

BORING NO. : X-23A

PROJECT/PROJECT LOCATION: Cold Spring Former MGP Site

SHEET: 1 OF 1

CLIENT: New York State Department of Environmental Conservation

JOB NO. : 11176853

BORING CONTRACTOR: Aztech Environmental

NORTHING: EASTING:

GROUNDWATER: 9.5 ft bgs

GROUND ELEVATION:

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED: 10/11/13

DATE FINISHED: 10/11/13

DRILLER: R. Hammond

GEOLOGIST: T. Burmeier

REVIEWED BY: T. Burmeier

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC% / RQD%	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
0		1		34	Brown		TOPSOIL Silty fine SAND and fine GRAVEL, no odor	SM/GM	2.6	Moist
-5		2		60					--	
-10		3		100			Silty fine SAND, several thin clayey layers throughout, no odor	SM	2.6	Wet at 9.5'
-15		4		50			Silty fine to coarse SAND, trace fine gravel, no odor		2.6	
-20		5		47			Silty fine SAND some granite gravel fragments		2.6	
-25							Refusal at 24.3 ft bgs.			

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 14.0 to 15.0 feet bgs for BTEX and PAH analysis.

URS *Corporation*

TEST BORING LOG

BORING NO. : X-22

PROJECT: Cold Spring Former MGP Site

SHEET: 2 OF 2

CLIENT: New York State Department of Environmental Conservation

JOB NO. :11176853

DEPTH FEET	STRATA	SAMPLE NO.	SAMPLE BLOW COUNT	REC % / RQD %	COLOR	SOIL CONSISTENCY / ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	PID	REMARKS
		6		56			GRAVEL, no odor		2.8	
							Refusal at 27.5 ft bgs.			

-30
-35
-40
-45
-50
-55

COMMENTS: Boring advanced using a 6610DT Geoprobe track rig.
Collected soil sample 14.0 to 15.0 feet bgs for BTEX and PAH analysis.