FINAL GROUNDWATER SAMPLING REPORT (March 2010 Sampling Event)

Site: Liberty Industrial Finishing Site, Site # 1-52-108
Brentwood, Suffolk County, NY
Multi Site G
Operation, Maintenance & Monitoring
Work Assignment D004445-14.3

Submitted to:
New York State Department of Environmental Conservation
625 Broadway,
Albany, New York 12233

Prepared for:
New York State Department of Environmental Conservation
625 Broadway,
Albany, New York 12233

Prepared by:
AECOM Technical Services Northeast, Inc.
300 Broadacres Drive,
Bloomfield, New Jersey 07003

January 2011

AECOM Project No. 60135736.50

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Author: _____

Title: _____

Date: _____

Reviewer: _____

Title: _____

Date: _____

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1.0 INTRODUCTION

Past releases from the Liberty Industrial Finishing Site in Brentwood, New York (Site No. 1-52-108) resulted in the contamination of soil and groundwater at the Site and surrounding areas. AECOM Technical Services Northeast, Inc. (AECOM [formerly Earth Tech Northeast, Inc]) has been tasked with collecting three rounds of five-quarterly samples from selected monitoring wells as part of a long-term monitoring plan. AECOM is performing this work under the New York State Department of Environmental Conservation (NYSDEC) Superfund Standby Contract Work Assignment D004445-14.3. Four rounds of groundwater sampling have been conducted to date under this work assignment.

- The first round (Round 1) of sampling was conducted in June 2006.
- The second round (Round 2) of sampling was conducted in August 2007.
- The third round of sampling (Round 3) was conducted in November 2008.
- The fourth round (Round 4) of sampling conducted in March 2010.

This report focuses on the most recent (Round 4) sampling event at the site, but also includes the data from the earlier rounds.

2.0 SITE DESCRIPTION

The Liberty Industrial Finishing Superfund site is located at 550 Suffolk Avenue, Brentwood, Suffolk County, New York (see Figure 1). The Site is bounded to the north by Suffolk Avenue, by the Long Island Railroad to the south, undeveloped land to the east and a gasoline station the west on Suffolk Avenue. Eight monitoring wells are included in the long-term monitoring program at the Site.

3.0 FIELD ACTIVITIES

The monitoring well survey information could not be located at the start of this project. As a part of this long-term monitoring program, each of the eight wells included in the sampling program were re-surveyed by YEC, Inc., a licensed New York State surveyor on March 21, 2007. A summary of well construction data is presented on Table 1.

The fourth round of groundwater sampling at the Liberty Industrial Finishing Site occurred on March 9 and 10, 2010. Sampling was conducted in accordance with the Sampling and Analysis Plan (SAP) prepared by AECOM, dated June 2007. The SAP is comprised of the Field Sampling Plan (FSP), the Quality Assurance Project Plan (QAPP) and the Safe Work Plan (SWP). All field work was performed in Level D personal protection.

3.1 Water Level Survey

Prior to the start of sampling, water levels were measured in each well to provide a synoptic event. Water level measurements were recorded in the Field Notebook and on the Well Sampling Forms included in Appendix A. A summary of groundwater elevation measurements is provided in Table 2. Each location was photo-documented and a hand-held global positioning system (GPS) unit was used to record the coordinates. The groundwater elevation data are shown on Figure 3. As shown on the figure, the water

table elevations are very similar across the entire study area with less than 1.0 ft of change from the highest recorded elevation to the lowest. The total depth of each of the eight wells also varies significantly from 49.3 to 265 ft. It appears that groundwater is flowing to the southeast. This is consistent with previous investigations performed by other consultants, which also determined that the general direction of groundwater flow at the Site was to the southeast.

3.2 Groundwater Sampling

Eight monitoring wells were identified for long term monitoring at the Site. The selected wells included MW-5, MW-6, MW-12, MW-14, MW-18, MW-19, MW-20, and MW-21. Well locations are shown on Figure 2. NYSDEC Monitoring Well Field Inspection Forms were completed for each well and are included in Appendix B.

AECOM used a Grundfos Redi-Flo2 submersible electric pump with polyethylene tubing to purge each monitoring well prior to sampling. Monitoring wells were purged of at least three casing volumes of water prior to sampling. Measurements of pH, specific conductance, temperature, dissolved oxygen, oxygen reduction potential, and turbidity were recorded on the Well Sampling Forms periodically during purging. Well sampling forms are included in Appendix A. Once the minimum volume of water had been evacuated, a dedicated Teflon bailer was used to collect a groundwater sample. The sample was transferred into laboratory supplied containers and stored in an ice-filled cooler. The samples were then transported to Mitkem Laboratory via UPS for overnight delivery. Proper chain-of-custody procedures and requirements were maintained throughout the sampling event in accordance with the QAPP.

4.0 SAMPLING RESULTS

The samples from monitoring wells MW-5, MW-6, MW-12, MW-14, MW-18, MW-19, MW-20, and MW-21 were labeled with the L- prefix to denote they were collected from the Liberty site. Groundwater samples were analyzed for target analyte list (TAL) metals using USEPA Method 6010/7470. The analyses were performed by Mitkem Laboratory of Warwick, Rhode Island, a NYSDOH ELAP certified laboratory (ELAP certification number 11522). The Mitkem data summary packages are included in Appendix C. A table showing the full data set is also included in Appendix C. A summary of the detections is presented in Table 3. The exceedances are also shown on Figure 4. The data are discussed in Section 4.1, below.

In accordance with project plans, formal data validation was not performed. However, An AECOM chemist provided a limited review of the data packages. The review of the Round 4 data is presented in Section 4.2.

4.1 Metals Data

Nine metals were detected above the Class GA criterion in monitoring wells at the Site at least once during the four sampling events. These metals include antimony, cadmium, chromium, copper, iron, manganese, lead, sodium and thallium.

Antimony was detected in six of eight monitoring wells during the June 2006 sampling event; of these, two samples exceeded the Class GA criterion of 3 µg/L (maximum concentration of 3.7 µg/L in MW-5). During the August 2007 sampling event, antimony was detected in five of eight samples, of which all five exceeded the criterion (maximum concentration of 11.2 µg/L in MW-12). During the November 2008 sampling event, antimony was detected in only one sample, MW-18, at a concentration of 9 µg/L, which exceeded the criterion. In Round 4, antimony was detected in three samples (MW-12, MW-18, and MW-20), all of which exceeded the criterion (maximum concentration 13.9 µg/L in MW-12).

During the June 2006 sampling event, cadmium was detected in six of eight samples but none of the concentrations exceeded the Class GA criterion of 5 µg/L. During the August 2007 sampling event, cadmium was detected in all eight samples, three of which exceeded the criterion (maximum concentration of 12.6 µg/L). During the November 2008 sampling event, cadmium was detected in six of eight samples, two of which (MW-12 and MW-14) exceeded the criterion (maximum concentration of 59.1 µg/L). Cadmium was detected in four samples in March 2010, at concentrations ranging from 0.62 to 205 µg/L. The detected concentrations at MW-12 (205 µg/L) and MW-14 (26 µg/L) exceed the Class GA criterion.

Chromium was detected in all eight samples during the June 2006 sampling event, one of which exceeded the Class GA criterion of 50 µg/L (95.8 µg/L at MW-14). During the August 2007 sampling event, chromium was again detected in all eight samples, one of which exceeded the criterion (248 µg/L at MW-14). During the November 2008 sampling event, chromium was detected in six of eight samples, one of which exceeded the criterion (69.6 µg/L at MW-14).

The detected concentrations of copper did not exceed the Class GA criterion of 200 µg/L in any sample from the first three rounds of sampling. In the March 2010 sampling event, the concentration in MW-14 (377 µg/L) exceeded the criterion.

Iron was detected in all eight samples during the June 2006 and August 2007 sampling events. Three samples exceeded the criterion of 300 µg/L during the June 2006 sampling event (maximum concentration of 1,710 µg/L at MW-20). During the August 2007 sampling event, six samples exceeded the criterion (maximum concentration of 10,900 µg/L at MW-12). During the November 2008 sampling event, iron was detected in six of eight samples, three of which exceeded the criterion (maximum concentration of 9,320 µg/L at MW-14). Iron was detected in all eight samples in March 2010 and the concentrations exceeded the criterion in five samples: MW-12, MW-14, MW-18, MW-20 and MW-21. The highest concentration was noted in MW-12 (38,100 µg/L).

Manganese was detected in all eight samples during all four sampling events. There were no exceedances of the 300 µg/L criterion during the June 2006 sampling event. There was one exceedance of the criterion during the August 2007 sampling event, 547 µg/L at MW-18. There was one exceedance during the November 2008 sampling event, 627 µg/L at MW-21. There was one slight exceedance in the March 2010 event, 312 µg/L at MW-18.

Lead was detected in four of eight samples during the June 2006 sampling event but none exceeded the criterion of 25 µg/L. Lead was detected in all eight August 2007 samples, one of which exceeded the criterion, 106 µg/L at MW-12. Lead was detected in four of eight samples during the November 2008

sampling event, of which two exceeded the criterion (maximum concentration of 221 µg/L at MW-14). Lead was detected in five of the eight samples in March 2010; the concentrations in MW-12 (553 µg/L) and MW-14 (76.5 µg/L) exceed the criterion.

Sodium was detected in all eight samples during all four sampling events. During the June 2006 sampling event, four samples exceeded the criterion of 20,000 µg/L (maximum concentration of 31,900 µg/L at MW-14). Four samples exceeded the criterion during the August 2007 sampling event (maximum concentration of 31,100 µg/L at MW-20). During the November 2008 sampling event, four samples exceeded the criterion (maximum concentration of 561,000 µg/L at MW-14). In the March 2010 sampling event, five sample concentrations exceeded the criterion, with a maximum of 39,600 µg/L in MW-20.

Thallium was not detected in any of the eight samples collected during the June 2006 sampling event. Thallium was detected in two samples during the August 2007 sampling event, both of which exceeded the criterion of 0.5 µg/L (maximum concentration of 3.4 µg/L). Thallium was not detected in any of the eight samples collected during the November 2008 or in the March 2010 sampling event.

4.2 Round 4 (February 2010) Data Quality Review

In accordance with the project plans, data generated for this investigation were not subject to formal validation. However, AECOM's quality assurance officer (QAO) reviewed the data for reasonableness and the presence of any anomalies, including issues identified by the laboratory in the case narrative, and other items noted in review of shipping and handling documentation, inconsistencies with previous data, and review of the laboratory QA forms. The QAO also reviewed the field duplicate data.

One site-specific field duplicate pair (LMW-5/LMW-55) was collected from the Liberty site in Round 4. Precision for the field duplicate was good, with relative percent difference (RPD) ranging from 0.7 to 22 percent, with a median of less than 6 percent, for the 12 detected metals.

One laboratory duplicate was analyzed on a Liberty site sample; precision (RPDs) were within QC limits for all metals. One laboratory spike was analyzed on a Liberty site sample; recovery was acceptable for all metals except iron. The spike recovery was slightly low (73 percent; acceptable limits 75 to 125 percent); this is not considered to significantly affect data quality, especially since the sample concentration was three times higher than the spike added.

5.0 SUMMARY AND RECOMMENDATIONS FOR FUTURE SITE REMEDIATION ACTIVITIES

5.1 Summary of Groundwater Sampling Data

Based on a review of the data from the four sampling events, concentrations of antimony, cadmium, chromium, copper, iron, lead, manganese, sodium, selenium and thallium were detected at concentrations above their Class GA criteria.

Iron, manganese and sodium are naturally occurring metals in groundwater on Long Island. The exceedances of these metals found in MW-12, MW-14, MW-18, MW-20, and MW-21 most likely represent background conditions and are not related to previous site activities. The sodium concentration from Round 3 at MW-14 (561,000 µg/L) appears to be anomalously high, as the other three sodium values ranged from 25,400 µg/L to 31,900 µg/L. The sodium concentrations in other wells sampled during the four sampling events ranged from 4,460 µg/L to 39,600 µg/L with the second highest sodium concentration noted at MW-20 during Round 4 (39,600 µg/L).

Antimony was detected in all eight wells at least once during the four sampling events at concentrations ranging from 1.5 µg/L to 13.9 µg/L (Class GA criterion of 3 µg/L). However, the exceedances have been sporadic and inconsistent between sampling rounds. The criterion was never exceeded more than twice in any of the eight monitoring wells. Monitoring wells in which the criterion was exceeded twice include MW-6, MW-12, MW-18 and MW-20. Antimony does not appear to be a concern at the Site.

Cadmium was detected in the majority of the samples collected during the four sampling events (26 out of 32 samples). However, there were only three exceedances in Round 2, two exceedances in Round 3, and two exceedances in Round 4. There does not appear to be any trends in cadmium concentrations with the exception of MW-12, which had exceedances in three of four rounds.

Chromium has been detected in the majority of samples (30 of 32 samples). However there were only five exceedances (Class GA criterion of 50 µg/L) during the four sampling rounds, four of which were in MW-14 with concentrations ranging from 68.6 µg/L to 248 µg/L. An anomalously high concentration (251 µg/L during Round 4) was noted at MW-12 which is adjacent to MW-14 but is screened approximately 50 ft higher in the aquifer; the other three chromium values ranged from 2.5 µg/L to 8.9 µg/L. MW-21 is located downgradient of MW-14 and is screened at a similar depth; however, chromium concentrations have been significantly below the criterion during all four sampling events. Chromium exceedances appear to be an isolated occurrence at MW-14.

