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Memorandum

To: Andrew Prophete (National Grid NY)

From: Brian Skelly

Copy to: Richard Dana and R. Scott Deyette (NYSDEC)
Chris Schroer (EA Engineering)
Andrew Rizk (Louis Berger)
Stephanie Selmer (NYSDOH)
Dave Boram and Thor Helgason (de maximis)
Ted Leissing (National Grid NY)
Shail Pandya (AECOM)
Ronell Marshall and Clayton John (GEI Consultants, Inc.)

Date: February 18, 2013

Regarding: Weekly Community Air Monitoring Report
Clifton Former MGP Site - Operable Unit 2 (OU-2)
February 9, 2013 through February 15, 2013

Dear Andrew:

This report includes a summary of data collected during implementation of the Community Air Monitoring Plan (CAMP) at the Clifton Former MGP Site Operable Unit 2 (OU-2) in Staten Island, New York. Data collected are discussed in relation to remediation activities that occurred between February 9, 2013 and February 15, 2013.

There were no fifteen-minute exceedances of the Total Volatile Organic Compounds (TVOC), Particulate Matter (PM-10) [dust], or odor action levels associated with ground intrusive site activities during this reporting period. The tables and figures accompanying this report summarize air monitoring results related to the action levels described by the CAMP Work Plan (AECOM, 2011 and GEI, 2012).

The following information is summarized in this report:

- Site construction activities
- Daily maximum 15-minute average concentrations of TVOC and PM-10 (dust) at each fixed station
- Elevated concentrations (if any)
- Meteorological data

Site Construction Activities

Construction activities during this reporting period included:

- Backfilled shallow excavation
- Deconned construction vehicles
- Deconned dump trucks
- Excavated in Temporary Fabric Structure (TFS)
- Leveled terrain in OU-2
- Loaded out soil from TFS
- Moved Bin blocks
- Operated decon pad
- Operated hoe-ram in TFS
- Plowed snow in OU-2
- Received delivery of clean backfill
- Received delivery of clean backfill
- Relocated TFS
- Relocated TIGG filtration fans
- Relocated TIGG filtration tanks
- Surveyed site in OU-2
- Tarped dump trucks
- Transported clean backfill into TFS
- Transported equipment around OU-2

Data collection

Real-time fixed station monitoring for TVOC and PM-10 (dust) was performed on the OU-2 site perimeter at six locations (FAM#1 through FAM#6). Four AirLogics Classic stations equipped with gas chromatographs (GCs) were operated at FAM#2, FAM#3, FAM#4, and FAM#5 and two AirLogics Light stations were operated at FAM#1 and FAM#6.

Table 1 summarizes the target concentrations for action levels and Site Conditions described by the CAMP. Table 2 provides a daily summary of maximum fifteen-minute average ambient air concentrations from each station. The daily reports appended to this report depict more detailed and time-specific comparison of upwind and downwind measurements and site activities that is needed to determine the Site Condition.

Upwind and downwind ambient air verification samples were collected on February 15, 2013. Meteorological data collected at the on-site weather station are included in this report as Figures 1 through 4 which show a directional wind rose for the period and temperature, relative humidity, and wind speed time series for the period.

If you have any questions regarding the information in this report, please contact me.

Weekly Community Air Monitoring Report
Clifton Former MGP Site Operable Unit 2 (OU-2)
February 9, 2013 through February 15, 2013
February 18, 2013
Page 3

References

AECOM (2011). Appendix A of CERP Community Air Monitoring Plan (CAMP) Former Manufactured Gas Plant Operable Unit - 2 Remediation. Clifton, New York. August.

GEI Consultants, Inc (2012). Community Air Monitoring Plan: Clifton Former Manufactured Gas Plant Site – Operable Unit 2, Borough of Staten Island, New York. February.

New York State Department of Environmental Conservation (2010). DER-10 / Technical Guidance for Site Remediation and Investigation. Washington: Division of Environmental Remediation, December. Appendix 1-A. May.

