

Report of Progress, December 31, 2008

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Paragraph 15.a and b Enhanced Gas Extraction and Temperature Monitoring [NOTE: THIS WORK ITEM IS SUPERSEDED BY AN ISOLATION BREAK EXCAVATION].

Excavation of the Isolation Break began on December 8 and continued until December 20 when inclement weather and a planned holiday break resulted in cessation of work for the month.

Excavation is planned to proceed in eight (8) “decks” or layers, ultimately resulting in about 387,000 cubic yards of removal and relocation. As of December 20, about 113,000 cubic yards of material had been removed (the first deck and about one-half of the second deck). A drawing indicating the limit of work and progress is contained in Attachment A-1.

To date, no reaction-impacted waste or aluminum-containing waste has been encountered. Waste temperatures have generally been in the 90-110° F. range with a maximum of 128° F. A table showing daily construction progress and parameters is included in the Isolation Break Excavation Summary provided in Attachment A-2.

The excavation is creating noticeable odors which are limited to active work hours and are completely eliminated by covering the work area at the end of a shift. Measurement and quantification of odors generated are discussed in the following section (Tier 5 – Odor Monitoring) of this report.

Temperature monitoring (on all but four monitoring locations) was continued throughout the month. Results are presented in Attachment A-3. No significant increasing or decreasing temperature trends are apparent with the exception of FBMP-1R, which has increased by 20° F. in December; since this monitoring probe is only about 100 feet from the top edge of the Isolation Break; it will be monitored closely during excavation.

Paragraph 15.c and f Capping and Stabilization.

A map depicting the current status of capping is included in Attachment B. During December, construction continued on surface water and leachate management features associated with the temporary cap but the temporary cap is complete.

The “Operations and Maintenance Plan for Temporary Cap System” was submitted on November 26, 2008. Countywide is currently incorporating agency comments and plans to issue a final version in early January 2009. Soon thereafter a joint Countywide-U.S. EPA-Ohio EPA walkover inspection will be conducted to determine other areas that may need augmentation. Capping augmentation (current plans indicated with yellow shading in Attachment B) will be started in early 2009.

Composite capping in the Cells 1-3 area is still on hold until U.S. EPA, Ohio EPA, and Countywide resolve details for a composite cap cross section.

Paragraph 15.e Air Monitoring and Sampling.

Throughout December, monitoring continued with the “Stage C” fixed continuous monitors using the original “trigger” levels for collection of SUMMA canisters. In addition, in accordance with the Isolation Break Excavation work plan, other air monitoring was conducted during excavation activities. This monitoring is being considered as rings or tiers. Each tier is discussed below with commentary on the results.

Tier 1 – Worker Monitoring. This utilizes PID (for total VOCs), 4-gas meter (for methane, carbon monoxide, oxygen, and hydrogen sulfide), ammonia meter, and benzene Drager tubes. A summary of PID results can be found on the Isolation Break Excavation Summary in Attachment A-2. No PID readings approached worker levels of concern and no ammonia or benzene was detected.

Tier 2 – Construction Zone Monitoring. Monitoring is conducted about 300 feet downwind of the excavation using a PID and, every third active excavation day, an 8-hour SUMMA canister (analyzed for volatile organics). A summary of PID results can be found on the Isolation Break Excavation Summary in Attachment A-2. No PID readings approached worker or community levels of concern. Results are not yet available for the SUMMA canister analyses.

Tier 3 - “Stage C” Fixed Continuous Monitoring. Consists of the five continuous air monitors equipped with PIDs and automatically triggered 15-minute SUMMA canister collection. Results of this monitoring for the dates November 24 to December 29, 2008 are provided in Attachment C. Of the samples collected, no VOCs, including benzene, were detected at levels that exceed acute or chronic MRLs.

Tier 4 – Community Monitoring. This is comprised of the four off-site community air stations that have been monitored every six days for the past 20 months, and has now been temporarily increased to providing monitoring every three days during Isolation Break work. The December 2008 results are not available yet but will be summarized in future monthly reports.