Copper was detected in the majority of samples collected during the four sampling events (23 of 32 samples). However, only one sample at MW-12 during Round 4 exceeded the 200 µg/L criterion at a concentration of 377 µg/L. Copper does not appear to be a contaminant of concern at the site.

Lead was detected in 21 of 32 samples collected at the Site during the four sampling events. However, there have only been five exceedances of the 25 µg/L criterion. Three of which have occurred at MW-12 with concentrations: 106 µg/L during Round 2, 83.7 µg/L during Round 3, and 553 µg/L in Round 4. Lead concentrations also exceeded the criterion at MW-14 during the previous two sampling events (221 µg/L and 76.5 µg/L).

Selenium was detected in seven of 32 samples collected at the Site during the four sampling events. MW-12 was the only monitoring well where selenium was detected twice (Rounds 1 and 4) and the only monitoring well where the concentration, 13.4 µg/L, exceeded the 10 µg/L criterion. As this appears to be an isolated occurrence, selenium is not considered to be a contaminant of concern at the Site.

Thallium was only detected twice during the four sampling events. Both occurrences were above the criterion. There does not appear to be any trend in thallium concentrations at the Site.

5.2 Recommendations for Future Work

Exceedances of antimony are inconsistent among sampling events as noted in Section 4.1. No well has exceeded the Class GA criterion during all four sampling events. Due to the inconsistencies in concentrations between events, it does not appear that antimony is a concern at the Site. AECOM recommends continued sampling to verify the concentrations.

Cadmium was detected above the Class GA criterion of 5 µg/L in three monitoring wells during the August 2007 sampling event, two wells during the November 2008 sampling event, and three wells during the March 2010 event. Only one well, MW-12, has had three exceedances during the four sampling events. AECOM recommends continued sampling to verify the concentrations.

Chromium exceeded the Class GA criterion of 50 µg/L in one monitoring well, MW-14, during all four sampling events (68.6 µg/L to 248 µg/L). Chromium concentrations in the adjacent monitoring well MW-12 (screened approximately 50 ft higher in the aquifer) were below the Class GA criterion during the first three sampling events but was anomalously high during Round 4 (251 µg/L). As the chromium concentrations appear to be an isolated occurrence at MW-14, AECOM recommends continued sampling to determine if the contamination is migrating downgradient (MW-21) or to the deeper portions of the aquifer (MW-20).

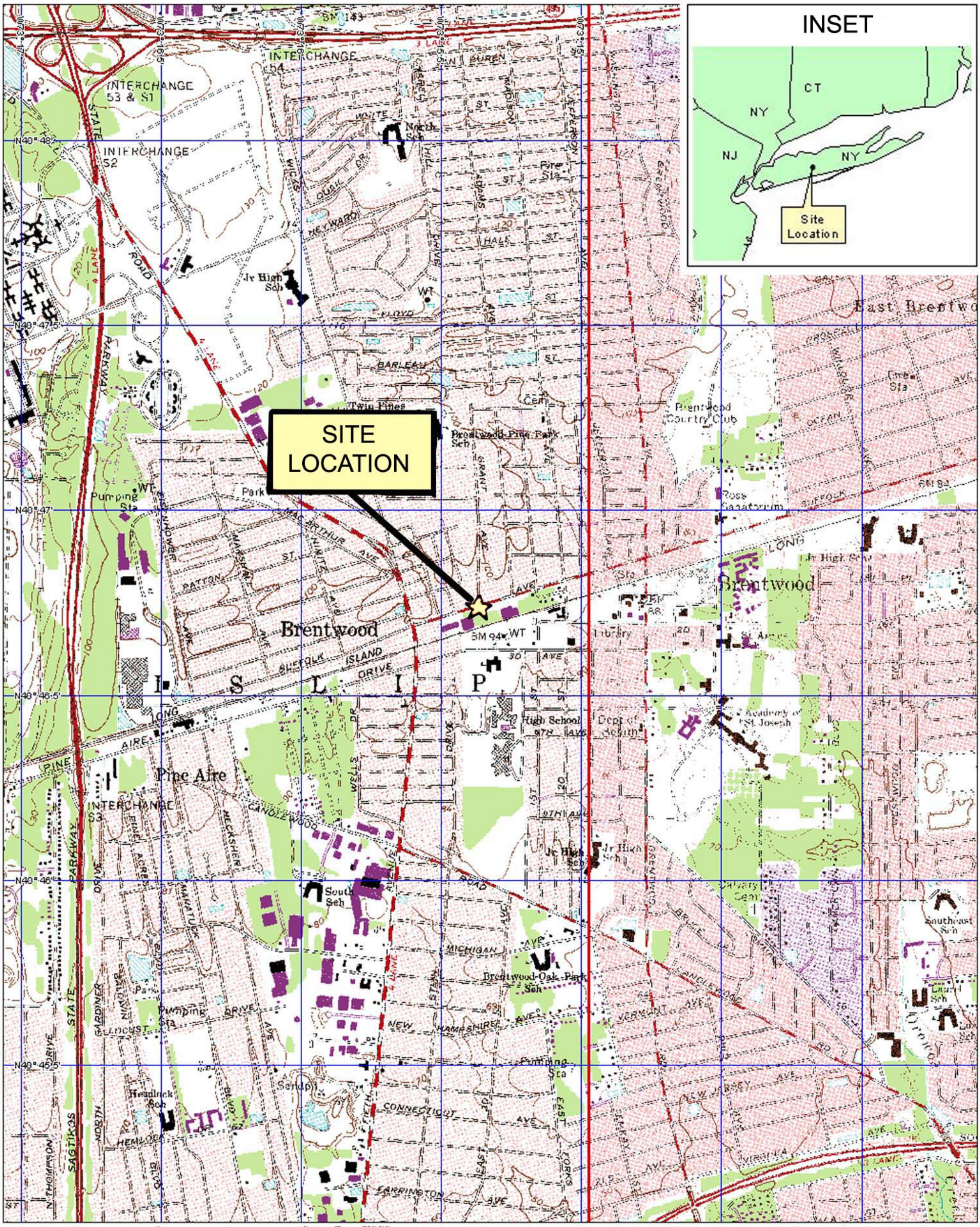
Lead exceeded the Class GA criterion of 25 µg/L during the August 2007, November 2008, and March 2010 sampling events at monitoring well MW-12; however, the concentration from the June 2006 sampling event was significantly below the criterion. As this appears to be an isolated occurrence, AECOM recommends continued sampling to verify the concentrations.

Thallium was detected in two monitoring wells, MW-14 and MW-19 above the Class GA criterion of 0.5 µg/L during the August 2007 sampling event only. Thallium has not been detected in any sample in the two most recent sampling events (November 2008 and March 2010). AECOM recommends continued sampling to verify the concentrations.

AECOM recommends the collection of both filtered and unfiltered samples during the next sampling event. Filtered metals analysis will us to determine if the presence of antimony, cadmium, chromium, lead, selenium and thallium is in the dissolved phase or is a result of suspended sediment in the samples.

The next scheduled sampling event at the Liberty Site is May 2011.

FIGURES



Scale 1:25,000

750 FT

N

Figure 1 - Site Location

SOURCE:
Delorme 3-D TopoQuads
Greenlawn, NY
New York
7.5 Minute Series, 1979

LIBERTY INDUSTRIAL FINISHING
SITE #1-52-108
MULTI SITE G
500 SUFFOLK AVE
BRENTWOOD, NY

EARTH TECH

SUFFOLK AVENUE

LIBERTY INDUSTRIAL FINISHING

WOODED LOT

FENCE

SITE

QUINN PLACE

SECOND STREET

LEACHING POOL
(ABANDONED IN PLACE)

UNDERGROUND PLATING WASTE TANKS
(ABANDONED IN PLACE)

CONCRETE PAD
(DEMOLISHED BUILDING)

LONG ISLAND RAILROAD TRACKS

MW-5

MW-6

SECOND AVE

RECREATIONAL
FIELD

MW-19

MW-18

BASEBALL
FIELD

WATER
TOWER

FIRST STREET

MW-12

MW-14

MW-20

MW-21

THIRD AVENUE

N

MW-20 Well Utilized For Long Term Monitoring

Well Not Utilized For Long Term Monitoring

GRAPHIC SCALE

0 50 100 150

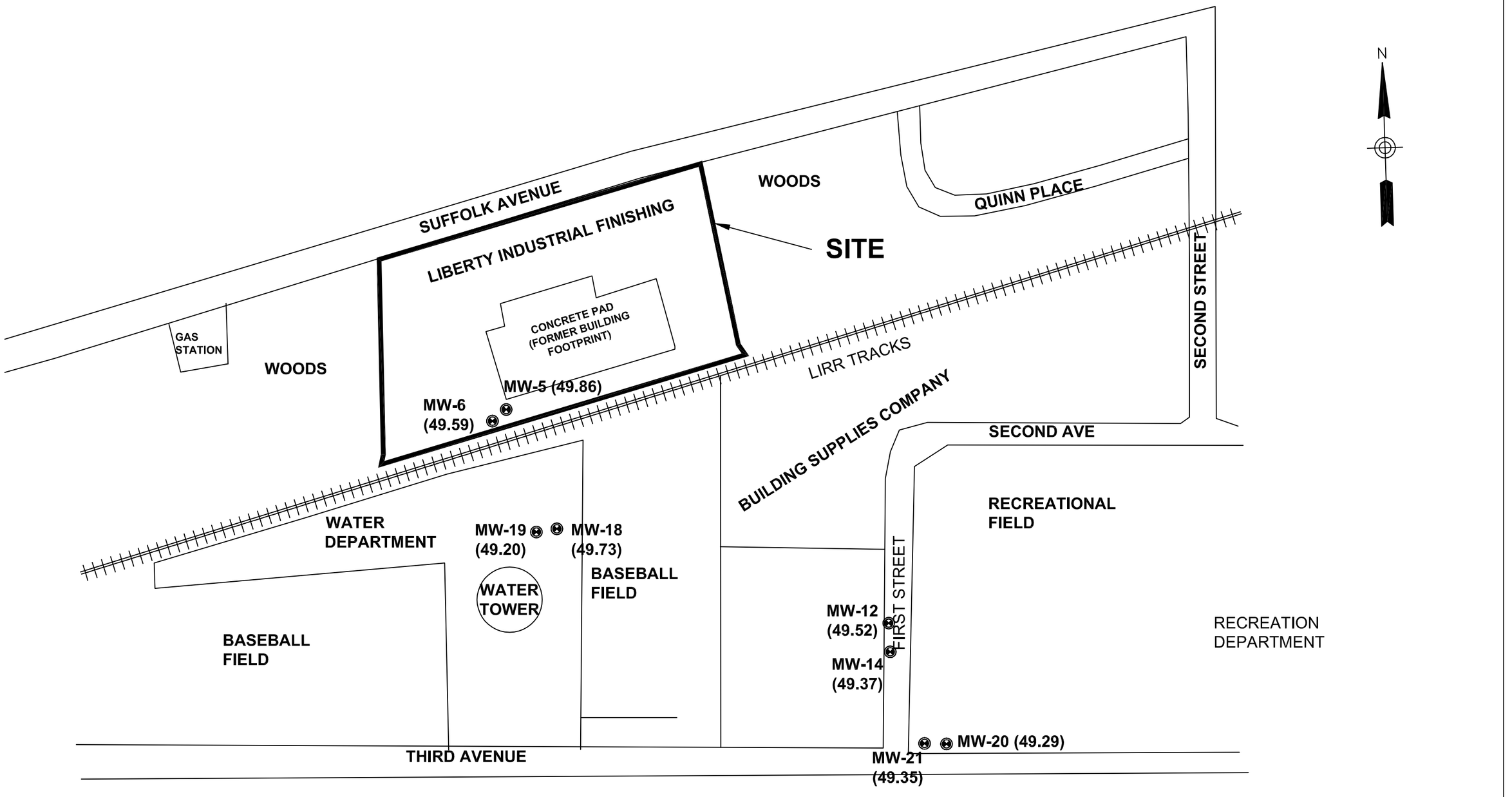
AECOM

MULTI SITE G - LIBERTY INDUSTRIAL SITE
SITE NO. 1-52-077

SITE FEATURES

NYSDEC
625 Broadway, Albany NY, 12233

FILE NAME:	DRN	PROJECT NO.	DATE	FIGURE NO.
liberty Fig 2.dwg		95900	03/09/2009	2



LEGEND:

