



455 Winding Brook Drive
Suite 201
Glastonbury, CT 06033

Ph: (860) 368-5300
Fax: (860) 368-5307

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: January 23, 2013

Regarding: Weekly Community Air Monitoring Report
Clifton Former MGP Site - Operable Unit 2 (OU-2)
January 12, 2013 through January 18, 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 January 12, 2013 and January 18, 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:

- Excavated in Temporary Fabric Structure (TFS)
- Backfilled in TFS
- Deconned dump trucks
- Deconned excavators
- Deconned frac tank
- Leveled terrain inside TFS
- Loaded clean backfill into TFS
- Loaded out excavated material
- Prepared TFS for relocation
- Received delivery of clean backfill
- Relocated bin blocks
- Relocated frac tank
- Relocated TFS
- Removed sections of fencing along Northwest fence line of OU2.
- Stockpiled clean backfill
- Tarped dump trucks
- Transported clean backfill into TFS

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 January 16, 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)
January 12, 2013 through January 18, 2013
January 23, 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
1/12/2013	0.0	0.1	ND	0.1	0.1	ND	55	63	ND	45	64	ND
1/13/2013	0.0	0.1	ND	0.2	0.1	ND	51	63	ND	46	67	ND
1/14/2013	0.8	0.1	3.6 ^a	0.1	0.1	0.3 ^a	29	37	78 ^a	46	40	27 ^a
1/15/2013	0.6	0.2	0.3	0.1	0.7	0.0	37	17	12	8	18	26
1/16/2013	0.3	0.1	1.5	0.2	0.3	0.0	37	30	15	24	36	51
1/17/2013	0.1	0.1	0.3	0.2	0.2	0.0	22	21	9	23	23	52
1/18/2013	0.2	0.1	0.2	0.1	0.1	0.0	9	8	2	5	8	13
Average	0.3	0.1	0.6	0.1	0.2	0.0	34	34	10	28	37	36
Maximum	0.8	0.2	1.5	0.2	0.7	0.0	55	63	15	46	67	52

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

N/A - no site activity/CAMP due to holiday

^(a) Due to an power outage, no data were recorded @ FAM#3 or FAM#6 through 8:14 am on 1/14/2013.

ND: No Data- Units were offline due to power loss

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

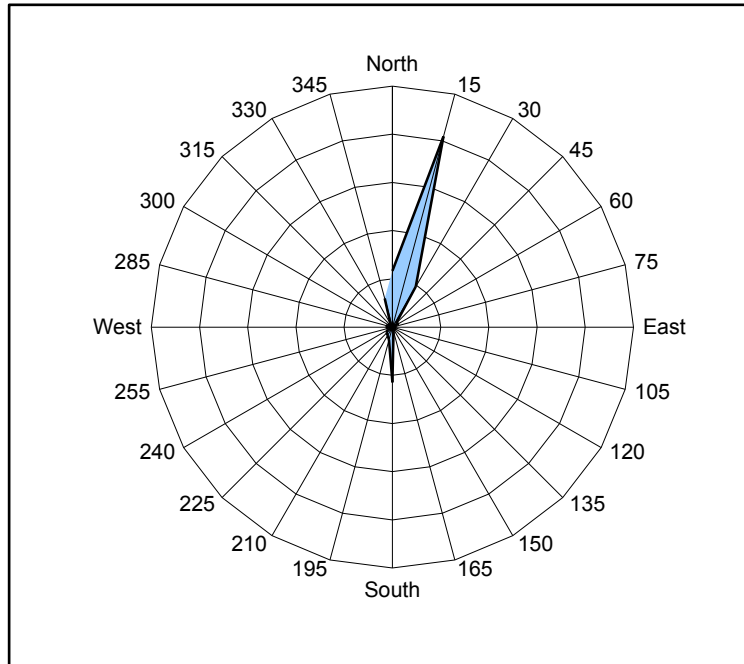


Figure 1. Wind rose for the period 01/12/13 through 01/18/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Wind direction data used to create the wind rose were calculated from 1-minute data.