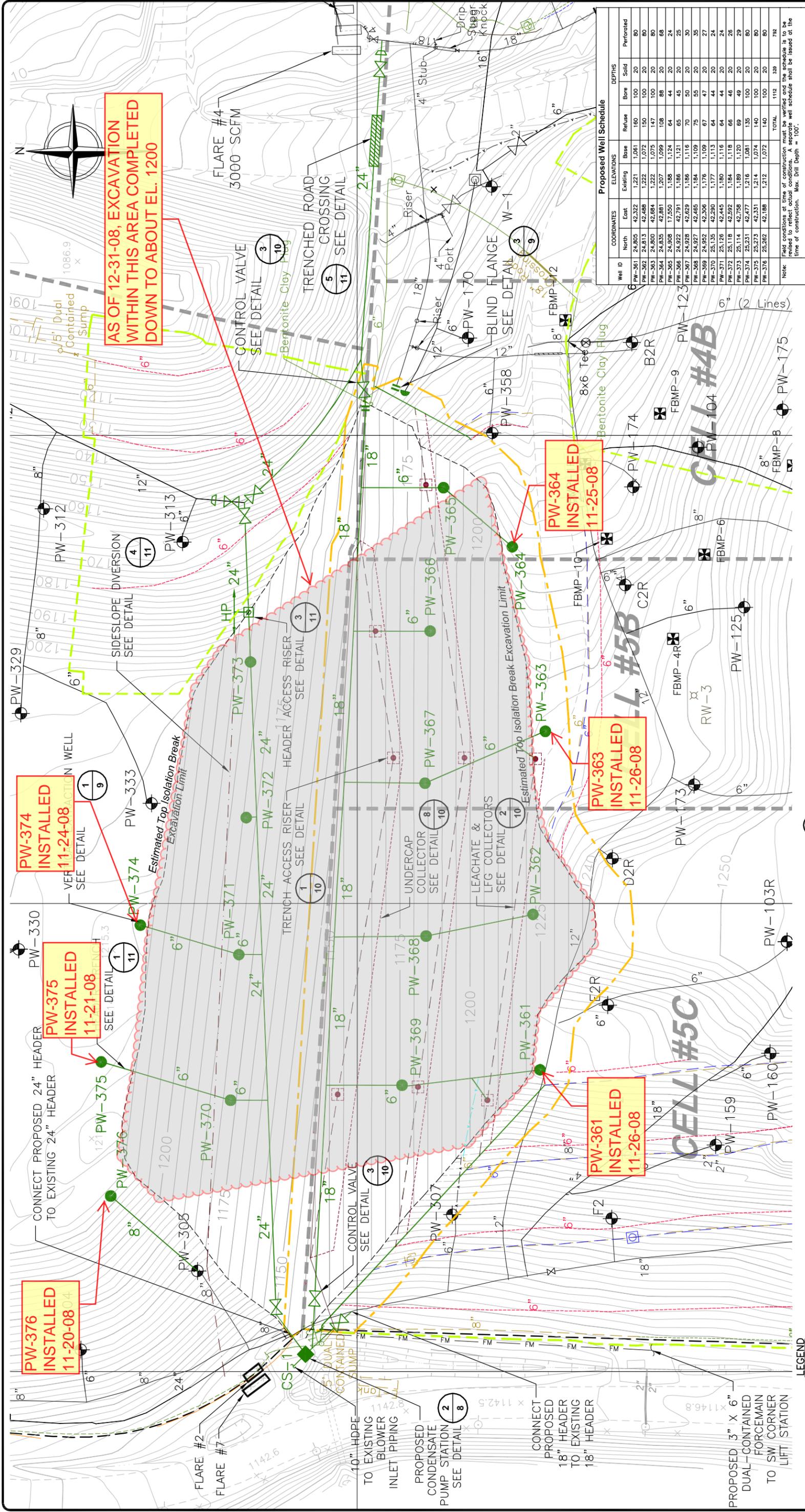
Tier 5 – Odor Monitoring. At least eight odor monitoring circuits are made around the public roads encircling the facility, resulting in about 184 readings per day. A Nasal Ranger reading of “4” is considered “distinct.” During excavation, almost all of the off-site detections of 4 or greater were attributable to the excavation activity. A summary of results, indicated as the number of occurrences at a level 4 or greater, can be found on the Isolation Break Excavation Summary in Attachment A-2.

Paragraph 15.g Aerial Infrared Imaging.

November 2008 and December 2008 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 November image was 22° F and during the December image was 20° 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. A local area (indicated on the November image in Attachment D) that had increased notably from October to November has remained steady between November and December.

ATTACHMENT A-1

ISOLATION BREAK EXCAVATION PROGRESS



AS OF 12-31-08, EXCAVATION WITHIN THIS AREA COMPLETED DOWN TO ABOUT EL. 1200

PW-364 INSTALLED 11-25-08

PW-363 INSTALLED 11-26-08

PW-361 INSTALLED 11-26-08

PW-374 INSTALLED 11-24-08

PW-375 INSTALLED 11-21-08

PW-376 INSTALLED 11-20-08

Well ID	COORDINATES		ELEVATIONS			DEPTHS	
	North	East	Existing	Base	Refuse	Bore	Solid
PW-361	24,805	42,322	1,221	1,061	160	100	20
PW-362	24,813	42,468	1,222	1,072	150	100	20
PW-363	24,800	42,884	1,227	1,075	147	100	20
PW-364	24,805	42,881	1,207	1,099	108	88	20
PW-365	24,908	17,550	1,188	1,124	64	44	20
PW-366	24,922	42,791	1,186	1,121	65	45	20
PW-367	24,928	42,629	1,186	1,116	70	50	20
PW-368	24,927	42,465	1,184	1,109	75	55	20
PW-369	24,952	42,306	1,176	1,109	67	47	20
PW-370	25,135	42,290	1,177	1,113	64	44	20
PW-371	25,126	42,445	1,180	1,118	66	46	20
PW-372	25,118	42,592	1,184	1,118	66	46	20
PW-373	25,114	42,758	1,189	1,120	69	49	20
PW-374	25,231	42,477	1,218	1,081	135	100	20
PW-375	25,273	42,331	1,214	1,074	140	100	20
PW-376	25,262	42,188	1,212	1,072	140	100	20
			TOTAL		1112	1112	338

Note: Field conditions at time of construction must be verified and the schedule is to be updated as needed. Max. Drill Depth = 100'

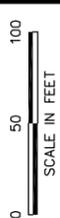
ANNOTATIONS IN RED FONT PRESENT ISOLATION BREAK ACTIVITIES COMPLETED AS OF 12-31-08

1. MAINTAIN 5% MIN. SLOPE ON ALL HEADERS.
2. PROPOSED GAS WELL WILL BE INSTALLED BEFORE AND DURING EXCAVATION AND WILL BE USED FOR ODOR CONTROL UTILIZING TEMPORARY LATERALS, HEADERS, AND REMOTE WELLHEADS AS NECESSARY.