MW-19 — EXISTING MONITORING WELLS

(49.20) — GROUNDWATER ELEVATIONS IN FEET ABOVE MEAN SEA LEVEL

GRAPHIC SCALE

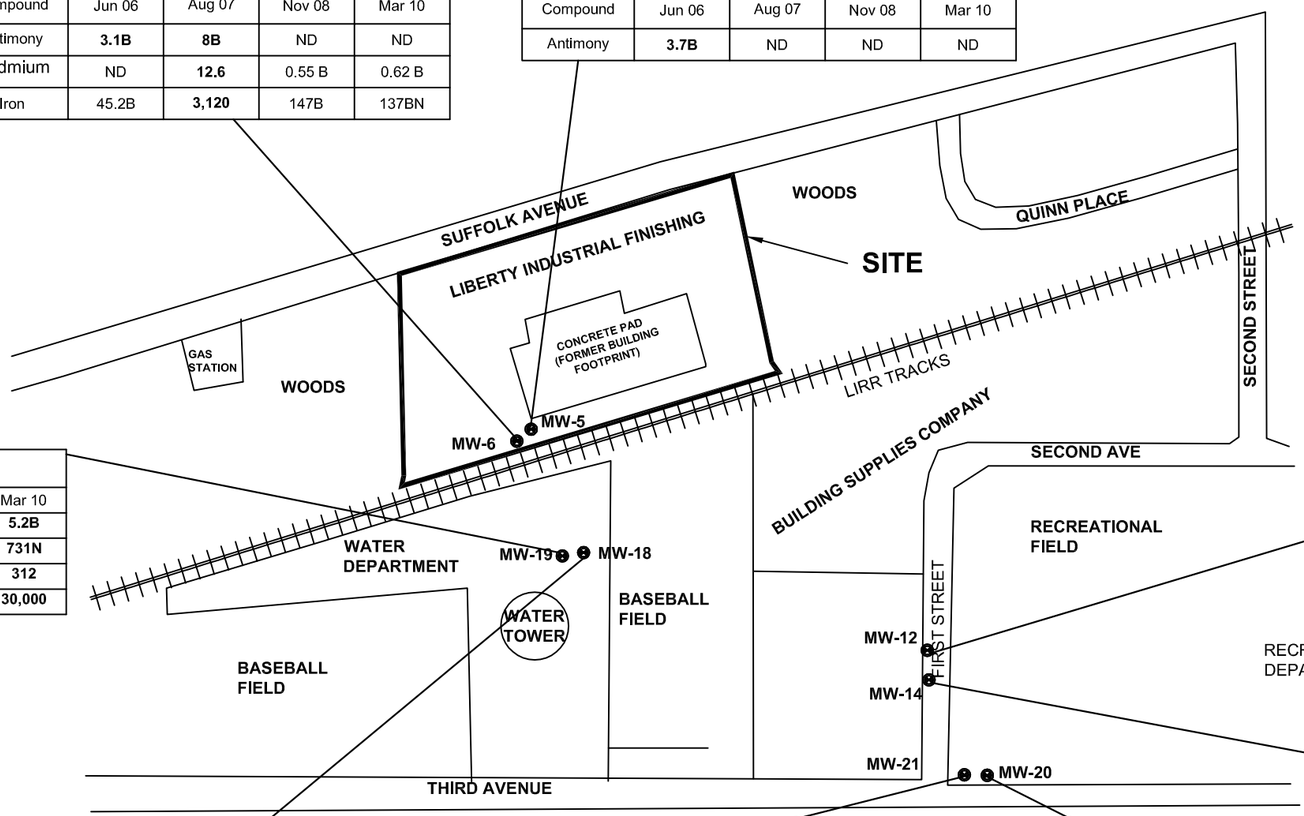
0 150 300 450

Prepared by : AECOM

SUBMITTED BY : PK	MULTI SITE G - LIBERTY INDUSTRIAL SITE SITE NO. 1-52-077
DRAWN BY : SC	**GROUNDWATER CONTOUR MAP MARCH 10, 2010**
APPROVED BY : PK	DATE : JUNE 2010 / SCALE : AS SHOWN / DRAWING NO. : 3

MW-6				
Compound	Jun 06	Aug 07	Nov 08	Mar 10
Antimony	**3.1B**	**8B**	ND	ND
Cadmium	ND	**12.6**	0.55 B	0.62 B
Iron	45.2B	**3,120**	147B	137BN

MW-5				
Compound	Jun 06	Aug 07	Nov 08	Mar 10
Antimony	**3.7B**	ND	ND	ND



MW-12				
Compound	Jun 06	Aug 07	Dec 08	Mar 10
Antimony	1.8B	**11.2B**	ND	**13.9B**
Cadmium	0.52B	**5.6**	**25.5**	**205**
Chromium	2.5B	37.5	18.9B	**251**
Copper	14.9B	85.3	63.5	**377**
Iron	**467**	**10,900**	**4,080**	**38,100N**
Lead	7.7B	**106**	**83.7**	**553**
Selenium	2.6B	ND	ND	**13.4B**
Sodium	11,700	13,400	**27,100**	**33,600**

RECREATION DEPARTMENT

MW-18				
Compound	Jun 06	Aug 07	Nov 08	Mar 10
Antimony	ND	ND	**9B**	**5.2B**
Iron	212	**308**	**307**	**731N**
Manganese	169	**547**	122	**312**
Sodium	**30,000**	**26,700**	**29,600**	**30,000**

MW-14				
Compound	Jun 06	Aug 07	Dec 08	Mar 10
Cadmium	4.9B	1.5B	**59.1**	**26**
Chromium	**95.8**	**248**	**69.6**	**68.6**
Iron	**728**	**389**	**9,320**	**14,000N**
Lead	2.9B	3.4B	**221**	**76.5**
Sodium	**31,900**	**28,900**	**561,000**	**25,400**
Thallium	ND	**3.4B**	ND	ND

MW-19				
Compound	Jun 06	Aug 07	Nov 08	Mar 10
Antimony	ND	**6.7B**	ND	ND
Cadmium	1.1B	**8**	ND	2.7B
Thallium	ND	**2.9B**	ND	ND

MW-21				
Compound	Jun 06	Aug 07	Nov 08	Mar 10
Antimony	1.9B	**6.7B**	ND	ND
Iron	31.4B	**503**	198B	**1,840N**
Manganese	26.4B	51.8	**627**	57.7
Sodium	**24,500**	**27,200**	19,200	**31,800**

MW-20				
Compound	Jun 06	Aug 07	Nov 08	Mar 10
Antimony	1.7B	**9.5B**	ND	**4.4B**
Iron	**1,710**	**624**	164B	**1,370N**
Sodium	**21,800**	**31,100**	**29,700**	**39,600**

LEGEND:

MW-14 EXISTING MONITORING WELLS

NOTE:
All concentraitons are shown as micrograms per liter (ug/L)
BOLD indicates the concentration exceeded the NYSDEC Class GA criterion

GRAPHIC SCALE

0 200 400 600

Prepared by : AECOM

SUBMITTED BY : PK

DRAWN BY : SC

APPROVED BY : PK

MULTI SITE G - LIBERTY INDUSTRIAL SITE
SITE NO. 1-52-077

SUMMARY OF TAL METALS IN GROUNDWATER

DATE : JUNE 2010

SCALE : AS SHOWN

DRAWING NO. : 4

TABLES

TABLE 1
LIBERTY INDUSTRIAL FINISHING SITE (1-25-077)
WELL CONSTRUCTION DATA

Well Number	Northing	Easting	Ground Elevation	Top of Riser Elevation	Top of Casing Elevation	Total Depth of Well
MW-5	202,308.86	2,206,350.98	92.19	93.32	93.60	50.0
MW-6	202,306.77	2,206,341.15	92.09	92.71	92.79	265.0
MW-12	201,973.43	2,206,863.98		89.59	89.79	49.3
MW-14	201,966.33	2,206,866.03		89.55	89.77	100.0
MW-18	202,101.70	2,206,373.86		91.55	92.03	150.0
MW-19	202,102.30	2,206,386.65		91.98	92.19	248.0
MW-20	201,798.92	2,206,946.09		88.59	89.08	149.5
MW-21	201,798.35	2,206,950.31		88.66	89.15	110.5

All elevations and depths in feet
Field survey performed by YEC, Inc., on March 23, 2007
Vertical datum: NAVD 88, for NGVD 29, add 1.13 feet

TABLE 2
LIBERTY INDUSTRIAL FINISHING SITE (1-52-077)
GROUNDWATER ELEVATIONS

Well #	Reference Elevation (ft, NGVD)	Total Depth of Well (ft)	Date	Depth To Water (ft)	Water Table Elevation (ft, NGVD)	Comments
MW-5	93.23	50.0	6/12/06	42.24	50.99	
			8/21/07	43.11	50.12	
			11/13/08	45.40	47.83	
			3/10/10	43.37	49.86	
MW-6	92.71	265.0	6/12/06	42.19	50.52	
			8/21/07	43.15	49.56	
			11/13/08	45.23	47.48	
			3/10/10	43.12	49.59	
MW-12	89.59	49.3	6/14/06	39.09	50.50	
			8/24/07	39.95	49.64	
			11/13/08	42.25	47.34	
			12/23/08	41.81	47.78	
			3/10/10	40.07	49.52	
MW-14	89.55	100.0	6/14/06	39.13	50.42	
			8/24/07	40.00	49.55	
			11/13/08	42.35	47.20	
			12/23/08	41.98	47.57	
			3/10/10	40.18	49.37	
MW-18	91.55	150.0	6/22/06	40.76	50.79	
			8/21/07	41.25	50.30	
			11/13/08	43.80	47.75	
			3/10/10	41.82	49.73	
MW-19	91.98	248.0	6/22/06	41.95	50.03	
			8/21/07	41.60	50.38	
			11/13/08	43.90	48.08	
			3/10/10	42.78	49.20	
MW-20	88.59	149.5	6/14/06	38.29	50.30	
			8/21/07	39.18	49.41	
			11/13/08	41.20	47.39	
			3/10/10	39.30	49.29	
MW-21	88.66	110.5	6/14/06	38.30	50.36	
			8/21/07	39.20	49.46	
			11/13/08	41.47	47.19	
			3/10/10	39.31	49.35	

All measurements were taken from the top of PVC casing

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006, AUGUST 2007, NOVEMBER 2008 AND MARCH 2010 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-5		MW-5		MW-5		MW-6		MW-6		MW-6	
Sample ID	Class GA	LMW-5		LMW-5		LMW-5		LMW-6		LMW-6		LMW-6	
Laboratory ID	Ground	E0833-01A		F1192-04A		G2136-07A		J0429-01A		E0833-02A		F1192-09A		G2136-06A		J0429-03A	
Sample Date	Water	6/12/06		8/23/07		11/14/08		3/8/10		6/12/06		8/24/07		11/14/08		3/8/10	
	Criteria	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q
Aluminum	NC	238		157	B	ND		87.5	BE	ND		398		ND		50.2	BE
Antimony	3	***3.7***	B	ND		ND		ND		***3.1***	B	***8.0***	***B***	ND		ND	
Arsenic	25	2.2	B	ND		ND		ND		ND		ND		ND		ND	
Barium	1,000	49.3	B	50	B	45.7	B	49.4	B	24.9	B	29.6	B	15.7	B	11.3	B
Beryllium	3	ND		ND		ND		0.089	B	ND		ND		ND		0.062	B
Cadmium	5	0.13	B	0.51	B	ND		ND		ND		***12.6***		0.55	B	0.62	B
Calcium	NC	19,000		15,000		16,900		14,100		9,880		10,000		8,300		6,120	
Chromium	50	18.2	B	42.2		7.3	B	29		0.79	B	28.7		ND		1.9	B
Cobalt	NC	0.67	B	1.4	B	ND		ND		0.31	B	2.2	B	ND		ND	
Copper	200	23.8	B	10.9	B	ND		ND		15.6	B	31.3		ND		5.6	B
Iron	300	198	B	122	B	ND		107	BN	45.2	B	***3,120***		147	B	137	BN
Lead	25	1.3	B	3.4	B	ND		ND		ND		15.8		ND		ND	
Magnesium	35,000	2,040	E	1,870		2040		1,830		2,980	E	2,630		2,590		1,970	
Manganese	300	15.1	B	13.7	B	6.8	B	16.5	B	5.9	B	60.9		40.8	B	11.4	B
Mercury	0.7	ND		ND		ND		0.056	B	ND		ND		ND		ND	
Nickel	100	3.3	B	1.1	B	ND		1.2	B	3.6	B	12.3	B	2.2	B	1.9	B
Potassium	NC	4,330		4,500		4,380		4,740		759	B	1,390		2,060		1,180	
Selenium	10	ND		7.4	B	ND		ND		1.6	B	ND		ND		ND	
Silver	50	ND		4	B	ND		ND		ND		ND		ND		ND	
Sodium	20,000	4,460		7,800		7,570		6,570		10,100		9,950		11,600		7,660	
Thallium	0.50	ND		ND		ND		ND		ND		ND		ND		ND	
Vanadium	NC	ND		0.59	B	ND		ND		ND		2	B	ND		ND	
Zinc	2,000	29.1	B	18.4	B	13.7	B	15.2	B	24.8	B	118		21.9	B	25.4	B

Notes: All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
BOLD/Italics - Exceeds criterion
E - Estimated value due to interference

