

**Groundwater Sampling and  
NAPL Monitoring/Recovery Report  
for the First Quarter of 2010  
(January - March 2010)  
for the Hempstead Intersection Street  
Former Manufactured Gas Plant Site  
Villages of Hempstead & Garden City  
Nassau County, New York**



Prepared for:

**National Grid**

175 East Old Country Road  
Hicksville, New York 11801

Prepared by:

**URS Corporation - New York**

77 Goodell Street  
Buffalo, New York 14203

**GROUNDWATER SAMPLING AND NAPL MONITORING/RECOVERY  
REPORT FOR THE FIRST QUARTER OF 2010 (JANUARY- MARCH)**

**HEMPSTEAD INTERSECTION STREET  
FORMER MANUFACTURED GAS PLANT SITE  
VILLAGES OF HEMPSTEAD AND GARDEN CITY  
NASSAU COUNTY, NEW YORK**

*Prepared for:*

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**April 2010**

**TABLE OF CONTENTS**

	<u>Page No.</u>
EXECUTIVE SUMMARY .....	E-1
1.0 INTRODUCTION .....	1-1
2.0 FIELD ACTIVITIES .....	2-1
2.1 Groundwater Depth and NAPL Thickness Measurements .....	2-1
2.2 NAPL Recovery .....	2-1
2.3 Ground Water Sampling .....	2-1
3.0 RESULTS .....	3-1
3.1 Dissolved-Phase Plume .....	3-1
3.2 Potentiometric Heads and NAPL Thickness .....	3-1
3.3 Groundwater Analytical Results .....	3-1
3.4 NAPL Recovery Volumes .....	3-2
4.0 SUMMARY .....	4-1

**TABLES**  
(Following Text)

Table 1	Summary of Field Activities for the First Quarter 2010
Table 2	Groundwater and NAPL Measurements for the First Quarter 2010
Table 3	NAPL Recovery, First Quarter 2010
Table 4	Dissolved-Phase Concentrations of Total BTEX and Total PAH Compounds for the First Quarter 2010

**FIGURES**  
(Following Tables)

Figure 1	Location Map
Figure 2	Site Map
Figure 3	Extent of Dissolved-Phase Plume and Groundwater Analytical Results
Figure 4	Potentiometric Surface Map for Shallow Groundwater, January 2010
Figure 5	Potentiometric Surface Map for Intermediate Groundwater, January 2010
Figure 6	Potentiometric Surface Map for Deep Groundwater, January 2010
Figure 7	Total Dissolved-Phase BTEX/PAH Concentrations and Free Product Thickness, First Quarter 2010
Figure 8A	Well HIMW-01S NAPL Thickness and Cumulative Recovery Plot
Figure 8B	Well HIMW-01I NAPL Thickness and Cumulative Recovery Plot
Figure 8C	Well HIMW-06S NAPL Thickness and Cumulative Recovery Plot
Figure 8D	Well HIMW-06I NAPL Thickness and Cumulative Recovery Plot
Figure 8E	Well HIMW-07S NAPL Thickness and Cumulative Recovery Plot
Figure 8F	Well HIMW-11S NAPL Thickness and Cumulative Recovery Plot
Figure 8G	Well HIMW-11I NAPL Thickness and Cumulative Recovery Plot
Figure 8H	Well HIMW-16S NAPL Thickness and Cumulative Recovery Plot
Figure 8I	Well HIMW-16I NAPL Thickness and Cumulative Recovery Plot
Figure 8J	Well HIMW-17S NAPL Thickness and Cumulative Recovery Plot
Figure 8K	Well HIMW-18S NAPL Thickness and Cumulative Recovery Plot
Figure 8L	Well HIMW-18I NAPL Thickness and Cumulative Recovery Plot
Figure 8M	Well HIMW-19S NAPL Thickness and Cumulative Recovery Plot
Figure 8N	Well HIMW-19I NAPL Thickness and Cumulative Recovery Plot
Figure 8O	Well HIMW-21 NAPL Thickness and Cumulative Recovery Plot
Figure 8P	Well PZ-08 NAPL Thickness and Cumulative Recovery Plot
Figure 8Q	Well IPR-02 NAPL Thickness and Cumulative Recovery Plot
Figure 8R	Well IPR-05 NAPL Thickness and Cumulative Recovery Plot
Figure 8S	Well IPR-06 NAPL Thickness and Cumulative Recovery Plot
Figure 8T	Well IPR-09 NAPL Thickness and Cumulative Recovery Plot
Figure 8U	Well IPR-12A NAPL Thickness and Cumulative Recovery Plot
Figure 8V	Well IPR-15 NAPL Thickness and Cumulative Recovery Plot
Figure 8W	Well IPR-16 NAPL Thickness and Cumulative Recovery Plot

