

Report of Progress, July 31, 2009

Pursuant to Administrative Settlement Agreement and Order on Consent for Removal Action

Docket No. V-W-08-C-897

Countywide Recycling and Disposal Facility
East Sparta, Stark County, Ohio
Respondent: Republic Services of Ohio II, LLC (Republic)

Paragraph 15.a and b Enhanced Gas Extraction and Temperature Monitoring [NOTE: THIS WORK ITEM IS SUPERSEDED BY AN ISOLATION BREAK EXCAVATION].

The Isolation Break was completed in June 2009.

In situ temperature monitoring of the FBMP thermocouple monitors were continued throughout the month; results are presented in Attachment A-2.

Paragraph 15.c and f Capping and Stabilization.

In July 2009, the last remaining temporary cap area (area referred to as the East Plateau) was completed. Some surface water regrading of intermediate soil-covered portions of Cell 1-3 remain to be completed. Attachment B shows the extent of capping performed in July 2009.

Paragraph 15.e Air Monitoring and Sampling.

In July, air monitoring activities continued on the Tier 3 (Stage C Fixed Continuous Monitoring) program. A summary of the results is included in Attachment C-1.

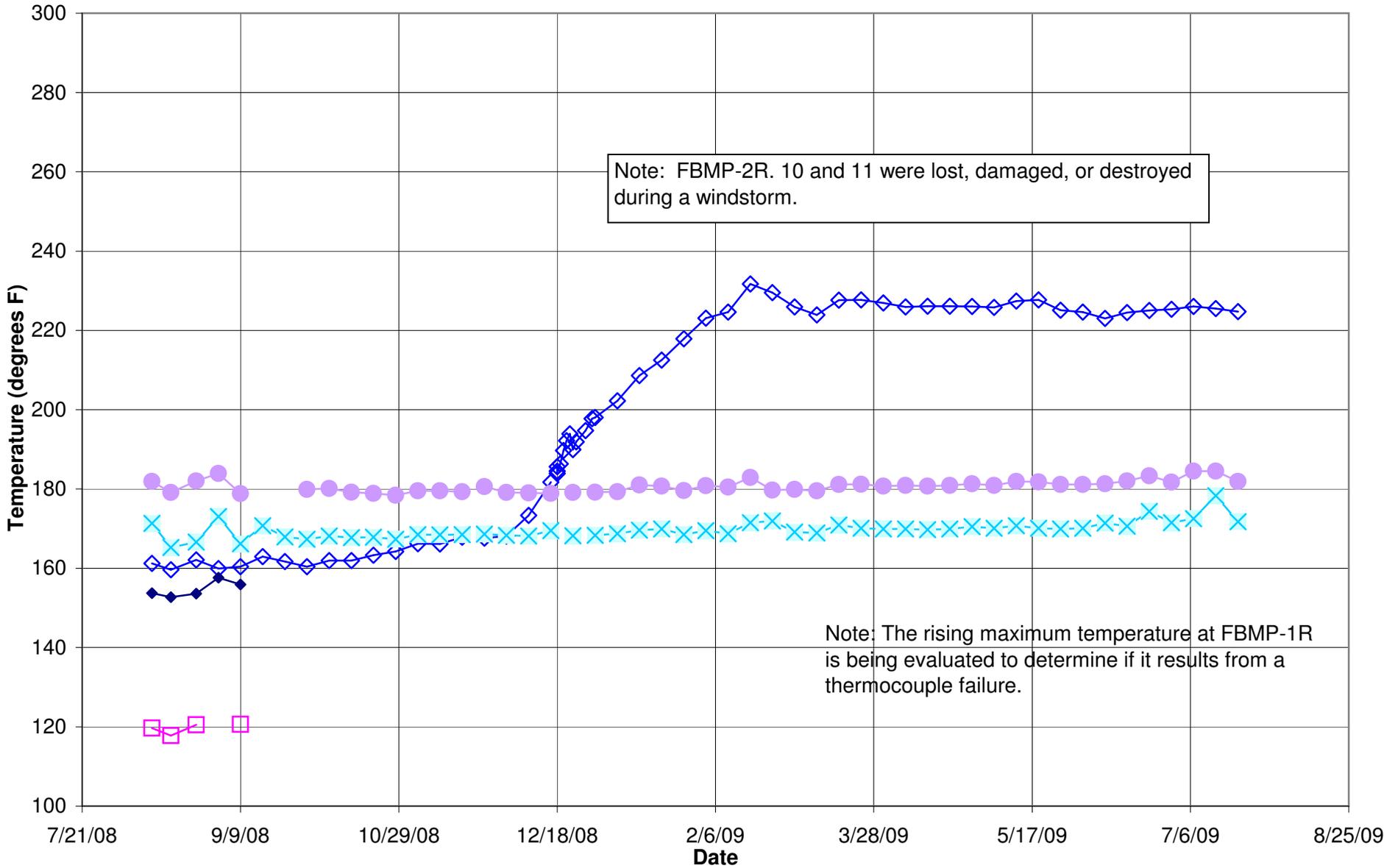
Paragraph 15.g Aerial Infrared Imaging.

June 2009 and July 2009 aerial infrared images are provided in Attachment D along with a diagram to outline the approximate coverage of the images. Both images were taken in the pre-dawn hours. The ambient air temperature during the June 2009 image was 57° F and during the July 2009 image was 53° F. Comparison of these images generally shows the same subcap warm areas attributed to subcap leachate outbreaks and transmittal of gas through subcap cracking with no large aerial changes or trends. However, temperatures in the July image are generally 10° to 15° warmer; this may be due to heat trapped during the warmer summer days in July even though the ambient temperature at the time of photograph was not significantly different..