Table 1 - Action Levels and Site Conditions
Community Air Monitoring Program
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

	Alert Level	Action Level	Site Condition 1	Site Condition 2	Site Condition 3
TVOC (15-minute)	3.7 ppm	5.0 ppm	< 3.7 ppm	≥ 3.7 ppm, < 5.0 ppm	≥ 5.0 ppm
TVOC (1-minute)	NA	25 ppm	< 25 ppm	NA	≥ 25 ppm
PM-10 (15-minute)	100 ug/m ³	150 ug/m ³	< 100 ug/m ³	≥ 100 ug/m ³ , < 150 ug/m ³	≥ 150 ug/m ³
Odor (15-minute)	Odors / Complaints	NA	No odors	NA	3 (n-butanol)
HCN (15-minute)	Visual Detection	NA	< 0.6 ppm	≥ 0.6 ppm (4-gas meter)	≥ 0.6 ppm (Draeger tube)
Naphthalene (15-minute)	NA	NA	< 440 ug/m ³	≥ 330 ug/m ³ , < 440 ug/m ³	≥ 440 ug/m ³

Notes:

¹ Alert Levels are not established by the NYSDOH or NYSDEC and are internally established concentration levels for total volatile organic compounds. Alert Levels are set below the levels established by the NYSDOH so that actions can be taken prior to exceeding a NYSDOH threshold. An Alert Level serves as a screening tool to trigger contingent measures if necessary, to assist in minimizing off-site transport of contaminants during remedial activities

² Response Levels and Action Levels are not defined in Appendix 1A of the New York State Department of Environmental Conservation *DER-10 / Technical Guidance for Site Investigation and Remediation* (NYSDEC, 2010)

ug/m³ - micrograms per cubic meter

ppmv - parts per million by volume

TVOC - total volatile organic compounds

PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter

HCN - hydrogen cyanide

NA - not applicable

Table 2. Daily Maximum 15-Minute Average Concentrations of TVOC and PM-10
Community Air Monitoring Program
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

Date	TVOC						PM-10					
	(ppm)						(ug/m ³)					
	FAM#1	FAM#2	FAM#3	FAM#4	FAM#5	FAM#6	FAM#1	FAM#2	FAM#3	FAM#4	FAM#5	FAM#6
2/9/2013	0.0	0.1	0.2	0.1	0.3	0.0	14	7	2	45	5	13
2/10/2013	0.1	1.9	0.3	0.1	0.3	0.0	36	13	4	45	11	28
2/11/2013	0.0	0.4	0.4	0.5*	0.7	0.0	92	76	53	45	74	81
2/12/2013	0.5	0.1	0.2	1.0**	0.3	0.0	47	22	10	15	22	43
2/13/2013	0.0	0.2	0.3	3.8	0.4	0.0	44	30	16	45	27	45
2/14/2013	0.1	0.1	0.3	0.2	0.2	0.0	69	41	21	43	41	66
2/15/2013	0.2	0.2	0.2	0.3	0.2	0.1	87	45	29	45	43	71
Average	0.1	0.4	0.3	0.9	0.3	0.0	56	33	19	40	32	50
Maximum	0.5	1.9	0.4	3.8	0.7	0.1	92	76	53	45	74	81

Notes:

FAM - fixed air monitoring station location

ug/m³ - micrograms per cubic meter

ppmv - parts per million by volume

TVOC - total volatile organic compounds

PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter

* No recordable data for TVOC at FAM#4 from 14:59 - 23:59 on 2/11/13 due to an equipment communication malfunction.

**No recordable data for TVOC at FAM#4 from 00:01 - 06:32 on 2/12/13 due to an equipment communication malfunction.

Figures 1-4
Meteorological Data
Weekly Community Air Monitoring Report
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

