



Countywide Recycling & Disposal Facility

Remediation Unit

**Monthly Progress Report
Of
Operations, Monitoring & Maintenance Activities**

August 2010

Prepared By:

Countywide Recycling & Disposal Facility

Remediation Unit

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East Sparta, Ohio

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Introduction

This document provides a monthly report of activities conducted in August 2010 as required by the Operations, Monitoring, and Maintenance (OM&M) Plan. The OM&M plan was developed for the facility and adopted by the Ohio Environmental Protection Agency (OEPA) on September 30, 2009. The primary objectives of the monitoring portion of this plan are as follows:

1. Monitor status/progression of the reaction.
2. Monitor characteristics of leachate and gas.
3. Track settlement and slope movement/stability of waste mass and perimeter berms.
4. Monitor exposure conditions for engineered components.
5. Determine when conditions are suitable for composite capping.
6. Assess conditions requiring notification, repair, further evaluation or corrective action.
7. Provide a summary of monitoring and data collection, relevant activities conducted since the prior report, trigger events, and conditions which may require additional non-routine activities or investigation.

It should be noted that the OM&M Plan requires inspections, routine maintenance, and other activities that are not required to be presented in this submission. These activities are documented as required, and records are retained in the OM&M Managers office.

1. Monthly Summary Narrative

During the month of August, all daily, weekly, and monthly tasks were completed as required. In addition, the following tasks were completed:

- Quarterly header and flare analysis for dioxins and furans,
- Quarterly leachate sampling,
- Quarterly aerial infrared scan,
- Quarterly deadhead pressure collection,
- Annual carbon monoxide sampling of vertical gas extraction wells, and
- Annual update of the Incident Management System Plan and refresher training.

The July 2010 report documented the annual inspection of the 500,000-gallon tank which services the Remediation Unit. During this inspection, degradation to the interior seam sealant was discovered. The sealant was replaced in August by the manufacturer, using an alternative sealant product. The tank was returned to service in August 2010.

Countywide is in the process of fulfilling annual or one time requirements of the OM&M Plan, Consent Order of September 30, 2009, and Directors Final findings and Orders of September 30, 2009. These requirements, and their current status, include:

- Procedural review of the OM&M Plan and suggested revisions/alterations,
 - Completed, in process of internal review, to be submitted September 30, 2010.
- Annual update of the Financial Assurance,
 - Corrective Actions cost estimate and intentions for updating/renewing financial assurance instruments submitted to OEPA for concurrence August 26, 2010.

- Obtain OEPA approval of the PTI modification,
 - Final PTI Application submitted for agency approval.
- Annual accounting of the Community Benefit Fund,
 - August Statement to be submitted in September 2010.
- South Slope Relocation Evaluation
 - To be submitted in September 2010 following data collection and evaluation.

2. New Construction

No new construction is currently planned.

3. Major Non-Routine Maintenance, Repairs or Events

Routine maintenance and repairs of the temporary cap, leachate, and gas systems were completed during the month of August. While not necessarily considered “major”, the following gas wells on the west and north slopes were hard-piped to prepare for the expected increase in gas temperatures in those areas; PW-307, PW-367, PW-358, PW-361, W-58R, E2R, U1R, PW-J1R, PW-123, PW-165, PW-161.

4. New Trigger Events

Settlement

Areas of 2% or greater annualized settlement are depicted on the monthly settlement survey maps. Per the OM&M Plan, an exceedance of this settlement rate should only be considered a trigger if it occurs in a location where it had not been exceeded in the previous event. The majority, if not all, of the areas exceeding the settlement rate in August have exceeded the trigger in prior months.

Areas along the toe of the waste mass have consistently shown false triggers due to the accuracy limits of the survey equipment and thickness of waste mass. This phenomenon has been discussed on an ongoing basis during Team Countywide meetings. Upon extensive review and discussion, it has been mutually agreed upon that these values do not represent cause for immediate concern. Pin and plate monitoring along the toe of slope and near the waste limits supports that there is limited settlement/movement in these areas.

The settlement data across the remainder of the facility was evaluated and is within the ranges and trends observed in prior months. While there is an area that shows 10% or greater annualized settlement on the southern portion of the primary settlement front, the magnitude of settlement in this area is within the trends observed in the area in the past. There does not appear to be any anomalies or significant excursions outside the trends within the settlement data set. The settlement and pin and plate data do not suggest that the settlement observed should cause concern from a slope stability or engineering control integrity standpoint.

Gas Extraction Well Sampling and Analysis

The annual sampling of all accessible, vertical gas extraction wells for carbon monoxide analysis (CO) was completed in August. Based upon a review of the laboratory data, there were triggers associated with carbon monoxide concentrations at 13 gas extraction wells. Per the OM&M Plan, a CO value is considered a trigger if it exceeds 100 parts per million (ppm) and was measured at a well with CO below 100 ppm in the prior event. In this case, the prior event was conducted in October 2009. The table below compares CO concentrations from October 2009 and August 2010 at these wells.

Device Name	Carbon Monoxide (ppm)	
	October 2009	August 2010
A2	96.0	345.9
B1R	10.0	1057
E2R	68.0	344.1
PW-115R	23.38	579.9
PW-127	10.0	192.2
PW-156	57.0	105.9
PW-159	64.0	117.8
PW-166	92.03	346.9
PW-168(M)	100.0	177.9
PW-177	44.0	134.6
PW-180	83.17	136.4
PW-361	10.0	121.7
PW-366	80.0	230.3

Per the OM&M Plan, a trigger for CO should be evaluated to determine whether a subsurface oxidation (SSO) event may be occurring, as opposed to CO generated as a normal byproduct of the reaction. As such, the data was evaluated to determine whether conditions at the specific well are indicative of typical reaction conditions, or of some other event such as an SSO, that would lead to an increase in CO levels. The following observations were made during this evaluation:

1. Each of the wells exhibiting a trigger for carbon monoxide is located within or on the fringe of the reaction area. For those that are on the “back-fringe” of the reaction, the increases were slight, indicative of influence from residual reaction gases rather than generation from some new event.
2. Many of the wells have had an advanced level of effort in liquid removal either at the well or in the immediate area, which results in enhanced gas extraction from the reaction area and additional gas flow, which would increase CO concentrations.
3. No typical signs of an SSO (settlement non-typical of reaction, drastic changes in gas quality or temperature, deformed collection pipes, etc) have been observed.
4. The CO levels observed at these wells are typical of the reaction and typical of values observed across the reaction area.

In summary, Countywide has evaluated the data to assess whether the CO increase is indicative of an SSO. Given the results of this evaluation, it appears that these CO levels and the increases observed are typical of reaction affected wells and are a result of the reaction migration, rather than some other event. As such, it does not appear that additional evaluation or analysis is necessary.

5. Investigation Results from Previous Trigger Events

It was agreed upon between Republic and the Agencies that the values resulting in triggers during the July 2010 monitoring period were consistent with ranges and trends previously reflected, and represent no significant anomalies when compared to prior ongoing trends. The analysis of these

triggers did not prompt any additional measures beyond the requirements of the OM&M Plan and ongoing activities.

6. Trend Graphs and Drawings

The graphs, tables, and figures required by the OM&M Plan are included in the attachments to this report. Due to the vast number of these and the detail that they provide, a full written summary is not provided in this document. The data will be discussed in depth at the Team Countywide Meeting. It should be noted that the August monitoring data is generally within the ranges and trending of that observed in prior months.

7. Review of Potential Need to Extend Temporary FML Cap

Currently, the Remediation Unit consists of approximately 18 acres which do not have a temporary cap. Volume 1, Section 7.1 of the OM&M Plan details conditions which would initiate an assessment which could require installation of temporary cap in this area. Such conditions include;

- Uncontrollable odor or fugitive emissions,
- Unusual settlement (Incremental settlement greater than 2% per year),
- Atypical or uncontrollable leachate outbreaks,
- Methane/carbon dioxide ratio less than 1.0,
- Maximum wellhead temperatures greater than 150°F,
- Maximum carbon monoxide greater than 100 ppmv.

At this time, the conditions observed in this area supplemented by the data collected during monitoring and inspections do not indicate the need for expansion of the temporary cap.

8. Petitions to Perform Work

The monitoring and inspections conducted during the operating period do not indicate the need for additional work which would require approval. As such, there are no petitions to perform such work at this time.

9. Proposed OM&M Plan Revisions

There are no other proposed revisions at this time. However, Republic is conducting an annual review of the plan for possible revisions/inclusions/exclusions as required by the OM&M Plan. Data anomalies that are considered to be consistently redundant and reflect no significant excursions outside of typical trends for the site as discussed during Team Countywide meetings with the Agency will be addressed in this review. This review is expected to be submitted no later than September 2010 per the OM&M Plan requirements.

10. Odor Summary/Complaints

During the month of August, there were two odor complaints which were received by Republic Services. These complaints were investigated real-time, and the odors were related to garbage/working face odor.



9/15/10

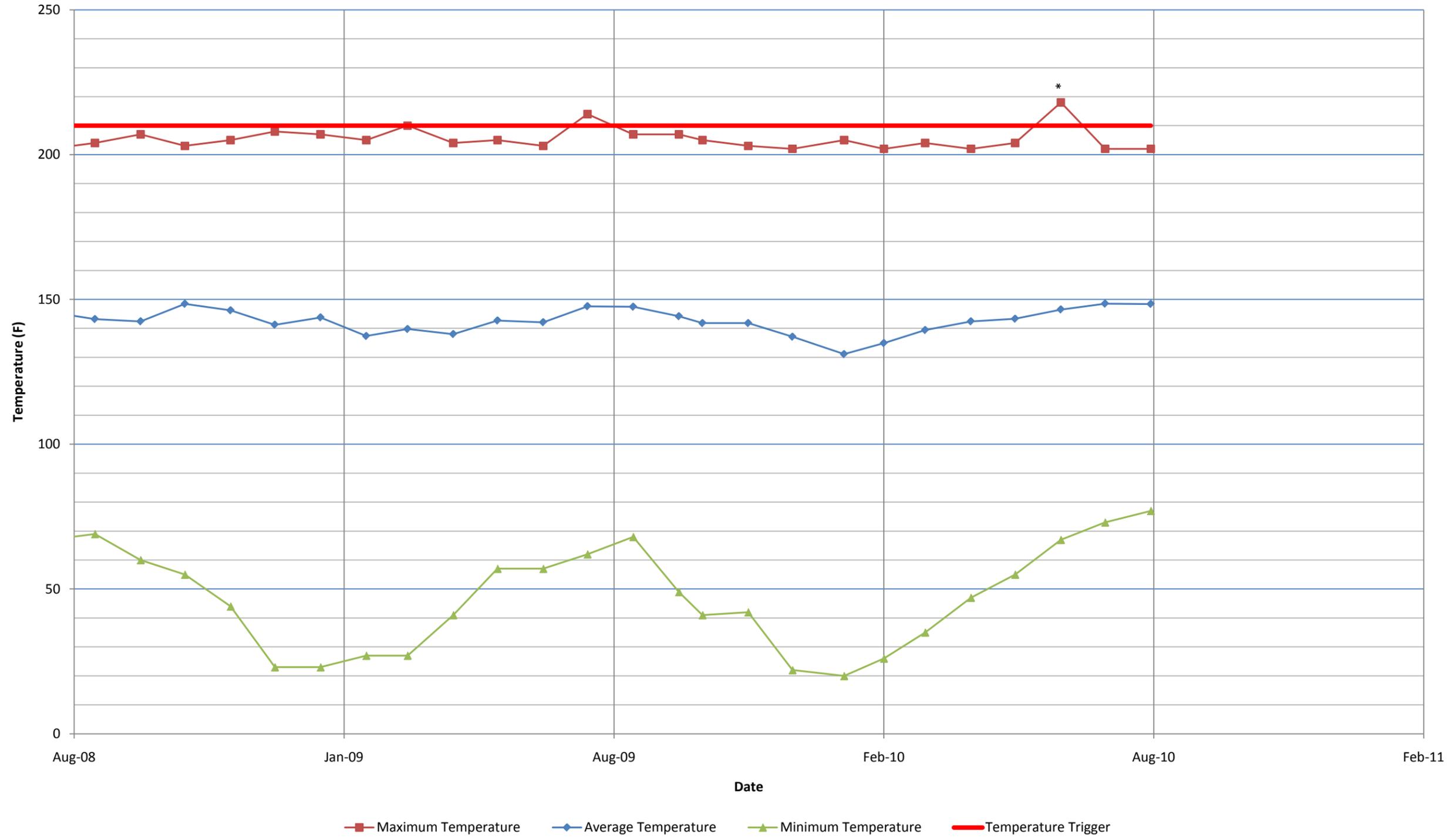
Michael Darnell
OM&M Manager

Date

Attachment 1

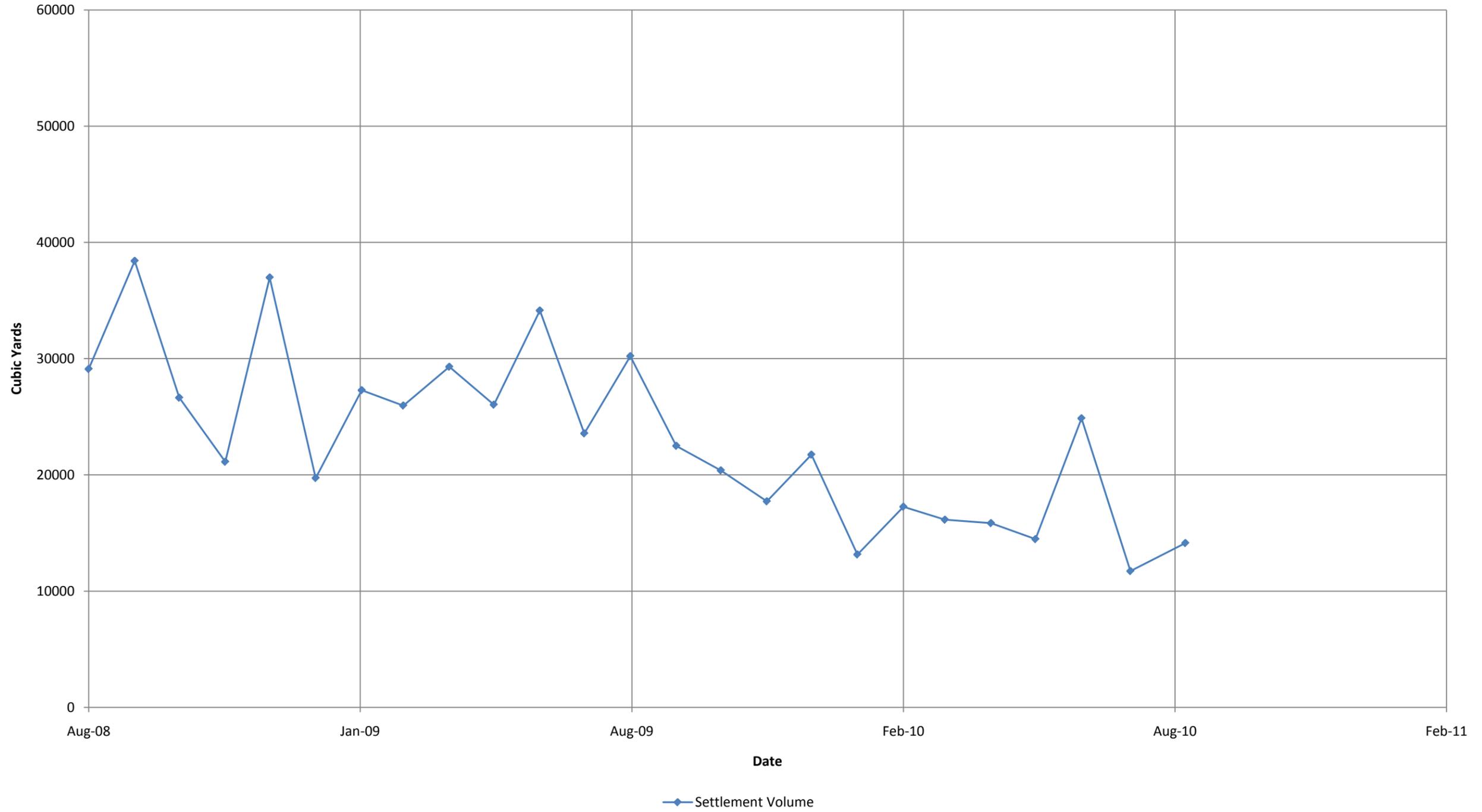
Graphs

Graph 1 Wellhead Temperature



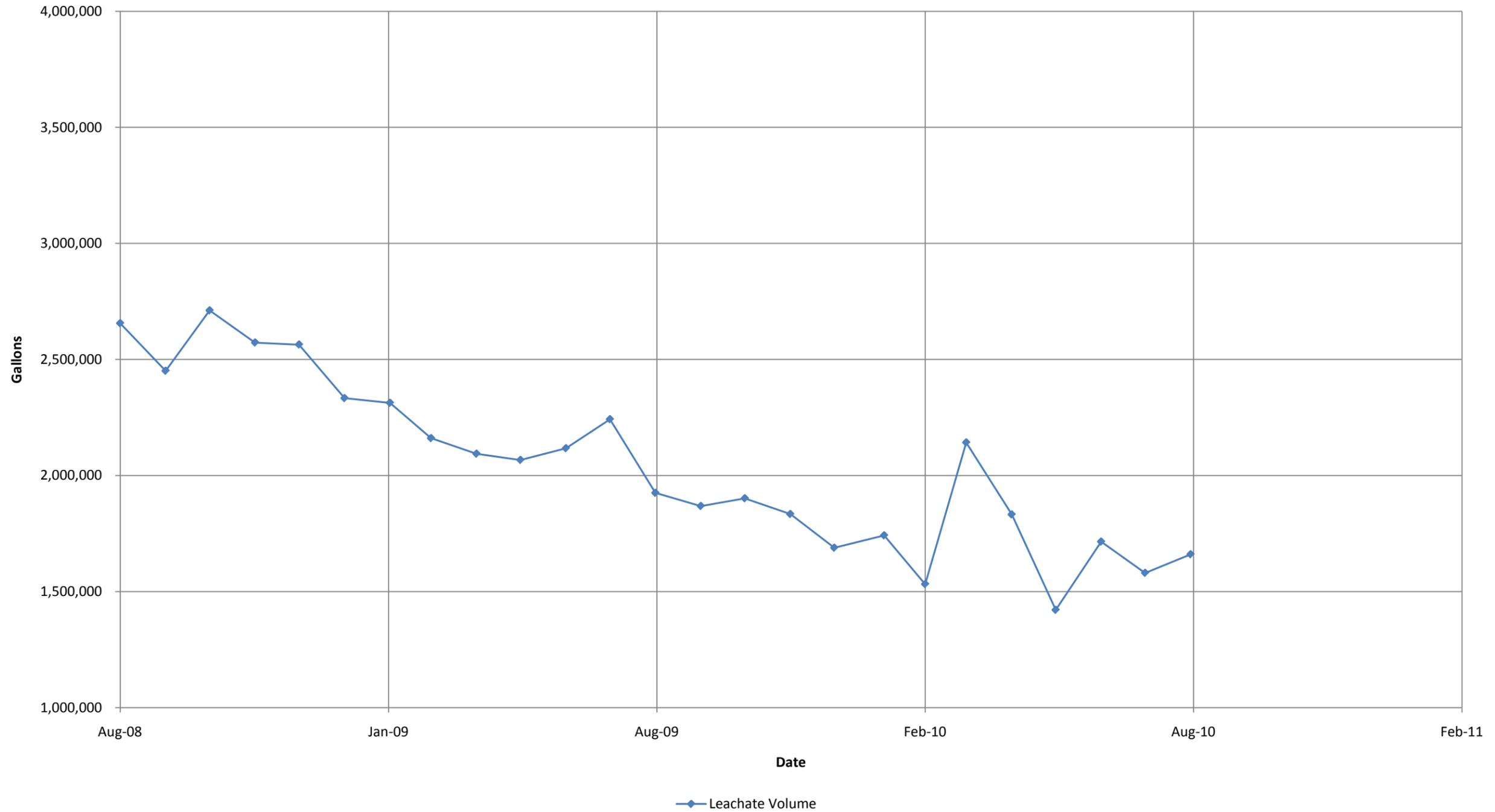
1. Maximum temperature depicted for June 2010 represents a single occurrence of a wellhead temperature over 210 degrees at a single well, caused by wellhead pressure. It does not represent a sustained temperature. Upon vacuum adjustment at the well, temperature returned to normal trend, below 210 degrees