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Figure 8X	Well IPR-17 NAPL Thickness and Cumulative Recovery Plot
Figure 8Y	Well IPR-18 NAPL Thickness and Cumulative Recovery Plot
Figure 8Z	Well IPR-20 NAPL Thickness and Cumulative Recovery Plot
Figure 8AA	Well IPR-21 NAPL Thickness and Cumulative Recovery Plot
Figure 8AB	Well IPR-22 NAPL Thickness and Cumulative Recovery Plot
Figure 8AC	Well IPR-24 NAPL Thickness and Cumulative Recovery Plot
Figure 8AD	Well IPR-25 NAPL Thickness and Cumulative Recovery Plot
Figure 8AE	Well IPR-27 NAPL Thickness and Cumulative Recovery Plot
Figure 8AF	Well IPR-29 NAPL Thickness and Cumulative Recovery Plot

**ATTACHMENTS**  
(Following Figures)

Attachment A Data Usability Summary Report

## **EXECUTIVE SUMMARY**

This report provides a summary of field activities, analytical results, and data interpretations associated with groundwater sampling and recovery of non-aqueous phase liquid (NAPL) at the Hempstead Intersection Street Former Manufactured Gas Plant (MGP) site during the first quarter (January, February, and March) of 2010.

Groundwater monitoring and sampling was conducted on January 5 to 26, 2010. This included measuring the depth to groundwater and NAPL thickness in 67 wells. Groundwater samples were collected from 16 wells and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs).

The following results were obtained from the groundwater sampling and NAPL monitoring/recovery event:

- The general direction of groundwater flow in shallow, intermediate, and deep water-bearing zones was south at an average gradient of approximately 0.002 ft/ft.
- The dissolved-phase plume extended approximately 3,600 feet south of the site boundary.
- DNAPL was detected in 28 wells during the first quarter of 2010. The wells were located on site or within the parking lot immediately south of the site.
- The volume of NAPL recovered from the site wells ranged from approximately 7 to 18 gallons per event. Approximately 69 gallons of NAPL were recovered during the first quarter of 2010. Approximately 488 gallons of NAPL have been recovered since April 2007.
- Based on a comparison between the first quarter 2010 data and the previous data the concentrations of dissolved phase total BTEX and total PAHs remained stable in the site monitoring wells.

## **1.0 INTRODUCTION**

This groundwater sampling and NAPL monitoring/recovery report describes field activities, presents field measurements, NAPL recovery volumes, and analytical data associated with the Hempstead Intersection Street Former MGP site (refer to Figures 1 and 2). Interpretations of the data are also provided.

URS Corporation (URS) performed the following activities during the first quarter of 2010:

- Measured the depth to groundwater and NAPL thickness in accessible monitoring wells (January 5-26, 2010).
- Collected groundwater samples from 16 monitoring wells for laboratory analysis (January 5 to 17, 2010).
- Recovered NAPL from monitoring wells and piezometers (January 10, January 26, February 8, February 20, March 7, and March 20, 2010).

Quarterly groundwater monitoring and bimonthly recovery of NAPL was initiated in April 2007. Separate reports have been issued for quarterly activities performed in 2007, 2008, and 2009, and annual reports were issued that encompassed the last three quarters of 2007 and all four quarters of 2008 and 2009.

## **2.0 FIELD ACTIVITIES**

The field activities performed by URS are summarized below.

- Measurement of the depth to groundwater and NAPL thickness in 67 monitoring wells.
- Collection of groundwater samples from 16 monitoring wells.
- Recovery of NAPL from accessible monitoring wells that contained measurable NAPL.

Monitoring wells and piezometers used for these activities are listed in Table 1.