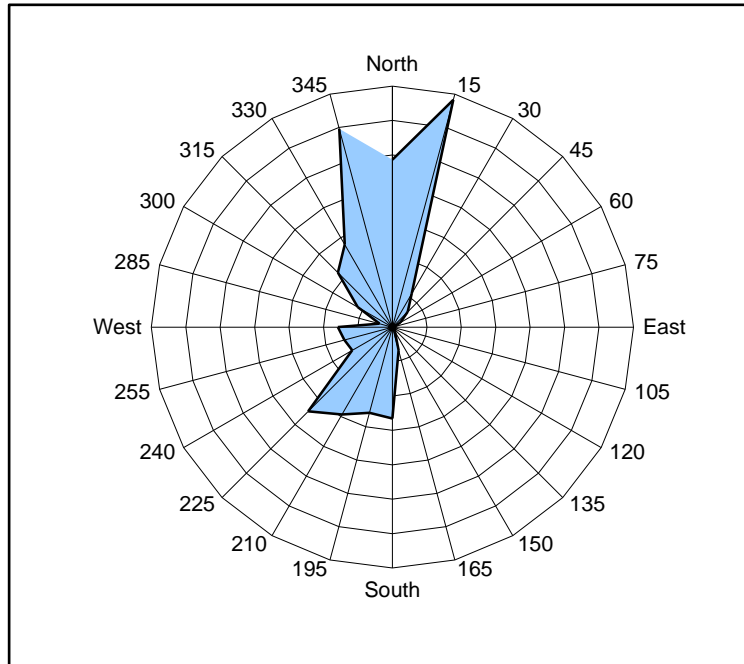


Figure 1. Wind rose for the period 02/09/13 through 02/15/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Wind direction data used to create the wind rose were calculated from 1-minute data.

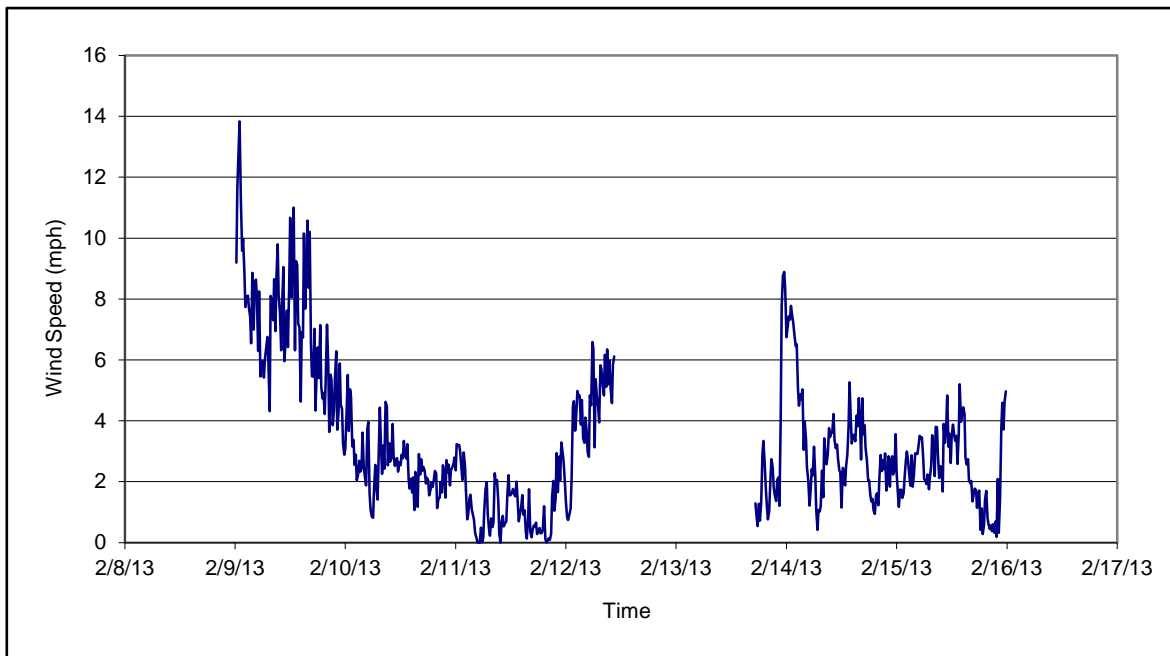


Figure 2. Wind speed for the period 02/09/13 through 02/15/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

Figures 1-4
Meteorological Data
Weekly Community Air Monitoring Report
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