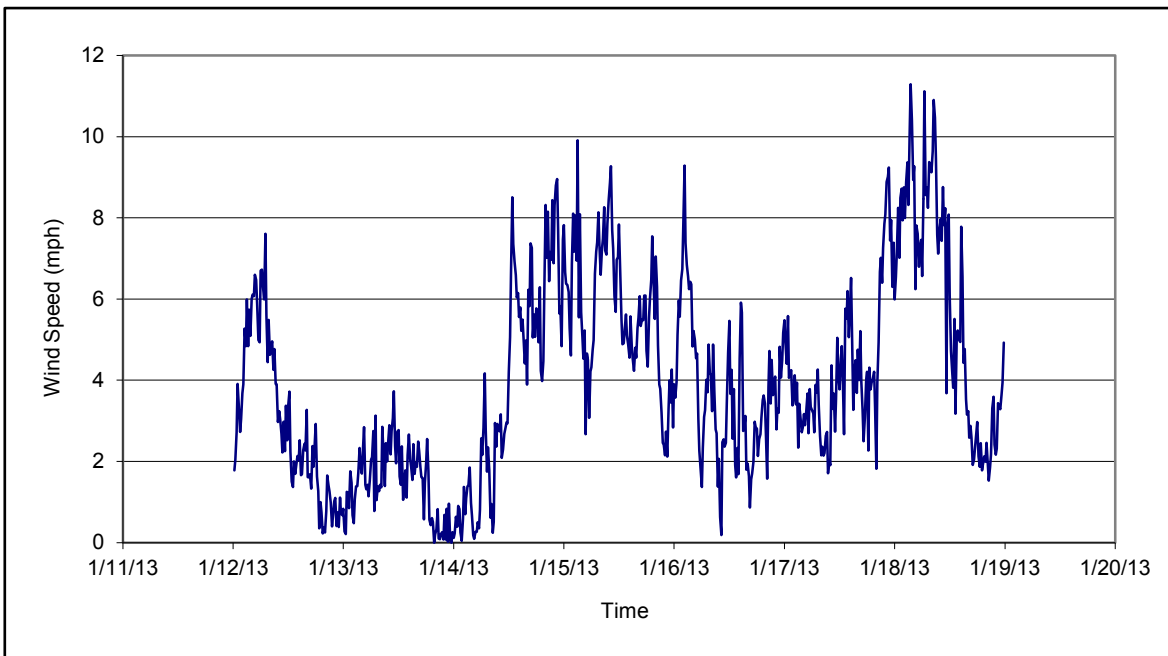


Figure 2. Wind speed for the period 01/12/13 through 01/18/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