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006, AUGUST 2007, NOVEMBER 2008 AND MARCH 2010 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-12	MW-12	MW-12	MW-12	MW-14	MW-14	MW-14	MW-14
Sample ID	Class GA	LMW-12	LMW-12	LMW-12	LMW-12	LMW-14	LMW-14	LMW-14	LMW-14
Laboratory ID	Ground	E0833-03A	F1192-05A	G2415-01	J0429-04A	E0833-04A	F1192-06A	G2415-02	J0429-05A
Sample Date	Water	6/14/06	8/24/07	12/23/08	3/9/10	6/14/06	8/24/07	12/23/08	3/9/10
	Criteria	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	445	9,070	2,260	33,600 E	780	314	7,090	4,830 E
Antimony	3	1.8 B	**11.2** B	ND	***13.9 B***	1.5 B	ND	ND	ND
Arsenic	25	ND	3.3 B	ND	14.2 B	ND	ND	5.6 B	6 B
Barium	1,000	45.2 B	75.4 B	60.5 B	188 B	40.5 B	31.5 B	162 B	107 B
Beryllium	3	0.38 B	0.24 B	0.19 B	2.1 B	ND	ND	0.38 B	0.28 B
Cadmium	5	0.52 B	**5.6**	***25.5***	***205***	4.9 B	1.5 B	***59.1***	***26***
Calcium	NC	13,100	26,900	19,700	29,900	13,100	12,900	35,800	18,700
Chromium	50	2.5 B	37.5	18.9 B	***251***	***95.8***	***248***	***69.6***	***68.6***
Cobalt	NC	0.63 B	5.5 B	2.6 B	12.8 B	2 B	1.2 B	5.1 B	2.7 B
Copper	200	14.9 B	85.3	63.5	***377***	22.2 B	8.9 B	110	42.8
Iron	300	***467***	**10,900**	***4,080***	***38,100*** N	***728***	***389***	***9,320***	***14,000 N***
Lead	25	7.7 B	**106**	***83.7***	***553***	2.9 B	3.4 B	***221***	***76.5***
Magnesium	35,000	3,710 E	6,830	4,330	10,900	1,610 E	3,000	6,340	2,910
Manganese	300	77.3	96.9	82.7	253	35.3 B	21.2 B	231	186
Mercury	0.7	ND	ND	ND	0.54	ND	ND	ND	0.1 B
Nickel	100	3.4 B	12.4 B	14.9 B	57.1	7.5 B	4.4 B	53.2	18.3 B
Potassium	NC	2,280	2,700	2,540	3,810	3,320	4,140	7,090	1,670
Selenium	10	2.6 B	ND	ND	***13.4 B***	ND	6.7 B	ND	ND
Silver	50	ND	ND	7.6 B	ND	ND	3.2 B	4.3 B	ND
Sodium	20,000	11,700	13,400	***27,100***	***33,600***	***31,900***	***28,900***	**561,000**	**25,400**
Thallium	0.50	ND	ND	ND	ND	ND	***3.4 B***	ND	ND
Vanadium	NC	0.77 B	28.8 B	8.6 B	89.7	0.58 B	0.51 B	22.5 B	12.6 B
Zinc	2,000	26.1 B	246	220	1,280	40.1 B	27.5 B	520	279

Notes: All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
BOLD/Italics - Exceeds criterion
E - Estimated value due to interference

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006, AUGUST 2007, NOVEMBER 2008 AND MARCH 2010 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-18		MW-18		MW-18		MW-18		MW-19		MW-19		MW-19		MW-19	
Sample ID	Class GA	LMW-18		LMW-18		LMW-18		LMW-18		LMW-19		LMW-19		LMW-19		LMW-19	
Laboratory ID	Ground	E0868-14A		F1192-08A		G2136-02A		J0429-06A		E0868-15A		F1192-07A		G2136-01A		J0429-07A	
Sample Date	Water	6/22/06		8/24/07		11/13/08		3/10/10		6/22/06		8/24/07		11/13/08		3/10/10	
	Criteria	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q	conc.	Q
Aluminum	NC	135	B	252		196	B	716	E	53.4	B	74.9	B	ND		69.9	BE
Antimony	3	ND		ND		***9***	B	***5.2***	B	ND		***6.7***	***B***	ND		ND	
Arsenic	25	ND		ND		ND		ND		ND		ND		ND		ND	
Barium	1,000	74.8	B	92.5	B	86.4	B	103	B	14.2	B	21.5	B	20	B	18.7	B
Beryllium	3	ND		ND		ND		0.12	B	ND		ND	U	ND		0.046	B
Cadmium	5	0.33	B	1.3	B	0.92	B	0.86	B	1.1	B	***8***		ND		2.7	B
Calcium	NC	12,800		15,500		13,500		18,900		9,900		13,000		9,700		11,500	
Chromium	50	3.3	B	2.1	B	5.4	B	6.5	B	1	B	2	B	ND		1.8	B
Cobalt	NC	0.48	B	1.3	B	ND		1	B	ND		1.2	B	ND		ND	
Copper	200	ND		8.1	B	11	B	9.8	B	ND		11.7	B	ND		ND	
Iron	300	212		***308***		***307***		***731***	N	54.2	B	221		ND		234	N
Lead	25	ND		3	B	2.5	B	3.9	B	ND		4.1	B	ND		ND	
Magnesium	35,000	5,440		5,430		4,960		4,460		3,180		4,600		3,970		4,350	
Manganese	300	169		***547***		122		***312***		3.5	B	9.3	B	14.9	B	8	B
Mercury	0.7	ND		ND		ND		0.057	B	ND		ND		ND		ND	
Nickel	100	1.4	B	3.1	B	3.2	B	6.5	B	ND		2.9	B	ND		0.96	B
Potassium	NC	10,800		7,290		10,200		13,500		816	B	949	B	947	B	1,070	
Selenium	10	ND		ND		ND		ND		ND		ND		ND		ND	
Silver	50	ND		4	B	1.6	B	ND		ND		3.3	B	1.1	B	ND	
Sodium	20,000	***30,000***		***26,700***		***29,600***		***30,000***		10,200		14,400		13,400		14,900	
Thallium	0.50	ND		ND		ND		ND		ND		***2.9***	***B***	ND		ND	
Vanadium	NC	ND		0.66	B	ND		0.63	B	ND		ND		ND		ND	
Zinc	2,000	25	B	34.8	B	86.7		57.8		42.8	B	48.1	B	30.5	B	47	B

Notes:
All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
BOLD/Italics - Exceeds criterion
E - Estimated value due to interference

TABLE 3
LIBERTY INDUSTRIAL FINISHING SITE (1-52-108)
JUNE 2006, AUGUST 2007, NOVEMBER 2008 AND MARCH 2010 SAMPLING EVENTS
SUMMARY OF TAL METALS IN GROUNDWATER

Sample Location	NYSDEC	MW-20	MW-20	MW-20	MW-20	MW-21	MW-21	MW-21	MW-21
Sample ID	Class GA	LMW-20	LMW-20	LMW-20	LMW-20	LMW-21	LMW-21	LMW-21	LMW-21
Laboratory ID	Ground	E0833-05A	F1192-03A	G2136-04A	J0429-08A	E0833-06A	F1192-01A	G2136-05A	J0429-09A
Sample Date	Water	6/14/06	8/22/07	11/13/08	3/9/10	6/14/06	8/22/07	11/14/08	3/9/10
	Criteria	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q	conc. Q
Aluminum	NC	223	299	81.6 B	404 E	ND	197 B	457	793 E
Antimony	3	1.7 B	***9.5 B***	ND	***4.4 B***	1.9 B	***6.7 B***	ND	ND
Arsenic	25	ND	ND	ND	ND	2.2 B	ND	ND	ND
Barium	1,000	38.9 B	57.8 B	48.8 B	35 B	79.3 B	60.9 B	58.2 B	119 B
Beryllium	3	ND	ND	ND	0.057 B	ND	ND	ND	0.16 B
Cadmium	5	1 B	0.45 B	0.74 B	ND	ND	1.5 B	4.8 B	1.1 B
Calcium	NC	13,200	20,600	4,420	9,050	7,520	5,190	11,900	12,600
Chromium	50	4.6 B	3.1 B	2.1 B	5.1 B	0.94 B	3 B	2.3 B	9 B
Cobalt	NC	0.92 B	2.5 B	ND	1.1 B	0.48 B	1.5 B	ND	1.5 B
Copper	200	13.6 B	8.7 B	ND	5.7 B	ND	13.7 B	6.6 B	8.2 B
Iron	300	***1,710***	***624***	164 B	***1,370 N***	31.4 B	***503***	198 B	***1,840 N***
Lead	25	1.5 B	3.7 B	ND	4.9 B	ND	4.5 B	2.6 B	8.2 B
Magnesium	35,000	6,050 E	9,820	3,400	4,400	5,440 E	3,320	2,960	8,380
Manganese	300	27.8 B	60.5	35 B	27.1 B	26.4 B	51.8	***627***	57.7
Mercury	0.7	ND	ND	ND	0.064 B	ND	ND	ND	0.058 B
Nickel	100	4.6 B	2.4 B	1.8 B	3.5 B	1.9 B	2.4 B	6.9 B	4.9 B
Potassium	NC	2,050	2,220	8,190	1,970	5,670	6,350	6,250	12,700
Selenium	10	1.1 B	ND	ND	ND	4.1 B	ND	ND	ND
Silver	50	ND	5.2 B	0.6 B	ND	ND	ND	ND	ND
Sodium	20,000	***21,800***	***31,100***	***29,700***	***39,600***	***24,500***	***27,200***	19,200	***31,800***
Thallium	0.50	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NC	0.48 B	1.6 B	ND	1.2 B	ND	0.063 B	ND	2.1 B
Zinc	2,000	48.7 B	32.8 B	28.5 B	187	14.2 B	40.5 B	69.1	67.6

Notes: All values in µg/L
NC - No NYSDEC criterion
ND - Not Detected
B - Estimated value
BOLD/Italics - Exceeds criterion
E - Estimated value due to interference

APPENDIX A

WELL SAMPLING FORMS

AECOM

WELL NO. MW- 5

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1 SHEETS
LOCATION: Liberty Industrial Finishing, Brentwood, NY 1-52-108		DATE WELL STARTED: March 8, 2010	DATE WELL COMPLETED: March 8, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Staci Birnbaum & Celeste Foster	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 4.35 Gallons WELL TD: 50 ft PUMP INTAKE DEPTH: 48 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
12:05	43.34								Static water level
12:07	43.35	0.54	15.19	0.365	10.58	5.71	197	7.9	pump on
12:15	43.5	0.54	14.04	0.335	11.11	5.72	220	5.3	
12:24	43.5	0.54	13.73	0.299	11	5.63	228	8.9	
12:34	43.5	0.54	13.57	0.282	10.91	5.49	232	10.8	
12:35									total pumped 15 gal turned off
12:50									collected sample with Teflon bailer
12:53									collected sample

Pump Type: Grundfos Redi Flo 2, sample collected with a Teflon bailer

Analytical Parameters: TAL Metals

AECOM

WELL NO. MW- 6

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF SHEETS: 1
LOCATION: Liberty Industrial Finishing, Brentwood, NY 1-52-108		DATE WELL STARTED: March 8, 2010	DATE WELL COMPLETED: March 8, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Staci Birnbaum & Celeste Foster	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 144 Gallons WELL TD: 265 ft PUMP INTAKE DEPTH: 150 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
13:00	43.19								Static water level
13:01	47.24	2.5	14.49	0.111	10.85	6.07	199	3.5	pump on
13:27	46.4	2.5	14.93	0.137	11.69	5.91	208	13	
14:00	71.9	3	13.24	0.147	12.16	6.06	207	16.1	
15:00	68.88	2.5	15.27	0.102	11.65	6.05	191	17.5	
16:00	80.33	2.5	13.7	0.098	12.24	5.87	205	9.5	450 gal purged
16:01									pump off
16:05									collected sample

Pump Type: Grundfos Redi Flo 2, sample collected with a Teflon bailer

Analytical Parameters: TAL Metals

AECOM

WELL NO. MW- 12

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1 SHEETS
LOCATION: Liberty Industrial Finishing, Brentwood, NY 1-52-108		DATE WELL STARTED: March 9, 2010	DATE WELL COMPLETED: March 9, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Staci Birnbaum & Celeste Foster	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 1.5 Gallons WELL TD: 49.3 ft PUMP INTAKE DEPTH: 45 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
7:55	40.13								Static water level
9:05	40.31	2.4	13.87	1.44	10.21	5.26	189	-5	pump on
9:21	40.31	2.4	15.17	0.497	9.65	5.76	142	518	
9:28	40.31	2.4	14.63	0.284	9.61	5.88	142	160	
9:29									10 gal purged and turned off
9:32									sample collected

Pump Type: Grundfos Redi Flo 2, sample collected with a Teflon bailer

Analytical Parameters: TAL Metals

AECOM

WELL NO. MW- 14

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1 SHEETS
LOCATION: Liberty Industrial Finishing, Brentwood, NY 1-52-108		DATE WELL STARTED: March 9, 2010	DATE WELL COMPLETED: March 9, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Staci Birnbaum & Celeste Foster	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 9.74 Gallons WELL TD: 100 ft PUMP INTAKE DEPTH: 45 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS: Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	REMARKS
7:50	40.23								Static water level
8:15	40.25	1gal/min	15.19	0.279	10.34	5.26	233	20.1	pump on
8:26									10 gal purged
8:28	40.3	1gal/min	7.6	0.424	11.29	5.75	211	13.46	
8:37	40.35	1gal/min	13.8	0.429	11.14	4.79	231	2.2	20 gal purged
8:43	40.35	1gal/min	13.13	0.436	10.85	5.29	214	0	
5:50		1gal/min	13.18	0.433	10.4	5.31	211	0.10	35 gal purged
8:51									turned pump off
8:55									collected samples

Pump Type: Grundfos Redi Flo 2, sample collected with a Teflon bailer

Analytical Parameters: TAL Metals

AECOM

WELL NO. MW- 18

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF SHEETS: 1
LOCATION: Liberty Industrial Finishing, Brentwood, NY 1-52-108		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Staci Birnbaum & Celeste Foster	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 17.63 Gallons WELL TD: 150 ft PUMP INTAKE DEPTH: 50 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
9:15	41.82								Static water level
9:43	42.05	1.67	15.3	0.001	8.76	4.31	212	12.6	pump on
9:57	42.09	1.67	15.3	0.001	8.76	4.31	212	12.6	purged 20 gal
10:08	42.09	1.67	15.3	0.001	8.76	4.31	212	12.6	purged 40 gal
10:19	42.09	1.67	15.3	0.001	8.76	4.31	212	12.6	purged 60 gal pump off
10:30									collected sample