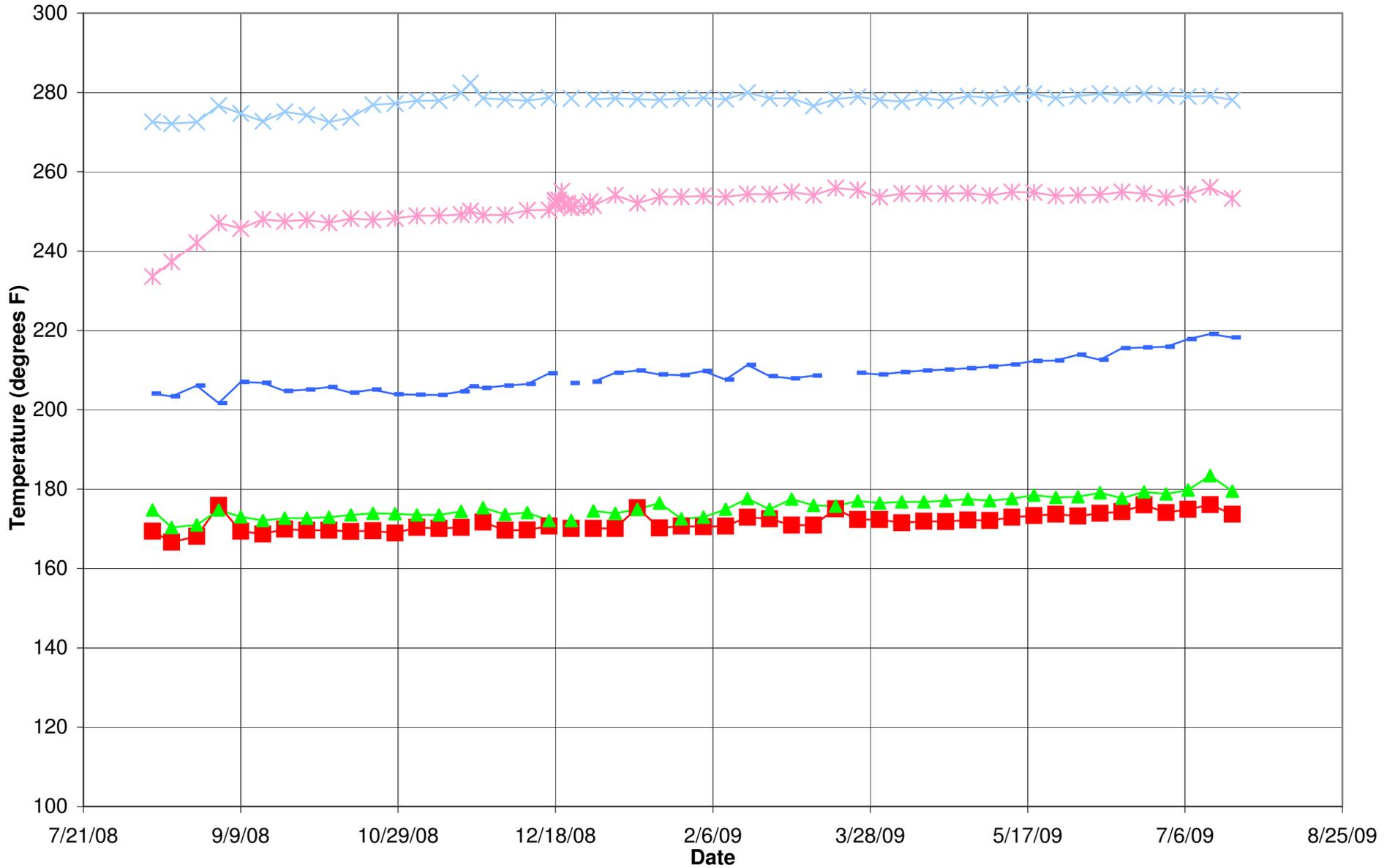
ATTACHMENT A-2

FBMP TEMPERATURE PROBE GRAPHS

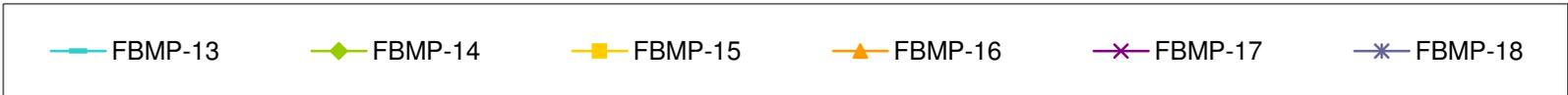
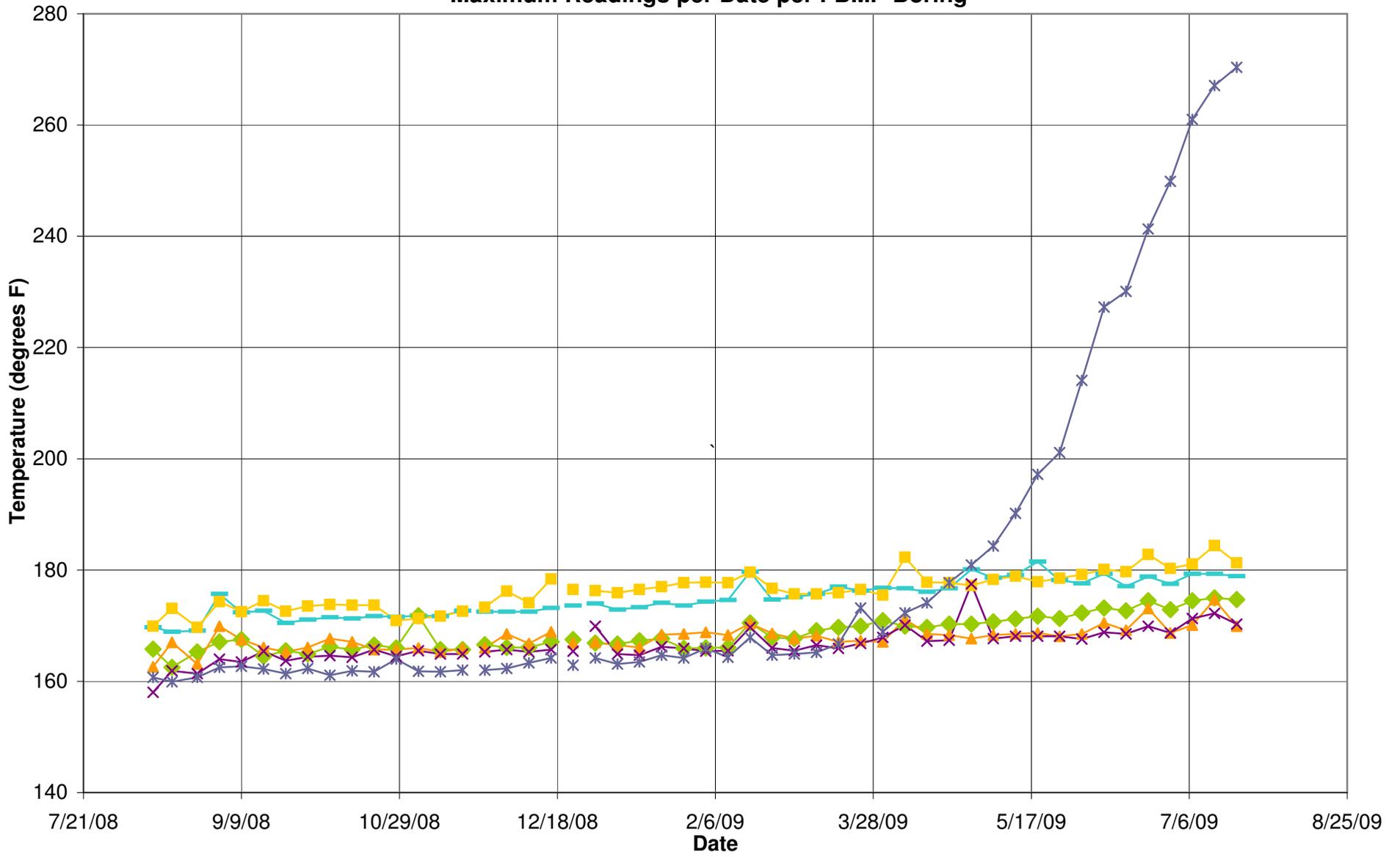
In-situ Temperatures - FBMPs within 150 ft of the Isolation Break Excavation Maximum Readings per Date per FBMP Boring



In-situ Temperatures - FBMPs beyond 150 ft from Isolation Break Excavation Maximum Readings per Date per FBMP Boring



In-situ Temperatures - West Slope FBMPs Maximum Readings per Date per FBMP Boring