### **2.1 Groundwater Depth and NAPL Thickness Measurements**

Depths to groundwater and NAPL thickness measurements are listed in Table 2. An electronic water level indicator was used to measure the depth to groundwater. NAPL thickness was measured using an oil/water interface probe and a weighted cotton string coated with oil indicator paste.

### **2.2 NAPL Recovery**

NAPL was recovered from 22 wells during 6 events from January to March 2010 (Table 3). All measured NAPL consisted of dense non-aqueous phase liquid (DNAPL) located at the bottom of the wells. The DNAPL was recovered using a Waterra inertial lift pump. The quantity of the recovered NAPL was estimated based on the volume contained inside the well prior to pumping.

### **2.3 Ground Water Sampling**

Low-flow groundwater sampling methods were used, which consisted of purging groundwater at a rate of between 100 and 250 milliliters per minute. The water was pumped through a flow-through cell and monitored for pH, conductivity, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP). Purging was continued until stable conditions were achieved (defined as three consecutive stable readings [i.e.  $\pm 10$  percent] over a 15 minute

period). Groundwater samples were collected afterwards and shipped under chain-of-custody procedures to H2M laboratories, Inc. for analysis of BTEX (USEPA Method 8260B) and PAHs (USEPA Method 8270C) (Table 4).

### **3.0 RESULTS**

#### **3.1 Dissolved-Phase Plume**

The extent of the dissolved-phase plume is shown on Figure 3. The downgradient boundary of the plume, which is defined by total BTEX or PAH concentrations greater than 100 µg/L, extends approximately 3,600 feet south of the site boundary. Based on comparison with previous quarterly groundwater monitoring data, the concentrations of total BTEX or PAHs in groundwater have remained stable.

In January 2010, the concentrations of total BTEX or total PAHs in the furthest downgradient well pair (HIMW-015I/D) ranged from “not detected” (deep well, HIMW-15D) to 11 µg/L (intermediate well, HIMW-15I). The concentrations of total BTEX or total PAHs in wells located between the site and the HIMW-015 cluster varied from “not detected” to 3,047 µg/L.

#### **3.2 Potentiometric Heads and NAPL Thickness**

Potentiometric heads and NAPL thickness measurements are presented in Table 2. Potentiometric surface maps for shallow, intermediate and deep groundwater zones were developed using this data and are shown on Figures 4, 5, and 6, respectively. The figures indicate that the direction of groundwater flow within the well field was south at an average gradient of approximately 0.002 ft/ft.

DNAPL was detected in 28 wells during the first quarter 2010 (Table 3). Figure 7 illustrates the thickness of DNAPL that was measured on January 26, 2010. Figures 8A – 8AF provide cumulative NAPL recovery and NAPL thickness plots for the period December 2003 to March 2010. All of the wells where DNAPL was identified are either on the site or within a parking lot that is immediately south of the site.

#### **3.3 Groundwater Analytical Results**

Groundwater analytical results are summarized in Table 4 and illustrated on Figure 7.

A Data Usability Summary Report (DUSR) was prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation Draft DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for the Development of Data Usability Summary Reports, December 2002. An electronic copy of the DUSR is included as Attachment A. The review included a review of holding times; completeness of all required deliverables; quality control (QC) results (blanks, instrument tunes, calibration standards, matrix spike recoveries, duplicate analyses, and laboratory control sample recoveries) to determine if the data are within the protocol-required QC limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers. All sample analyses were found to be compliant with the method and validation criteria and the data is useable as reported.

### **3.4 NAPL Recovery Volumes**

Approximately 69 gallons of NAPL were recovered from 22 wells (Table 3). The volume of NAPL recovered varied from approximately 7 to 18 gallons per event. Approximately 488 gallons of NAPL have been recovered since April 2007.



#### **4.0 SUMMARY**

Following is a summary of the first quarter 2010 groundwater sampling and NAPL monitoring/recovery data presented in this report.

- The general direction of groundwater flow in the shallow, intermediate, and deep water-bearing zones was south at an average gradient of 0.002 ft/ft.
- The dissolved-phase plume extended approximately 3,600 feet south of the site boundary.
- DNAPL was detected in 28 wells during the first quarter of 2010. The wells were located on site or within the parking lot immediately south of the site.
- The volume of NAPL recovered from the site wells varied from approximately 7 to 18 gallons per event. Approximately 69 gallons of NAPL were recovered during the first quarter of 2010. Approximately 488 gallons of NAPL have been recovered since April 2007.
- Based on a comparison between the first quarter 2010 data and the previous data the concentrations of total BTEX and total PAHs remained stable in the site monitoring wells.