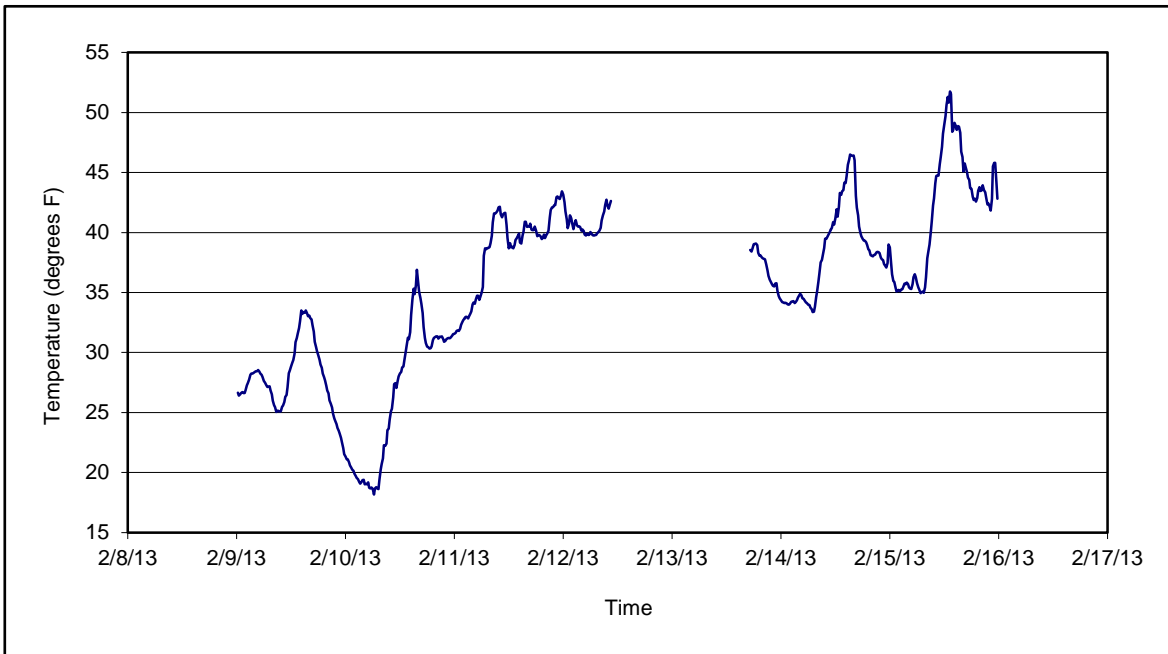


Figure 3. Temperature for the period 02/09/13 through 02/15/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