ATTACHMENT B

CAPPING AND STABILIZATION PROGRESS



LEGEND

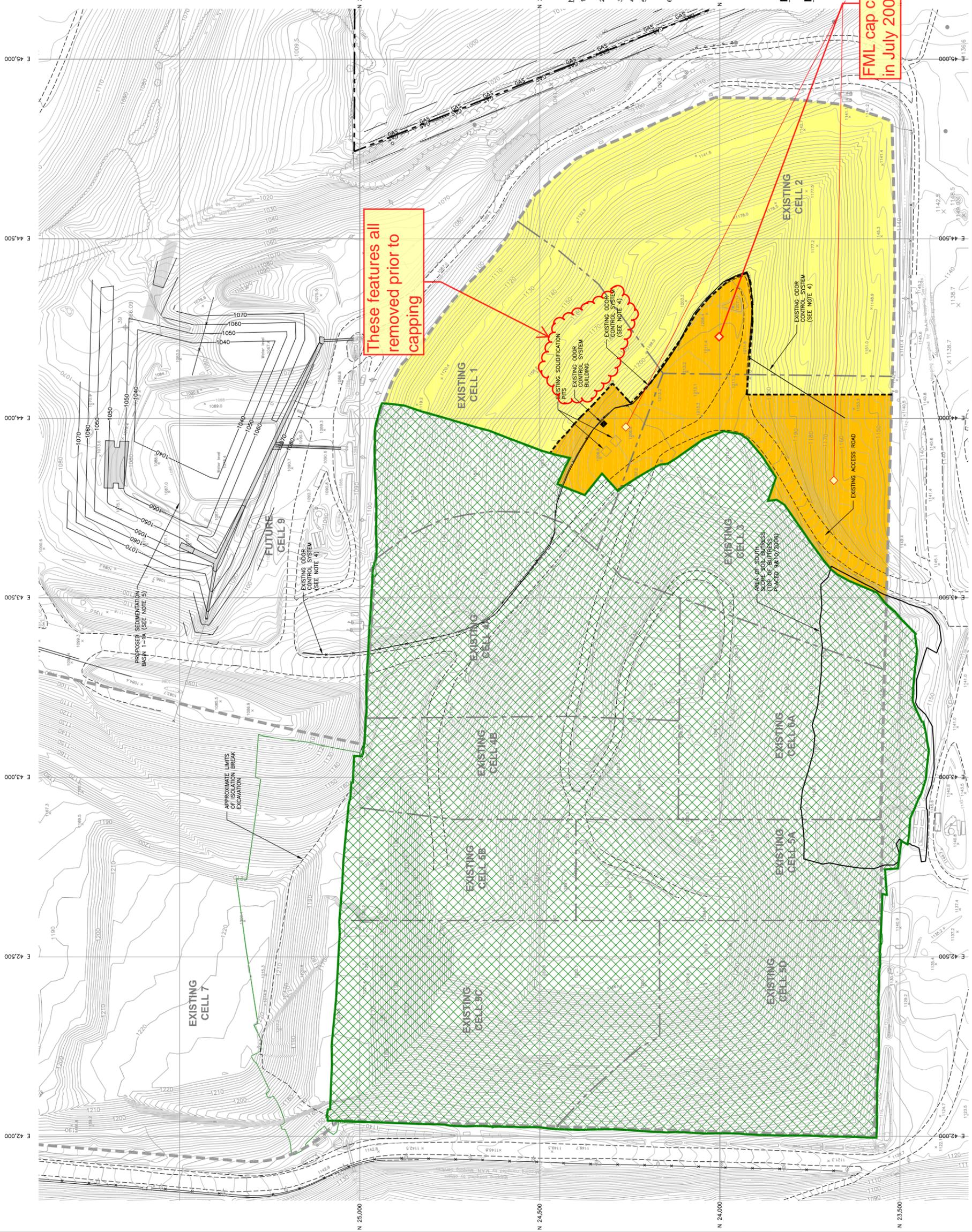
- PROPERTY LINE
- EXISTING LIMIT OF SOLID WASTE
- CELL BOUNDARY
- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- PROPOSED TEMPORARY CAP BOUNDARY
- AS-BUILT TEMPORARY FML CAP DATED 12/19/08
- EXISTING GRAVEL ROAD
- EXISTING TEMPORARY FML CAP
- PROPOSED TEMPORARY FML CAP
- AREA WITH EXISTING INTERIM COVER (TO REMAIN UNDISTURBED)

- NOTES:**
- EXISTING CONTOURS WERE COMPILED FROM DIVERSIFIED ENGINEERING, INC. TOPOGRAHICAL SURVEY DATED 02/11/09 AND 03/05/09.
 - PROPOSED TEMPORARY CAP BOUNDARIES ARE APPROXIMATE AND WILL BE FIELD ADJUSTED AS NECESSARY.
 - THE EXISTING TEMPORARY CAP WILL BE MAINTAINED.
 - EXISTING ODOOR CONTROL SYSTEM IS ATTACHED TO FENCE.
 - PROPOSED SEDIMENTATION BASIN 1-1A WAS APPROVED BY DEPA ON 07/27/09. THE SEDIMENTATION BASIN MAY BE CONSTRUCTED IN STAGES.
 - EXISTING CAP LIMITS PROVIDED BY DEI 06/29/09.

PROPOSED CAPPING AREA: 319,161 sq ft
NOTE: AREA MEASURED IN 3D.

FML cap completed in July 2009.

These features all removed prior to capping



REV	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	APPROVED BY
2	06/29/09	REVISED REMAINING TEMP CAP	JAW	JCW	JCW
1	04/28/09	REVISED PER LIS EPA 03/04/09 COMMENTS	JAW	JCW	JCW
1	04/28/09	REVISED PER LIS EPA 03/04/09 COMMENTS	JAW	JCW	JCW
1	04/28/09	REVISED PER LIS EPA 03/04/09 COMMENTS	JAW	JCW	JCW



REPUBLIC SERVICES OF OHIO II, LLC
 COUNTYWIDE RECYCLING AND DISPOSAL FACILITY
 EAST SPARTA, STARK CO., OHIO
 REVISED CAPPING PLAN - CELLS 1, 2, & 3
 PROPOSED / EXISTING CAPPING AREAS

SHEET NO. **1**
 PROJECT NO. 090187

ATTACHMENT C-1

TIER 3 (STAGE C) FIXED CONTINUOUS MONITORING RESULTS

July 2009 Stage C Monthly Ambient Air Monitoring Report

Prepared for

Republic Services of Ohio II, LLC
3619 Gracemont Street, SW
East Sparta, OH. 44626
(330) 874-3855

Prepared by

Center for Toxicology and Environmental Health, L.L.C.
5120 North Shore Drive
North Little Rock, AR 72118

July 29, 2009

The Stage C ambient air monitoring program has continuously collected real-time Volatile Organic Compounds (VOC) and weather data 24 hours per day since October 2, 2008. Over 1,851,115 VOC readings have been collected at the perimeter of the landfill during this monitoring period. The stage C stations dataloggers were calibrated by J@S instruments on July 2, 2009 and placed back into service on July 3, 2009. The dataloggers were all found to be within the manufacturer's specifications.

Trigger Levels

On January 27, 2009, Center for Toxicology and Environmental Health (CTEH®), United States Environmental Protection Agency (USEPA) and Agency for Toxic Substances and Disease Registry (ATSDR) adjusted the trigger levels for the collection of SUMMA canister laboratory samples. A sustained VOC concentration at or above 0.50 ppm VOC was chosen as the trigger level for each station. Table 1.0 illustrates the trigger levels for each station.