## **TABLES**

**Table 1**

**Hempstead Intersection Street Former MGP Site  
Summary of Field Activities for the First Quarter 2010**

Well ID	Monitoring & Sampling (January 5-26, 2010)			NAPL Monitoring and Recovery					
	Groundwater Level	NAPL Thickness	Water Quality	March 20, 2010	March 7, 2010	Feb. 20, 2010	Feb. 8, 2010	Jan. 26, 2010	Jan. 10, 2010
HIMW-001S	X	X				O		X	
HIMW-001I	X	X		X		O	X	X	X
HIMW-001D									
HIMW-002S									
HIMW-002I									
HIMW-002D									
HIMW-003S									
HIMW-003I									
HIMW-003D									
HIMW-004S	X	X							
HIMW-004I									
HIMW-004D									
HIMW-005S	X	X	X						
HIMW-005I	X	X	X						
HIMW-005D			X						
HIMW-006S	X	X		X	X	O	X	X	X
HIMW-006I	X	X				O		X	
HIMW-006D									
HIMW-007S	X	X		X	X	O	X	X	X
HIMW-007I	X	X				X		X	
HIMW-007D	X	X				X		X	
HIMW-008S	X	X	X						
HIMW-008I	X	X	X						
HIMW-008D			X						
HIMW-009S									
HIMW-009I									
HIMW-009D									
HIMW-010S									
HIMW-010I									
HIMW-010D									
HIMW-011S	X	X						X	
HIMW-011I	X	X						X	
HIMW-011D									
HIMW-012S	X	X	X						
HIMW-012I	X	X	X						
HIMW-012D	X	X	X						
HIMW-013S									
HIMW-013I	X	X	X						
HIMW-013D	X	X	X						
HIMW-014I	X	X	X						
HIMW-014D									
HIMW-015I	X	X	X						
HIMW-015D	X	X	X						
HIMW-016S	X	X		X	X	X	X	X	X
HIMW-016I	X	X		X	X	X	X	X	X
HIMW-017S	X	X		X	X	X	X	X	X

**Table 1**

**Hempstead Intersection Street Former MGP Site  
Summary of Field Activities for the First Quarter 2010**

Well ID	Monitoring & Sampling (January 5-26, 2010)			NAPL Monitoring and Recovery					
	Groundwater Level	NAPL Thickness	Water Quality	March 20, 2010	March 7, 2010	Feb. 20, 2010	Feb. 8, 2010	Jan. 26, 2010	Jan. 10, 2010
HIMW-018S	X	X				O	X	X	
HIMW-018I	X	X				X		X	
HIMW-019S	X	X				X	X	X	
HIMW-019I	X	X				X		X	
HIMW-020S	X	X	X						
HIMW-020I	X	X	X						
HIMW-21	X	X			X		X	X	
PZ-02									
PZ-03									
PZ-08	X	X		X	X	O	X	X	X
IPR-01	X	X							
IPR-02	X	X		X		O		X	X
IPR-03	X	X							
IPR-04	X	X							
IPR-05	X	X				O		X	
IPR-06	X	X		X	X	O	X	X	X
IPR-07	X	X							
IPR-08	X	X							
IPR-09	X	X				X		X	
IPR-10	X	X							
IPR-11	X	X							
IPR-12A	X	X				X		X	
IPR-12B	X	X							
IPR-13	X	X							
IPR-14	X	X		X				X	
IPR-15	X	X		X		X		X	
IPR-16	X	X		X		X	X	X	
IPR-17	X	X		X		X		X	
IPR-18	X	X		X		X		X	
IPR-19S						X			
IPR-19D	X	X		X				X	
IPR-20	X	X		X	X	X	X	X	
IPR-21	X	X		X	X	X	X	X	X
IPR-22	X	X		X	X	X	X	X	X
IPR-23	X	X		X					
IPR-24	X	X		X		X	X	X	
IPR-25	X	X		X	X	O	X	X	X
IPR-26	X	X						X	
IPR-27	X	X						X	
IPR-28	X	X							
IPR-29	X	X		X	X	X	X	X	
IPR-30	X	X							
OSMW-01	X	X							
OSMW-02	X	X							
OSMW-03	X	X							

**Notes:**

- 1 Field marked with "X" indicates that the activity was performed.
- 2 Field marked with "O" indicates that only NAPL monitoring was performed (no product recovery due to snow).
- 3 Blank field indicates that the activity was not performed.