Pump Type: Grundfos Redi Flo 2, sample collected with a Teflon bailer

Analytical Parameters: TAL Metals

AECOM

WELL NO. MW- 19

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1 SHEETS
LOCATION: Liberty Industrial Finishing, Brentwood, NY 1-52-108		DATE WELL STARTED: March 10, 2010	DATE WELL COMPLETED: March 10, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Staci Birnbaum & Celeste Foster	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 144.6 Gallons WELL TD: 265 ft PUMP INTAKE DEPTH: 52 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
9:07	42.78								Static water level
9:22	43.44	1.11	14.07	0.2	8.93	5.9	224	0	pump on
9:31	43.39	2.5	15.3	0.001	8.76	4.31	212	12.6	10 gal purged
9:39	43.6	5gal/min	15.3	0.001	8.76	4.31	212	12.6	20 gal purged
9:45		5gal/min							30 gal purged
9:54		5gal/min							
10:00	44.49	5gal/min	15.3	0.001	8.76	4.31	212	12.60	
10:22	44.53	5gal/min							450 gal purged
11:07	**HORIBA BROKE**								
11:47									turned pump off
11:21									collected sample

Pump Type: Grundfos Redi Flo 2, sample collected with a Teflon bailer

Analytical Parameters: TAL Metals

AECOM

WELL NO. MW- 20

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1 SHEETS
LOCATION: Liberty Industrial Finishing, Brentwood, NY 1-52-108		DATE WELL STARTED: March 9, 2010	DATE WELL COMPLETED: March 9, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Staci Birnbaum & Celeste Foster	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 17.96 Gallons WELL TD: 149.5 ft PUMP INTAKE DEPTH: 45 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
11:07	39.32								Static water level
11:19	39.64	1.67	14.12	0.291	5.01	106	0		pump on
11:26	39.62	1.67	12.8	0.297	5.56	104	0		10 gal purge
11:34	39.61	1.67	12.74	0.3	5.53	124	9.5		20 gal purge
11:39	39.8	1.67	12.69	0.309	5.41	131	0		30 gal purge
11:46	39.81	1.67	12.4	0.298	5.61	123	0		40 gal purge
11:50	39.86	1.67	12.77	0.297	5.45	132	0		50 gal purge
11:52									purged 55 gal turned off
11:54									collected sample

Pump Type: Grundfos Redi Flo 2, sample collected with a Teflon bailer

Analytical Parameters: TAL Metals

AECOM

WELL NO. MW- 21

WELL SAMPLING FORM	PROJECT: D004445-14.3, Multi Site G	PROJECT No.: 60135736.30	SHEET: 1 OF 1 SHEETS
LOCATION: Liberty Industrial Finishing, Brentwood, NY 1-52-108		DATE WELL STARTED: March 9, 2010	DATE WELL COMPLETED: March 9, 2010
CLIENT: New York State Department of Environmental and Conservation		NAME OF INSPECTOR: Staci Birnbaum & Celeste Foster	
DRILLING COMPANY:		SIGNATURE OF INSPECTOR:	

ONE WELL VOLUME : 11.6 Gallons WELL TD: 110.5 ft PUMP INTAKE DEPTH: 45 ft

Time	Depth to Water (ft)	Purge Rate (mL/min)	FIELD MEASUREMENTS						REMARKS
			Temp. (°C)	Conduct. (µs/cm)	DO (mg/L)	pH	ORP	Turbidity (ntu)	
10:20	39.3								Static water level
10:28	39.38	1.12	13.3	0.353	8.36	5.76	177	8.3	pump on
10:44	39.37	1.12	13.11	0.347	8.27	5.47	187	9.1	10 gal purge
10:51	39.37	1.12	13.26	0.347	8.25	5.29	175	0	20 gal purge
10:58	39.54	1.12	13.13	0.347	8.51	4.71	204	0	35 gal purge
11:01									37 gal pumped
11:04									collected sample

Pump Type: Grundfos Redi Flo 2, sample collected with a Teflon bailer

Analytical Parameters: TAL Metals

APPENDIX B

NYSDEC MONITORING WELL FIELD INSPECTION LOGS

SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/SB

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 03/08/2010 1130
WEll ID.: LMW-5

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,350.98 NYTM Y 202,308.86 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)		X

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)		X

Cap does not close properly. Lid is not flush with casing.

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	2 FT
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?		X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	50
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	43.34
MEASURE WELL DIAMETER (Inches):	4
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Overgrown vegetation, accessible by truck mounted rig.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

located in a field surrounded by overgrown vegetation

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

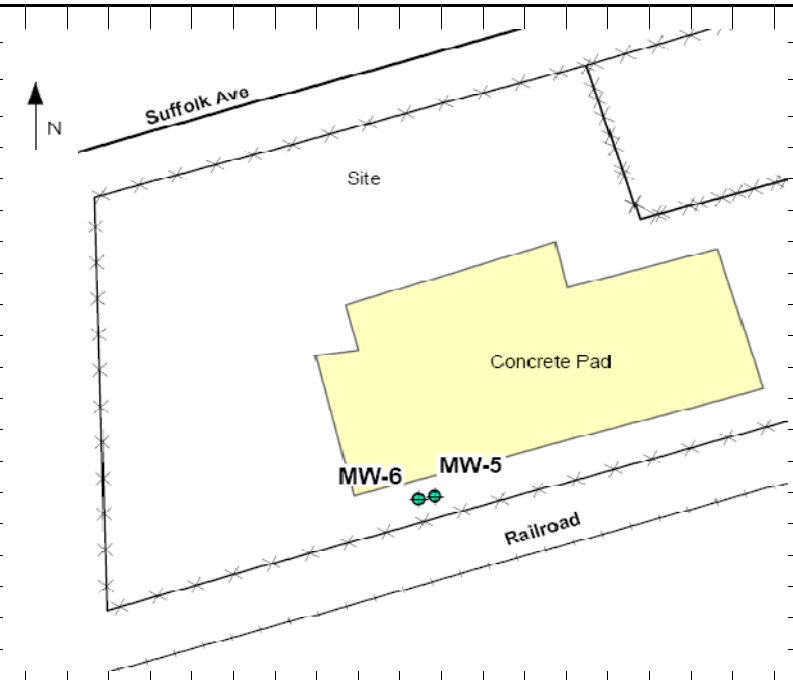
Capped Area on-site. Gas station to the east of the Site.

REMARKS:

Needs lock, protective casing lid needs to be fixed, should get a new well cap

MONITORING WELL INSPECTION LOG

SKETCH



SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/SB

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 03/08/2010 1130
WEll ID.: LMW-6

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,341.15 NYTM Y 202,306.77 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)		X

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?		X
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)		X
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	8"
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?		X
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)	X	
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	265
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	43.2
MEASURE WELL DIAMETER (Inches):	4
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	Average
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Overgrown vegetation, accessible by truck mounted rig.

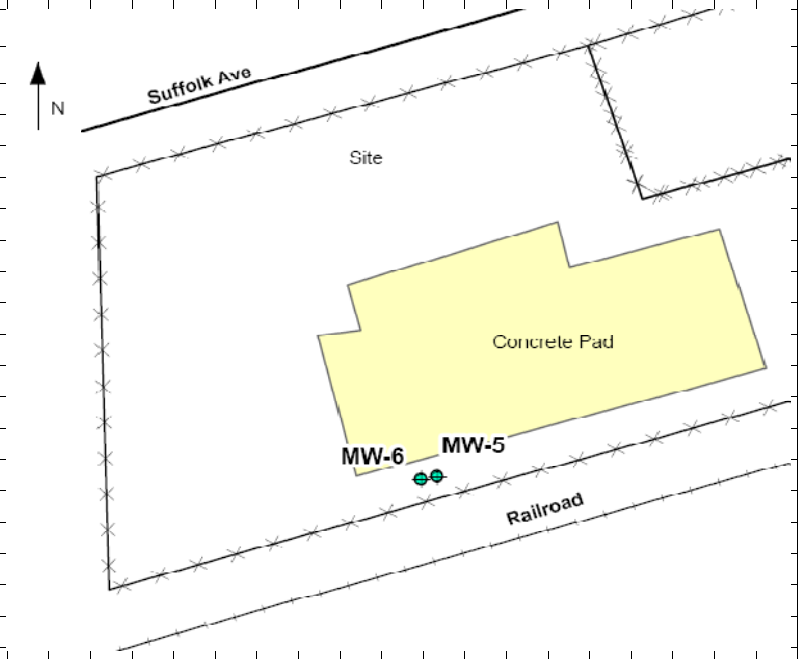
DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
located in a field surrounded by overgrown vegetation

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Capped Area on-site. Gas station to the east of the Site.

REMARKS:
Well cap is missing, needs a new one. Needs a lock.

MONITORING WELL INSPECTION LOG

SKETCH



SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/SB

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 03/09/2010 800
WEll ID.: LMW-12

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,863.98 NYTM Y 201,973.43 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	49.30
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	40.13
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig

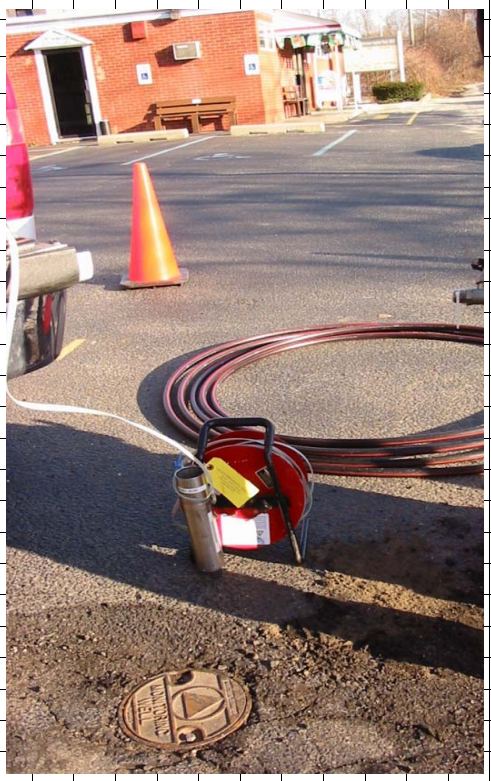
DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Located on the sidewalk along First Street on the corner of parking lot

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Recharge basin across First St

REMARKS:
New bolts needed

MONITORING WELL INSPECTION LOG

SKETCH



SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/SB

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 03/09/2010 800
WEll ID.: LMW-14

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,866.03 NYTM Y 201,966.33 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED: 0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable): NA
PROTECTIVE CASING MATERIAL TYPE: SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches): 8

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet): 100
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet): 40.23
MEASURE WELL DIAMETER (Inches): 2
WELL CASING MATERIAL: PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING: Cracked
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE: -
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES: -

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Located on the sidewalk along First Street on the corner of parking lot

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Recharge basin across First St

REMARKS:
PVC cracked and new bolts needed

MONITORING WELL INSPECTION LOG

SKETCH

SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/SB

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 03/10/2010 1000
WEll ID.: LMW-18

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,386.65 NYTM Y 202,102.30 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)		X

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	150
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	41.82
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Not accessible by truck mounted rig due to partly opening fence gate, trees and not enough turning radius for truck

Accessed through second gate.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Located in the grassy area behind the water tower, within fence that surrounds the recharge basin.

Due to overgrown grass, wells were located with some difficultly.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Recharge Basin

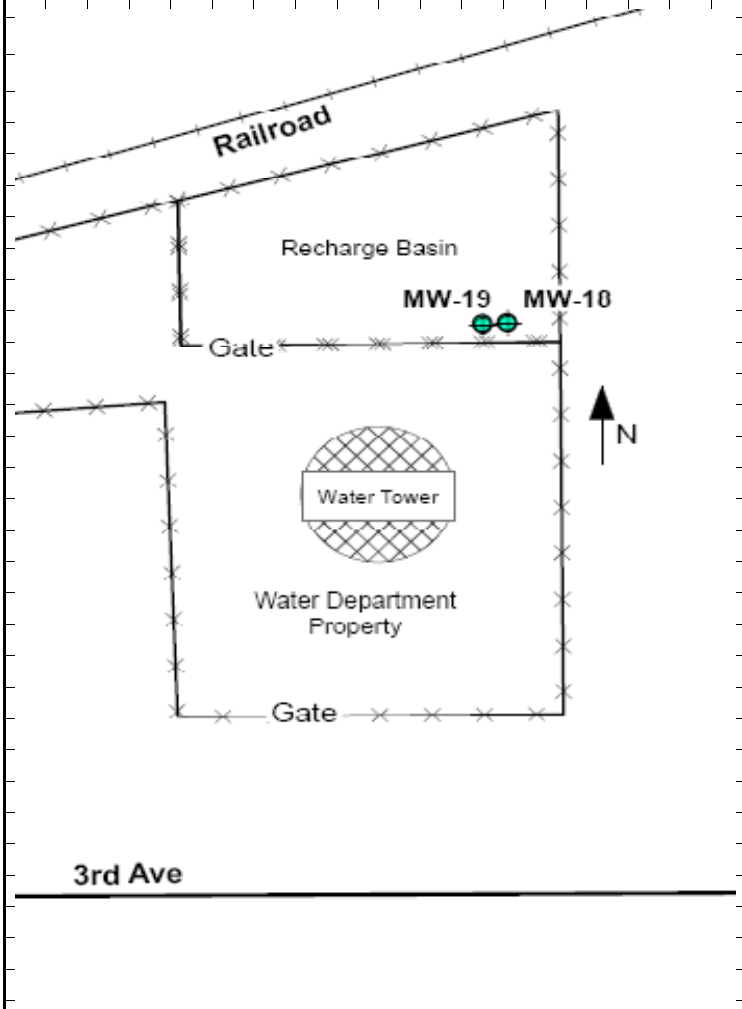
REMARKS:

Location shown in workplan has MW-19 and MW-18 reversed. Corrected in sketch below.

Coordinates above corrected.