Graph 2 Settlement Volume



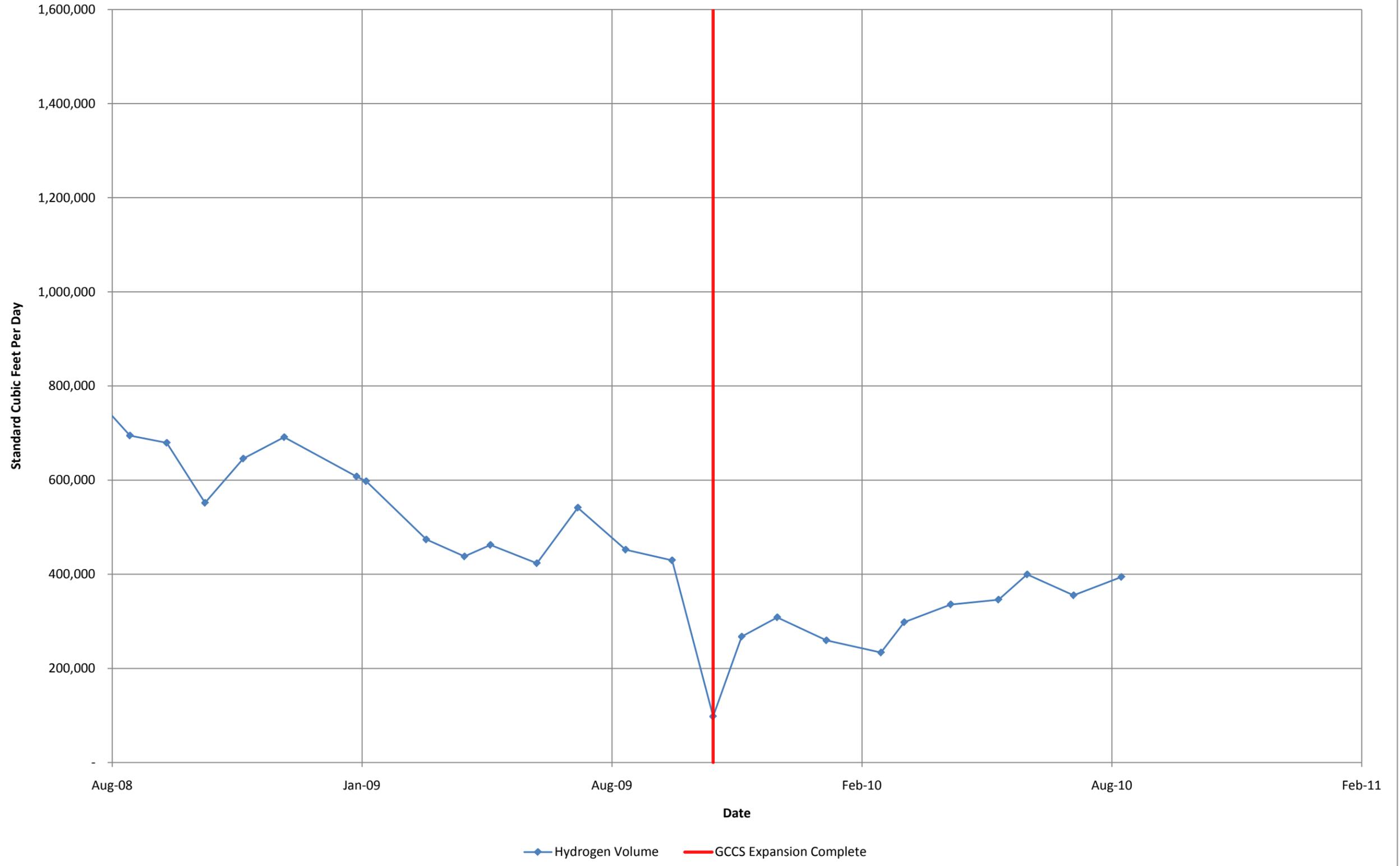
1. Information presented prior to October 2009 was compiled from data prepared and presented by SCS Engineers for Countywide Recycling and Disposal Facility.
2. Data presented on monthly basis.
3. Settlement volume reported prior to the 4th quarter of 2009 is for a limited area of the 88-acre reaction area.

Graph 3 Leachate Volume

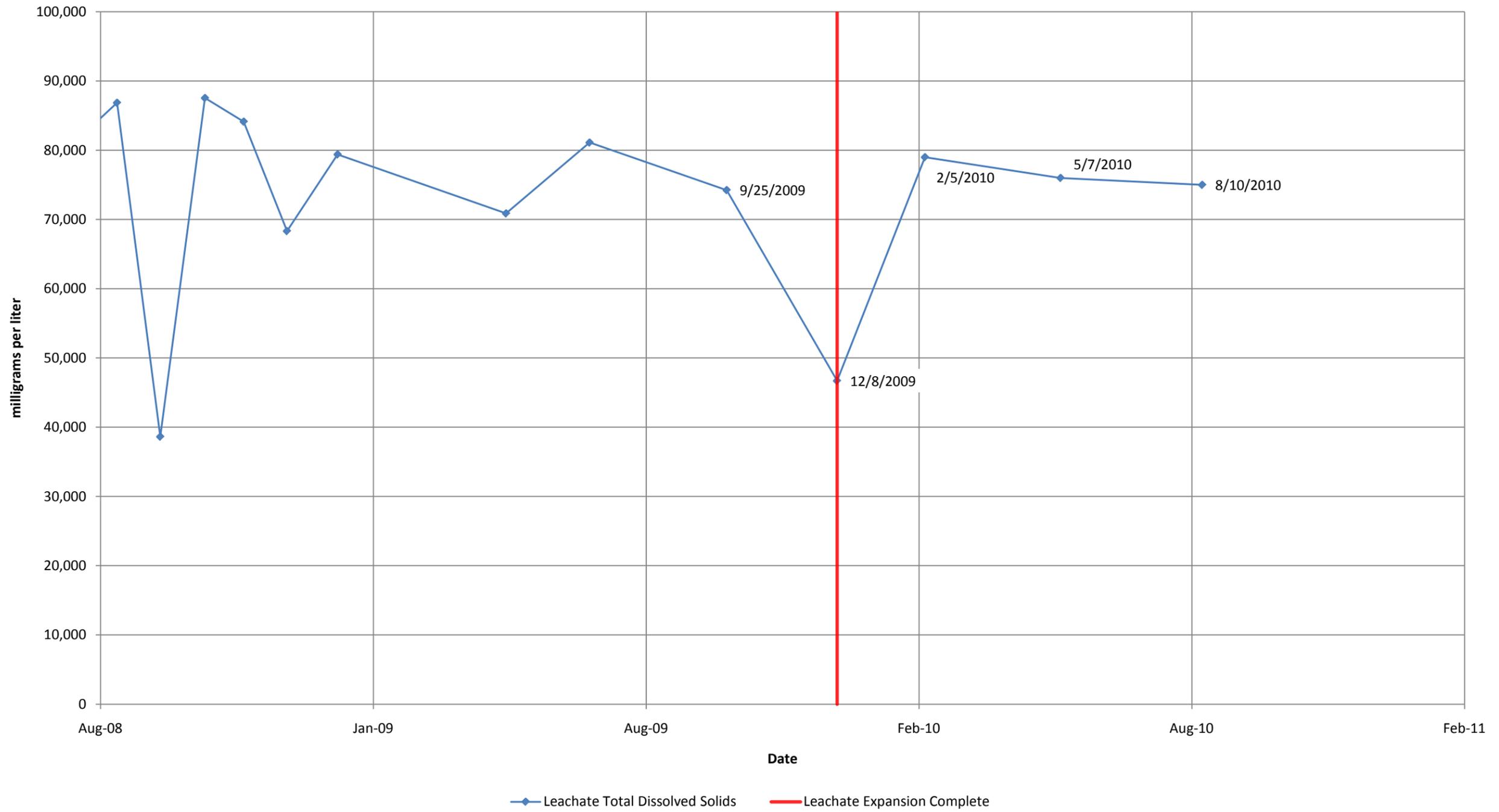


1. A freeboard of approximately 6 feet, approximately 90,000-gallons, is typically maintained at the 500,000-gallon tank. This freeboard volume was removed in July for tank cleaning and inspection. As such, the July 2010 leachate volume is elevated due to removal of this liquid.
2. Leachate generated from the Remediation Unit was stored in the same storage tank as that generated from the Operational Unit during the period July 19, 2010 through August 9, 2010 due to cleaning and maintenance to the Remediation storage tank. As such, the volume of leachate generated from the Remediation Unit was estimated for that period based upon typical daily averages.

Graph 4 Hydrogen Volume

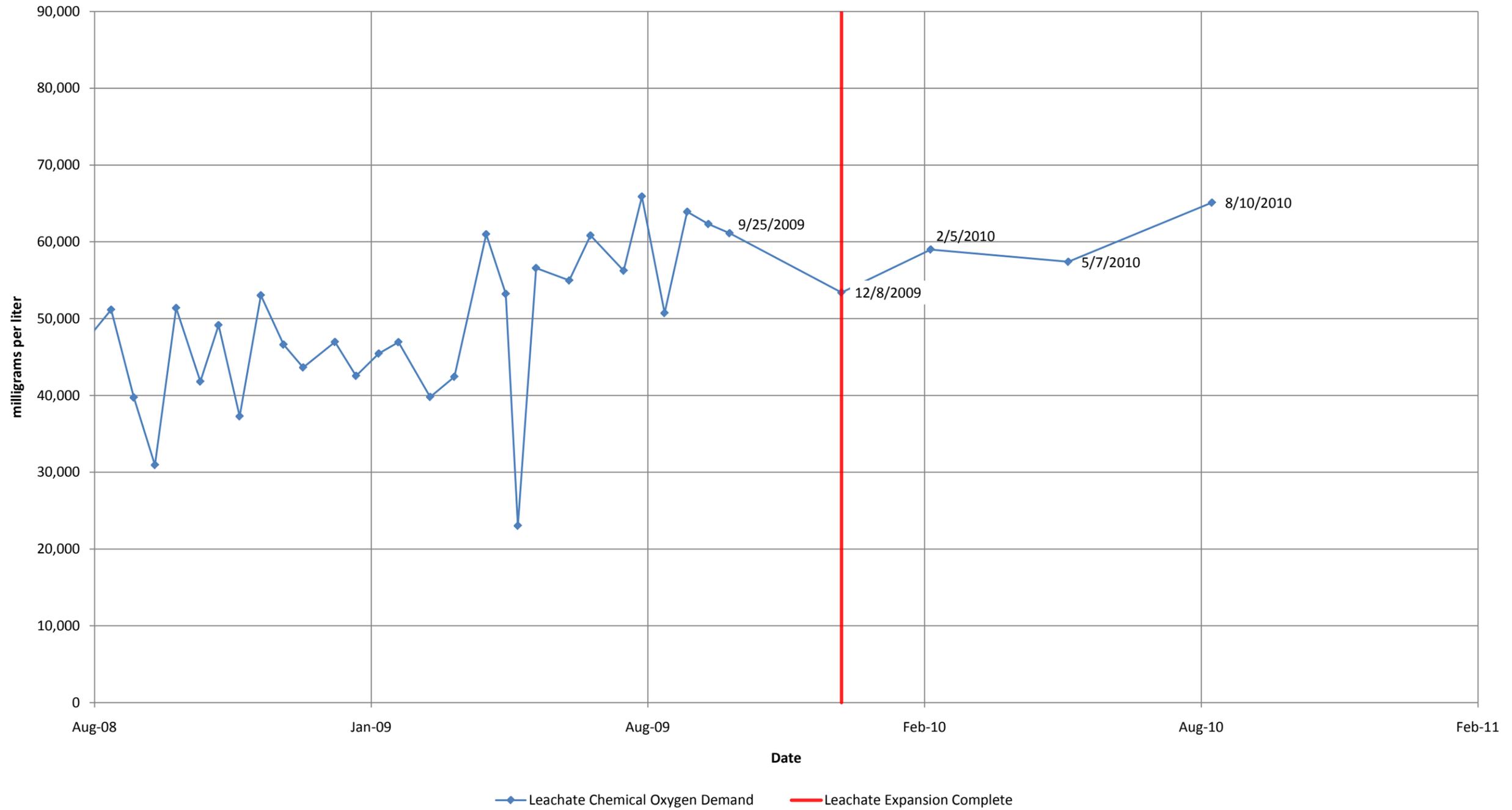


Graph 5 Leachate Total Dissolved Solids



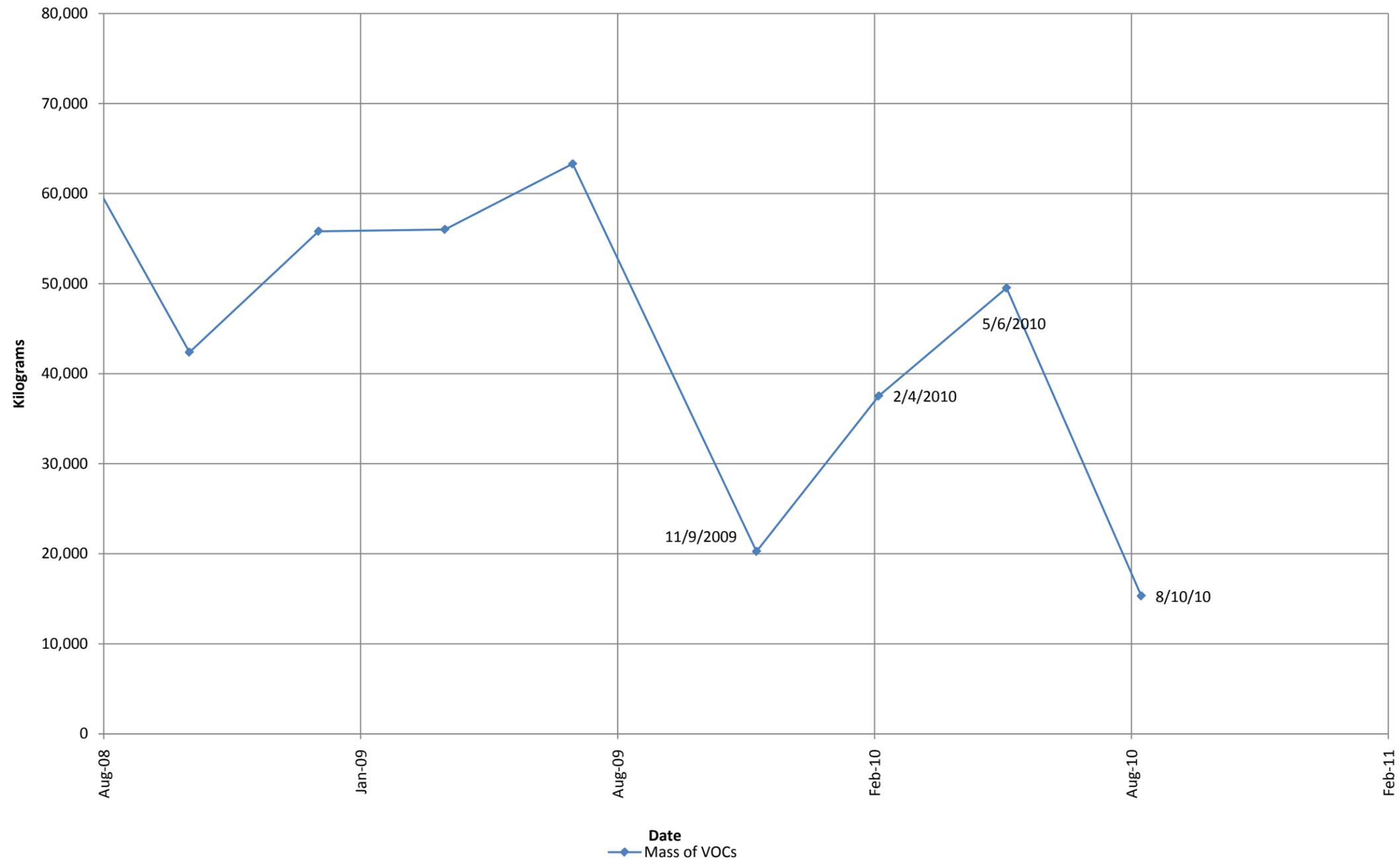
1. Information presented prior to October 2009 was compiled from data prepared and presented by AECOM for Countywide Recycling and Disposal Facility.
2. Data shown prior to October 2009 are flow-weighted averages of data from the East, North and South leachate collection tanks. Data from December 2009 is from combined Tank East 500.
3. Data shown prior to October 2009 comprises data from the leachate collection system only, and excludes certain leachate toe drains, sumps and gas collection wells.
4. Data labels beginning in October 2009 indicate date of quarterly analytical sampling.