**Table 2**  
**Groundwater and NAPL Measurements**  
**First Quarter 2010**  
**Hempstead Intersection Street Former MGP Site**

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL <sup>(2)</sup>	Corrected Potentiometric Head <sup>(1)</sup>
		[ft amsl]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-001S	1/26/2010	71.61	ND	25.62	40.85	40.9	0	0.01	45.99
HIMW-001I	1/26/2010	71.68	ND	25.81	85.45	85.9	0	0.40	45.87
HIMW-001D	NM	71.95	ND	NM	ND	129.1	0	0.00	NM
HIMW-002S	NM	73.82	ND	NM	ND	42.4	0	0.00	NM
HIMW-002I	NM	78.87	ND	NM	ND	92.9	0	0.00	NM
HIMW-002D	NM	74.13	ND	NM	ND	119.0	0	0.00	NM
HIMW-003S	NM	65.00	ND	NM	ND	34.8	0	0.00	NM
HIMW-003I	NM	64.94	ND	NM	ND	87.1	0	0.00	NM
HIMW-003D	NM	65.26	ND	NM	ND	145.5	0	0.00	NM
HIMW-004S	1/13/2010	72.74	ND	27.74	ND	41.7	0	0.00	45.00
HIMW-004I	NM	72.78	ND	NM	ND	90.6	0	0.00	NM
HIMW-004D	NM	72.65	ND	NM	ND	180.5	0	0.00	NM
HIMW-005S	1/17/2010	67.19	ND	22.08	ND	39.1	0	0.00	45.11
HIMW-005I	1/10/2010	67.22	ND	22.50	ND	92.3	0	0.00	44.72
HIMW-005D	NM	67.22	ND	NM	ND	139.0	0	0.00	NM
HIMW-006S	1/26/2010	68.25	ND	22.72	32.35	36.9	0	4.55	45.53
HIMW-006I	1/26/2010	67.88	ND	22.46	82.17	82.2	0	0.01	45.42
HIMW-006D	NM	67.77	ND	NM	ND	120.0	0	0.00	NM
HIMW-007S	1/26/2010	70.47	ND	24.91	39.54	40.7	0	1.20	45.56
HIMW-007I	1/26/2010	70.10	ND	24.88	ND	90.6	0	0.00	45.22
HIMW-007D	1/26/2010	70.40	ND	24.82	ND	117.7	0	0.00	45.58
HIMW-008S	1/12/2010	65.04	ND	20.34	ND	37.1	0	0.00	44.70
HIMW-008I	1/12/2010	65.14	ND	20.47	ND	75.1	0	0.00	44.67
HIMW-008D	NM	64.93	ND	NM	ND	114.8	0	0.00	NM
HIMW-009S	NM	70.03	ND	NM	ND	39.6	0	0.00	NM
HIMW-009I	NM	69.93	ND	NM	ND	80.5	0	0.00	NM
HIMW-009D	NM	69.96	ND	NM	ND	NM	0	0.00	NM
HIMW-010S	NM	71.60	ND	NM	ND	40.3	0	0.00	NM
HIMW-010I	NM	71.47	ND	NM	ND	91.8	0	0.00	NM
HIMW-010D	NM	71.44	ND	NM	ND	136.0	0	0.00	NM
HIMW-011S	1/26/2010	71.62	ND	25.68	ND	41.6	0	0.00	45.94
HIMW-011I	1/26/2010	71.43	ND	25.53	ND	94.5	0	0.00	45.90
HIMW-011D	NM	71.39	ND	NM	ND	123.6	0	0.00	NM
HIMW-012S	1/7/2010	61.58	ND	18.00	ND	33.5	0	0.00	43.58
HIMW-012I	1/7/2010	61.59	ND	17.87	ND	75.0	0	0.00	43.72
HIMW-012D	1/6/2010	61.82	ND	19.70	ND	128.5	0	0.00	42.12
HIMW-013S	NM	72.83	ND	NM	ND	49.2	0	0.00	NM
HIMW-013I	1/6/2010	72.60	ND	30.98	ND	82.6	0	0.00	41.62
HIMW-013D	1/6/2010	72.53	ND	30.97	ND	122.5	0	0.00	41.56
HIMW-014I	1/5/2010	71.71	ND	30.14	ND	96.9	0	0.00	41.57
HIMW-014D	NM	71.59	ND	NM	ND	152.0	0	0.00	NM
HIMW-015I	1/5/2010	64.18	ND	25.34	ND	93.1	0	0.00	38.84
HIMW-015D	1/5/2010	63.96	ND	26.69	ND	155.0	0	0.00	37.27
HIMW-016S	1/24/2010	67.45	ND	22.18	29.11	34.4	0	5.30	45.27
HIMW-016I	1/24/2010	67.50	ND	22.29	76.96	82.7	0	5.70	45.21
HIMW-017S	1/24/2010	65.96	ND	20.99	33.55	36.7	0	3.15	44.97
HIMW-018S	1/26/2010	69.76	ND	24.03	41.42	42.1	0	0.70	45.73
HIMW-018I	1/26/2010	69.70	ND	25.96	ND	71.2	0	0.00	43.74
HIMW-019S	1/26/2010	70.95	ND	24.82	38.58	39.4	0	0.80	46.13
HIMW-019I	1/26/2010	71.27	ND	25.08	ND	68.9	0	0.00	46.19
HIMW-020S	1/13/2010	70.43	ND	27.21	ND	35.0	0	0.00	43.22
HIMW-020I	1/8/2010	70.30	ND	26.02	ND	73.0	0	0.00	44.28