MONITORING WELL INSPECTION LOG

SKETCH



SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/SB

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 03/10/2010 1000
WEll ID.: LMW-19

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,373.86 NYTM Y 202,101.70 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)		X

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PID
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	12

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	265
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	42.78
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.

Not accessible by truck mounted rig due to partly opening fence gate, trees and not enough turning radius for truck

Accessed through second gate.

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.

Located in the grassy area behind the water tower, within fence that surrounds the recharge basin.

Due to overgrown grass, wells were located with some difficultly.

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):

Recharge Basin

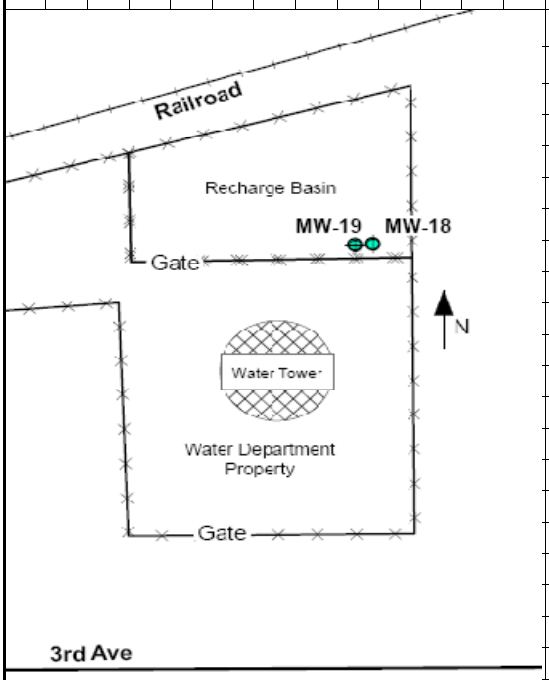
REMARKS:

Location shown in workplan has MW-19 and MW-18 reversed. Corrected in sketch below.

Coordinates above corrected.

MONITORING WELL INSPECTION LOG

SKETCH



SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/SB

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 03/09/2010 1020
WEll ID.: LMW-20

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,946.09 NYTM Y 201,798.92 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?		X
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PIF
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	149.5
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	39.32
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig in between trees

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Grassy area in right of way along 3rd Ave

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Recharge Basin

REMARKS:
New bolts needed

MONITORING WELL INSPECTION LOG

SKETCH

SITE NAME: **Liberty Industrial Finishing**

SITE ID.: 1-52-108
INSPECTOR: CF/SB

MONITORING WELL FIELD INSPECTION LOG

DATE/TIME: 03/09/2010 1020
WEll ID.: LMW-21

	YES	NO
WELL VISIBLE? (If not, provide directions below)	X	

WELL COORDINATES? NYTM X 2,206,950.31 NYTM Y 201,798.35 See Report
PDOP Reading from Trimble pathfinder: Satelites:
GPS Method (circle) Trimble And/Or Magellan

	YES	NO
WELL I.D. VISIBLE?	X	
WELL LOCATION MATCH SITE MAP? (if not, sketch actual location on back)	X	

WELL I.D. AS IT APPEARS ON PROTECTIVE CASING OR WELL:

	YES	NO
SURFACE SEAL PRESENT?	X	
SURFACE SEAL COMPETENT? (If cracked, heaved etc., describe below)	X	
PROTECTIVE CASING IN GOOD CONDITION? (If damaged, describe below)	X	

HEADSPACE READING (ppm) AND INSTRUMENT USED	0.0 PIF
TYPE OF PROTECTIVE CASING AND HEIGHT OF STICKUP IN FEET (If applicable)	NA
PROTECTIVE CASING MATERIAL TYPE:	SS
MEASURE PROTECTIVE CASING INSIDE DIAMETER (Inches):	8

	YES	NO
LOCK PRESENT?	X	
LOCK FUNCTIONAL?		X
DID YOU REPLACE THE LOCK?		X
IS THERE EVIDENCE THAT THE WELL IS DOUBLE CASED? (If yes,describe below)		X
WELL MEASURING POINT VISIBLE?	X	

MEASURE WELL DEPTH FROM MEASURING POINT (Feet):	110.5
MEASURE DEPTH TO WATER FROM MEASURING POINT (Feet):	39.30
MEASURE WELL DIAMETER (Inches):	2
WELL CASING MATERIAL:	PVC
PHYSICAL CONDITION OF VISIBLE WELL CASING:	GOOD
ATTACH ID MARKER (if well ID is confirmed) and IDENTIFY MARKER TYPE	-
PROXIMITY TO UNDERGROUND OR OVERHEAD UTILITIES	-

DESCRIBE ACCESS TO WELL: (Include accessibility to truck mounted rig, natural obstructions, overhead power lines, proximity to permanent structures, etc.); ADD SKETCH OF LOCATION ON BACK, IF NECESSARY.
Accessible by truck mounted rig in between trees

DESCRIBE WELL SETTING (For example, located in a field, in a playground, on pavement, in a garden, etc.) AND ASSESS THE TYPE OF RESTORATION REQUIRED.
Grassy area in right of way along 3rd Ave

IDENTIFY ANY NEARBY POTENTIAL SOURCES OF CONTAMINATION, IF PRESENT (e.g. Gas station, salt pile, etc.):
Recharge Basin

REMARKS:
New bolts needed

MONITORING WELL INSPECTION LOG

SKETCH

APPENDIX C

LABORATORY DATA SUMMARY PACKAGES (FORM 1s)

Report Date:
13-Apr-10 13:43

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

MITKEM LABORATORIES

A DIVISION OF SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

Laboratory Report

AECOM Technical Services, Inc.
300 Broadacres Drive
Bloomfield, NJ 07003

Work Order: J0429
Project : Multi Site G Liberty-Dzus
Project #:

Attn: Paul Kareth

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
J0429-01	LMW-5-20100308	Aqueous	08-Mar-10 12:50	12-Mar-10 09:21
J0429-02	LMW-55-20100308	Aqueous	08-Mar-10 12:53	12-Mar-10 09:21
J0429-03	LMW-6-20100308	Aqueous	08-Mar-10 16:05	12-Mar-10 09:21
J0429-04	LMW-12-20100309	Aqueous	09-Mar-10 09:32	12-Mar-10 09:21
J0429-05	LMW-14-20100309	Aqueous	09-Mar-10 08:55	12-Mar-10 09:21
J0429-06	LMW-18-20100310	Aqueous	10-Mar-10 10:30	12-Mar-10 09:21
J0429-07	LMW-19-20100310	Aqueous	10-Mar-10 11:51	12-Mar-10 09:21
J0429-08	LMW-20-20100309	Aqueous	09-Mar-10 11:54	12-Mar-10 09:21
J0429-09	LMW-21-20100309	Aqueous	09-Mar-10 11:04	12-Mar-10 09:21
J0429-10	DMW-2-20100310	Aqueous	10-Mar-10 15:06	12-Mar-10 09:21
J0429-11	DMW-3-20100310	Aqueous	10-Mar-10 14:44	12-Mar-10 09:21
J0429-12	DMW-9-20100310	Aqueous	10-Mar-10 14:04	12-Mar-10 09:21
J0429-13	DMW-59-20100310	Aqueous	10-Mar-10 14:05	12-Mar-10 09:21
J0429-14	DMW-9B-20100310	Aqueous	10-Mar-10 14:10	12-Mar-10 09:21
J0429-15	DMW-13A-20100310	Aqueous	10-Mar-10 15:37	12-Mar-10 09:21
J0429-16	DMW-13B-20100310	Aqueous	10-Mar-10 15:41	12-Mar-10 09:21
J0429-17	DMW-15A-20100309	Aqueous	09-Mar-10 14:22	12-Mar-10 09:21
J0429-18	DMW-18-20100309	Aqueous	09-Mar-10 13:09	12-Mar-10 09:21
J0429-19	DMW-22A-20100309	Aqueous	09-Mar-10 15:01	12-Mar-10 09:21
J0429-20	DMW-22B-20100309	Aqueous	09-Mar-10 14:53	12-Mar-10 09:21
J0429-21	DMW-23-20100310	Aqueous	10-Mar-10 16:10	12-Mar-10 09:21
J0429-22	DMW-23B-20100310	Aqueous	10-Mar-10 16:11	12-Mar-10 09:21

I attest that the information contained within the report has been reviewed for accuracy and checked against the quaility control requirements for each method. The results relate only to the samples(s) as recevied.

All applicable NELAC or USEPA CLP requirments have been meet.

Mitkem Laboratories is accredited under the National Environmental Laboratory Approval Program (NELAP) and is certified by several States, as well as USEPA and US Department of Defense. The current list of our laboratory approvals and certifications is available on the Certifications page our web site at www.mitkem.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

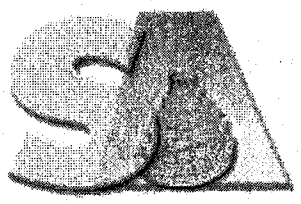
Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Pennsylvania	68-00520
Rhode Island	LAI00301
Texas	T104704422-08-TX
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-05-030

Authorized by:

Yihai Ding
Laboratory Director

Technical Reviewer's Initials: YD

MITKEM LABORATORIES



* Data Summary Pack *

Mitkem Laboratories

New York State Department of Environmental Conservation
Sample Identification and Analytical Requirements Summary

Project Name : Monthly Monitoring **SDG :** H0429

Customer Sample ID	Laboratory Sample ID	Analytical Requirements				
		MSVOA Method #	MSSEMI Method #	GC* Method #	ME	Other
#1	H0429-01	E624				
#2	H0429-02					SEE DATA
#3	H0429-03				E200.7	

Mitkem Laboratories

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSVOA

Project Name : Monthly Monitoring **SDG :** H0429

Laboratory Sample ID	Matrix	Date Collected	Date Received By Lab	Date Extracted	Date Analyzed
E624					
H0429-01A	AQ	3/19/2009	3/19/2009	NA	3/21/2009

Mitkem Laboratories

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary MSVOA

Project Name : Monthly Monitoring **SDG :** H0429

Laboratory Sample ID	Matrix	Analytical Protocol	Extraction Method	Low/Medium Level	Dil/Conc Factor
E624					
H0429-01A	AQ	E624	NA	LOW	1

Mitkem Laboratories

New York State Department of Environmental Conservation
Sample Preparation and Analysis Summary ME

Project Name : Monthly Monitoring **SDG :** H0429

Laboratory Sample ID	Matrix	Metals Requested	Date Received By Lab	Date Analyzed
E200.7				
H0429-03A	AQ	E200.7	3/19/2009	4/3/2009
H0429-03ADUP	AQ	E200.7	3/19/2009	4/3/2009
H0429-03AMS	AQ	E200.7	3/19/2009	4/3/2009

Analytical Data Package for AECOM Technical Services, Inc.

Client Project: Multi Site G Liberty – Dzus

SDG# SJ0429

Mitkem Work Order ID: J0429

April 13, 2010

Prepared For:

AECOM Technical Services, Inc.
300 Broadacres Drive
Bloomfield, NJ 07003
Attn: Mr. Paul Kareth

Prepared By:

Mitkem Laboratories
175 Metro Center Boulevard
Warwick, RI 02886
(401) 732-3400

SDG Narrative

Mitkem Laboratories submits the enclosed data package in response to AECOM Technical Services, Inc.'s Multi Site G Liberty – Dzus project. Under this deliverable, analysis results are presented for twenty-two aqueous samples that were received on March 12, 2010. Analyses were performed per specifications in the project's contract and chain of custody forms. Following the narrative is the Mitkem Work Order for cross-referencing sample client ID with laboratory sample ID.

The analyses were performed according to NYSDEC ASP protocols (2000update) and reported per NYSDEC ASP requirement for Category B deliverable.

The following observation and/or deviations are observed for the following analyses:

1. Overall Observation:

The enclosed report includes the originals of all data with the exception of logbook pages and certain initial calibrations. Photocopies of logbook pages are included, with the originals maintained on file at the laboratory. The originals of initial calibrations that are shared among several cases are maintained on file at the laboratory, with photocopies included in the data package.

2. Metals Analysis:

Lab control sample: spike recoveries were within the QC limits.

Matrix spike: matrix spike was performed on samples DMW-18-20100309 and LMW-14-20100309. Spike recoveries were within the QC limits with the exception of manganese for sample DMW-18-20100309 and iron for sample LMW-14-20100309. Iron is flagged with an "N" on data report forms. A post digest spike was performed and reported for iron. The spike recovery for manganese in sample DMW-18-20100309 could not be accurately determined, as the sample concentration was significantly greater than the spike concentration. When the sample concentration is more than four times the spike concentration, it tends to obscure the relatively smaller spike amount; control limits do not apply in this circumstance.

Duplicate: matrix spike was performed on samples DMW-18-20100309 and LMW-14-20100309. Replicate RPDs were within the QC limits with the exception of manganese

for sample DMW-18-20100309. Manganese is flagged with an "*" on the data report forms.

Sample analysis: samples DMW-18-20100309 and LMW-14-20100309. Percent differences were within the QC limits with the exception of nickel and potassium for sample DMW-18-20100309 and aluminum for sample LMW-14-20100309. These elements are qualified with an "E" on the data report forms. No other unusual observation was made for the analysis.

All pages in this report have been numbered consecutively, starting with the title page and ending with a page saying only "Last Page of Data Report".