LEGEND

- EXISTING SOLID WASTE BOUNDARY
- EXISTING CELL BOUNDARY
- EXISTING TEMPORARY FML CAP LIMIT
- PROPOSED NEW TEMPORARY FML CAP LIMIT (APPROXIMATE)
- 2' CONTOUR - EXISTING GROUND
- EXISTING HEADERS/LATERALS
- EXISTING AREA N LEACHATE (ABOVE GROUND)
- EXISTING AREA N LEACHATE HORIZONTAL COLLECTOR (IN COMMON TRENCH BELOW LFG COLLECTOR)
- EXISTING AREA N LFG HORIZONTAL COLLECTOR (IN TRENCH ABOVE LEACHATE COLLECTOR)
- EXISTING AREA N UNDERCAP COLLECTOR (AT GROUND SURFACE)
- PROPOSED LFG & LEACHATE COLLECTOR TRENCH SEE DETAIL
- PROPOSED UNDERCAP COLLECTOR SEE DETAIL
- PROPOSED HEADERS/LATERALS SEE DETAIL
- EXISTING GAS WELL
- PROPOSED GAS WELL
- PROPOSED RISER
- EXISTING FIREBREAK MONITORING POINT
- EXISTING RISER
- EXISTING REDUCER
- PROPOSED REDUCER
- EXISTING VALVE
- PROPOSED VALVE
- PROPOSED ROAD CROSSING

DRAFT
DRAWING TO BE PLOTTED IN COLOR



CORNERSTONE Environmental Group, LLC
 Environmental Engineering
 11111 W. Main Street, Suite 100
 Columbus, Ohio 43240
 Phone: 614.881.1111
 Fax: 614.881.1112
 www.cornerstoneenv.com

DESIGNED BY: TAB
 DRAWN BY: JSS
 CHECKED BY: MC
 DESIGNED BY: BOS

DATE OF ISSUE: 10/30/08

DATE OF REVISION: 10/30/08

REV. DATE DESCRIPTION

REPUBLIC SERVICES OF OHIO II, LLC
 COUNTYWIDE RECYCLING AND DISPOSAL FACILITY
 EAST SPARTA, STARK COUNTY, OHIO

GAS, LEACHATE AND COVER SYSTEM RECONFIGURATION

FIGURE NO. **7**
 PROJECT NO. 070197

ATTACHMENT A-2

ISOLATION BREAK EXCAVATION SUMMARY
TABLE

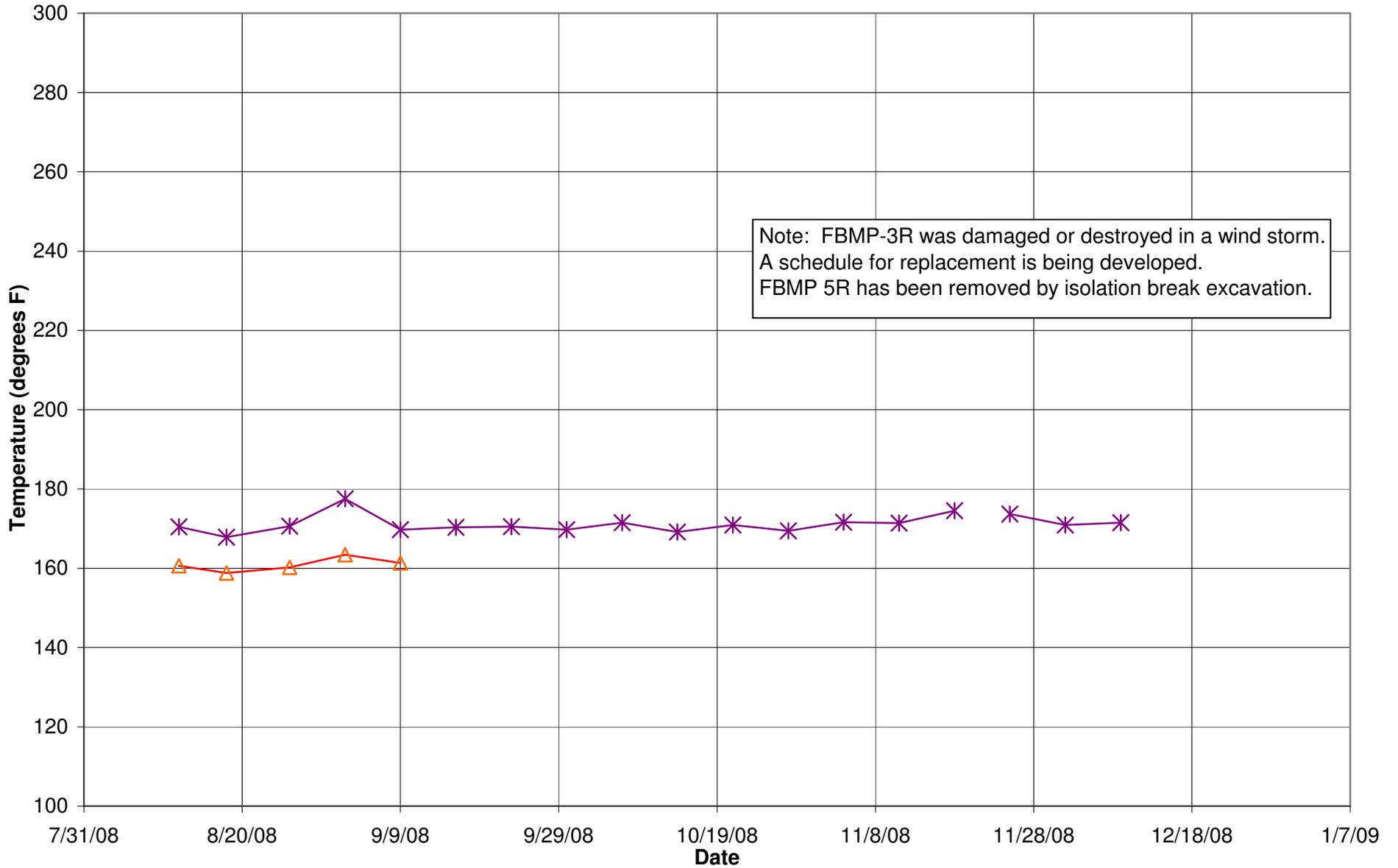
Countywide RDF
Isolation Break Excavation Summary