Graph 6 Leachate Chemical Oxygen Demand



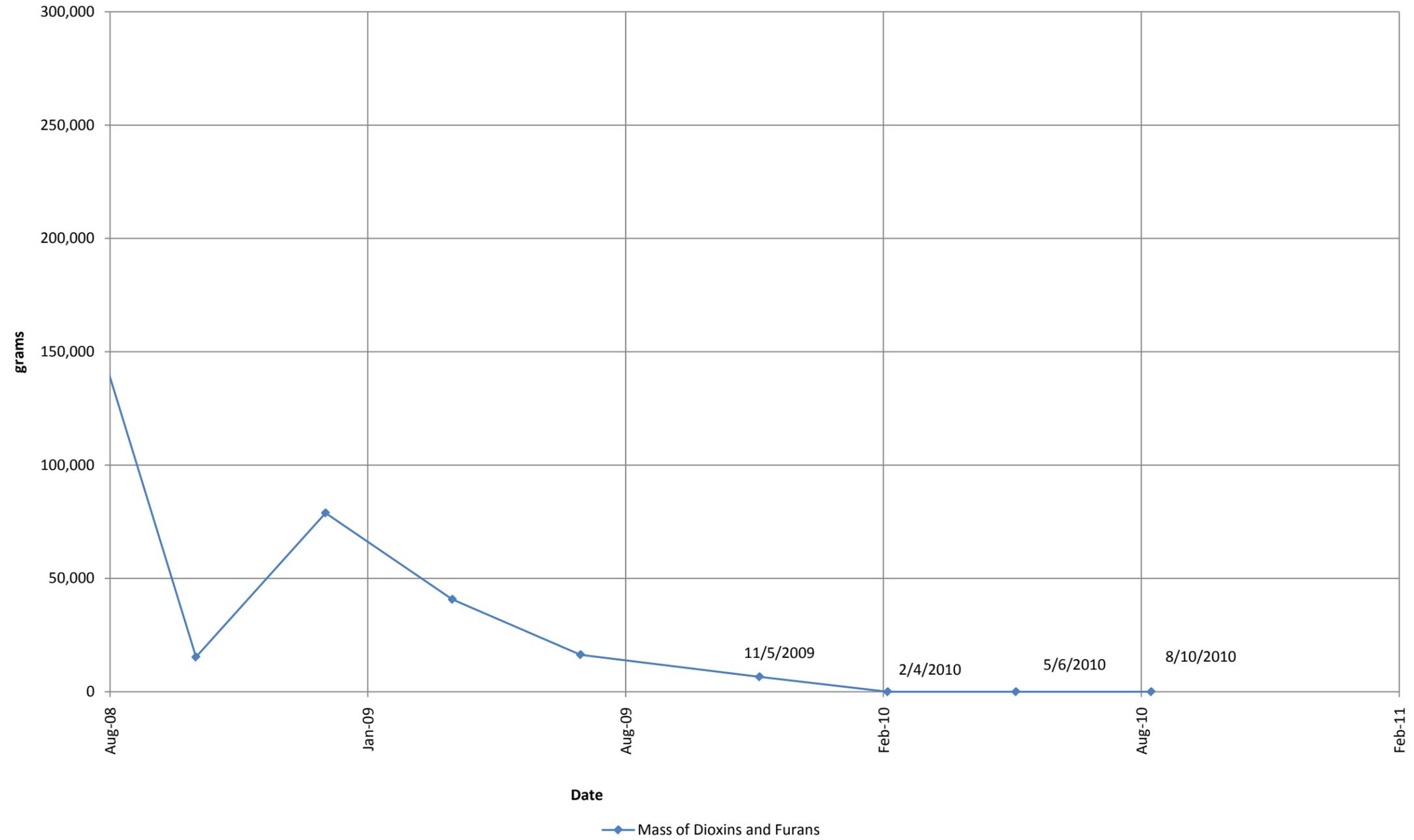
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4. Data labels beginning in October 2009 indicate date of quarterly analytical sampling.

Graph 7 Total Mass of VOCs

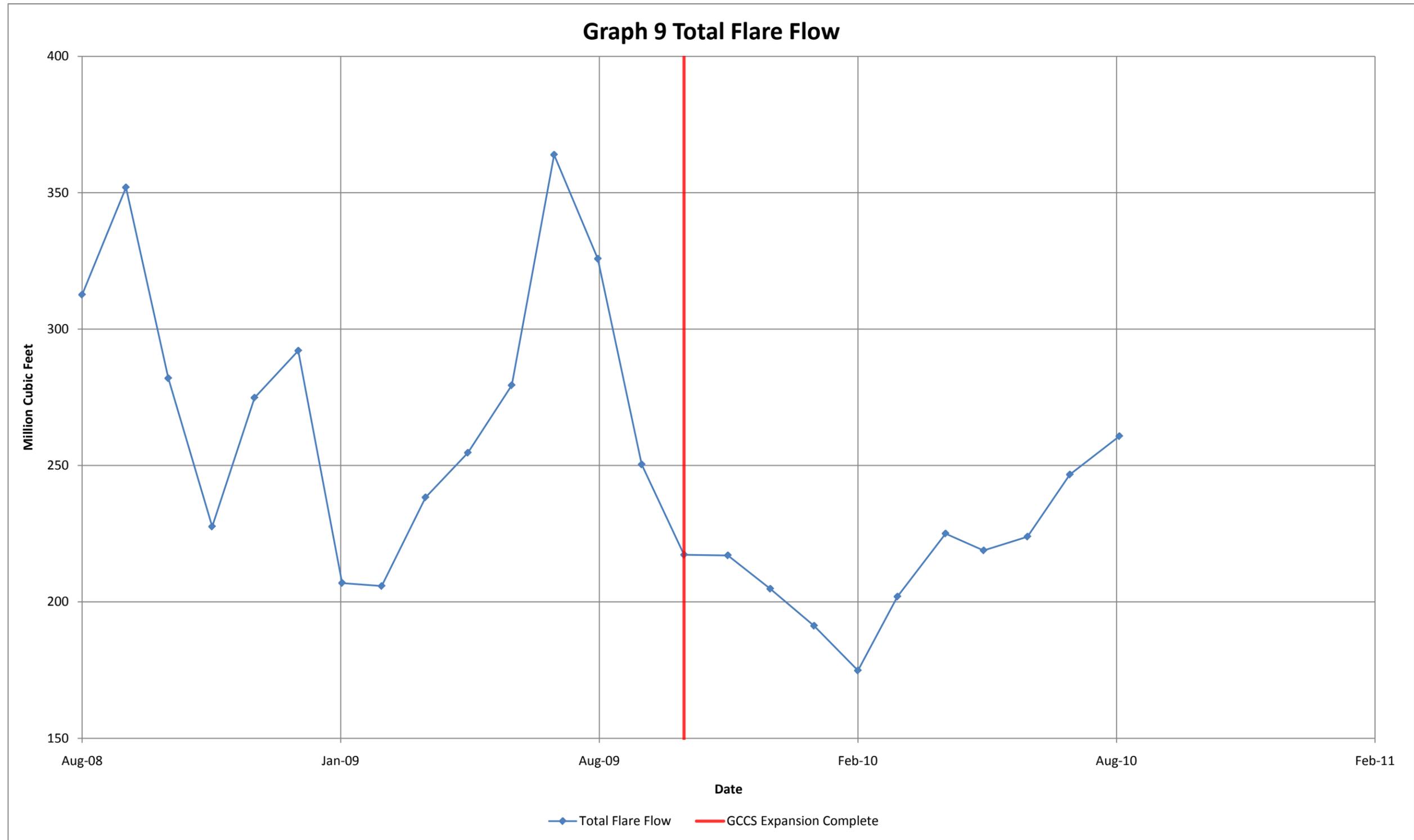


1. Information presented prior to October 2009 was compiled from data prepared and presented by SCS Engineers for Countywide Recycling and Disposal Facility.
2. Data presentation frequency is quarterly.
3. Flare 4 was not sampled for air quality beginning in September 2009.
4. Beginning in fourth quarter 2009, mass based on data collected only from Flares 7 and 10.
5. Data labels beginning in November 2009 indicate date of quarterly analytical sampling.
6. Mass data for August 2010 includes flow for only July and August 2010.

Graph 8 Total Mass of Dioxins and Furans

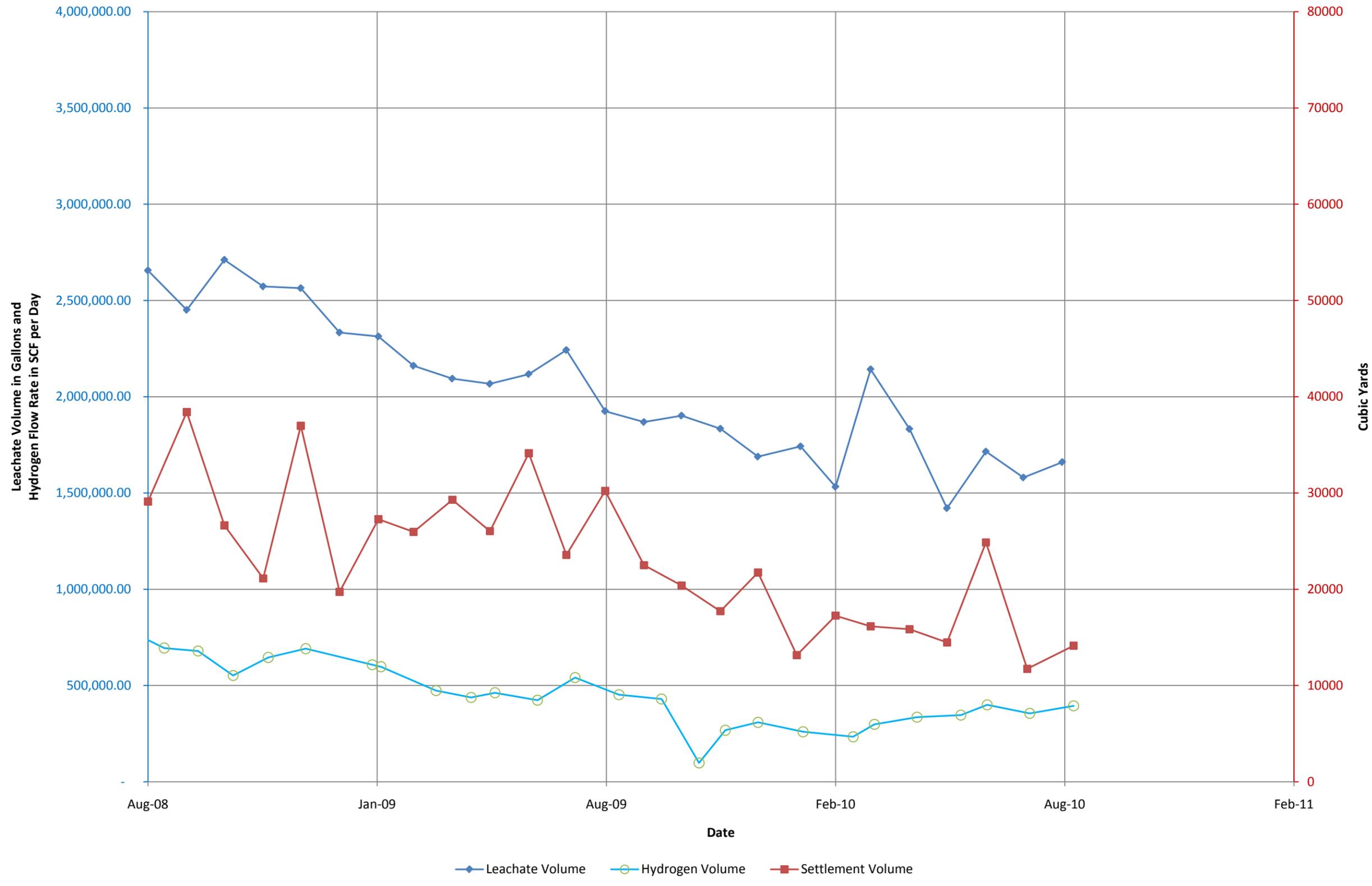


1. Information presented prior to October 2009 was compiled from data prepared and presented by SCS Engineers for Countywide Recycling and Disposal Facility.
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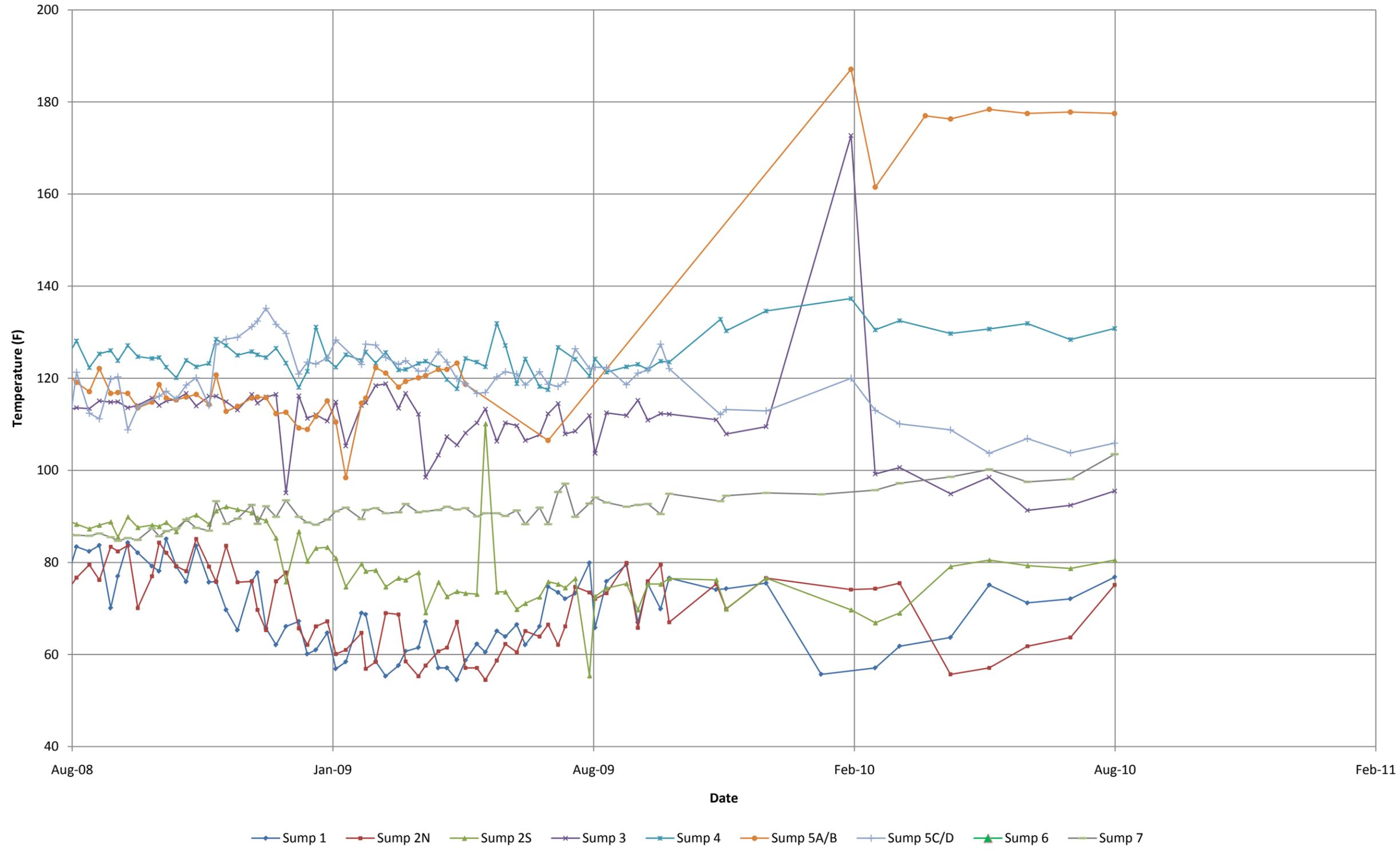


1. Increased flare flow in August 2010 is at least partially due to recalibration of flow meters during the reporting period.