I certify that this data package is in compliance, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Agnes R Huntley

Agnes Huntley
CLP Project Manager
04/13/10

WorkOrder: J0429

03/12/2010 13:55

Mitkem Laboratories

Client ID: EARTH_NJ
Project: Multi Site G
WO Name: Multi Site G Liberty-Dzus
Location: MULTI_SITE,
Comments: send invoice to Paul according to e-mail on 5/28/08

Case:
SDG:
PO: 95900-04

HC Due: 04/02/10
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: CLF

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0429-01A	LMW-5-20100308	03/08/2010 12:50	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-01A	LMW-5-20100308	03/08/2010 12:50	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-02A	LMW-55-20100308	03/08/2010 12:53	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-02A	LMW-55-20100308	03/08/2010 12:53	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-03A	LMW-6-20100308	03/08/2010 16:05	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-03A	LMW-6-20100308	03/08/2010 16:05	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-04A	LMW-12-20100309	03/09/2010 09:32	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-04A	LMW-12-20100309	03/09/2010 09:32	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-05A	LMW-14-20100309	03/09/2010 08:55	03/12/2010	Aqueous	SW6010_W	/ TAL			Y	Y	M4
J0429-05A	LMW-14-20100309	03/09/2010 08:55	03/12/2010	Aqueous	SW7470	/ TAL			Y		M4
J0429-06A	LMW-18-20100310	03/10/2010 10:30	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-06A	LMW-18-20100310	03/10/2010 10:30	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-07A	LMW-19-20100310	03/10/2010 11:51	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-07A	LMW-19-20100310	03/10/2010 11:51	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-08A	LMW-20-20100309	03/09/2010 11:54	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-08A	LMW-20-20100309	03/09/2010 11:54	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-09A	LMW-21-20100309	03/09/2010 11:04	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-09A	LMW-21-20100309	03/09/2010 11:04	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-10A	DMW-2-20100310	03/10/2010 15:06	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-10A	DMW-2-20100310	03/10/2010 15:06	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-11A	DMW-3-20100310	03/10/2010 14:44	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Lab Client Rep: Shirley S Ng

WorkOrder: J0429

03/12/2010 13:55

Mitkem Laboratories

Client ID: EARTH_NJ
Project: Multi Site G
WO Name: Multi Site G Liberty-Dzus
Location: MULTI_SITE,
Comments: send invoice to Paul according to e-mail on 5/28/08

Case:
SDG:
PO: 95900-04

HC Due: 04/02/10
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: CLF

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0429-11A	DMW-3-20100310	03/10/2010 14:44	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-12A	DMW-9-20100310	03/10/2010 14:04	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-12A	DMW-9-20100310	03/10/2010 14:04	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-13A	DMW-59-20100310	03/10/2010 14:05	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-13A	DMW-59-20100310	03/10/2010 14:05	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-14A	DMW-9B-20100310	03/10/2010 14:10	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-14A	DMW-9B-20100310	03/10/2010 14:10	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-15A	DMW-13A-20100310	03/10/2010 15:37	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-15A	DMW-13A-20100310	03/10/2010 15:37	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-16A	DMW-13B-20100310	03/10/2010 15:41	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-16A	DMW-13B-20100310	03/10/2010 15:41	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-17A	DMW-15A-20100309	03/09/2010 14:22	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-17A	DMW-15A-20100309	03/09/2010 14:22	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-18A	DMW-18-20100309	03/09/2010 13:09	03/12/2010	Aqueous	SW6010_W	/ TAL			Y	Y	M4
J0429-18A	DMW-18-20100309	03/09/2010 13:09	03/12/2010	Aqueous	SW7470	/ TAL			Y		M4
J0429-19A	DMW-22A-20100309	03/09/2010 15:01	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-19A	DMW-22A-20100309	03/09/2010 15:01	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-20A	DMW-22B-20100309	03/09/2010 14:53	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-20A	DMW-22B-20100309	03/09/2010 14:53	03/12/2010	Aqueous	SW7470	/ TAL					M4
J0429-21A	DMW-23-20100310	03/10/2010 16:10	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-21A	DMW-23-20100310	03/10/2010 16:10	03/12/2010	Aqueous	SW7470	/ TAL					M4

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

95900

Lab Client Rep: Shirley S Ng

WorkOrder: J0429

03/12/2010 13:55

Mitkem Laboratories

Client ID: EARTH_NJ
Project: Multi Site G
WO Name: Multi Site G Liberty-Dzus
Location: MULTI_SITE,
Comments: send invoice to Paul according to e-mail on 5/28/08

Case:
SDG:
PO: 95900-04

HC Due: 04/02/10
Fax Due:
Fax Report: ☐

Report Level: ASP-B
Special Program:
EDD: CLF

Lab Samp ID	Client Sample ID	Collection Date	Date Recv'd	Matrix	Test Code	Samp / Lab Test Comments	HF	HT	MS	SEL	Storage
J0429-22A	DMW-23B-20100310	03/10/2010 16:11	03/12/2010	Aqueous	SW6010_W	/ TAL				Y	M4
J0429-22A	DMW-23B-20100310	03/10/2010 16:11	03/12/2010	Aqueous	SW7470	/ TAL					M4

9955

HF = Fraction logged in but all tests have been placed on hold

HT = Test logged in but has been placed on hold

Lab Client Rep: Shirley S Ng

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-12-20100309

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-04

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	33600		E	P
7440-36-0	Antimony	13.9	B		P
7440-38-2	Arsenic	14.2	B		P
7440-39-3	Barium	188	B		P
7440-41-7	Beryllium	2.1	B		P
7440-43-9	Cadmium	205			P
7440-70-2	Calcium	29900			P
7440-47-3	Chromium	251			P
7440-48-4	Cobalt	12.8	B		P
7440-50-8	Copper	377			P
7439-89-6	Iron	38100		N	P
7439-92-1	Lead	553			P
7439-95-4	Magnesium	10900			P
7439-96-5	Manganese	253			P
7439-97-6	Mercury	0.54			CV
7440-02-0	Nickel	57.1			P
7440-09-7	Potassium	3810			P
7782-49-2	Selenium	13.4	B		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	33600			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	89.7			P
7440-66-6	Zinc	1280			P

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-14-20100309

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-05

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4830		E	P
7440-36-0	Antimony	4.2	U		P
7440-38-2	Arsenic	6.0	B		P
7440-39-3	Barium	107	B		P
7440-41-7	Beryllium	0.28	B		P
7440-43-9	Cadmium	26.0			P
7440-70-2	Calcium	18700			P
7440-47-3	Chromium	68.6			P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	42.8			P
7439-89-6	Iron	14000		N	P
7439-92-1	Lead	76.5			P
7439-95-4	Magnesium	2910			P
7439-96-5	Manganese	186			P
7439-97-6	Mercury	0.10	B		CV
7440-02-0	Nickel	18.3	B		P
7440-09-7	Potassium	1670			P
7782-49-2	Selenium	10.0	U		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	25400			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	12.6	B		P
7440-66-6	Zinc	279			P

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-18-20100310

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-06

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	716		E	P
7440-36-0	Antimony	5.2	B		P
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium	103	B		P
7440-41-7	Beryllium	0.12	B		P
7440-43-9	Cadmium	0.86	B		P
7440-70-2	Calcium	18900			P
7440-47-3	Chromium	6.5	B		P
7440-48-4	Cobalt	1.0	B		P
7440-50-8	Copper	9.8	B		P
7439-89-6	Iron	731		N	P
7439-92-1	Lead	3.9	B		P
7439-95-4	Magnesium	4460			P
7439-96-5	Manganese	312			P
7439-97-6	Mercury	0.057	B		CV
7440-02-0	Nickel	6.5	B		P
7440-09-7	Potassium	13500			P
7782-49-2	Selenium	10.0	U		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	30000			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	0.63	B		P
7440-66-6	Zinc	57.8			P

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-19-20100310

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-07

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	69.9	B	E	P
7440-36-0	Antimony	4.2	U		P
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium	18.7	B		P
7440-41-7	Beryllium	0.046	B		P
7440-43-9	Cadmium	2.7	B		P
7440-70-2	Calcium	11500			P
7440-47-3	Chromium	1.8	B		P
7440-48-4	Cobalt	0.67	U		P
7440-50-8	Copper	4.7	U		P
7439-89-6	Iron	234		N	P
7439-92-1	Lead	2.1	U		P
7439-95-4	Magnesium	4350			P
7439-96-5	Manganese	8.0	B		P
7439-97-6	Mercury	0.056	U		CV
7440-02-0	Nickel	0.96	B		P
7440-09-7	Potassium	1070			P
7782-49-2	Selenium	10.0	U		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	14900			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	0.34	U		P
7440-66-6	Zinc	47.0	B		P

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-20-20100309

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-08

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	404		E	P
7440-36-0	Antimony	4.4	B		P
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium	35.0	B		P
7440-41-7	Beryllium	0.057	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	9050			P
7440-47-3	Chromium	5.1	B		P
7440-48-4	Cobalt	1.1	B		P
7440-50-8	Copper	5.7	B		P
7439-89-6	Iron	1370		N	P
7439-92-1	Lead	4.9	B		P
7439-95-4	Magnesium	4400			P
7439-96-5	Manganese	27.1	B		P
7439-97-6	Mercury	0.064	B		CV
7440-02-0	Nickel	3.5	B		P
7440-09-7	Potassium	1970			P
7782-49-2	Selenium	10.0	U		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	39600			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	1.2	B		P
7440-66-6	Zinc	187			P

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-21-20100309

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-09

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	793		E	P
7440-36-0	Antimony	4.2	U		P
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium	119	B		P
7440-41-7	Beryllium	0.16	B		P
7440-43-9	Cadmium	1.1	B		P
7440-70-2	Calcium	12600			P
7440-47-3	Chromium	9.0	B		P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	8.2	B		P
7439-89-6	Iron	1840		N	P
7439-92-1	Lead	8.2	B		P
7439-95-4	Magnesium	8380			P
7439-96-5	Manganese	57.7			P
7439-97-6	Mercury	0.058	B		CV
7440-02-0	Nickel	4.9	B		P
7440-09-7	Potassium	12700			P
7782-49-2	Selenium	10.0	U		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	31800			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	2.1	B		P
7440-66-6	Zinc	67.6			P

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-5-20100308

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-01

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	87.5	B	E	P
7440-36-0	Antimony	4.2	U		P
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium	49.4	B		P
7440-41-7	Beryllium	0.089	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	14100			P
7440-47-3	Chromium	29.0			P
7440-48-4	Cobalt	0.67	U		P
7440-50-8	Copper	4.7	U		P
7439-89-6	Iron	107	B	N	P
7439-92-1	Lead	2.1	U		P
7439-95-4	Magnesium	1830			P
7439-96-5	Manganese	16.5	B		P
7439-97-6	Mercury	0.056	B		CV
7440-02-0	Nickel	1.2	B		P
7440-09-7	Potassium	4740			P
7782-49-2	Selenium	10.0	U		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	6570			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	0.34	U		P
7440-66-6	Zinc	15.2	B		P

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-55-20100308

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-02

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	96.2	B	E	P
7440-36-0	Antimony	4.2	U		P
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium	49.9	B		P
7440-41-7	Beryllium	0.094	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	14000			P
7440-47-3	Chromium	27.7			P
7440-48-4	Cobalt	0.67	U		P
7440-50-8	Copper	4.7	U		P
7439-89-6	Iron	116	B	N	P
7439-92-1	Lead	2.1	U		P
7439-95-4	Magnesium	1790			P
7439-96-5	Manganese	20.5	B		P
7439-97-6	Mercury	0.056	U		CV
7440-02-0	Nickel	1.4	B		P
7440-09-7	Potassium	4500			P
7782-49-2	Selenium	10.0	U		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	6240			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	0.53	B		P
7440-66-6	Zinc	16.3	B		P

Comments:

U.S. EPA - CLP

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

LMW-6-20100308

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Lab Sample ID: J0429-03

Level (low/med): MED Date Received: 03/12/2010

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	50.2	B	E	P
7440-36-0	Antimony	4.2	U		P
7440-38-2	Arsenic	3.1	U		P
7440-39-3	Barium	11.3	B		P
7440-41-7	Beryllium	0.062	B		P
7440-43-9	Cadmium	0.62	B		P
7440-70-2	Calcium	6120			P
7440-47-3	Chromium	1.9	B		P
7440-48-4	Cobalt	0.67	U		P
7440-50-8	Copper	5.6	B		P
7439-89-6	Iron	137	B	N	P
7439-92-1	Lead	2.1	U		P
7439-95-4	Magnesium	1970			P
7439-96-5	Manganese	11.4	B		P
7439-97-6	Mercury	0.056	U		CV
7440-02-0	Nickel	1.9	B		P
7440-09-7	Potassium	1180			P
7782-49-2	Selenium	10.0	U		P
7440-22-4	Silver	2.4	U		P
7440-23-5	Sodium	7660			P
7440-28-0	Thallium	5.7	U		P
7440-62-2	Vanadium	0.34	U		P
7440-66-6	Zinc	25.4	B		P

Comments:

U.S. EPA - CLP

3

BLANKS

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Preparation Blank Matrix (soil/water): WATER Method Blank ID: MB-50274

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

FIMS1_100401A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury	0.056	U	0.056	U	0.056	U	0.056	U	0.056	U	CV

U.S. EPA - CLP

3

BLANKS

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Preparation Blank Matrix (soil/water): WATER Method Blank ID: MB-50276

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

FIMS1_100401A

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte		C	1	C	2	C	3	C		C	M
Mercury			0.056	U	0.056	U	0.056	U	0.056	U	CV

U.S. EPA - CLP

3

BLANKS

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Preparation Blank Matrix (soil/water): WATER Method Blank ID: MB-50094

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

OPTIMA3_100326A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Potassium	59.0	U	59.0	U	59.0	U	59.0	U	59.000	U	P
Sodium	29.0	U	29.0	U	29.0	U	29.0	U	29.000	U	P