Date	Day	Deck #	High Waste Temp (°F)	Aluminum Waste Encountered	Reaction Impacted Waste Encountered	Breathing/Work Zone (Tier 1) VOC Data (ppb) High/Avg.	300' Downwind (Tier 2) VOC Data (ppb) High (1 min. avg.)/Avg.	Nasal Ranger Daily Readings ≥ 4
12/8/2008	Monday	1	80	No	No	600/200	58/2.5	0
12/9/2008	Tuesday	1	107	No	No	500/100	128/1	1
12/10/2008	Wednesday	1	109	No	No	900/500	35/0.5	3
12/11/2008	Thursday	1	123	No	No	2,800/1,600	2/0	4
12/12/2008	Friday	1	108	No	No	1,400/850	166/9	3
12/13/2008	Saturday	No Work						
12/14/2008	Sunday	No Work						
12/15/2008	Monday	1	110	No	No	800/200	191/9	2
12/16/2008	Tuesday	1	113	No	No	800/100	177/9	6
12/17/2008	Wednesday	1/2	120	No	No	500/82	2/0	3
12/18/2008	Thursday	2	128	No	No	900/141	65/0	2
12/19/200	Friday	2	118	No	No	0/0	361/50	4
12/20/2008	Saturday	2	125	No	No	900/361	372/60	0
12/21/2008	Sunday	No Work						
12/22/2008	Monday	No Work						
12/23/2008	Tuesday	No Work						
12/24/2008	Wednesday	No Work						
12/25/2008	Thursday	No Work						
12/26/2008	Friday	No Work						
12/27/2008	Saturday	No Work						
12/28/2008	Sunday	No Work						
12/29/2008	Monday	No Work						
12/30/2008	Tuesday	No Work						
12/31/2008	Wednesday	No Work						