Table 1.0
July 3, through July 29 Trigger Levels

Station	Trigger Level (ppm)
1	0.50
2	0.50
3	0.50
4	0.50
5	0.50

If a trigger level is exceeded for a five minute consecutive monitoring period, a 15 minute integrated SUMMA canister is automatically collected. Trigger levels will continue to be evaluated based on the results of the SUMMA canister data or VOC statistics.

Real-Time Results

During the July 3, 2009 through July 29, 2009 monitoring period, approximately 146,230 real-time VOC readings have been collected at the perimeter of the landfill. Of these readings, the sustained VOC concentration exceeded the established trigger levels 1 time. The mean VOC concentrations collected at the perimeter of the landfill ranged from 0.00 ppm to 0.15 ppm. Table 2.0 summarizes the real-time data collected for this monitoring period.

Table 2.0 July 3, through July 29, Real Time Data Summary

Station	Analyte	Total VOC Readings Recorded	Trigger Level	Triggering events	Average Concentration
1	VOC	36,335	0.50	0	0.00 ppm
2	VOC	39,005	0.50	0	0.05 ppm
3	VOC	37,052	0.50	0	0.15 ppm
4	VOC	33,818	0.50	0	0.13 ppm
5	VOC	37,985	0.50	1	0.10 ppm

A graphical representation of 24 hour average Real-time concentrations can be viewed in Attachment A.

SUMMA Results

As of May 15, 2009 Tentatively Identified Compounds (TIC) analysis was discontinued. Therefore, only compounds on the TO15 target compound list will be analyzed by the laboratory. Additionally Sample preparation was modified from individually certified clean SUMMA canisters to batch certified clean canisters. One SUMMA sample was collected during this monitoring period (Attachment B). With these laboratory results and previously available sample results, no VOCs, including benzene, were detected at levels that exceeded the ATSDR's acute or chronic Minimal Risk Levels (MRLs). These data to date indicate that landfill emissions from the site under current conditions do not pose a risk to human health in the short or long term.

Attachment A

Custom Date Report

Start Date

End Date

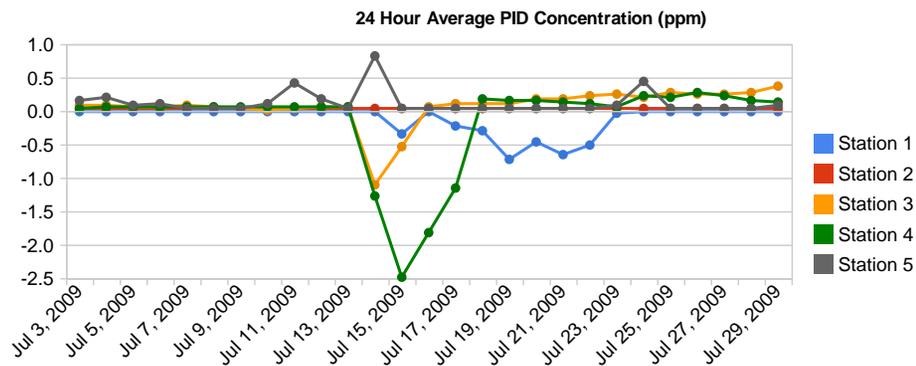
2009/07/03

Calendar

2009/07/29

Calendar

Save



<u>Day</u>	<u>Station 1 (PID)</u>	<u>Station 2 (PID)</u>	<u>Station 3 (PID)</u>	<u>Station 4 (PID)</u>	<u>Station 5 (PID)</u>
2009-07-03	0.00	0.05	0.09	0.05	0.18
2009-07-04	0.00	0.05	0.09	0.06	0.22
2009-07-05	0.00	0.05	0.08	0.07	0.10
2009-07-06	0.00	0.05	0.08	0.07	0.11
2009-07-07	0.00	0.05	0.09	0.07	0.05
2009-07-08	0.00	0.06	0.07	0.07	0.06
2009-07-09	0.00	0.05	0.05	0.07	0.05
2009-07-10	0.00	0.05	0.03	0.07	0.11
2009-07-11	0.00	0.05	0.04	0.08	0.42
2009-07-12	0.00	0.05	0.06	0.08	0.20
2009-07-13	0.00	0.05	0.08	0.08	0.05
2009-07-14	0.00	0.06	-1.09	-1.26	0.83
2009-07-15	-0.32	0.05	-0.53	-2.48	0.04
2009-07-16	0.00	0.05	0.08	-1.81	0.04
2009-07-17	-0.22	0.05	0.13	-1.15	0.05
2009-07-18	-0.29	0.05	0.12	0.18	0.05
2009-07-19	-0.72	0.05	0.13	0.17	0.05

2009-07-20	-0.46	0.05	0.19	0.17	0.05
2009-07-21	-0.64	0.05	0.20	0.14	0.05
2009-07-22	-0.49	0.05	0.25	0.12	0.05
2009-07-23	-0.02	0.05	0.27	0.07	0.10
2009-07-24	0.00	0.05	0.22	0.23	0.46
2009-07-25	0.00	0.05	0.29	0.21	0.04
2009-07-26	0.00	0.05	0.26	0.28	0.04
2009-07-27	-0.01	0.05	0.27	0.24	0.04
2009-07-28	-0.01	0.05	0.29	0.17	0.04
2009-07-29	0.00	0.05	0.39	0.14	0.09