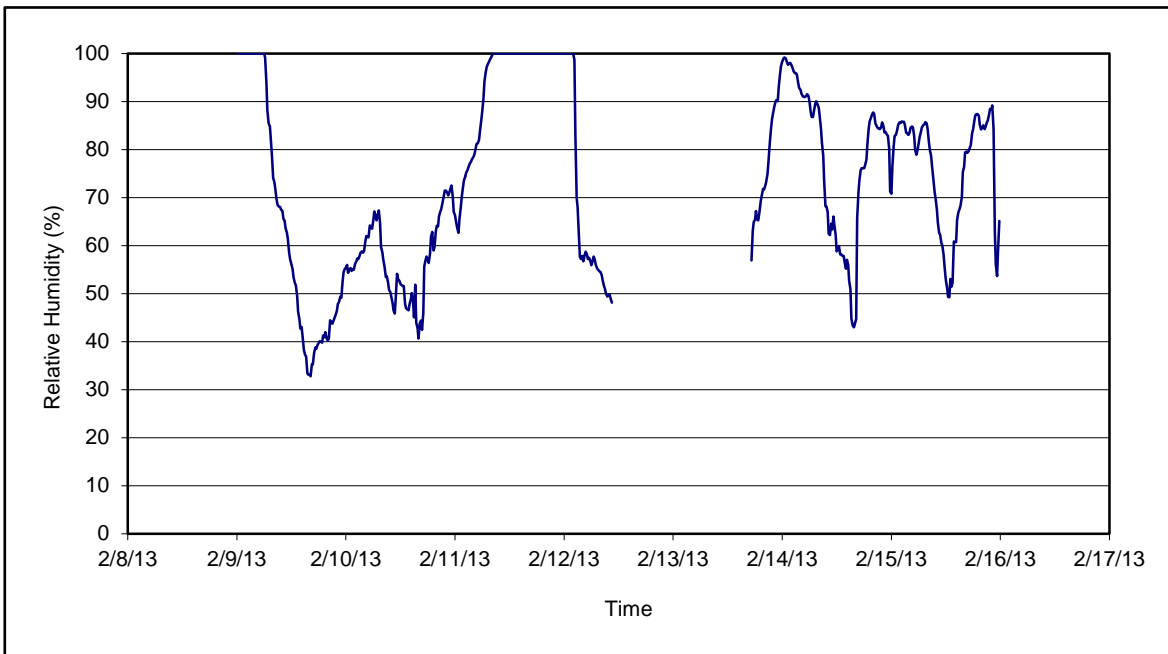


Figure 4. Relative humidity for the period 02/09/13 through 02/15/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

Daily Field Report
 Community Air Monitoring Program
 Clifton Former MGP Site Operable Unit 2
 Borough of Staten Island, New York

System Operations					General Observations								
Sampling Date: 2/11/2013 System Start Time: continuous System Stop Time: continuous Total Hrs Monitored: 24 System Calibrations (Time/Status): Ok 0646-00815		General Weather Conditions: Overcast w/rain-snow mix- ~ 27°F - ~41°F General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Excavated in Temporary Fabric Structure (TFS) Deconned dump trucks Tarped dump trucks Loaded out soil from TFS								Transported equipment around OU-2 Plowed snow in OU-2 Operated hoe-ram in TFS Loaded out soil from TFS			
Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/ Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration Min** Max**		Site Condition	Site Activity During the Period (if applicable)	Actions Taken
2/11/2013	No exceedances												None taken
Comments:													
		PM-10 (15-min)		TVOC (15-min)		TVOC (1-min)		Odor Intensity (15-min)					
		Alert Limit:		100 ug/m ³		3.7 ppm		-					
		Action Limit:		150 ug/m ³		5.0 ppm		25 ppm		3 (n-butanol scale)			
Notes:													
* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).						PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter							
** Upwind minus downwind concentrations are a time specific comparison.						TVOC - total volatile organic compounds							
FAM - Fixed Air Monitoring station location						NA - not applicable						Field Representative: R. Marshall	
ug/m ³ - micrograms per cubic meter						ND - no data available						Date: 2/11/2013	
ppmv - parts per million by volume													



Daily Field Report
 Community Air Monitoring Program
 Clifton Former MGP Site Operable Unit 2
 Borough of Staten Island, New York

System Operations					General Observations								
Sampling Date 2/12/2013 System Start Time continuous System Stop Time continuous Total Hrs Monitored 24 System Calibrations Ok (Time/Status) 0646-00847					General Weather Conditions: Clear - 40°F - -47°F General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Excavated in Temporary Fabric Structure (TFS) Deconned dump trucks Tarped dump trucks Loaded out soil from TFS								
Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration Min** Max**	Site Condition	Site Activity During the Period (if applicable)	Actions Taken	
2/12/2013	No exceedances											None taken	
Comments:													
					PM-10 (15-min)			TVOC (15-min)			TVOC (1-min)	Odor Intensity (15-min)	
					Alert Limit: Action Limit:	100 ug/m ³ 150 ug/m ³			3.7 ppm 5.0 ppm			- 25 ppm	- 3 (n-butanol scale)
Notes:													
* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).						PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter							
** Upwind minus downwind concentrations are a time specific comparison.						TVOC - total volatile organic compounds							
FAM - Fixed Air Monitoring station location						NA - not applicable							
ug/m ³ - micrograms per cubic meter						ND - no data available							
ppmv - parts per million by volume											Field Representative: R. Marshall		
											Date: 2/12/2013		
						Page 1 of 1							



Daily Field Report
Community Air Monitoring Program
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