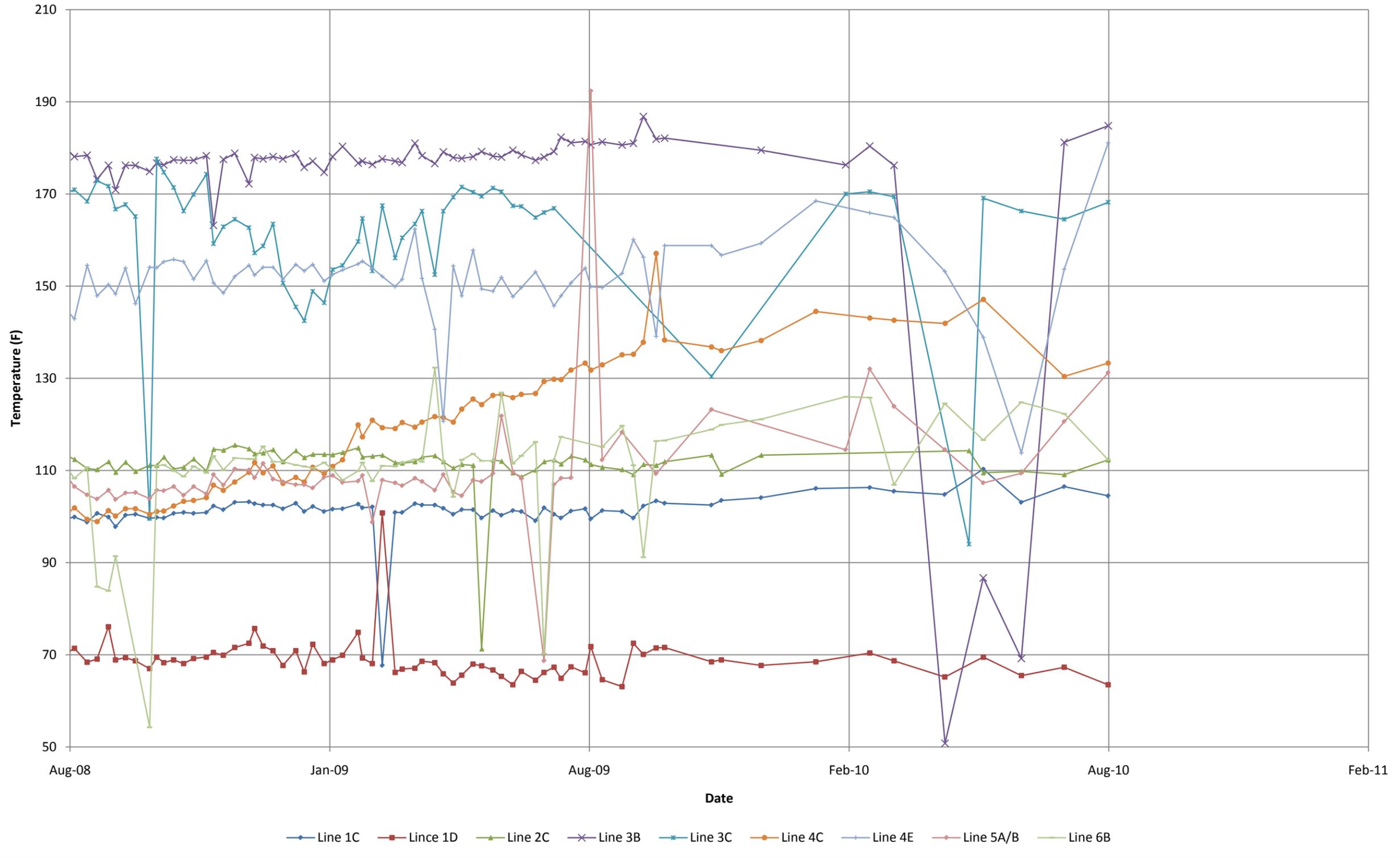
Graph 10 Combined Leachate, Hydrogen and Settlement Volume



Graph 11 Leachate Sump Temperature



Graph 12 Leachate Cleanout Temperature



Attachment 2

Tables

Table 1. Leachate Constituent Summary

Parameter Name		Value	Qualifier	Units	Detection Limit	Units
Volatile Organic Compounds						
1,1,1,2-Tetrachloroethane	<	62	U	ug/L	62	ug/L
1,1,1-Trichloroethane	<	62	U	ug/L	62	ug/L
1,1,2,2-Tetrachloroethane	<	62	U	ug/L	62	ug/L
1,1,2-Trichloroethane	<	62	U	ug/L	62	ug/L
1,1-Dichloroethane	<	62	U	ug/L	62	ug/L
1,1-Dichloroethylene	<	62	U	ug/L	62	ug/L
1,2,3-Trichloropropane	<	62	U	ug/L	62	ug/L
1,2-Dibromo-3-chloropropane (DBCP)	<	120	U	ug/L	120	ug/L
1,2-Dibromoethane (EDB)	<	62	U	ug/L	62	ug/L
1,2-Dichloroethane	<	62	U	ug/L	62	ug/L
1,2-Dichloropropane	<	62	U	ug/L	62	ug/L
2-Hexanone	<	620	U	ug/L	620	ug/L
4-Methyl-2-pentanone		470	J	ug/L	620	ug/L
Acetone		32000	E	ug/L	620	ug/L
Acrylonitrile	<	1200	U	ug/L	1200	ug/L
Benzene		90		ug/L	62	ug/L
Bromochloromethane	<	62	U	ug/L	62	ug/L
Bromodichloromethane	<	62	U	ug/L	62	ug/L
Bromoform	<	62	U	ug/L	62	ug/L
Carbon disulfide	<	62	U	ug/L	62	ug/L
Carbon tetrachloride	<	62	U	ug/L	62	ug/L
Chlorobenzene	<	62	U	ug/L	62	ug/L
Chloroethane	<	62	U	ug/L	62	ug/L
Chloroform	<	62	U	ug/L	62	ug/L
cis-1,2-Dichloroethylene	<	62	U	ug/L	62	ug/L
cis-1,3-Dichloropropene	<	62	U	ug/L	62	ug/L
Dibromochloromethane	<	62	U	ug/L	62	ug/L
Ethylbenzene		18	J	ug/L	62	ug/L
Methyl bromide	<	62	U	ug/L	62	ug/L
Methyl chloride	<	62	U	ug/L	62	ug/L
Methyl ethyl ketone		13000	E	ug/L	620	ug/L
Methyl iodide	<	62	U	ug/L	62	ug/L
Methylene bromide	<	62	U	ug/L	62	ug/L
Methylene chloride	<	62	U	ug/L	62	ug/L
o-Dichlorobenzene	<	62	U	ug/L	62	ug/L
p-Dichlorobenzene		15	J	ug/L	62	ug/L
Styrene	<	62	U	ug/L	62	ug/L
Tetrachloroethylene	<	62	U	ug/L	62	ug/L
Toluene		39	J	ug/L	62	ug/L
trans-1,2-Dichloroethylene	<	62	U	ug/L	62	ug/L
trans-1,3-Dichloropropene	<	62	U	ug/L	62	ug/L
trans-1,4-Dichloro-2-butene	<	62	U	ug/L	62	ug/L
Trichloroethylene	<	62	U	ug/L	62	ug/L
Trichlorofluoromethane	<	62	U	ug/L	62	ug/L
Vinyl acetate	<	120	U	ug/L	120	ug/L
Vinyl chloride	<	62	U	ug/L	62	ug/L
Xylenes (total)		75	J	ug/L	120	ug/L

Table 1. Leachate Constituent Summary

Dioxins/Furans						
1,2,3,4,6,7,8-HpCDD	<	500	U	pg/L	500	pg/L
1,2,3,4,6,7,8-HpCDF	<	500	U	pg/L	500	pg/L
1,2,3,4,7,8,9-HpCDF	<	500	U	pg/L	500	pg/L
1,2,3,4,7,8-HxCDD	<	500	U	pg/L	500	pg/L
1,2,3,4,7,8-HxCDF	<	500	U	pg/L	500	pg/L
1,2,3,6,7,8-HxCDD	<	500	U	pg/L	500	pg/L
1,2,3,6,7,8-HxCDF	<	500	U	pg/L	500	pg/L
1,2,3,7,8,9-HxCDD	<	500	U	pg/L	500	pg/L
1,2,3,7,8,9-HxCDF	<	500	U	pg/L	500	pg/L
1,2,3,7,8-PeCDD	<	500	U	pg/L	500	pg/L
1,2,3,7,8-PeCDF	<	500	U	pg/L	500	pg/L
2,3,4,6,7,8-HxCDF	<	500	U	pg/L	500	pg/L
2,3,4,7,8-PeCDF	<	500	U	pg/L	500	pg/L
2,3,7,8-TCDD	<	100	U	pg/L	100	pg/L
2,3,7,8-TCDF	<	100	U	pg/L	100	pg/L
OCDD		260	BJ	pg/L	1000	pg/L
OCDF	<	1000	U	pg/L	1000	pg/L
Total HpCDD		31	QJ	pg/L	500	pg/L
Total HpCDF	<	500	U	pg/L	500	pg/L
Total HxCDD	<	500	U	pg/L	500	pg/L
Total HxCDF	<	500	U	pg/L	500	pg/L
Total PeCDD	<	500	U	pg/L	500	pg/L
Total PeCDF	<	500	U	pg/L	500	pg/L
Total TCDD	<	100	U	pg/L	100	pg/L
Total TCDF	<	100	U	pg/L	100	pg/L
Metals						
Aluminum	<	20000	UG	ug/L	20000	ug/L
Antimony	<	1000	UG	ug/L	1000	ug/L
Arsenic	<	500	UG	ug/L	500	ug/L
Barium		1760		ug/L	1000	ug/L
Beryllium	<	300	UG	ug/L	300	ug/L
Cadmium	<	200	UG	ug/L	200	ug/L
Calcium		3920000		ug/L	100000	ug/L
Chromium		629		ug/L	500	ug/L
Cobalt	<	500	UG	ug/L	500	ug/L
Copper	<	500	UG	ug/L	500	ug/L
Iron		1230000		ug/L	10000	ug/L
Lead		351		ug/L	300	ug/L
Magnesium		1160000		ug/L	100000	ug/L
Manganese		90700		ug/L	500	ug/L
Nickel	<	1000	UG	ug/L	1000	ug/L
Potassium		5130000		ug/L	100000	ug/L
Selenium	<	500	UG	ug/L	500	ug/L
Silver	<	300	UG	ug/L	300	ug/L
Sodium		11100000		ug/L	100000	ug/L
Thallium	<	1000	UG	ug/L	1000	ug/L
Vanadium	<	700	UG	ug/L	700	ug/L
Zinc		37400		ug/L	2000	ug/L

Table 1. Leachate Constituent Summary

Field Parameters					
Specific Conductance	110000		umhos/cm	100	umhos/cm
Field pH	6		s.u.		s.u.
Field Temperature	95.4		F		F
General Chemistry					
Ammonia	1430		mg/L	25	mg/L
Turbidity	2500		NTU	50	NTU
Chloride	20400		mg/L	500	mg/L
Fluoride	< 100	UG	mg/L	100	mg/L
Sulfate	930		mg/L	100	mg/L
Nitrate-Nitrite	< 10	UG	mg/L	10	mg/L
Total Alkalinity	7310		mg/L	500	mg/L
Total Dissolved Solids	75000		mg/L	1000	mg/L
Chemical Oxygen Demand (COD)	65100		mg/L	2000	mg/L

Notes:

1. Results shown are reported for sample collected from the East 500 Leachate Tank on August 10, 2010 and were submitted to Test America Laboratories for analysis.

2. Laboratory Qualifiers:

G The reporting limit is elevated due to matrix interference.
 J Amount reported is less than reportable limit
 a Spike analyte recovery is outside control limits
 D Dilution and reporting limit raised.
 U Non detect
 Q Estimated maximum concentration
 B Method Blank Contamination
 NC The recovery and/or RPD (relevant percent distance) were not calculated
 MSB The recovery and RPD may be outside control limits because the sample amount was greater than 4X the spike amount.

Table 2. Liquid Levels and Percent Perforations Exposed

Well ID	A2	B1R	B2R	C1R(2)	C2R	D1	D2R	E1	E2R	F1-M	F2	I1R	J1R	K1R	N1R	PW-A1R(2)	PW-14R(3)	PW-0041R(2)
Total Constructed Casing Length (ft)	68	36	78	48	123	57	123	70	123	60	68	121	122	56	122	61.5	43	73
Total Constructed Perforated Pipe Length (ft)	45	16	54	23	99	36	99	45	99	39	44	96	97	31	97	38	21	55
June 2010																		
Date	6/15	6/14	N/A	6/14	6/15	6/14	6/15	6/14	6/15	6/14	6/15	6/14	6/14	6/14	6/15	6/14	6/14	6/14
Depth To Fluid (ft)	23.8	25.3	N/A	24.2	42.3	29.2	39.1	26.4	57.0	17.7	34.0	20.8	52.5	22.0	25.4	42.9	27.6	55.9
Measured Depth to Bottom (ft)	23.8	35.2	N/A	43.8	116.6	43.8	53.0	27.4	113.2	46.7	59.1	95.4	119.0	50.8	111.8	52.9	40.8	60.2
Potential Exposed Perforations (ft)	0.8	15.2	N/A	18.8	92.6	22.8	29.0	2.4	89.2	25.7	35.1	70.4	94.0	25.8	86.8	29.4	18.8	42.2
Actual Exposed Perforations (ft)	0.8	5.3	N/A	0	18.3	8.2	15.1	1.4	33	0	10	0	27.5	0	0.4	19.4	5.6	37.9
July 2010																		
Date	7/23	7/23	N/A	7/23	7/22	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/22	7/23	7/23	7/22
Depth To Fluid (ft)	23.8	23.0	N/A	24.7	41.3	29.7	43.2	26.2	56.6	17.4	33.2	58.9	52.5	21.8	22.5	45.2	28.7	55.2
Measured Depth to Bottom (ft)	23.8	35.3	N/A	43.8	116.4	43.8	53.0	27.2	113.2	46.7	60.2	91.1	117.7	51.2	106.4	52.7	40.8	60.0
Potential Exposed Perforations (ft)	0.8	15.3	N/A	18.8	92.4	22.8	29.0	2.2	89.2	25.7	36.2	66.1	92.7	26.2	81.4	29.2	18.8	42.0
Actual Exposed Perforations (ft)	0.8	3	N/A	0	17.3	8.7	19.2	1.2	32.6	0	9.2	33.9	27.5	0	0	21.7	6.7	37.2
August 2010																		
Date	8/24	8/24	N/A	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24
Depth To Fluid (ft)	23.1	24.1	N/A	24.9	49.7	16.5	59.4	26.3	73.2	17.9	33.2	74.1	55.6	21.9	22.5	44.3	29.5	57.1
Measured Depth to Bottom (ft)	23.1	35.4	N/A	43.8	116.3	16.5	59.4	27.2	113.8	47.1	64.5	90.4	92.2	51.0	105.2	52.6	40.8	59.7
Potential Exposed Perforations (ft)	0.1	15.4	N/A	18.8	92.3	0.0	35.4	2.2	89.8	26.1	40.5	65.4	67.2	26.0	80.2	29.1	18.8	41.7
Actual Exposed Perforations (ft)	0.1	4.1	N/A	0	25.7	0	35.4	1.3	49.2	0	9.2	49.1	30.6	0	0	20.8	7.5	39.1
Well ID	PW-43R(2)	PW-56R(2)	PW-57R	PW-61R(2)	PW-62R(2)	PW-101	PW-102	PW-103R	PW-104	PW-105	PW-106R	PW-107	PW-108R	PW-109	PW-110	PW-111	PW-112	PW-113
Total Constructed Casing Length (ft)	102	102	85	74	91	78	78	105	78	78	69	66	50	37	31	62	77	78
Total Constructed Perforated Pipe Length (ft)	84	84	67	48	73	60	60	81	60	60	45	45	26	19	13	44	59	60
June 2010																		
Date	6/14	6/14	6/14	6/14	6/14	6/14	6/14	6/15	6/14	6/14	6/14	6/15	6/14	6/15	6/15	6/15	6/15	6/15
Depth To Fluid (ft)	59.2	49.6	60.2	69.0	63.2	37.7	17.8	58.6	28.6	34.9	52.8	56.7	45.3	30.1	21.9	63.6	74.0	72.6
Measured Depth to Bottom (ft)	82.6	91.4	76.2	75.0	63.4	77.9	17.8	101.3	51.6	66.3	63.0	60.7	47.8	37.1	31.6	64.4	79.9	77.6
Potential Exposed Perforations (ft)	64.6	73.4	58.2	49.0	45.4	59.9	0.0	77.3	33.6	48.3	39.0	39.7	23.8	19.1	13.6	46.4	61.9	59.6
Actual Exposed Perforations (ft)	41.2	31.6	42.2	43	45.2	19.7	0	34.6	10.6	16.9	28.8	35.7	21.3	12.1	3.9	44	56	54.6
July 2010																		
Date	7/23	7/22	7/22	7/22	7/22	7/23	7/23	7/23	7/22	7/22	7/23	7/23	7/22	7/23	7/23	7/23	7/23	7/23
Depth To Fluid (ft)	56.7	50.6	60.7	69.8	47.6	39.1	17.7	57.8	27.5	34.9	53.6	55.0	46.1	30.1	22.3	63.7	74.1	72.8
Measured Depth to Bottom (ft)	82.5	91.3	76.4	75.1	78.0	78.2	17.7	101.3	51.5	34.9	63.0	55.0	48.0	37.1	31.6	64.4	79.9	77.6
Potential Exposed Perforations (ft)	64.5	73.3	58.4	49.1	60.0	60.2	0.0	77.3	33.5	16.9	39.0	34.0	24.0	19.1	13.6	46.4	61.9	59.6
Actual Exposed Perforations (ft)	38.7	32.6	42.7	43.8	29.6	21.1	0	33.8	9.5	16.9	29.6	34	22.1	12.1	4.3	44	56.1	54.8
August 2010																		
Date	8/24	8/18	8/18	8/18	8/24	8/24	8/24	8/24	8/18	8/18	8/24	8/18	8/24	8/18	8/18	8/18	8/18	8/24
Depth To Fluid (ft)	55.0	51.4	60.9	70.4	63.3	39.5	17.6	57.3	27.2	35.9	53.5	55.0	46.5	30.3	22.1	60.9	74.6	72.5
Measured Depth to Bottom (ft)	80.9	91.5	76.4	75.0	63.3	78.2	17.6	101.7	51.6	35.9	63.2	55.0	47.8	37.1	31.6	64.2	79.8	77.4
Potential Exposed Perforations (ft)	62.9	73.5	58.4	49.0	45.3	60.2	0.0	77.7	33.6	17.9	39.2	34.0	23.8	19.1	13.6	46.2	61.8	59.4
Actual Exposed Perforations (ft)	37	33.4	42.9	44.4	45.3	21.5	0	33.3	9.2	17.9	29.5	34	22.5	12.3	4.1	42.9	56.6	54.5