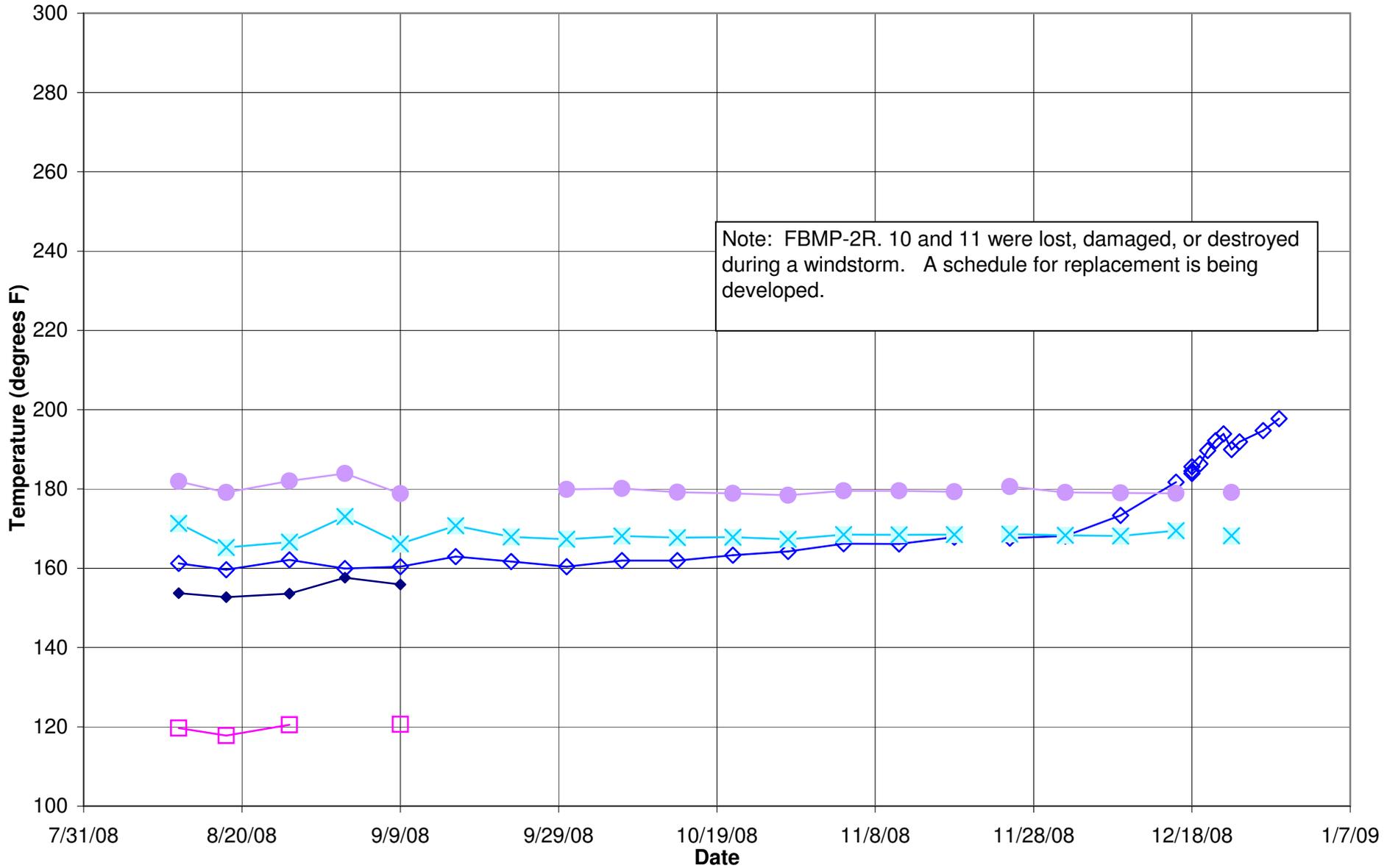
ATTACHMENT A-3

FBMP TEMPERATURE PROBE GRAPHS

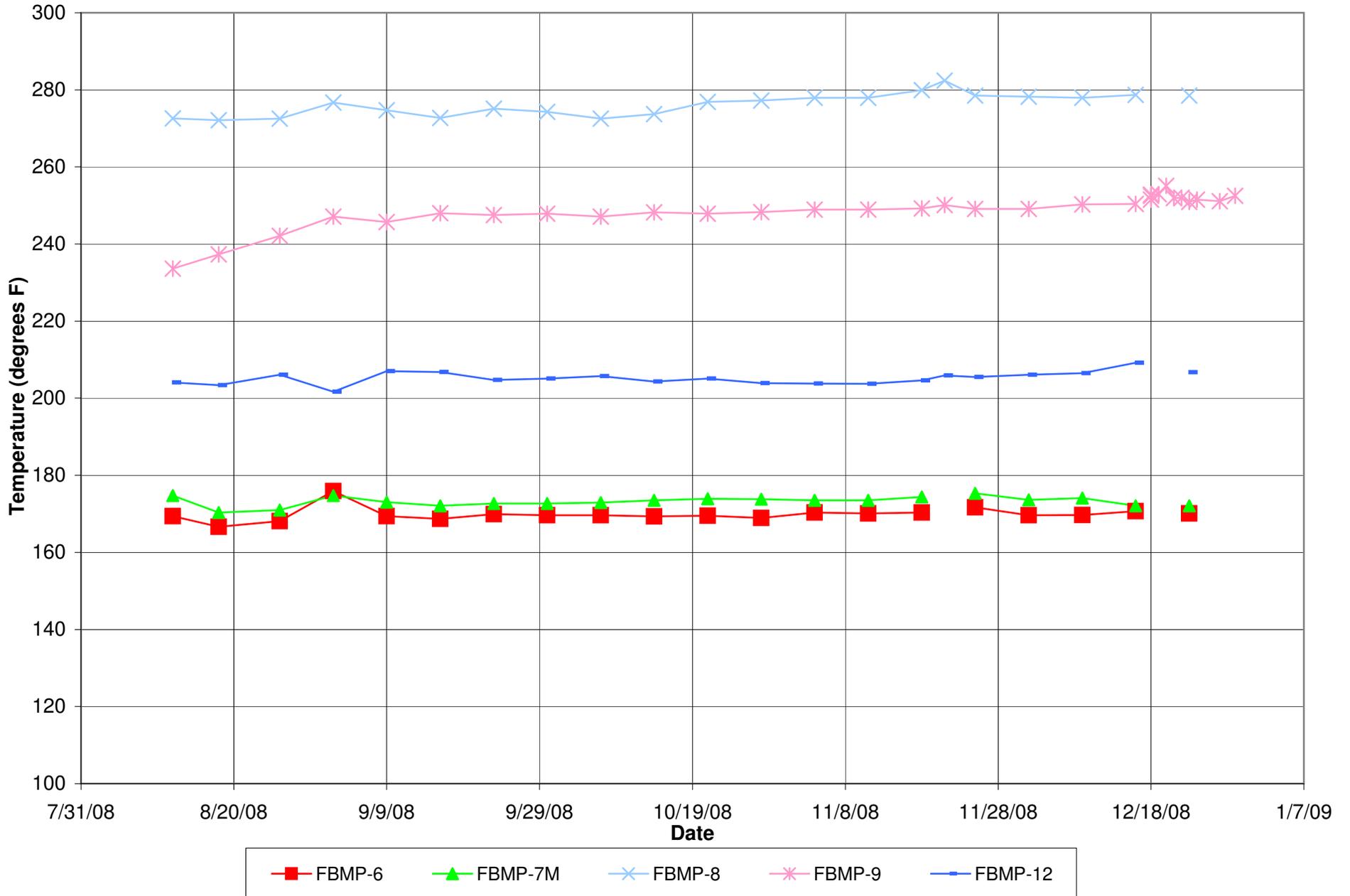
In-situ Temperatures - FBMPs within the Isolation Break Excavation Maximum Readings per Date per FBMP Boring