System Operations					General Observations									
Sampling Date 2/13/2013 System Start Time continuous System Stop Time continuous Total Hrs Monitored 24 System Calibrations Ok (Time/Status) 1152-1336					General Weather Conditions: Clear - ~ 31°F - ~41°F General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Moved Bin blocks Relocated TIGG filtration fans Relocated TIGG filtration tanks Prepared TFS for Move Relocated Temporary Fabric Structure Transported equipment around OU-2									
Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration Min** Max**		Site Condition	Site Activity During the Period (if applicable)	Actions Taken	
2/13/2013	TVOC	FAM#4	7:04	7:07	4	WNW	CW	FAM#5	3.3	3.4	1	Preping the TFS for move	None taken	
Comments:														
					PM-10 (15-min)		TVOC (15-min)		TVOC (1-min)		Odor Intensity (15-min)			
					Alert Limit: 100 ug/m ³		3.7 ppm		-		-			
					Action Limit: 150 ug/m ³		5.0 ppm		25 ppm		3 (n-butanol scale)			
Notes:														
* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).					PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter									
** Upwind minus downwind concentrations are a time specific comparison.					TVOC - total volatile organic compounds									
FAM - Fixed Air Monitoring station location					NA - not applicable					Field Representative: C. John				
ug/m ³ - micrograms per cubic meter					ND - no data available					Date: 2/13/2013				
ppmv - parts per million by volume														



Daily Field Report
Community Air Monitoring Program
Clifton Former MGP Site Operable Unit 2
Borough of Staten Island, New York

System Operations					General Observations								
Sampling Date		2/14/2013			General Weather Conditions: Clear - ~ 34°F - ~44°F								
System Start Time		continuous			General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Received delivery of clean backfill Operated decon pad Tarping station operated Loaded out material from TFS Transported clean backfill into TFS Excavated inside TFS Backfilled shallow excavation Surveyed site in OU-2								
System Stop Time		continuous											
Total Hrs Monitored		24											
System Calibrations (Time/Status)		Ok 0730-0905											
Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/ Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration Min** Max**		Site Condition	Site Activity During the Period (if applicable)	Actions Taken
2/14/2013	No Exceedances												Non Taken
Comments:													
					PM-10 (15-min)		TVOC (15-min)		TVOC (1-min)		Odor Intensity (15-min)		
					Alert Limit: 100 ug/m ³		3.7 ppm		-		-		
					Action Limit: 150 ug/m ³		5.0 ppm		25 ppm		3 (n-butanol scale)		
Notes:													
* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).						PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter							
** Upwind minus downwind concentrations are a time specific comparison.						TVOC - total volatile organic compounds							
FAM - Fixed Air Monitoring station location						NA - not applicable						Field Representative: C. John	
ug/m ³ - micrograms per cubic meter						ND - no data available						Date: 2/14/2013	
ppmv - parts per million by volume													

Daily Field Report
 Community Air Monitoring Program
 Clifton Former MGP Site Operable Unit 2
 Borough of Staten Island, New York

System Operations					General Observations									
Sampling Date		2/15/2013			General Weather Conditions: Clear - ~ 36°F - ~45°F									
System Start Time		continuous			General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Received delivery clean backfill Backfilled shallow excavation Transported equipment around OU-2 Decconned construction vehicles Leveled terrain in OU-2 Transported clean soil into TFS									
System Stop Time		continuous												
Total Hrs Monitored		24												
System Calibrations (Time/Status)		Ok 0833-0958												
Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration Min** Max**		Site Condition	Site Activity During the Period (if applicable)	Actions Taken	
2/15/2013	No Exceedances												None Taken	
Comments:														
Alert Limit:					PM-10 (15-min)		TVOC (15-min)		TVOC (1-min)		Odor Intensity (15-min)			
Action Limit:					100 ug/m ³		3.7 ppm		-		-			
					150 ug/m ³		5.0 ppm		25 ppm		3 (n-butanol scale)			
Notes:														
* Wind directions are presented by octant (i.e. N, NE, E, SE, S, SW, W, NW).					PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter					TVOC - total volatile organic compounds				
** Upwind minus downwind concentrations are a time specific comparison.					NA - not applicable					ND - no data available				
FAM - Fixed Air Monitoring station location										Field Representative: C. John				
ug/m ³ - micrograms per cubic meter										Date: 2/15/2013				
ppmv - parts per million by volume														