Table 2. Liquid Levels and Percent Perforations Exposed

Well ID	PW-114	PW-115R	PW-117R	PW-118R	PW-119R	PW-120	PW-121R(2)	PW-122R	PW-123	PW-124	PW-125	PW-127	PW-128	PW-129	PW-130	PW-131R	PW-132R	PW-138R	
Total Constructed Casing Length (ft)	78	84	105	89	72	78	46	43.5	78	63	75	75	119.7	121	121	81	62	70	
Total Constructed Perforated Pipe Length (ft)	60	60	80	64	50	60	31	25	60	45	60	60	103	103	103	58	40	46	
June 2010																			
Date	6/14	6/14	6/14	6/14	6/14	6/14	6/14	6/14	N/A	6/14	6/15	6/15	6/15	6/15	6/15	N/A	6/14	6/14	
Depth To Fluid (ft)	68.5	73.8	35.5	71.1	57.6	34.0	33.8	37.0	N/A	50.9	32.8	23.0	51.7	60.5	63.9	N/A	32.3	37.6	
Measured Depth to Bottom (ft)	79.6	77.2	35.5	84.3	64.4	34.5	37.2	37.0	N/A	58.3	71.5	68.5	93.5	108.5	110.2	N/A	43.9	59.1	
Potential Exposed Perforations (ft)	61.6	53.2	10.5	59.3	42.4	16.5	22.2	18.5	N/A	40.3	56.5	53.5	76.8	90.5	92.2	N/A	21.9	35.1	
Actual Exposed Perforations (ft)	50.5	49.8	10.5	46.1	35.6	16	18.8	18.5	N/A	32.9	17.8	8	35	42.5	45.9	N/A	10.3	13.6	
July 2010																			
Date	7/22	7/22	7/23	7/22	7/23	7/23	7/23	7/23	N/A	7/22	7/23	7/23	7/20	7/23	7/23	N/A	7/22	7/22	
Depth To Fluid (ft)	69.2	74.2	35.6	71.6	58.3	34.2	35.1	37.1	N/A	51.3	40.9	23.2	60.3	60.0	63.4	N/A	32.7	38.4	
Measured Depth to Bottom (ft)	79.7	77.1	35.6	84.3	64.3	34.2	36.8	37.1	N/A	55.0	69.4	68.2	108.9	108.5	110.3	N/A	43.8	59.0	
Potential Exposed Perforations (ft)	61.7	53.1	10.6	59.3	42.3	16.2	21.8	18.6	N/A	37.0	54.4	53.2	92.2	90.5	92.3	N/A	21.8	35.0	
Actual Exposed Perforations (ft)	51.2	50.2	10.6	46.6	36.3	16.2	20.1	18.6	N/A	33.3	25.9	8.2	43.6	42	45.4	N/A	10.7	14.4	
August 2010																			
Date	8/18	8/24	8/24	8/18	8/24	8/24	8/24	8/24	N/A	8/24	8/24	8/24	8/24	8/24	8/24	N/A	8/24	8/24	
Depth To Fluid (ft)	69.3	74.4	35.3	71.9	58.8	34.0	35.7	36.4	N/A	51.5	41.2	24.6	63.4	59.9	62.7	N/A	32.9	38.8	
Measured Depth to Bottom (ft)	79.5	77.2	35.3	84.3	64.3	34.0	37.1	36.4	N/A	54.6	69.3	67.7	99.6	108.4	109.9	N/A	42.7	58.7	
Potential Exposed Perforations (ft)	61.5	53.2	10.3	59.3	42.3	16.0	22.1	17.9	N/A	36.6	54.3	52.7	82.9	90.4	91.9	N/A	20.7	34.7	
Actual Exposed Perforations (ft)	51.3	50.4	10.3	46.9	36.8	16	20.7	17.9	N/A	33.5	26.2	9.6	46.7	41.9	44.7	N/A	10.9	14.8	
Well ID																			
	PW-141R	PW-142R	PW-144	PW-145	PW-146	PW-147R	PW-148	PW-149	PW-150	PW-151	PW-152	PW-153	PW-154	PW-155	PW-156	PW-157	PW-158R	PW-159	
Total Constructed Casing Length (ft)	104	80	102	120	120	80	53	51	50	43	42	52	42	42	112	112	104	117	
Total Constructed Perforated Pipe Length (ft)	80	58	82	100	100	58	33	31	30	23	22	32	22	22	89	89	80	97	
June 2010																			
Date	6/15	6/14	6/15	6/15	6/15	6/14	6/14	6/14	6/14	6/14	6/14	6/14	6/14	6/14	6/15	6/15	6/15	6/15	
Depth To Fluid (ft)	47.1	72.1	28.9	54.9	48.2	26.7	40.4	50.2	32.2	29.6	35.3	44.9	41.3	35.9	60.9	52.0	52.6	52.7	
Measured Depth to Bottom (ft)	99.6	75.9	86.6	110.3	111.5	69.0	44.8	50.5	45.8	31.8	41.6	44.9	41.3	36.4	105.2	105.8	101.8	113.9	
Potential Exposed Perforations (ft)	75.6	53.9	66.6	90.3	91.5	47.0	24.8	30.5	25.8	11.8	21.6	24.9	21.3	16.4	82.2	82.8	77.8	93.9	
Actual Exposed Perforations (ft)	23.1	50.1	8.9	34.9	28.2	4.7	20.4	30.2	12.2	9.6	15.3	24.9	21.3	15.9	37.9	29	28.6	32.7	
July 2010																			
Date	7/22	7/23	7/22	7/22	7/22	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/22	7/22	7/23	
Depth To Fluid (ft)	45.1	72.9	32.8	54.8	47.9	49.2	40.7	50.2	33.3	30.1	35.9	44.8	41.2	36.3	61.0	52.8	53.6	52.2	
Measured Depth to Bottom (ft)	97.2	75.7	88.9	114.4	111.2	69.1	44.9	50.5	45.7	31.6	41.6	44.8	41.2	36.3	105.1	105.8	101.3	114.0	
Potential Exposed Perforations (ft)	73.2	53.7	68.9	94.4	91.2	47.1	24.9	30.5	25.7	11.6	21.6	24.8	21.2	16.3	82.1	82.8	77.3	94.0	
Actual Exposed Perforations (ft)	21.1	50.9	12.8	34.8	27.9	27.2	20.7	30.2	13.3	10.1	15.9	24.8	21.2	16.3	38	29.8	29.6	32.2	
August 2010																			
Date	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	
Depth To Fluid (ft)	44.9	64.6	31.9	54.4	47.3	34.8	40.6	50.2	33.9	31.3	35.8	44.8	40.1	36.2	60.3	51.8	53.2	52.5	
Measured Depth to Bottom (ft)	97.0	75.7	86.0	113.9	111.2	69.1	45.5	50.5	45.8	31.3	41.7	44.8	40.1	36.5	105.0	105.7	100.2	113.8	
Potential Exposed Perforations (ft)	73.0	53.7	66.0	93.9	91.2	47.1	25.5	30.5	25.8	11.3	21.7	24.8	20.1	16.5	82.0	82.7	76.2	93.8	
Actual Exposed Perforations (ft)	20.9	42.6	11.9	34.4	27.3	12.8	20.6	30.2	13.9	11.3	15.8	24.8	20.1	16.2	37.3	28.8	29.2	32.5	

Table 2. Liquid Levels and Percent Perforations Exposed

Well ID	PW-160	PW-161	PW-162	PW-163R	PW-164	PW-165	PW-166	PW-167R	PW-168(M)	PW-169	PW-170	PW-171	PW-172	PW-173	PW-174	PW-175	PW-176	PW-177	
Total Constructed Casing Length (ft)	119	117	102	100	117	117	122	80	93	61	40	47	117	114	105	80	77	44	
Total Constructed Perforated Pipe Length (ft)	97	95	80	75	97	97	95	58	68	15	18	22	92	90	80	58	55	24	
June 2010																			
Date	6/15	6/14	6/14	6/14	6/14	6/14	6/14	6/14	6/15	6/15	6/15	6/14	6/14	6/15	6/15	6/14	6/14	6/15	
Depth To Fluid (ft)	64.1	47.8	50.1	44.6	45.6	53.9	41.1	51.4	76.0	55.0	21.6	23.9	40.3	51.4	28.3	24.6	48.1	37.9	
Measured Depth to Bottom (ft)	112.2	114.3	93.6	91.5	104.6	116.1	98.7	76.6	93.0	56.1	44.0	46.2	114.0	107.7	100.3	62.8	65.4	42.9	
Potential Exposed Perforations (ft)	90.2	92.3	71.6	66.5	84.6	96.1	71.7	54.6	68.0	10.1	22.0	21.2	89.0	83.7	75.3	40.8	43.4	22.9	
Actual Exposed Perforations (ft)	42.1	25.8	28.1	19.6	25.6	33.9	14.1	29.4	51	9	0	0	15.3	27.4	3.3	2.6	26.1	17.9	
July 2010																			
Date	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/22	7/22	7/22	7/22	7/23	
Depth To Fluid (ft)	63.6	47.1	49.8	44.2	45.2	53.7	47.6	51.8	76.3	35.0	19.7	23.2	40.0	51.1	19.2	45.2	43.2	35.7	
Measured Depth to Bottom (ft)	112.4	114.0	93.1	91.6	105.0	107.9	93.2	76.3	92.9	56.1	43.7	45.2	113.8	107.4	95.6	62.8	65.3	42.7	
Potential Exposed Perforations (ft)	90.4	92.0	71.1	66.6	85.0	87.9	66.2	54.3	67.9	10.1	21.7	20.2	88.8	83.4	70.6	40.8	43.3	22.7	
Actual Exposed Perforations (ft)	41.6	25.1	27.8	19.2	25.2	33.7	20.6	29.8	51.3	0	0	0	15	27.1	0	23.2	21.2	15.7	
August 2010																			
Date	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/18	8/18	8/24	8/24	8/24	8/24	8/18	8/18	8/18	8/18	
Depth To Fluid (ft)	51.3	46.6	50.4	44.3	45.2	54.4	47.2	51.1	76.6	55.0	22.9	23.1	39.8	30.0	21.1	44.9	41.6	35.5	
Measured Depth to Bottom (ft)	112.1	113.9	92.9	91.3	111.0	116.1	97.0	76.2	92.8	56.1	43.4	45.2	114.1	107.5	95.1	62.4	65.0	42.6	
Potential Exposed Perforations (ft)	90.1	91.9	70.9	66.3	91.0	96.1	70.0	54.2	67.8	10.1	21.4	20.2	89.1	83.5	70.1	40.4	43.0	22.6	
Actual Exposed Perforations (ft)	29.3	24.6	28.4	19.3	25.2	34.4	20.2	29.1	51.6	9	0.9	0	14.8	6	0	22.9	19.6	15.5	
Well ID	PW-178	PW-179	PW-180	PW-181	PW-182	PW-307	PW-358	PW-361	PW-362B	PW-363	PW-364	PW-366	PW-367	PW-368	PW-369	Q1R	S1R	T1R	
Total Constructed Casing Length (ft)	34	61	93	85	42	64	62	104	78	82	82	39	53	47	38	54	125	125	
Total Constructed Perforated Pipe Length (ft)	14	36	68	60	17	42	38	80	53	58	58	25	39	33	24	30	100	100	
June 2010																			
Date	6/15	6/15	6/14	6/14	6/14	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/14	6/15	6/15	
Depth To Fluid (ft)	32.3	38.9	79.4	25.7	15.4	31.9	26.7	61.8	31.4	34.3	34.5	21.6	20.2	22.4	27.5	42.8	45.1	57.9	
Measured Depth to Bottom (ft)	32.6	60.3	90.0	78.5	40.4	57.8	65.8	102.7	77.9	80.1	80.8	40.9	55.3	49.3	39.0	52.3	113.7	120.2	
Potential Exposed Perforations (ft)	12.6	35.3	65.0	53.5	15.4	35.8	41.8	78.7	52.9	56.1	56.8	26.9	41.3	35.3	25.0	28.3	88.7	95.2	
Actual Exposed Perforations (ft)	12.3	13.9	54.4	0.7	0	9.9	2.7	37.8	6.4	10.3	10.5	7.6	6.2	8.4	13.5	18.8	20.1	32.9	
July 2010																			
Date	7/23	7/23	7/22	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/22	7/22	7/22	
Depth To Fluid (ft)	32.0	38.8	79.9	65.8	18.3	31.2	26.8	61.2	30.9	42.2	33.1	21.0	20.4	22.3	27.2	43.5	45.0	57.6	
Measured Depth to Bottom (ft)	32.3	60.0	90.1	77.2	40.2	57.8	65.8	102.7	78.0	80.5	80.2	40.9	55.4	49.3	39.1	52.2	113.6	120.1	
Potential Exposed Perforations (ft)	12.3	35.0	65.1	52.2	15.2	35.8	41.8	78.7	53.0	56.5	56.2	26.9	41.4	35.3	25.1	28.2	88.6	95.1	
Actual Exposed Perforations (ft)	12	13.8	54.9	40.8	0	9.2	2.8	37.2	5.9	18.2	9.1	7	6.4	8.3	13.2	19.5	20	32.6	
August 2010																			
Date	8/24	8/18	8/18	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	8/24	
Depth To Fluid (ft)	32.6	38.4	66.7	66.1	18.8	36.7	53.4	63.6	41.8	44.1	44.5	25.3	28.5	22.0	26.5	44.0	44.8	57.4	
Measured Depth to Bottom (ft)	32.6	60.1	89.9	76.9	40.2	57.2	64.5	102.5	77.0	81.1	79.7	38.8	52.1	49.0	38.7	52.4	113.4	120.1	
Potential Exposed Perforations (ft)	12.6	35.1	64.9	51.9	15.2	35.2	40.5	78.5	52.0	57.1	55.7	24.8	38.1	35.0	24.7	28.4	88.4	95.1	
Actual Exposed Perforations (ft)	12.6	13.4	41.7	41.1	0	14.7	29.4	39.6	16.8	20.1	20.5	11.3	14.5	8	12.5	20	19.8	32.4	

Table 2. Liquid Levels and Percent Perforations Exposed

Well ID	U1R	W-1R	W1R(2)	W-2R(M)	W-3	W-4	W-5	W-7	W-8	W-9	W-10	W-11	W-12R	W-13R	W-31R	W-32R	W-33	W-34
Total Constructed Casing Length (ft)	113	46	72	85	33	37	35	38	34	36	103	119	43	43	92	54	52	81
Total Constructed Perforated Pipe Length (ft)	88	20	48	65	12	16	13	14	15	18	85	94	21	21	72	29	34	43
June 2010																		
Date	6/14	6/15	6/14	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15	6/15
Depth To Fluid (ft)	45.8	19.1	35.8	36.2	31.2	29.5	32.8	30.9	24.5	34.1	29.5	33.3	37.7	32.7	44.5	43.9	36.1	51.0
Measured Depth to Bottom (ft)	107.4	42.5	68.4	81.6	32.7	36.5	34.4	31.0	33.0	37.4	38.9	39.1	41.3	42.5	74.2	52.8	53.7	73.8
Potential Exposed Perforations (ft)	82.4	16.5	44.4	61.6	11.7	15.5	12.4	7.0	14.0	19.4	20.9	14.1	19.3	20.5	54.2	27.8	35.7	35.8
Actual Exposed Perforations (ft)	20.8	0	11.8	16.2	10.2	8.5	10.8	6.9	5.5	16.1	11.5	8.3	15.7	10.7	24.5	18.9	18.1	13
July 2010																		
Date	7/23	7/23	7/22	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23	7/23
Depth To Fluid (ft)	45.1	18.8	36.3	37.0	31.0	30.4	33.0	31.0	24.8	34.3	29.6	33.0	38.0	33.0	44.3	43.7	38.0	51.4
Measured Depth to Bottom (ft)	107.3	42.5	67.5	81.6	32.8	36.6	34.6	31.0	33.0	37.5	38.9	39.1	41.2	42.4	91.6	52.5	53.6	73.7
Potential Exposed Perforations (ft)	82.3	16.5	43.5	61.6	11.8	15.6	12.6	7.0	14.0	19.5	20.9	14.1	19.2	20.4	71.6	27.5	35.6	35.7
Actual Exposed Perforations (ft)	20.1	0	12.3	17	10	9.4	11	7	5.8	16.3	11.6	8	16	11	24.3	18.7	20	13.4
August 2010																		
Date	8/24	8/24	8/24	8/24	8/18	8/18	8/18	8/18	8/18	8/18	8/18	8/18	8/18	8/18	8/24	8/18	8/18	8/18
Depth To Fluid (ft)	61.9	33.3	36.8	35.4	31.0	30.6	33.2	31.0	24.8	34.7	29.9	33.2	38.0	33.3	43.5	44.0	38.4	51.5
Measured Depth to Bottom (ft)	113.1	42.2	68.7	81.4	32.8	36.6	34.6	31.0	33.0	37.5	38.9	39.1	41.2	42.4	91.5	52.5	53.6	73.6
Potential Exposed Perforations (ft)	88.1	16.2	44.7	61.4	11.8	15.6	12.6	7.0	14.0	19.5	20.9	14.1	19.2	20.4	71.5	27.5	35.6	35.6
Actual Exposed Perforations (ft)	36.9	7.3	12.8	15.4	10	9.6	11.2	7	5.8	16.7	11.9	8.2	16	11.3	23.5	19	20.4	13.5
Well ID																		
	W-35	W-36	W-37	W-38	W-39	W-42R(2)	W-56R(3)	W-58R	W-59	W-60	W-68	W-69R						
Total Constructed Casing Length (ft)	64	70	79	79	81	100	88	82	108	110	79	47						
Total Constructed Perforated Pipe Length (ft)	46	35	62	57	62	75	64	58	71	79	44	21						
June 2010																		
Date	6/15	6/15	6/15	6/15	6/15	6/14	6/14	6/15	6/15	6/15	6/15	6/15						
Depth To Fluid (ft)	63.0	47.2	43.5	41.6	56.4	78.1	39.0	64.7	73.6	76.0	50.6	40.1						
Measured Depth to Bottom (ft)	63.2	68.4	68.1	57.1	71.3	78.4	82.8	82.1	100.9	90.8	59.8	45.7						
Potential Exposed Perforations (ft)	45.2	33.4	51.1	35.1	52.3	53.4	58.8	58.1	63.9	59.8	24.8	19.7						
Actual Exposed Perforations (ft)	45	12.2	26.5	19.6	37.4	53.1	15	40.7	36.6	45	15.6	14.1						
July 2010																		
Date	7/23	7/23	7/23	7/23	7/23	7/23	7/22	7/23	7/23	7/23	7/23	7/23						
Depth To Fluid (ft)	46.2	48.3	43.4	41.7	56.6	78.2	41.9	65.4	101.1	76.1	50.5	45.7						
Measured Depth to Bottom (ft)	46.2	68.4	68.3	55.7	77.7	78.2	82.6	82.3	101.1	90.8	59.7	45.7						
Potential Exposed Perforations (ft)	28.2	33.4	51.3	33.7	58.7	53.2	58.6	58.3	64.1	59.8	24.7	19.7						
Actual Exposed Perforations (ft)	28.2	13.3	26.4	19.7	37.6	53.2	17.9	41.4	64.1	45.1	15.5	19.7						
August 2010																		
Date	8/24	8/18	8/18	8/18	8/18	8/24	8/18	8/24	8/18	8/18	8/18	8/18						
Depth To Fluid (ft)	46.1	48.8	43.0	41.8	56.6	78.1	59.6	81.3	74.3	76.2	50.5	45.2						
Measured Depth to Bottom (ft)	46.1	68.4	68.3	55.6	77.6	78.2	82.8	81.6	100.9	90.7	59.7	45.7						
Potential Exposed Perforations (ft)	28.1	33.4	51.3	33.6	58.6	53.2	58.8	57.6	63.9	59.7	24.7	19.7						
Actual Exposed Perforations (ft)	28.1	13.8	26	19.8	37.6	53.1	35.6	57.3	37.3	45.2	15.5	19.2						

Notes: Wells with boxes around data indicate the placement of a pump in that well.

Based upon discussions during the Team Countywide meeting on April 28, 2010, the table was revised to reflect potential exposed perforations (feet of constructed perforations above measured depth to bottom) and actual exposed perforations (potential exposed perforations minus measured thickness of liquid).