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

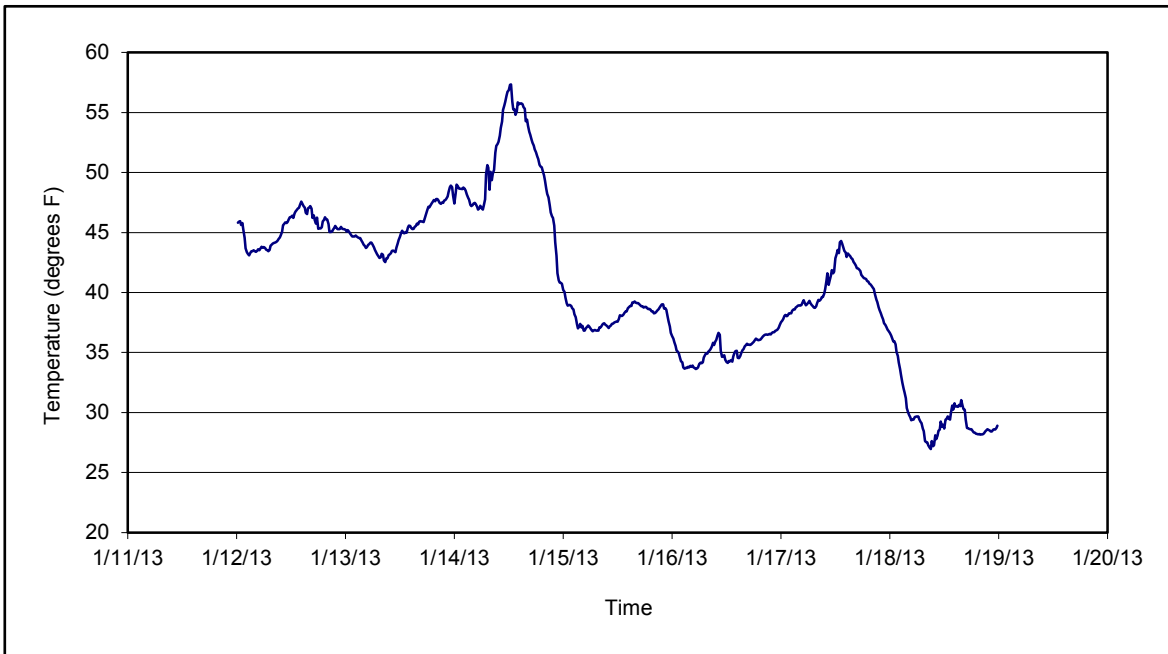


Figure 3. Temperature for the period 01/12/13 through 01/18/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

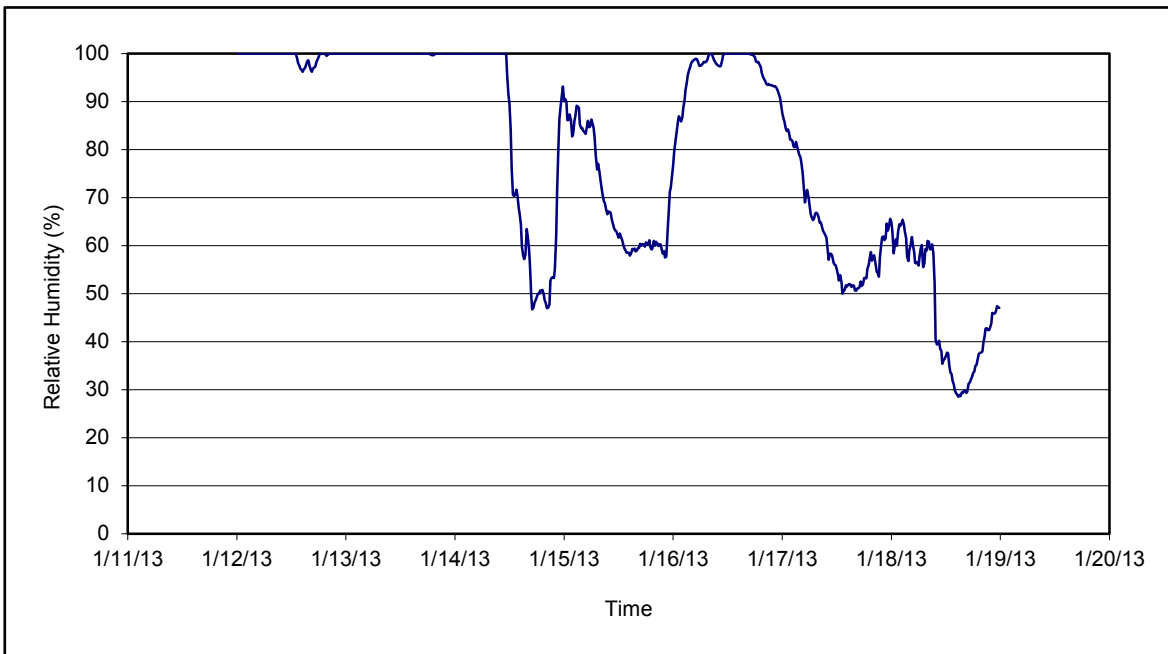


Figure 4. Relative humidity for the period 01/12/13 through 01/18/13 collected during CAMP implementation at the Clifton Former MGP Site - Operable Unit 2. Data are 15-minute averages.