Joe Cameron
Center For Toxicology and Environmntal Health L.L.C.
501-801-8500
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Attachment B

Stage C Integrated Air Sampling Summary

Sample ID	Set out Date	Location	Trigger Level	Trigger Date/Time	Wind Direction	Downwind of Reaction Area	Results (Link)	Average 15 min PID Reading During Sample	TICS Identified/ Sampling Methods	Ambient Sampling Temp (Celsius)	
ESOH1108-1-SC001	11/8/2008	Station 1	0.50 ppm	11/12/2008 22:52	134	NO	ESOH1108-1-SC001	0.58	None		
ESOH1108-2-SC002	11/8/2008	Station 2	0.18 ppm	11/10/2008 4:38	266	YES	ESOH1101-2-SC002	-0.50	Hexafluoropropylene	7.8	
ESOH1108-3-SC003	11/8/2008	Station 3	Sample Fault-Calibration gas triggered the Summa collection system								
ESOH1108-5-SC004	11/8/2008	Station 5	0.17 ppm	12/20/2008 3:53	12	NO	ESOH1108-5-SC004	22.52*	Ethane, 1,1 difluoro; Ethylene Oxide; Isopropyl Alcohol; Propane; 1,1,1,3,3,3,-hexafluoro-2-triflu; Propene, hexafluoro	7.8	
ESOH1110-2-SC005	11/10/2008	Station 2	0.18 ppm	11/10/2008 20:15	338	YES	ESOH1110-2-SC005	0.17	unknown	-0.2	
ESOH1111-2-SC006	11/11/2008	Station 2	Sample Fault Calibration gas triggered the Summa collection system								
ESOH1111-4-SC007	11/11/2008	Station 4	0.10 ppm	11/23/2008 14:06	227	NO	ESOH1111-4-SC007	0.09	Isopropyl alcohol; Propene, Hexafluoro-; Unknown	2.3	
ESOH1113-1-SC008	11/13/2008	Station 1	0.50 ppm	11/13/2008 21:02	181	NO	ESOH1113-1-SC008	0.60	Ethyl alcohol; Propene, hexafluoro; Unknown	10.8	
ESOH1114-1-SC009	11/11/2008	Station 1	0.50 ppm	11/24/2008 15:13	179	NO	ESOH1114-1-SC009	0.53	Methyl alcohol,; Propene, hexafluoro	4.6	
ESOH1119-3-SC010	11/19/2008	Station 3	Sample Fault- Leaking SUMMA Cannister								
ESOH1123-3-SC011	11/23/2008	Station 3	0.13 ppm	11/29/2008 3:06	290	Downwind of Working phase	ESOH1123-3-SC011	0.04	Butane; Butane, 2 methyl-; Disulfide, dimethyl; Ethane, 1-chloro-1,1-difluoro-; Ethyl alcohol; Isobutane; Pentane; Pentane, 2-methyl-; Propane; Propene, hexafluoro-	-1.6	

Stage C Integrated Air Sampling Summary

Sample ID	Set out Date	Location	Trigger Level	Trigger Date/Time	Wind Direction	Downwind of Reaction Area	Results (Link)	Average 15 min PID Reading During Sample	TICS Identified/ Sampling Methods	Ambient Sampling Temp (Celsius)
ESOH1124-4-SC012	11/24/2008	Station 4	0.10 ppm	11/24/2008 14:23	226	NO	ESOH1124-4-SC012	0.10	None	4.1
ESOH1124-4-SC013	11/24/2008	Station 4	Sample Fault-Calibration gas triggered the Summa collection system							
ESOH1124-1-SC014	11/24/2008	Station 1	Sample Fault							
ESOH1126-4-SC015	11/26/2008	Station 4	0.10 ppm	11/29/2008 11:51	192	NO	ESOH1126-4-SC015	0.10	Ethyl alcohol;Methyl Alcohol; Propene, hexafluoro-	2.7
ESOH1129-3-SC016	11/29/2008	Station 3	Sample Fault							
ESOH1129-4-SC017	11/24/2008	Station 4	Sample Fault							
ESOH1202-4-SC018	12/2/2008	Station 4	0.10 ppm	12/3/2008 8:28	195	NO	ESOH1202-4-SC018	0.10	None	-2.0
ESOH1203-4-SC019	12/3/2008		Sample Fault due to PID malfunction							
ESOH1205-4-SC020	12/5/2008	Station 4	Sample Fault							
ESOH1208-4-SC021	12/8/2008	Station 4	0.10 ppm	12/21/2008 5:52	292	NO	ESOH1208-4-SC021	0.26	Acetaldehyde; Butane, 2-methyl-; Pentane; Propene, hexafluoro-	-1.3
ESOH1218-3-SC022	12/18/2008	Station 3	Sample Fault- Leaking SUMMA Cannister							
ESOH1220-5-SC023	12/20/2008	Station 5	Sample Fault- Leaking SUMMA Cannister							