Table 3: West Slope Piezometer Readings

Installation Information		WBPZ-1 upper		WBPZ-1 lower		WBPZ-2 upper		WBPZ-3 upper		WBPZ-3 lower	
		Piezometer I.D.	Ground Elevation	Depth to Transducer	Elevation of Transducer	Piezometer I.D.	Ground Elevation	Depth to Transducer	Elevation of Transducer	Piezometer I.D.	Ground Elevation
" Apparent" Piezometric Surface (see Note 1)		Total Head (ft)	Pore Pressure (ft H ₂ O)	Total Head (ft)	Pore Pressure (ft H ₂ O)	Total Head (ft)	Pore Pressure (ft H ₂ O)	Total Head (ft)	Pore Pressure (ft H ₂ O)	Total Head (ft)	Pore Pressure (ft H ₂ O)
	10/16/2009	1050.1	0.34	< 1022.3	-0.01	< 1050.3	-0.05	< 1086.2	-0.24	1062.7	1.50
	11/2/2009	1050.0	0.17	< 1022.3	-0.45	< 1050.3	-0.21	< 1086.2	-0.42	1061.4	0.17
	12/1/2009	1050.2	0.39	< 1022.3	-0.49	< 1050.3	-0.27	< 1086.2	-0.52	1061.3	0.08
	1/6/2010	1049.8	0.00	< 1022.3	-0.65	< 1050.3	-0.42	< 1086.2	-0.65	< 1061.2	-0.36
	2/1/2010	< 1049.8	-0.04	< 1022.3	-0.70	< 1050.3	-0.48	< 1086.2	-0.70	< 1061.2	-0.67
	3/4/2010	1049.9	0.14	< 1022.3	-0.51	< 1050.3	-0.31	< 1086.2	-0.54	< 1061.2	-0.49
	4/8/2010	1050.1	0.33	< 1022.3	-0.35	< 1050.3	-0.14	< 1086.2	-0.35	< 1061.2	-0.39
	5/6/2010	< 1049.8	-0.15	< 1022.3	-0.80	< 1050.3	-0.62	< 1086.2	-0.81	< 1061.2	-0.75
	6/2/2010	1049.9	0.07	< 1022.3	-0.54	< 1050.3	-0.35	< 1086.2	-0.63	< 1061.2	-0.60
	7/2/2010	< 1049.8	-0.05	< 1022.3	-0.77	< 1050.3	-0.57	< 1086.2	-0.73	< 1061.2	-0.67
	8/2/2010	< 1049.8	-0.04	< 1022.3	-0.75	< 1050.3	-0.57	< 1086.2	-0.71	< 1061.2	-0.65
	9/2/2010	< 1049.8	-0.04	< 1022.3	-0.75	< 1050.3	-0.57	< 1086.2	-0.72	< 1061.2	-0.67
	Trigger Elevations (see Note 2)	For F.S. < 1.5	Note 3		1048.0		1081.0		Note 3		1095.0
For F.S. < 1.2		Note 3		1102.0		1120.0		Note 3		1116.0	

Notes:

1. The piezometric surface is present at, or below, the elevation provided in ft.-MSL. The number in parentheses represents the water column pressure exerted on the transducer--a zero or negative pressure indicates non-saturated conditions causing soil suction.
2. If the apparent piezometric surface rises above this elevation, the trigger has occurred.
3. This is a redundant installation that can be used in event of failure of the corresponding lower transducer.

Table 4:South Slope Piezometer Readings

Installation Information	Vibrating Wire Piezometers									
	Boring I.D.	SS-7	SS-1	SS-7	SS-3	SS-3	SS-7	SS-1	SS-3	SS-3
Ground Elevation (at install)	1178.3	1177.8	1178.3	1174.5	1174.5	1178.3	1177.8	1174.5	1179.6	
Depth to Transducer (ft. at install)	12	18	17	25	22	22	28	17	24	
Elevation of Transducer(at install)	1166.3	1159.8	1161.3	1149.5	1152.5	1156.3	1149.8	1157.5	1155.6	
"Apparent" Piezometric Surface (see Note 1)	Pore Pressure (ft H ₂ O)									
	10/26/2009	-0.86		-0.87			-0.74	-3.24		
	10/29/2009	-0.86	-9.53	-0.87	-0.17	0.49	-0.74		3.73	0.80
	11/9/2009	-0.79	-9.46	-0.80	-0.14	0.40	-0.65		3.54	0.73
	12/1/2009	-1.16	-9.95	-1.16	-0.52	0.12	-1.01		3.28	0.35
	1/6/2010	-1.21	-9.65	-1.24	-0.13	-0.61	-1.61		3.01	-0.38
	2/1/2010	-1.00	-9.41	-1.00	-0.56	-0.29	-1.82		2.71	-0.56
	3/4/2010	-1.36	-9.71	-1.37	-0.94	-0.81	-2.04		2.08	-1.40
	4/8/2010	-1.86	-10.19	-1.86	-1.86	-1.49	-2.51		1.14	-2.47
	5/6/2010	-1.48	-9.80	-1.59	-1.64	-1.31	-2.17		0.91	-2.31
	6/2/2010	-1.66	-9.69	-1.79	-1.83	-1.51	-2.37		0.65	-2.55
	7/2/2010	-1.15	-9.24	-1.31	-1.40	-1.13	-1.90		0.89	-2.15
	8/2/2010	-1.47	-9.56	-1.68	-1.75	-1.52	-2.24		0.82	-2.52
9/2/2010	-1.54	-9.69	-1.80	-1.56	-1.63	-2.34		0.87	-2.66	

Notes:

- The piezometric surface is present at, or below, the elevation provided in ft.-MSL. The number in parentheses represents the water column pressure exerted on the transducer--a zero or negative pressure indicates non-saturated conditions causing soil suction.

Boring I.D.	Open Piezometers											
	SS-2R	SS-4	SS-6R	SS-8	SS-10	SS-11	SS-13	SS-14	SS-15	SS-17	SS-18	SS-19
	Depth to Fluid (Depth to Bottom) (ft)											
11/9/2009	21.8 (28.8)	23.9 (24.7)	24.8 (24.9)	21.4 (22.4)	23.1 (25.7)	19.4 (23.0)	22.8 (24.8)	13.5 (13.5)	15.0 (15.0)			
12/1/2009	21.5 (29.0)	23.9 (24.7)	24.0 (24.8)	21.4 (22.5)	22.9 (25.7)	18.0 (23.0)	22.9 (24.8)	13.5 (13.6)	14.9 (15.0)			
1/6/2010	21.3 (28.9)	23.9 (24.6)	24.0 (24.8)	21.5 (22.3)	22.9 (25.6)	18.0 (22.9)	22.9 (24.8)	13.5 (13.5)	15.0 (15.0)			
2/1/2010	22.8 (29.0)	24.1 (24.7)	24.1 (24.8)	21.7 (22.5)	24.0 (25.7)	20.2 (23.0)	23.1 (24.8)	13.6 (13.6)	15.0 (15.0)			
3/4/2010	22.6 (28.9)	23.9 (24.7)	24.0 (24.9)	21.7 (22.4)	23.8 (25.7)	19.8 (23.0)	23.0 (24.8)	13.5 (13.5)	15.0 (15.0)			
4/8/2010	29.0 (29.0)	24.2 (24.6)	24.7 (24.9)	22.5 (22.5)	25.7 (25.7)	23.0 (23.0)	24.9 (24.9)	13.5 (13.5)	15.1 (15.1)			
5/6/2010	23.5 (29.0)	24.4 (24.6)	24.9 (24.9)	21.9 (22.4)	24.9 (25.7)	20.9 (22.9)	23.0 (24.8)	12.3 (13.5)	15.0 (15.0)			
6/2/2010	23.9 (29.1)	24.4 (24.7)	24.9 (24.9)	22.2 (22.4)	25.0 (25.7)	20.9 (23.2)	17.0 (24.9)	11.9 (13.5)	15.0 (15.0)			
7/2/2010	24.3 (29.0)	24.4 (24.7)	24.9 (24.9)	22.2 (22.4)	25.1 (25.7)	21.1 (23.2)	23.0 (25.2)	11.9 (13.5)	15.0 (15.0)			
8/2/2010	24.6 (29.1)	24.5 (24.7)	24.9 (24.9)	22.3 (22.5)	25.3 (25.7)	21.5 (23.2)	23.0 (25.2)	11.6 (13.5)	15.0 (15.0)	Dry (24.8)	31.6 (32.0)	30.9 (30.9)
9/2/2010	24.9 (29.1)	24.5 (24.7)	24.9 (24.9)	22.3 (22.5)	25.3 (25.7)	21.9 (23.2)	23.2 (25.2)	11.6 (13.5)	15.0 (15.0)	24.8 (24.8)	Dry (32.0)	30.9 (30.9)

Attachment 3

Figures

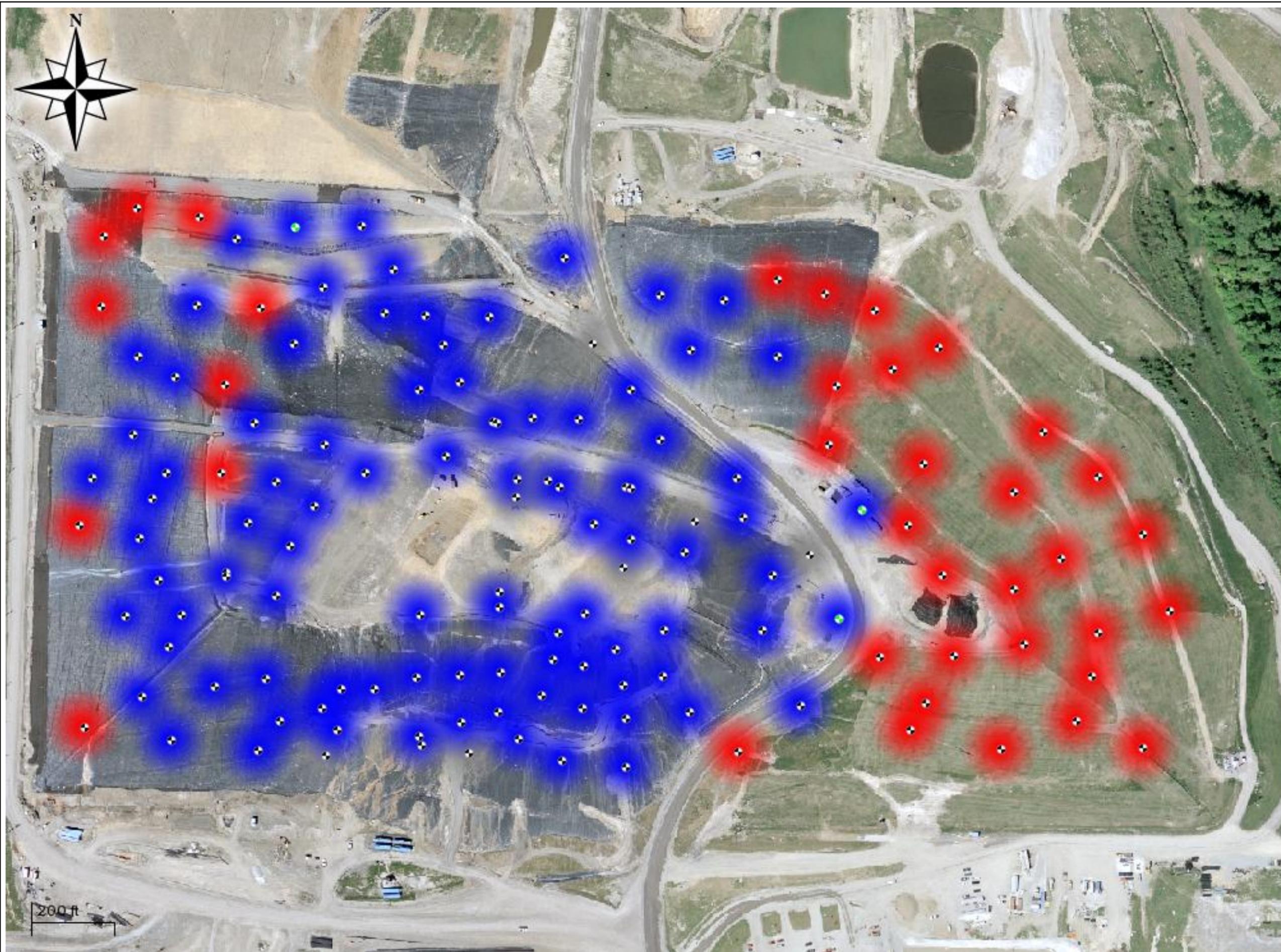


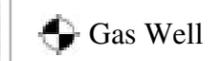
Figure 1
Average Methane to Carbon Dioxide Ratio
 Countywide Recycling and Disposal Facility
 3619 Gracemont St. S.W.
 East Sparta, Ohio

Operation, Monitoring and Maintenance (OM&M) Plan
 Monthly Report

Color Legend



Symbol Legend



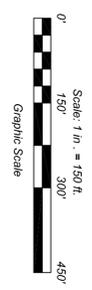
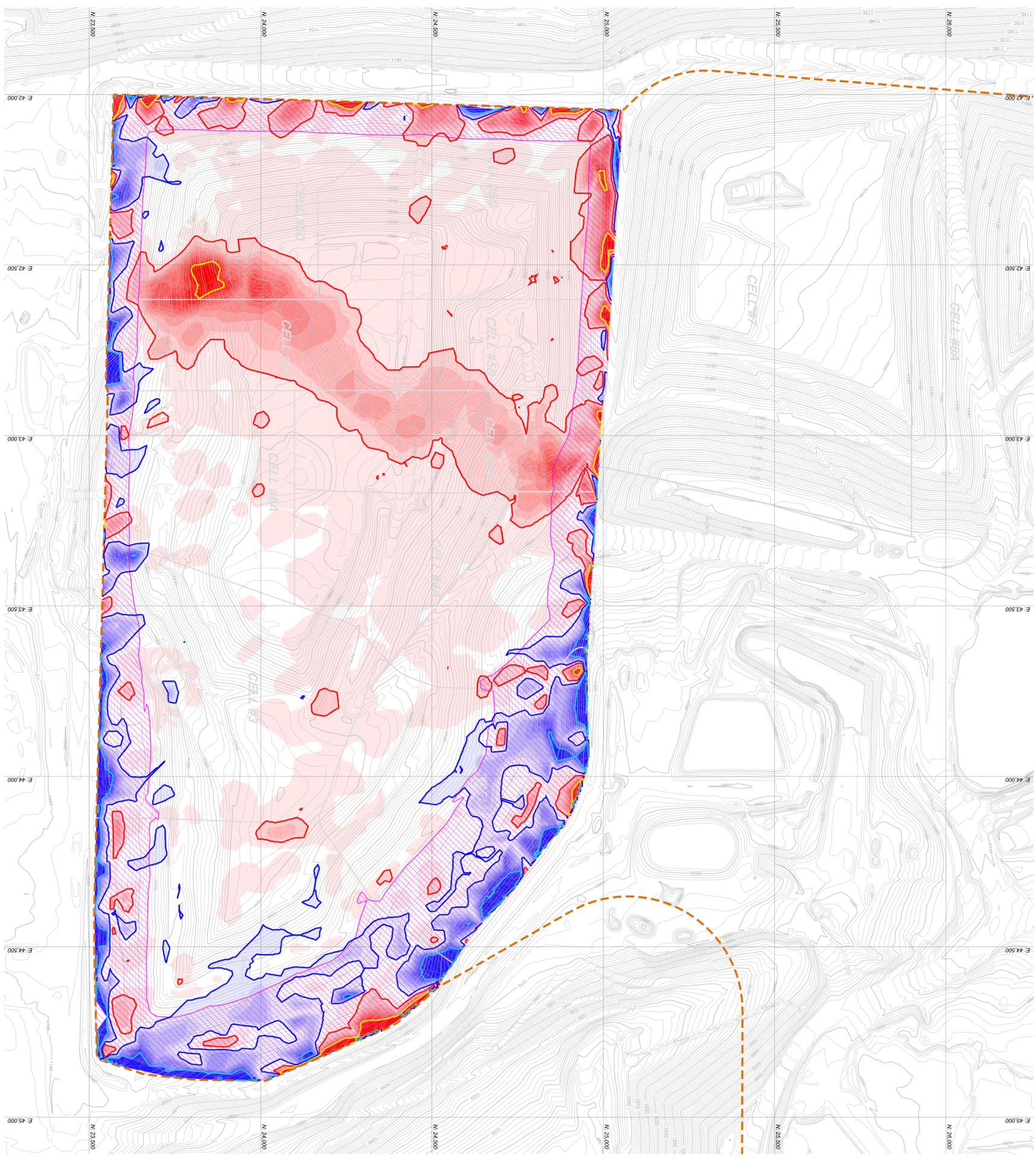
(Red symbol denotes rise in value category from previous reporting period.)
(Green symbol denotes decrease in value category from previous reporting period.)

A radius influence of 100 feet is assumed at each device.