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		1/14/2013			General Weather Conditions: Overcast- ~ 51°F - ~56°F									
System Start Time		continuous			General Description of Site Activities: Health & Safety Meeting Continuous Air Monitoring Excavated in Temporary Fabric Structure (TFS) Deconned dump trucks Loaded clean backfill into TFS Tarped dump trucks									
System Stop Time		continuous			Relocated frac tank Received delivery of clean backfill Stockpiled clean backfill Deconned frac tank east									
Total Hrs Monitored		24												
System Calibrations (Time/Status)		Ok 0907-1058												
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	
01/14/13	TVOC	FAM#3	14:28	14:30	3	NE	CW	FAM#2	-	3.6	1	Generator operating nearby	Informed construction manager Generator was shut off	
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								
ug/m ³ - micrograms per cubic meter						ND - no data available								
ppmv - parts per million by volume						Field Representative: S. Ou								
						Date: 1/14/2013								



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 1/15/2013 System Start Time continuous System Stop Time continuous Total Hrs Monitored 24 System Calibrations Ok (Time/Status) 0657-0836					General Weather Conditions: Overcast- ~ 33°F - ~38°F General Description of Site Activities: Health & Safety Meeting Relocated frac tank Continuous Air Monitoring Received delivery of clean backfill Deconned excavators Stockpiled clean backfill Deconned dump trucks Leveled terrain inside TFS Loaded out clean backfill into TFS Prepared TFS for relocation Relocated bin blocks									
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	
01/15/13	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). ** Upwind minus downwind concentrations are a time specific comparison. FAM - Fixed Air Monitoring station location ug/m ³ - micrograms per cubic meter ppmv - parts per million by volume					PM-10 - particulate matter (i.e. dust) less than 10 microns in diameter TVOC - total volatile organic compounds NA - not applicable ND - no data available					Field Representative: C. John Date: 1/15/2013				



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	1/16/2013	General Weather Conditions:			Raining- ~ 34°F - ~35°F									
System Start Time	continuous	General Description of Site Activities:			Relocated frac tank									
System Stop Time	continuous	Health & Safety Meeting			Received delivery of clean backfill									
Total Hrs Monitored	24	Continuous Air Monitoring			Stockpiled clean backfill									
System Calibrations (Time/Status)	Ok 0903-1025	Relocated TFS			Leveled terrain inside TFS									
		Deconned dump trucks			Secured TFS post move.									
		Transported clean backfill into TFS												
		Relocated bin blocks												
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	
01/16/13	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								
ug/m ³ - micrograms per cubic meter						ND - no data available								
ppmv - parts per million by volume						Field Representative: C. John								
						Date: 1/16/2013								
												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		1/18/2013			General Weather Conditions:									
System Start Time		continuous			Clear ~ 27°F - ~30°F									
System Stop Time		continuous			General Description of Site Activities:									
Total Hrs Monitored		24			Health & Safety Meeting				Stockpiled clean backfill					
System Calibrations (Time/Status)		Ok 0800-1007			Continuous Air Monitoring				Leveled terrain inside TFS					
					Tarped dump trucks				Loaded out excavated material into dump trucks.					
					Decconned dump trucks									
					Transported clean backfill into TFS									
					Received Delivery of clean backfill									
Date	Alert Trigger	Station	Start Time	End Time	# of 15-min Periods	Wind Dir.	Upwind/Downwind	Upwind Station(s)	15-Minute Downwind-Upwind Concentration		Site Condition	Site Activity During the Period (if applicable)	Actions Taken	
									Min**	Max**				
01/18/13	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: C. John		
ug/m ³ - micrograms per cubic meter						ND - no data available						Date: 1/18/2013		
ppmv - parts per million by volume														
												Page 1 of 1		