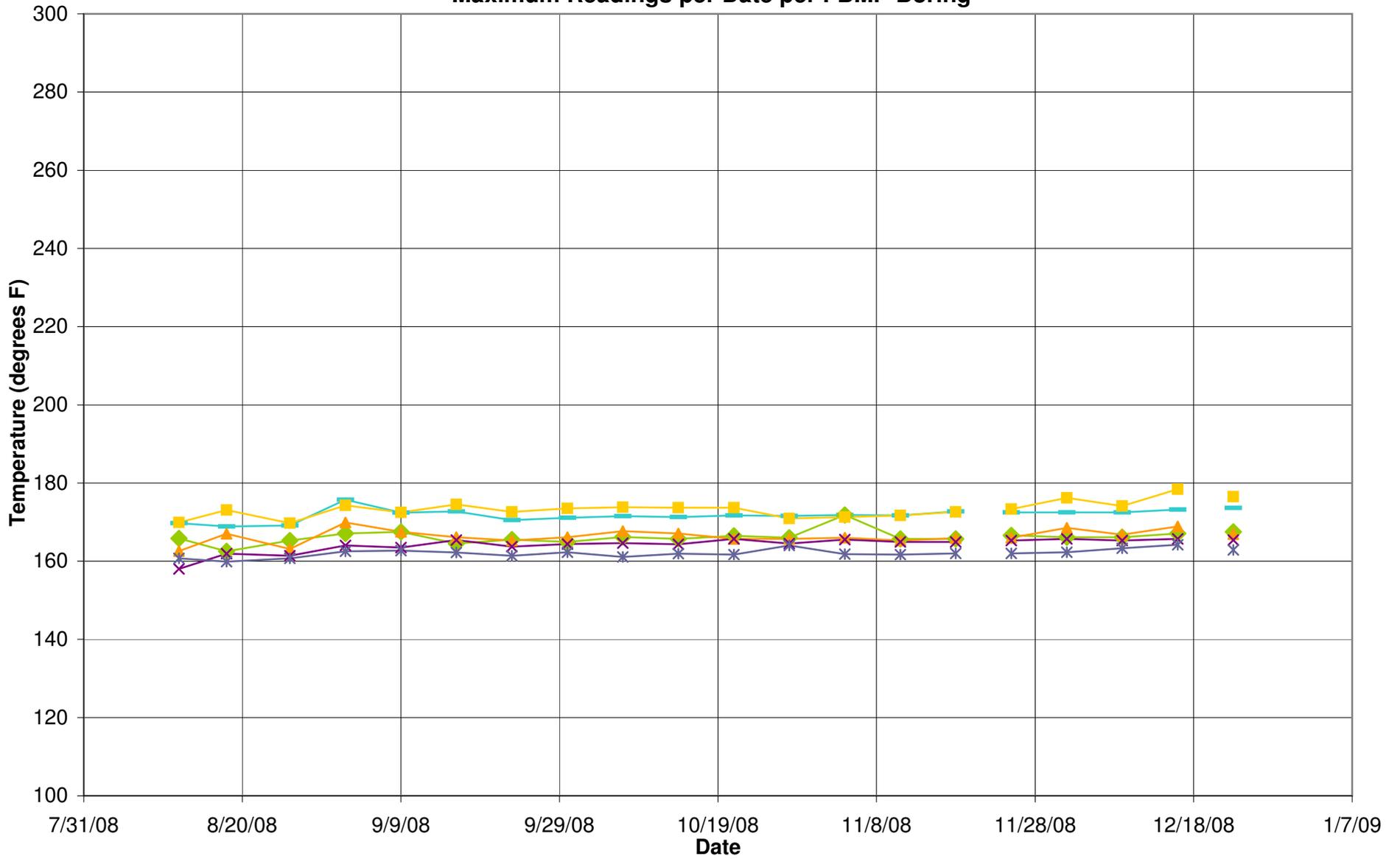
In-situ Temperatures - FBMPs within 150 ft of the Isolation Break Excavation Maximum Readings per Date per FBMP Boring



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

ATTACHMENT C

AIR MONITORING OF REMEDIAL CONSTRUCTION ACTIVITIES



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 700,000 VOC readings have been collected at the perimeter of the landfill during this monitoring period.

Trigger Levels

On November 4, 2008, the Center for Toxicology and Environmental Health (CTEH®), United States Environmental Protection Agency (USEPA) and Agency for Toxic Substances and Disease Registry (ATSDR) developed trigger levels for the collection of SUMMA canister laboratory samples. The trigger levels were derived by performing statistical analysis of the stage C data collected from the previous 4 weeks. The 99.5 percentile VOC concentration specific for each station was chosen as the trigger level for that station. Table 1.0 illustrates the trigger levels for each station.

**Table 1.0
November 4, 2008 Selected Trigger Levels**

Station	Trigger Level (ppm)
1	0.50
2	0.18
3	0.13
4	0.10
5	0.17

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 be continue to be re evaluated monthly or as needed based on VOC concentrations collected at each station. November 4, 2008 trigger levels are still currently being used to trigger the collection of a SUMMA cannister.