**Table 2**  
**Groundwater and NAPL Measurements**  
**First Quarter 2010**  
**Hempstead Intersection Street Former MGP Site**

Well ID	Date	Elevation of TOR	Depth to LNAPL	Depth to Water	Depth to DNAPL	Well Depth	Thickness of LNAPL	Thickness of DNAPL <sup>(2)</sup>	Corrected Potentiometric Head <sup>(1)</sup>
		[ft amsl]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft amsl]
HIMW-21	1/24/2010	NM	ND	20.58	NM	NM	0	1.20	NM
PZ-02	NM	72.96	ND	NM	ND	35.3	0	0.00	NM
PZ-03	NM	64.58	ND	NM	ND	29.5	0	0.00	NM
PZ-08	1/26/2010	70.51	ND	24.71	34.30	35.5	0	1.20	45.80
IPR-01	1/26/2010	70.30	ND	24.25	ND	41.9	0	0.00	46.05
IPR-02	1/26/2010	68.84	ND	22.86	70.15	70.3	0	0.10	45.98
IPR-03	1/26/2010	69.16	ND	23.19	ND	44.7	0	0.00	45.97
IPR-04	1/26/2010	69.23	ND	23.36	ND	84.4	0	0.00	45.87
IPR-05	1/26/2010	70.39	ND	24.55	50.72	52.1	0	1.40	45.84
IPR-06	1/26/2010	70.79	ND	25.01	54.25	55.4	0	1.15	45.78
IPR-07	1/26/2010	69.73	ND	24.87	ND	38.0	0	0.00	44.86
IPR-08	1/26/2010	70.51	ND	24.88	ND	40.3	0	0.00	45.63
IPR-09	1/26/2010	70.00	ND	24.37	ND	45.0	0	0.00	45.63
IPR-10	1/26/2010	70.80	ND	25.09	ND	44.8	0	0.00	45.71
IPR-11	1/26/2010	68.29	ND	22.78	ND	44.6	0	0.00	45.51
IPR-12A	1/26/2010	70.14	ND	24.50	ND	38.1	0	0.00	45.64
IPR-12B	1/26/2010	69.56	ND	23.99	ND	45.2	0	0.00	45.57
IPR-13	1/26/2010	70.77	ND	25.08	ND	44.4	0	0.00	45.69
IPR-14	1/24/2010	66.93	ND	21.53	ND	44.4	0	0.00	45.40
IPR-15	1/24/2010	67.93	ND	22.52	44.39	44.4	0	0.01	45.41
IPR-16	1/24/2010	69.49	ND	24.02	48.10	49.1	0	0.95	45.47
IPR-17	1/24/2010	70.60	ND	25.10	54.10	54.1	0	0.01	45.50
IPR-18	1/24/2010	66.87	ND	21.59	ND	50.0	0	0.00	45.28
IPR-19S	NM	67.68	ND	NM	ND	45.1	0	0.00	NM
IPR-19D	1/24/2010	67.96	ND	22.70	ND	89.9	0	0.00	45.26
IPR-20	1/24/2010	66.70	ND	21.52	44.80	45.4	0	0.60	45.18
IPR-21	1/24/2010	67.67	ND	22.47	44.16	45.0	0	0.80	45.20
IPR-22	1/24/2010	66.33	ND	21.31	44.15	45.4	0	1.25	45.02
IPR-23	1/24/2010	66.67	ND	20.58	ND	45.4	0	0.00	46.09
IPR-24	1/24/2010	65.88	ND	20.91	43.75	44.4	0	0.60	44.97
IPR-25	1/26/2010	70.56	ND	24.62	43.70	44.5	0	0.80	45.94
IPR-26	1/26/2010	NM	ND	24.22	NM	NM	0	0.01	NM
IPR-27	1/26/2010	NM	ND	24.97	NM	NM	0	0.00	NM
IPR-28	1/26/2010	NM	ND	22.47	NM	NM	0	0.00	NM
IPR-29	1/26/2010	NM	ND	20.85	NM	NM	0	2.15	NM
IPR-30	1/26/2010	NM	ND	21.88	NM	NM	0	0.00	NM
IPR-31	NM	NM	ND	NM	NM	NM	0	0.00	NM
OSMW-01	1/26/2010	71.12	ND	25.03	ND	42.2	0	0.00	46.09
OSMW-02	1/26/2010	71.59	ND	25.79	ND	45.2	0	0.00	45.80
OSMW-03	1/26/2010	71.39	ND	25.68	ND	44.7	0	0.00	45.71