Stage C Integrated Air Sampling Summary

Sample ID	Set out Date	Location	Trigger Level	Trigger Date/Time	Wind Direction	Downwind of Reaction Area	Results (Link)	Average 15 min PID Reading During Sample	TICS Identified/ Sampling Methods	Ambient Sampling Temp (Celsius)
ESOH1222-4-SC024	12/22/2008	Station 4	0.10 ppm	1/6/2009 0:02	110	Yes	ESOH1222-4-SC024	0.06	Butane; Butane, 2-methyl-; Dimethyl ether; Ethyl alcohol; Hexane,3-methyl-; Hydroxylamine, O-methyl; Pentane; Pentane, 2-methyl-; Propene, hexafluoro-; 1-propene, 2-methyl-	-3.6
ESOH1230-5-SC025	12/30/2008	Station 5	0.17 ppm	1/8/2009 10:59	243	Yes	ESOH1230-5-SC025	0.16	Butanoic acid, ethyl ester; Ethane, 1,1-difluoro-; Ethyl alcohol; Isopropyl Alcohol; Methyl Alcohol; Propene, hexafluoro-; 1-Propanol; 2-Butanol, (R-)	-7.0
ESOH0106-4-SC026	1/6/2009	Station 4	0.10 ppm	1/7/2008 20:11	258	No	ESOH0106-4-SC026	0.10	Butane; Butane, 2-methyl-; Ethane, 1,1-difluoro-; Pentafluoropropionamide; Pentane	-2.2
ESOH0107-2-SC027	1/7/2009	Station 2	0.18 ppm	2/9/2009 2:23	223	No	ESOH0107-2-SC027	0.92*	Propene, hexafluoro-	1.6
ESOH0108-4-SC028	1/8/2009	Station 4	0.10 ppm	Current Sample						
ESOH0108-5-SC029	1/8/2009	Station 5	0.17 ppm	1/19/2009 0:32	215	Yes	ESOH0108-5-SC029	0.26	Ethyl alcohol; Furan; Propene	-11.70
ESOH0108-3-SC030	1/8/2009	Station 3	0.13 ppm	4/25/2009 12:00			ESOH0108-3-SC030	0.20	Acetaldehyde; Butane, 2-methyl-; Ethanol; Propane; Propene, hexafluoro-2-Cyano-2-O-fluorosulfatofluoropropane	25.4
ESOH0119-5-SC031	1/19/2009	Station 5	0.13 ppm	1/19/2009 13:22	267	Yes	ESOH0119-5-SC031	0.17	Ethyl alcohol; Isopropyl Alcohol; Methyl Alcohol; 1-Butanol; 1-Propanol; 2-Butanol;	-9.30
ESOH0119-5-SC032	1/19/2009	Station 5	0.13 ppm	1/26/2009 9:21	220	Yes	ESOH0119-5-SC032	0.18	Ethyl alcohol; Propene, hexafluoro;	-12.6
ESOH0119-1-SC033	1/19/2009	Station 1	0.50 ppm	Current Sample						
ESOH0119-5-SC034	1/19/2009	Station 5	0.50 ppm	2/16/2009 7:02	10	No	ESOH0127-5-SC034	0.78	Butane, 2-methyl-; Pentane; Propane; Propene, hexafluoro-	-4.6

Stage C Integrated Air Sampling Summary

Sample ID	Set out Date	Location	Trigger Level	Trigger Date/Time	Wind Direction	Downwind of Reaction Area	Results (Link)	Average 15 min PID Reading During Sample	TICS Identified/ Sampling Methods	Ambient Sampling Temp (Celsius)
ESOH0209-2-SC035	2/9/2009	Station 2	0.50 ppm	2/10/2009 6:25	211	No	ESOH0209-2-SC035	1.41*	Propene, hexafluoro-	8.4
ESOH0210-2-SC036	2/10/2009	Station 2	0.50 ppm	Current Sample						
ESOH0216-5-SC037	2/16/2009	Station 5	0.50 ppm	2/18/2009 6:12	168	Yes	ESOH0216-5-SC037	0.56	Acetaldehyde; Propene	2.1
ESOH0218-5-SC038	2/18/2009	Station 5	0.50 ppm	4/14/2009 16:39	97	No	ESOH0218-5-SC038	14.16	Butane, 2-methyl-; Ethane, 1,1-difluoro-; Ethanol; Methyl Alcohol; N,N'-Methylenebismethacrylamide; Oxirane, ethyl-; Propane; Propene, hexafluoro-	10.1
ESOH0416-5-SC039	4/16/2009	Station 5	0.50 ppm	4/20/2009 18:17	240	Yes	ESOH0416-5-SC039	0.04	Acetaldehyde; Butane, 2-methyl-; Propene, hexafluoro-	9.0
ESOH0422-5-SC040	4/22/2009	Station 5	0.50 ppm	5/5/2009 6:49	199	Yes	ESOH0422-5-SC040	0.59	Ethanol; Propene, hexafluoro-; Unknown; Unknown	14.7
ESOH0429-3-SC041	4/29/2009	Station 3	0.50 ppm	5/15/2009 12:30	229	Yes	ESOH0429-3-SC041	0.46		21.2
ESOH0504-5-SC042	5/4/2009	Station 5	0.50 ppm	5/16/2009 18:44	308	Yes	ESOH0504-5-SC042	22.54		12.9
ESOH0518-3-SC043	5/18/2009	Station 3	0.50 ppm	5/21/2009 12:20	227	Yes	ESOH0518-3-SC043	0.88		24.0
ESOH0520-5-SC044	5/20/2009	Station 5	0.50 ppm	6/2/2009 7:59	224	Yes	No Analysis PID error	17.41		16.8
ESOH0522-3-SC045	5/22/2009	Station 3	0.50 ppm	5/23/2009 11:40	197	No	ESOH0522-3-SC045	0.61		24.6
ESOH0528-3-SC046	5/28/2009	Station 3	0.50 ppm	6/27/2009 6:52	347	No		1.94		15.2
ESOH0609-5-SC047	6/9/2009	Station 5	0.50 ppm	6/19/2009 18:58	313	Yes	No Analysis PID error	11.32		15.2
ESOH0624-5-SC048	6/24/2009	Station 5	0.50 ppm	7/4/2009 4:03	310	Yes		0.64		16.2