Real-Time Results

During the November 24, through December 29th monitoring period, approximately 226,353 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 nine times. The mean VOC concentrations collected at the perimeter of the landfill ranged from 0.01 ppm to 0.06 ppm. Table 2.0 summarizes the Real-time data collected from November 24, 2008 through December 29, 2008.

Table 2.0 November 24, through December 29, Real Time Data Summary

Station	Analyte	Total VOC Readings Recorded	Trigger Level	Triggering events	Mean Concentration
1	VOC	44,494	0.50	1	0.01 ppm
2	VOC	50,412	0.18	0	0.06 ppm
3	VOC	41,162	0.13	2	0.01 ppm
4	VOC	52,210	0.10	5	0.05 ppm
5	VOC	38,075	0.17	1	0.04 ppm

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

Summa Results

A total of nine SUMMA samples have been collected since November 24, 2008. Of these 9 samples, station-specific weather data indicate that none of the samples were directly downwind of the excavation area when the samples were collected. (Attachment B). SUMMA samples were analyzed for VOCs using GC/MS by EPA TO-15 plus TICs. Of the samples collected, no VOCs, including benzene, were detected at levels that exceeded the ATSDR's acute or chronic Minimal Risk Levels (MRLs). Analysis on sample SC002 indicated a Tentatively Identified Compound (TIC) of hexafluoropropene at an estimated concentration of 1700 ppb. It is important to note that TICs are chemicals not on the "Target Compound List". The laboratory GC/MS software includes a library of compounds where the identification can sometimes be matched to the TIC. The reported concentration for a TIC is always estimated. TIC identification is not considered absolute or confirmed until a known standard for the suspect compound can be analyzed on the same instrument which made the identification. CTEH® is continuing to investigate this finding and determine the significance of the compound in the VOC emissions from the site. All other samples indicated VOC levels that are consistent with background levels of VOCs in suburban environments or that are typical of air in analytical laboratories. 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

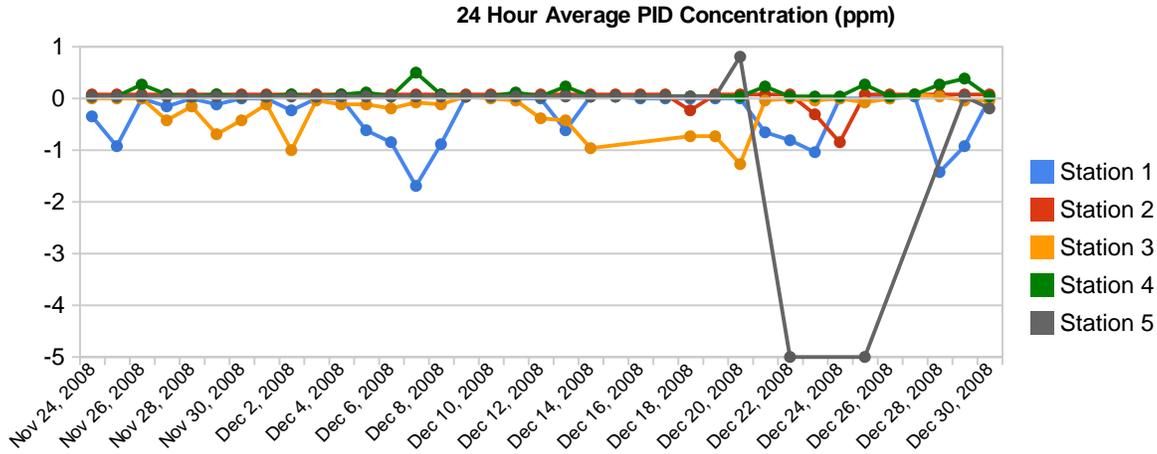
2008/11/24

Calendar

2008/12/30

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>
2008-11-24	-0.35	0.06	-0.01	0.05	0.04
2008-11-25	-0.93	0.06	0.00	0.03	0.04
2008-11-26	-0.01	0.06	-0.00	0.27	0.04
2008-11-27	-0.14	0.07	-0.42	0.06	0.04
2008-11-28	-0.01	0.06	-0.16	0.04	0.04
2008-11-29	-0.11	0.07	-0.68	0.07	0.04
2008-11-30	-0.00	0.06	-0.42	0.05	0.04
2008-12-01	-0.01	0.06	-0.10	0.04	0.04
2008-12-02	-0.23	0.07	-0.99	0.06	0.04
2008-12-03	0.01	0.07	-0.05	0.05	0.04
2008-12-04	0.00	0.06	-0.12	0.06	0.04
2008-12-05	-0.60	0.09	-0.11	0.11	0.04
2008-12-06	-0.86	0.09	-0.20	0.02	0.04
2008-12-07	-1.68	0.09	-0.09	0.51	0.04
2008-12-08	-0.89	0.07	-0.11	0.09	0.04
2008-12-09	0.03	0.06	0.04	0.05	0.04
2008-12-10	0.02	0.06	0.01	0.05	0.04
2008-12-11	0.02	0.07	-0.05	0.10	0.04
2008-12-12	-0.01	0.07	-0.39	0.05	0.04