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3

BLANKS

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Preparation Blank Matrix (soil/water): WATER Method Blank ID: MB-50095

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

OPTIMA3_100326A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Potassium			59.0	U					59.000	U	P
Sodium			29.0	U					29.000	U	P

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3

BLANKS

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Preparation Blank Matrix (soil/water): WATER Method Blank ID: MB-50095

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

OPTIMA3_100329C

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum	-24.2	B	12.0	U	12.0	U			45.406	B	P
Antimony	5.8	B	10.8	B	6.9	B			18.592	B	P
Arsenic	6.0	B	3.7	B	3.1	U			5.482	B	P
Barium	2.9	U	2.9	U	2.9	U			2.900	U	P
Beryllium	0.0	B	0.1	B	0.1	B			0.060	B	P
Cadmium	0.5	U	0.5	U	0.5	U			0.500	U	P
Calcium	87.0	U	-152.0	B	87.0	U			87.000	U	P
Chromium	0.5	U	0.5	U	0.5	U			0.500	U	P
Cobalt	0.7	U	0.7	U	0.7	U			0.670	U	P
Copper	4.7	U	4.7	U	4.7	U			4.700	U	P
Iron	47.0	U	47.0	U	47.0	U			137.317	B	P
Lead	2.1	U	2.1	U	-2.1	B			2.100	U	P
Magnesium	62.0	U	62.0	U	62.0	U			86.119	B	P
Manganese	3.5	U	3.5	U	3.5	U			3.500	U	P
Nickel	0.6	U	0.6	U	0.6	U			0.640	U	P
Selenium	15.2	B	13.5	B	11.7	B			28.346	B	P
Silver	2.4	U	2.4	U	2.4	U			2.400	U	P
Thallium	6.8	B	5.8	B	5.7	U			5.700	U	P
Vanadium	0.3	U	0.3	U	0.3	U			0.340	U	P
Zinc	7.0	U	7.0	U	7.0	U			7.000	U	P

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3

BLANKS

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Preparation Blank Matrix (soil/water): WATER Method Blank ID: MB-50094

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

OPTIMA3_100402A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum	12.0	U	12.0	U	12.0	U	-13.8	B	12.000	U	P
Antimony	10.2	B	6.6	B	5.7	B	9.6	B	11.258	B	P
Arsenic	3.1	U	3.1	U	3.1	U	3.1	U	3.100	U	P
Barium	2.9	U	2.9	U	2.9	U	2.9	U	2.900	U	P
Beryllium	0.1	B	0.1	B	0.1	B	0.1	B	0.058	B	P
Cadmium	0.5	U	0.5	U	0.5	U	0.5	U	0.500	U	P
Calcium	87.0	U	87.0	U	87.0	U	87.0	U	87.000	U	P
Chromium	0.5	U	0.5	U	0.5	U	0.5	U	0.500	U	P
Cobalt	0.7	U	0.7	U	0.7	U	0.7	U	0.670	U	P
Copper	4.7	U	4.7	U	4.7	U	4.7	U	4.700	U	P
Iron	47.0	U	47.0	U	47.0	U	47.0	U	47.000	U	P
Lead	2.1	U	2.1	U	2.1	U	2.1	U	2.100	U	P
Magnesium	62.0	U	62.0	U	62.0	U	62.0	U	62.000	U	P
Manganese	3.5	U	3.5	U	3.5	U	3.5	U	6.170	B	P
Nickel	0.6	U	0.6	U	0.6	U	0.6	U	0.640	U	P
Selenium	11.0	B	14.7	B	10.0	U	10.0	U	10.000	U	P
Silver	2.4	U	2.4	U	2.4	U	2.4	U	2.400	U	P
Thallium	5.7	U	5.7	U	5.7	U	5.7	U	5.700	U	P
Vanadium	0.3	U	0.3	U	0.3	U	0.3	U	0.340	U	P
Zinc	7.0	U	7.0	U	7.0	U	7.0	U	7.000	U	P

U.S. EPA - CLP

3

BLANKS

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Preparation Blank Matrix (soil/water): Method Blank ID:

Preparation Blank Concentration Units (ug/L or mg/kg):

OPTIMA3_100402A

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			12.0	U							P
Antimony			8.7	B							P
Arsenic			-3.8	B							P
Barium			2.9	U							P
Beryllium			0.1	B							P
Cadmium			0.5	U							P
Calcium			87.0	U							P
Chromium			0.5	U							P
Cobalt			0.7	U							P
Copper			4.7	U							P
Iron			47.0	U							P
Lead			2.1	U							P
Magnesium			62.0	U							P
Manganese			3.5	U							P
Nickel			0.6	U							P
Selenium			10.0	U							P
Silver			2.4	U							P
Thallium			5.7	U							P
Vanadium			0.4	B							P
Zinc			7.0	U							P

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3

BLANKS

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Preparation Blank Matrix (soil/water): Method Blank ID:

Preparation Blank Concentration Units (ug/L or mg/kg):

OPTIMA3_100408A

	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		
Analyte		C	1	C	2	C	3	C		C	M
Manganese	3.5	U	3.5	U							P

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5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

DMW-18-20100309S

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Level (low/med): MED

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	12000		2270		9100	107		P
Antimony	75-125	525		12.2	B	456	113		P
Arsenic	75-125	493		5.9	B	456	107		P
Barium	75-125	9900		283		9100	106		P
Beryllium	75-125	234		0.31	B	227	103		P
Cadmium	75-125	258		18.1		227	106		P
Chromium	75-125	938		5.0	B	910	103		P
Cobalt	75-125	2360		11.6	B	2270	103		P
Copper	75-125	1290		112		1130	104		P
Iron	75-125	9630		4620		4550	110		P
Lead	75-125	498		19.0		455	105		P
Manganese		12900		10100		2270	126		P
Nickel	75-125	2390		48.0	B	2270	103		P
Selenium	75-125	493		16.4	B	455	105		P
Silver	75-125	1210		2.4	U	1130	107		P
Thallium	75-125	547		64.5		455	106		P
Vanadium	75-125	2360		5.0	B	2270	104		P
Zinc	75-125	2710		366		2270	103		P
Mercury	75-125	5.1		0.056	U	4.6	113		CV

Comments:

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

LMW-14-20100309S

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Level (low/med): MED

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	13500		4830		9100	96		P
Antimony	75-125	490		4.2	U	456	108		P
Arsenic	75-125	466		6.0	B	456	101		P
Barium	75-125	9600		107	B	9100	104		P
Beryllium	75-125	232		0.28	B	227	102		P
Cadmium	75-125	254		26.0		227	101		P
Chromium	75-125	975		68.6		910	100		P
Cobalt	75-125	2350		2.7	B	2270	103		P
Copper	75-125	1150		42.8		1130	98		P
Iron	75-125	17300		14000		4550	73	N	P
Lead	75-125	537		76.5		455	101		P
Manganese	75-125	2490		186		2270	102		P
Nickel	75-125	2340		18.3	B	2270	102		P
Selenium	75-125	454		10.0	U	455	100		P
Silver	75-125	1190		2.4	U	1130	106		P
Thallium	75-125	458		5.7	U	455	101		P
Vanadium	75-125	2240		12.6	B	2270	98		P
Zinc	75-125	2550		279		2270	100		P
Mercury	75-125	5.2		0.10	B	4.6	111		CV

Comments:

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

LMW-14-20100309A

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Level (low/med): MED

Concentration Units (ug/L or mg/kg dry weight): ug/L

Analyte	Control Limit %R	Spike Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Iron		17577.72		13957.85		4550.0	80		P

Comments:

U.S. EPA - CLP

6

DUPLICATES

EPA SAMPLE NO.

LMW-14-20100309D

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Level (low/med): MED

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		4831.7750		4245.3659		12.9		P
Antimony		4.2000	U	10.6144	B	200		P
Arsenic		5.9940	B	3.1000	U	200		P
Barium		107.1707	B	104.1307	B	2.9		P
Beryllium		0.2785	B	0.2700	B	3.1		P
Cadmium		26.0324		25.7312		1.2		P
Calcium		18739.3472		18530.0543		1.1		P
Chromium	20.0	68.6420		63.9077		7.1		P
Cobalt		2.7366	B	2.4060	B	12.9		P
Copper	30.0	42.8077		41.6615		2.7		P
Iron		13957.8462		12941.8666		7.6		P
Lead		76.5177		75.8340		0.9		P
Magnesium		2912.4613		2849.3361		2.2		P
Manganese	50.0	186.2367		176.0542		5.6		P
Nickel		18.3083	B	17.4091	B	5		P
Potassium	1000.0	1673.7279		1701.9572		1.7		P
Selenium		10.0000	U	10.0000	U			P
Silver		2.4000	U	2.4000	U			P
Sodium		25429.1668		26089.2835		2.6		P
Thallium		5.7000	U	5.7000	U			P
Vanadium		12.5526	B	11.6435	B	7.5		P
Zinc		279.2676		269.9966		3.4		P
Mercury		0.1029	B	0.0976	B	5.3		CV

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DUPLICATES

EPA SAMPLE NO.

DMW-18-20100309D

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Matrix (soil/water): WATER Level (low/med): MED

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		2267.0667		2430.5960		7		P
Antimony		12.1561	B	4.9774	B	83.8		P
Arsenic		5.9237	B	4.8235	B	20.5		P
Barium	200.0	282.7648		285.5766		1		P
Beryllium		0.3143	B	0.3309	B	5.1		P
Cadmium	5.0	18.1092		18.3180		1.1		P
Calcium		27020.5953		26814.0485		0.8		P
Chromium		4.9936	B	5.6011	B	11.5		P
Cobalt		11.6155	B	14.2767	B	20.6		P
Copper	30.0	112.2249		115.0672		2.5		P
Iron		4623.4031		5062.8745		9.1		P
Lead	10.0	18.9785		20.5831		8.1		P
Magnesium		4130.0303		4137.6500		0.2		P
Manganese		10054.1508		13572.9556		29.8	*	P
Nickel		47.9997	B	49.1195	B	2.3		P
Potassium	1000.0	4116.4614		4133.7440		0.4		P
Selenium		16.4371	B	10.0000	U	200		P
Silver		2.4000	U	2.4000	U			P
Sodium		10604.4188		10663.3567		0.6		P
Thallium	20.0	64.5127		79.1656		20.4		P
Vanadium		4.9711	B	5.1828	B	4.2		P
Zinc		365.8026		363.0624		0.8		P
Mercury		0.0560	U	0.0560	U			CV

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LABORATORY CONTROL SAMPLE

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Solid LCS Source: LCS(D) ID:

Aqueous LCS Source: LCS-50094

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/Kg) True	Found	C	Limits		%R
Aluminum	9100.0	8982.97	98.7						
Antimony	455.0	525.04	115.4						
Arsenic	455.0	464.64	102.1						
Barium	9100.0	9477.98	104.2						
Beryllium	227.0	232.65	102.5						
Cadmium	227.0	235.37	103.7						
Calcium	22700.0	22745.61	100.2						
Chromium	910.0	924.30	101.6						
Cobalt	2270.0	2358.80	103.9						
Copper	1130.0	1119.80	99.1						
Iron	4550.0	4732.25	104.0						
Lead	455.0	469.01	103.1						
Magnesium	22700.0	22801.38	100.4						
Manganese	2270.0	2353.52	103.7						
Nickel	2270.0	2335.78	102.9						
Potassium	22700.0	23025.97	101.4						
Selenium	455.0	459.06	100.9						
Silver	1130.0	1200.41	106.2						
Sodium	22700.0	23165.26	102.0						
Thallium	455.0	474.28	104.2						
Vanadium	2270.0	2264.07	99.7						
Zinc	2270.0	2314.37	102.0						

U.S. EPA - CLP

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LABORATORY CONTROL SAMPLE

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Solid LCS Source: LCS(D) ID:

Aqueous LCS Source: LCS-50095

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/Kg) True	Found	C	Limits		%R
Aluminum	9100.0	8925.99	98.1						
Antimony	455.0	525.16	115.4						
Arsenic	455.0	473.80	104.1						
Barium	9100.0	9285.62	102.0						
Beryllium	227.0	222.98	98.2						
Cadmium	227.0	230.42	101.5						
Calcium	22700.0	22274.38	98.1						
Chromium	910.0	896.73	98.5						
Cobalt	2270.0	2299.29	101.3						
Copper	1130.0	1123.27	99.4						
Iron	4550.0	4666.15	102.6						
Lead	455.0	461.71	101.5						
Magnesium	22700.0	22552.74	99.4						
Manganese	2270.0	2254.62	99.3						
Nickel	2270.0	2284.49	100.6						
Potassium	22700.0	22813.10	100.5						
Selenium	455.0	480.29	105.6						
Silver	1130.0	1186.01	105.0						
Sodium	22700.0	22910.64	100.9						
Thallium	455.0	476.73	104.8						
Vanadium	2270.0	2261.26	99.6						
Zinc	2270.0	2276.38	100.3						

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LABORATORY CONTROL SAMPLE

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: SAS No.: SDG No.: SJ0429

Solid LCS Source: LCS(D) ID:

Aqueous LCS Source: LCS-50274

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/Kg) True	Found	C	Limits		%R
Mercury	4.6	4.90	106.5						

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LABORATORY CONTROL SAMPLE

Lab Name: Mitkem Laboratories Contract: 95900-04

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: SJ0429

Solid LCS Source: _____ LCS(D) ID:

Aqueous LCS Source: _____ LCS-50276

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/Kg) True	Found	C	Limits		%R
Mercury	4.6	5.13	111.5						