Stage C Integrated Air Sampling Summary

Sample ID	Set out Date	Location	Trigger Level	Trigger Date/Time	Wind Direction	Downwind of Reaction Area	Results (Link)	Average 15 min PID Reading During Sample	TICS Identified/ Sampling Methods	Ambient Sampling Temp (Celsius)
ESOH0707-5-SC049	7/7/2009	Station 5	0.50 ppm	Current Sample						
ESOH0710-3-SC050	7/10/2009	Station 3	0.50 ppm	Current Sample						
ESOH0710-4-SC051	7/10/2009	Station 4	0.50 ppm	Current Sample						

Pending- Sample has been collected awaiting results from the laboratory

Average PID Reading During Sample- Average PID concentration during the SUMMA can sample collection

* Potential RAEGuard PID error (Drift) noted

Station 4 Trigger Change to 0.15 ppm on January 13, 2009

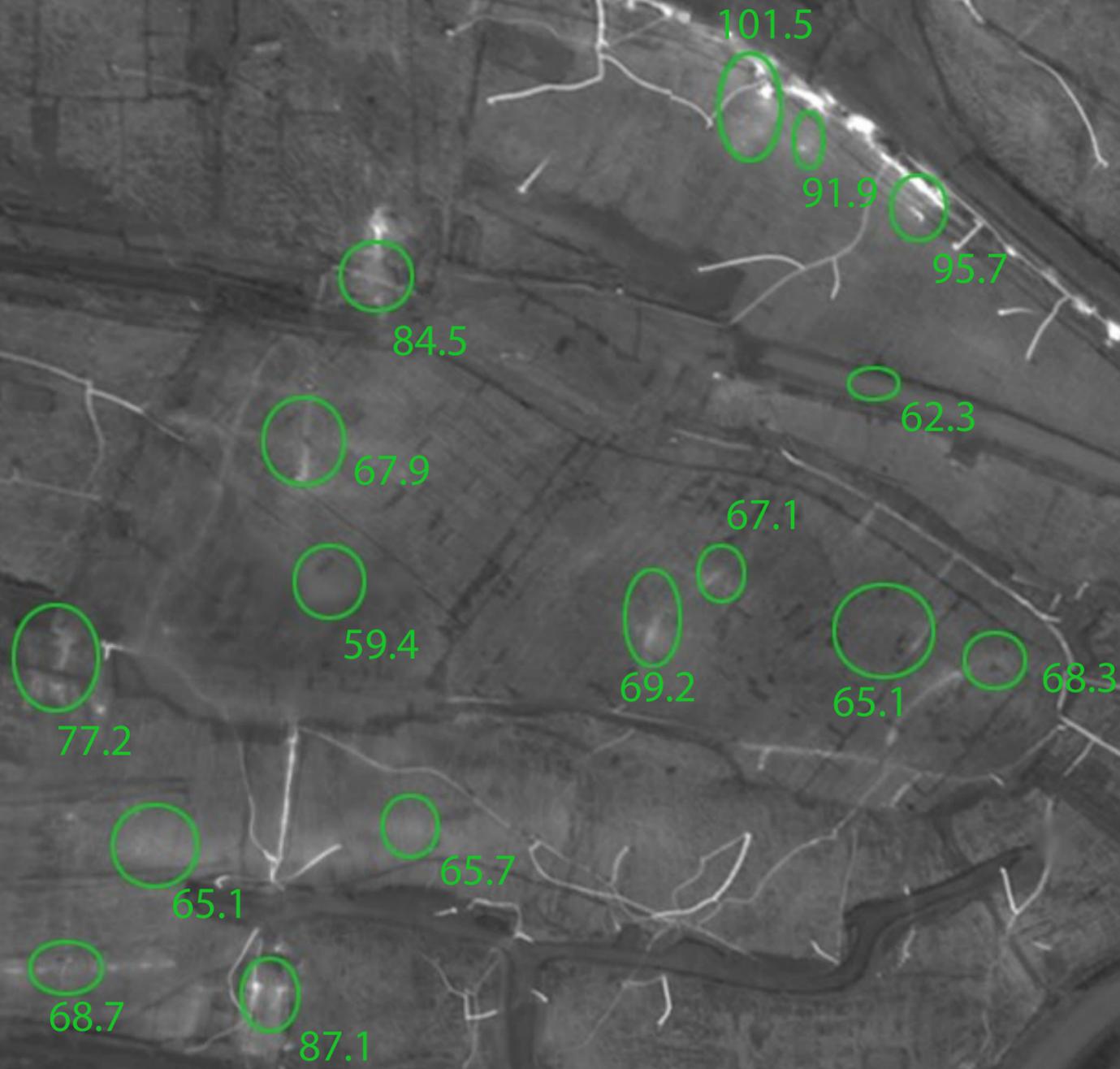
Stations 1 through 5 trigger levels have been changed to 0.50 ppm on January 27,2009

TIC analysis was dropped from the laboratory Summa Results May 15, 2009

Summa Cannisters are Batch cleaned and not individually certified clean May 15, 2009

ATTACHMENT D
AERIAL INFRARED IMAGES

Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 6/15/2009



AMBIENT
TEMPERATURE AT
TIME OF IMAGE
WAS 57 DEG. F



Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 7/20/2009