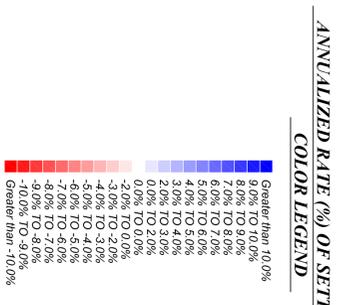
Reporting Period: August, 2010

Map Generated On: 09/09/2010





- LEGEND:**
- 1:20 — EXISTING CONTOUR (AERIAL MAPPING 4/12/10), CTR INT. = 2' (SHOWN FOR REFERENCE ONLY)
 - 2% RATE OF SETTLEMENT LIMIT
 - >10% RATE OF SETTLEMENT LIMIT
 - 2% RATE OF RISE IN ELEVATION
 - >10% RATE OF RISE IN ELEVATION
 - ≤ 80M OF WASTE DEPTH



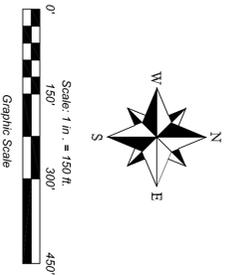
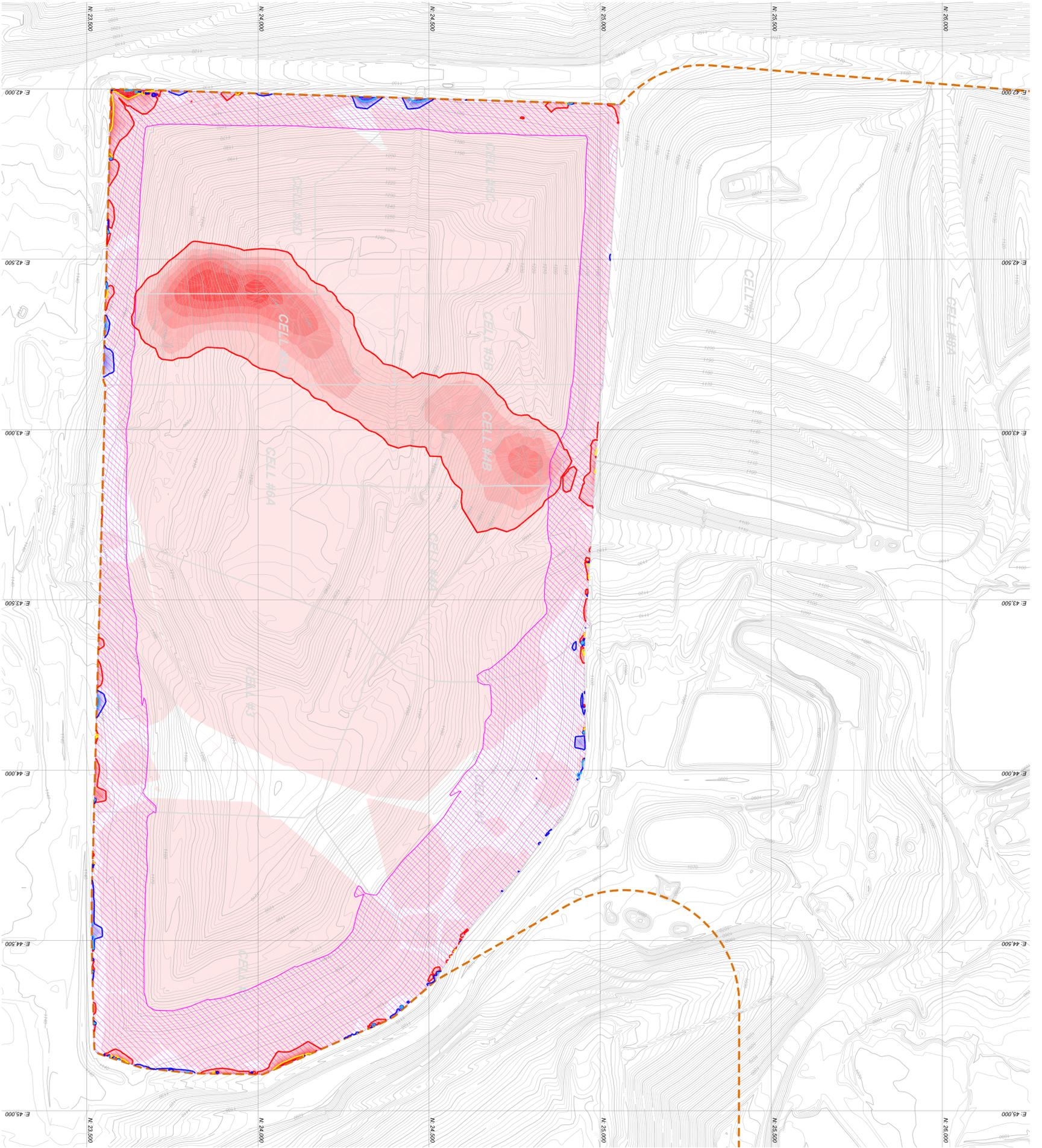
ISSUE DATE	09/02/10	SCALE	1" = 150'	CTR INT.	2'	
SURVEYED BY	MO/AG	CHECKED BY	CCV			
DRAWN BY	BWS	APPROVED BY	CRB			
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

Diversified Engineering Inc.
CONSULTING ENGINEERS & SURVEYORS
225 FAIR AVENUE, N.E.
NEW PHILADELPHIA, OH 44663
Phone: (330) 364-1631
Fax: (330) 364-4011
e-mail: ddiv@div-eng.com

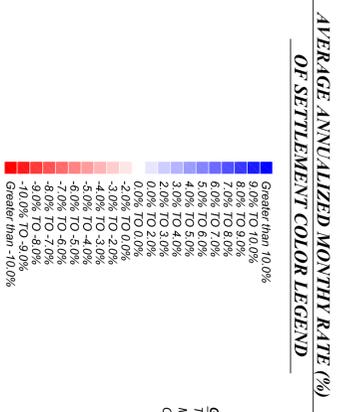
COUNTYWIDE RDF

PROJECT: **88 Ac. REMEDIATION UNIT**

SHEET TITLE: **INCREMENTAL SETTLEMENT MAP (AUGUST 2010)**



- LEGEND:**
- 1:20 — EXISTING CONTOUR (AERIAL MAPPING 4/12/10), CTR INT. = 2' (SHOWN FOR REFERENCE ONLY)
 - 2% RATE OF SETTLEMENT LIMIT
 - >10% RATE OF SETTLEMENT LIMIT
 - >10% RATE OF RISE IN ELEVATION
 - >10% RATE OF RISE IN ELEVATION
 - ≤ 60M OF WASTE DEPTH



GENERAL NOTE:
THIS MAP REPRESENTS THE AVERAGE ANNUALIZED MONTHLY SETTLEMENT FOR THE TIME PERIOD FROM OCTOBER 2009 THRU AUGUST 2010.

ISSUE DATE	09/02/10	SCALE	1" = 150'	CTR INT.	2'	
SURVEYED BY	MO/AG	CHECKED BY	CCV			
DRAWN BY	BWS	APPROVED BY	CRB			
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

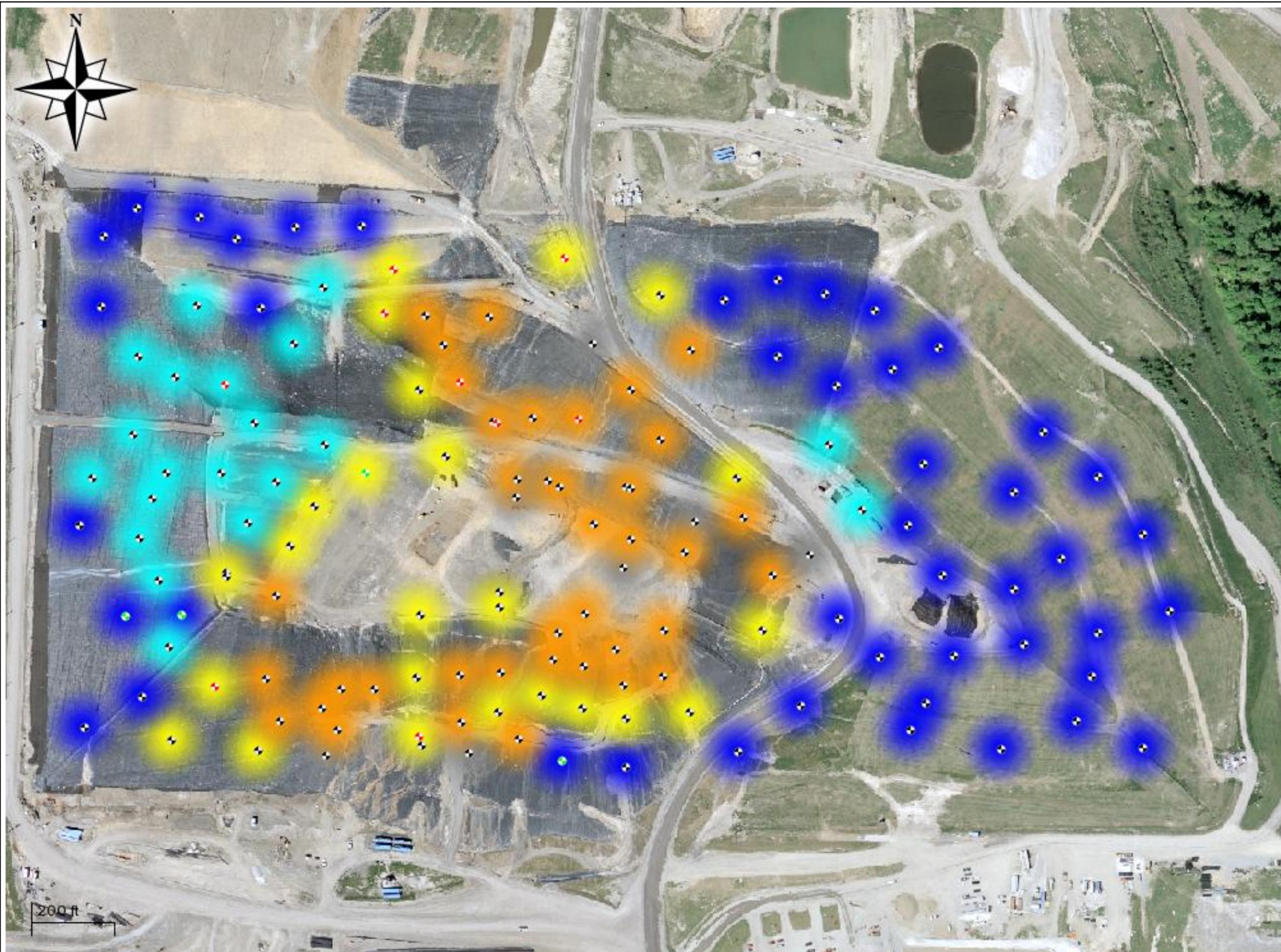


Figure 3
Average Wellhead Temperature
 Countywide Recycling and Disposal Facility
 3619 Gracemont St. S.W.
 East Sparta, Ohio

Operation, Monitoring and Maintenance (OM&M) Plan
 Monthly Report

Color Legend (deg F)

- < 131
- 131 < 150
- 150 < 180
- 180 < 210
- > 210

Symbol Legend

- Gas Well
- (Red symbol denotes rise in value category from previous reporting period.)*
- (Green symbol denotes decrease in value category from previous reporting period.)*

A radius influence of 100 feet is assumed at each device.

Reporting Period: August, 2010

Map Generated On: 09/09/2010



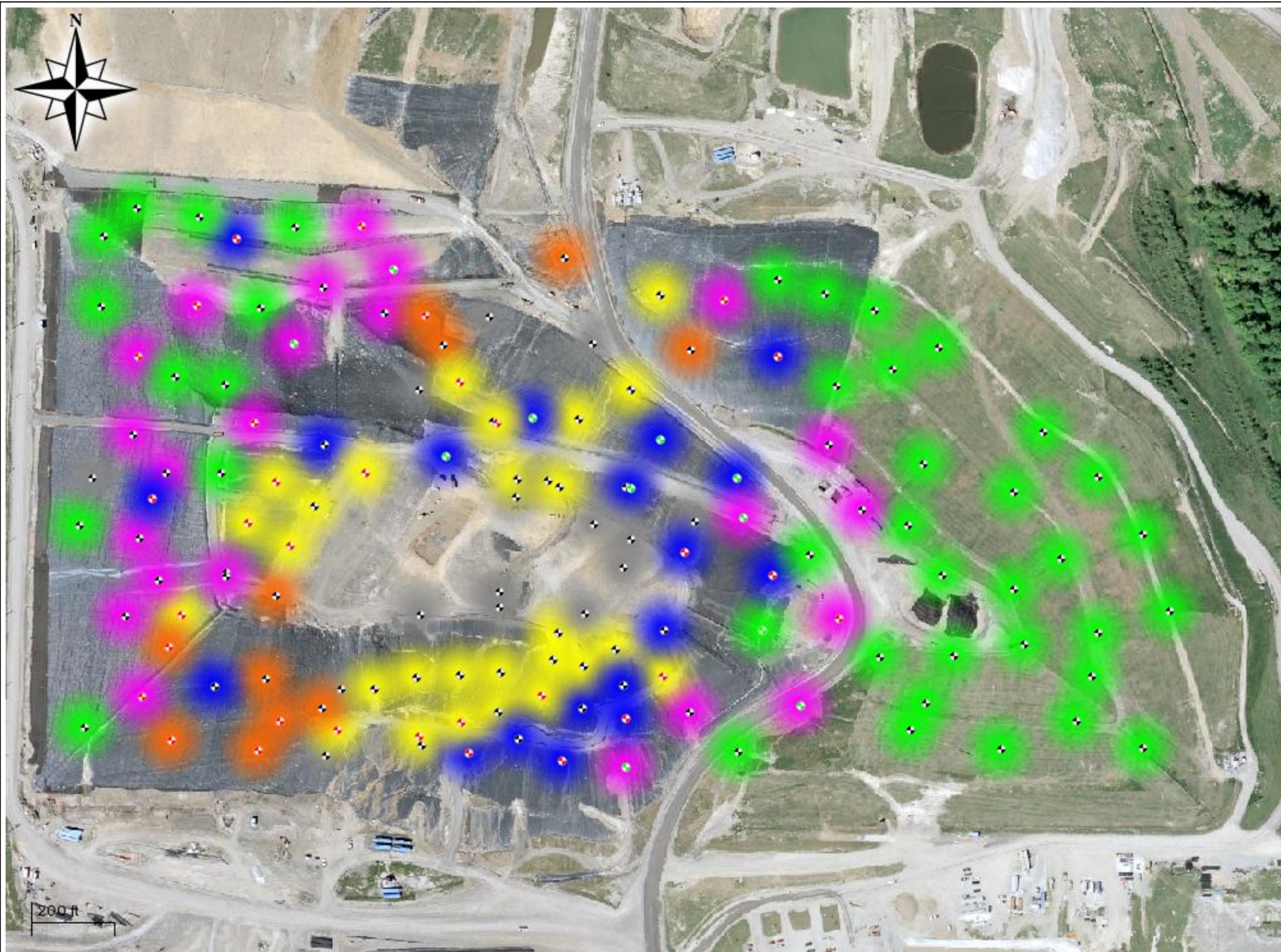


Figure 4
Carbon Monoxide
Distribution
 Countywide Recycling
 and Disposal Facility
 3619 Gracemont St. S.W.
 East Sparta, Ohio

Operation, Monitoring and Maintenance (OM&M) Plan
 Monthly Report

Color Legend (ppm)

- < 100
- 100 < 500
- 500 < 1000
- 1000 < 2000
- > 2000

Symbol Legend

- + Gas Well
- (Red symbol denotes rise in value category from previous reporting period.)*
- (Green symbol denotes decrease in value category from previous reporting period.)*

A radius influence of 100 feet is assumed at each device.

Reporting Period: August, 2010

Map Generated On: 09/12/2010



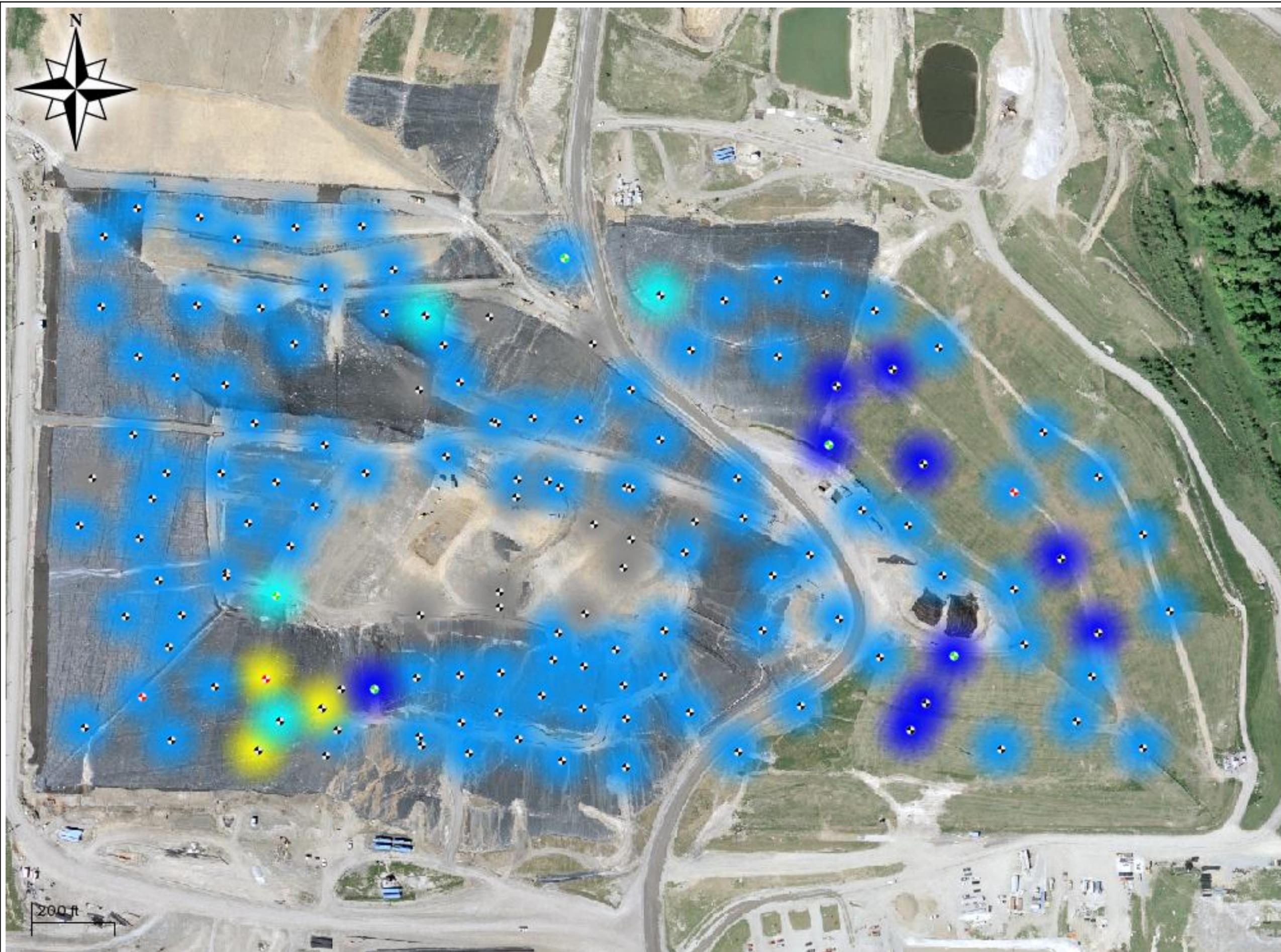


Figure 5
"Deadhead" Gas Well
Pressure Distribution
 Countywide Recycling
 and Disposal Facility
 3619 Gracemont St. S.W.
 East Sparta, Ohio

Operation, Monitoring and Maintenance (OM&M) Plan
 Monthly Report

Color Legend (inches H2O)

- < 0
- 0 < 50
- 50 < 100
- 100 < 150
- 150 < 200
- > 200

Symbol Legend

- Gas Well
- (Red symbol denotes rise in value category from previous reporting period.)*
- (Green symbol denotes decrease in value category from previous reporting period.)*

A radius influence of 100 feet is assumed at each device.