2008-12-13	-0.62	0.08	-0.42	0.21	0.04
2008-12-14	0.03	0.06	-0.96	0.04	0.04
2008-12-15	0.03	0.06		0.04	0.04
2008-12-16	0.00	0.08		0.05	0.04
2008-12-17	0.01	0.07		0.04	0.04
2008-12-18	-0.00	-0.24	-0.74	0.06	0.04
2008-12-19	0.02	0.06	-0.73	0.04	0.04
2008-12-20	0.00	0.07	-1.29	0.05	0.82
2008-12-21	-0.65	0.08	-0.05	0.25	
2008-12-22	-0.81	0.08	0.01	0.05	-5.00
2008-12-23	-1.03	-0.32	-0.06	0.04	
2008-12-24	0.02	-0.85	-0.01	0.04	
2008-12-25	-0.00	0.09	-0.08	0.25	-5.00
2008-12-26	0.01	0.08	-0.00	0.04	
2008-12-27	0.05	0.06	0.08	0.06	
2008-12-28	-1.41	0.06	0.04	0.26	
2008-12-29	-0.92	0.07	-0.04	0.39	0.05
2008-12-30	-0.00	0.07	-0.03	0.04	-0.17

Attachment B

November 24 Through December 29 Stage C Integrated Air Sampling Summary

Sample ID	Set out Date	Sample Location	Trigger Level	Trigger Date/Time	Wind Direction Station	Downwind of Reaction Area	Results	Average 15 min PID Reading During Sample	
ESOH1108-1-SC001	11/8/2008	Station 1	0.50 ppm	11/12/2008 22:52	134	NO	ESOH1108-1-SC001	0.58	
ESOH1108-2-SC002	11/8/2008	Station 2	0.18 ppm	11/10/2008 4:38	266	YES	ESOH1101-2-SC002	0.18	
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*	
ESOH1110-2-SC005	11/10/2008	Station 2	0.18 ppm	11/10/2008 20:15	338	YES	ESOH1110-2-SC005	0.17	
ESOH1111-2-SC006	11/11/2008	Station 2	0.18 ppm	Current Sample					
ESOH1111-4-SC007	11/11/2008	Station 4	0.10 ppm	11/23/2008 14:06	227	NO	ESOH1111-4-SC007	0.09	
ESOH1113-1-SC008	11/13/2008	Station 1	0.50 ppm	11/13/2008 21:02	181	NO	ESOH1113-1-SC008	0.60	
ESOH1114-1-SC009	11/11/2008	Station 1	0.50 ppm	11/24/2008 15:13	179	NO	ESOH1114-1-SC009	0.53	
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	
ESOH1124-4-SC012	11/24/2008	Station 4	0.10 ppm	11/24/2008 14:23	226	NO	ESOH1124-4-SC012	0.10	
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	0.50 ppm	Current Sample					
ESOH1126-4-SC015	11/26/2008	Station 4	0.10 ppm	11/29/2008 11:51	192	NO	ESOH1126-4-SC015	0.10	
ESOH1129-3-SC016	11/29/2008	Station 3	0.13 ppm	12/18/2008 10:41	132-358	NO	Pending	0.93	
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	

November 24 Through December 29 Stage C Integrated Air Sampling Summary

Sample ID	Set out Date	Sample Location	Trigger Level	Trigger Date/Time	Wind Direction Station	Downwind of Reaction Area	Results	Average 15 min PID Reading During Sample	
ESOH1203-4-SC019	12/3/2008	Station 4	0.10 ppm	12/4/2008 22:15	279	NO	Pending	0.10	
ESOH1205-4-SC020	12/5/2008	Station 4	Sample Fault						
ESOH1208-4-SC021	12/2/2008	Station 4	0.10 ppm	12/21/2008 5:52	292	NO	ESOH1208-4-SC021	0.26	
ESOH1218-3-SC022	12/18/2008	Station 3	0.10 ppm	Current Sample					
ESOH1220-5-SC023	12/20/2008	Station 5	0.17 ppm	Current Sample					
ESOH1222-4-SC024	12/22/2008	Station 4	0.10 ppm	Current Sample					

Current Sample- Sample that is at the station and ready to be collected

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

ATTACHMENT D
AERIAL INFRARED IMAGES

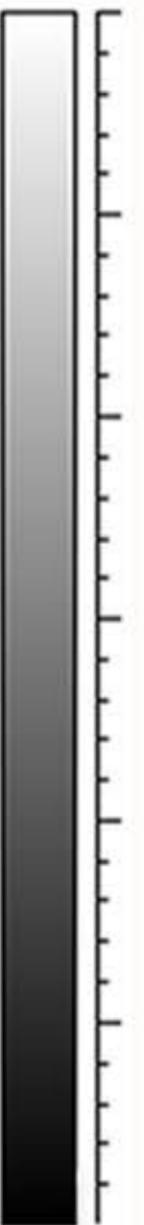
Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 11/22/2008

APPARENT LOCAL INCREASE IN
TEMPERATURE OVER OCTOBER

FLARE 10

FORMER
LOCATION OF
W-57R2

AMBIENT TEMPERATURE WAS
22 DEG. F AT TIME OF IMAGE.



Composite Image by
Predictive Service LLC. 216.378.3500
Data Collected 12/16/2008

AREA APPEARED TO HAVE
INCREASED IN NOVEMBER HAS
STAYED CONSISTENT BETWEEN THE
NOVEMBER AND DECEMBER IMAGES



AMBIENT TEMPERATURE WAS
20 DEG. F AT TIME OF IMAGE