Reporting Period: Q3, 2010
 Map Generated On: 09/12/2010



200 ft



Figure 6. Aerial Photograph

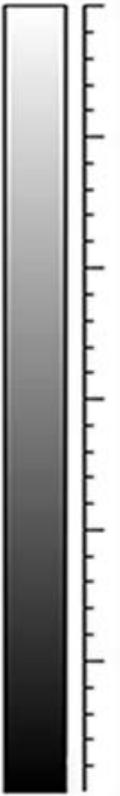
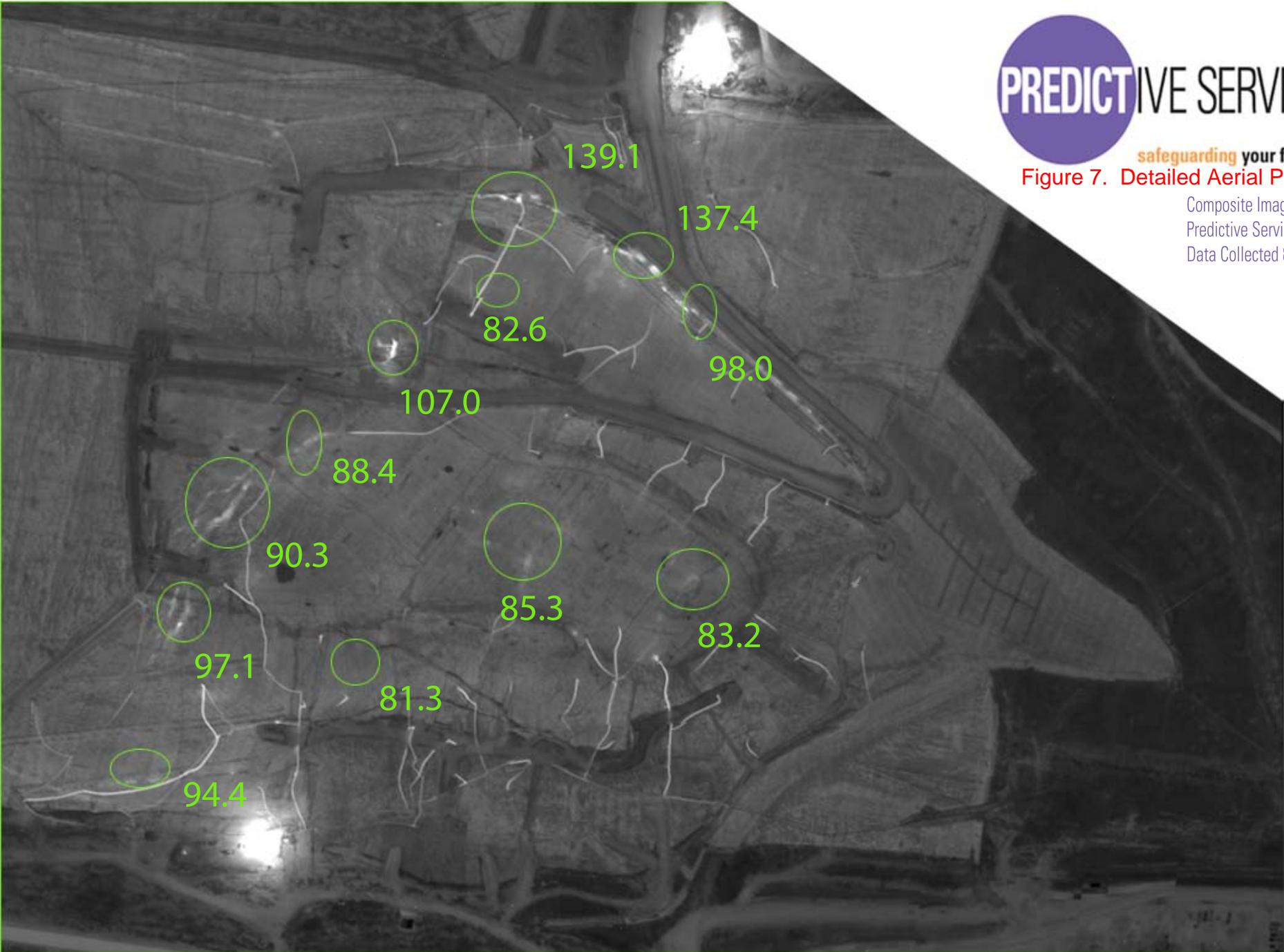
Composite Image by
Predictive Service LLC, 216.378.3500
Data Collected 8/10/2010





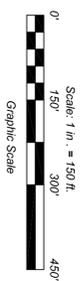
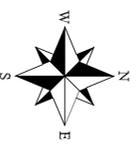
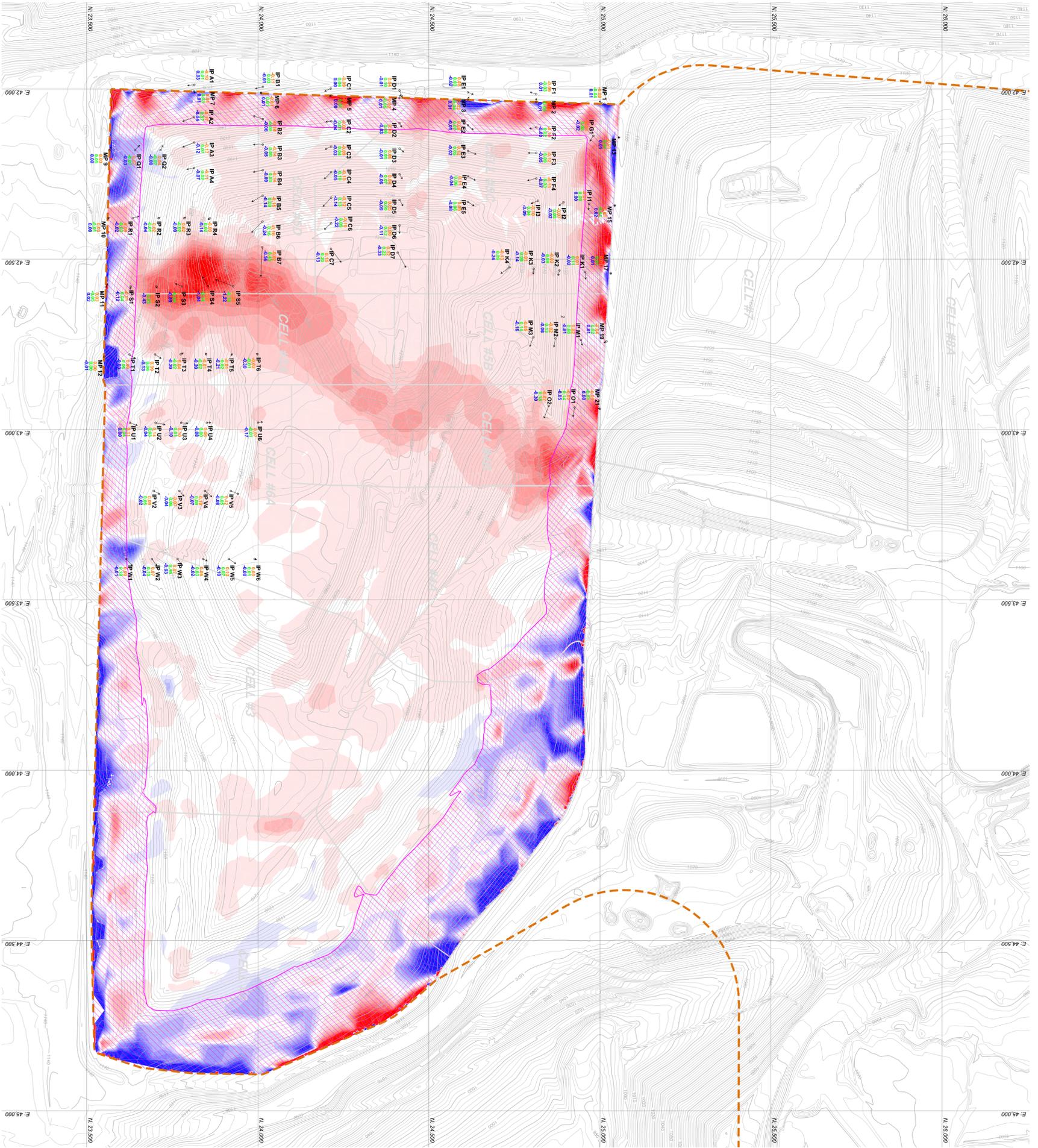
Figure 7. Detailed Aerial Photograph

Composite Image by
Predictive Service LLC, 216.378.3500
Data Collected 8/10/2010



Attachment 4

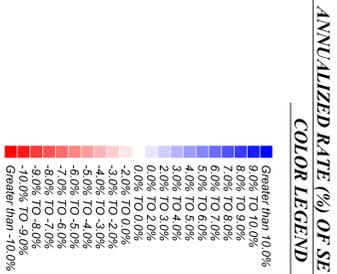
Pin Movement Evaluation



LEGEND:

— 1:20 — EXISTING CONTOUR (AERIAL MAPPING 4/12/10), CTR INT. = 2'
 (SHOWN FOR REFERENCE ONLY)

▨ ≤ 60ft OF WASTE DEPTH



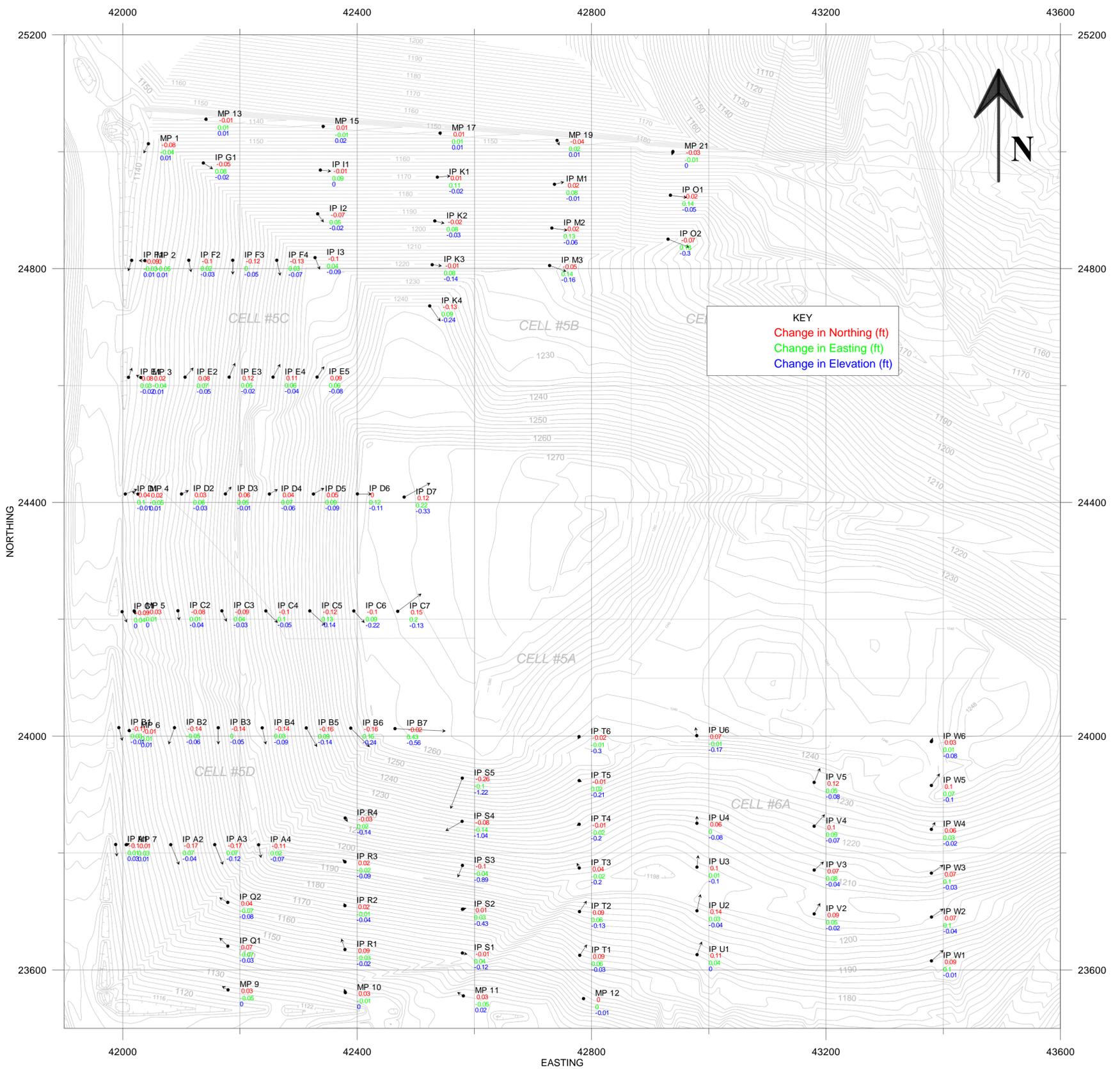
VECTOR LABELING CONVENTION:

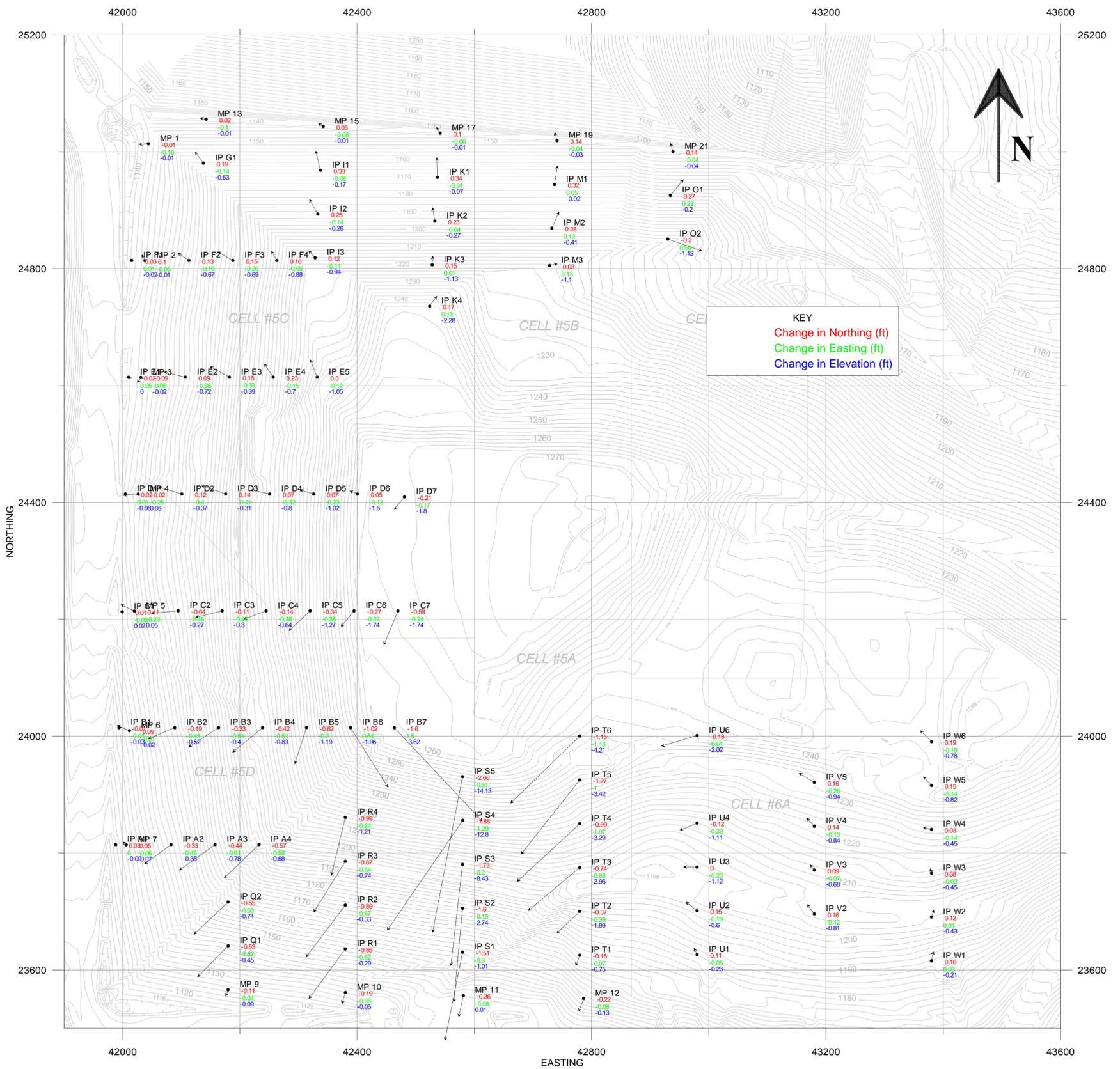


GENERAL NOTES:

- 1) SLOPE PIN MOVEMENT VECTORS WERE PROVIDED BY P.J. CAREY & ASSOCIATES, P.C.
- 2) VECTORS DEMONSTRATE THE HORIZONTAL MOVEMENT BETWEEN THE DATES OF 7/27/10 & 8/30/10.

ISSUE DATE	09/07/10	SCALE	1" = 150'	CTR INT.	2'	
SURVEYED BY	MD/AG	CHECKED BY	CCV			
DRAWN BY	BWS	APPROVED BY	CRB			
REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY





NOTE:

1. TOPOGRAPHY PROVIDED BY DIVERSIFIED ENGINEERING INC AS PART OF THE "88 REMEDIATION UNIT SLOPE PINS AND MONITORING PLATES LOCATION" PROJECT, DRAWING DATED 7/21/2009.
2. HORIZONTAL MOVEMENT VECTORS ARE PLOTTED TO A 1 INCH = 1 FOOT SCALE. 
3. * ON MAY 10, 2010, OHIO EPA APPROVED AN INCREASE THE BASELINE ELEVATION OF IRON PIN F1 FROM THE ORIGINAL ELEVATION OF 1141.06', ESTABLISHED ON OCTOBER 6, 2009, TO 1141.15' DUE TO THE EFFECTS OF FROST HEAVE.
4. VERTICAL MOVEMENT TRIGGERS WERE NOT EXCEEDED DURING MONITORING PERIOD.