**Notes:**

- (1) Potentiometric heads in wells containing LNAPL are corrected using a specific gravity = 0.96
- (2) DNAPL thicknesses measured on 1/26/2010

sheen Sheen = assumed thickness of 0.01 ft  
 NM not measured  
 LNAPL light non-aqueous phase liquid  
 DNAPL dense non-aqueous phase liquid  
 TOR top of riser  
 amsl above mean sea level  
 ND NAPL not detected

**Table 3  
NAPL Recovery  
First Quarter of 2010  
Hempstead Intersection Street Former MGP Site**

Well ID	March 20, 2010			March 7, 2010			February 20, 2010			February 8, 2010			January 26, 2010			January 10, 2010		
	Thickness of LNAPL	Thickness of DNAPL	Volume Removed (1)	Thickness of LNAPL	Thickness of DNAPL	Volume Removed (1)	Thickness of LNAPL	Thickness of DNAPL	Volume Removed (1)	Thickness of LNAPL	Thickness of DNAPL	Volume Removed (1)	Thickness of LNAPL	Thickness of DNAPL	Volume Removed (1)	Thickness of LNAPL	Thickness of DNAPL	Volume Removed (1)
	[ft]	[ft]	[gal]	[ft]	[ft]	[gal]	[ft]	[ft]	[gal]	[ft]	[ft]	[gal]	[ft]	[ft]	[gal]	[ft]	[ft]	[gal]
HIMW-01S	NI	NI	0.00	NI	NI	0.00	0	0.40	0.00	NI	NI	0.00	0	trace	0.00	NI	NI	0.00
HIMW-01I	0	0.40	0.07	NI	NI	0.00	0	0.30	0.00	0	0.35	0.06	0	0.40	0.07	0	0.63	0.10
HIMW-06S	0	0.90	0.15	0	6.20	1.01	0	1.10	0.00	0	5.20	0.85	0	4.55	0.74	0	4.05	0.66
HIMW-06I	NI	NI	0.00	NI	NI	0.00	0	0.35	0.00	NI	NI	0.00	0	trace	0.00	NI	NI	0.00
HIMW-07S	0	0.60	0.10	0	2.05	0.33	0	1.55	0.00	0	1.05	0.17	0	1.20	0.20	0	0.70	0.11
HIMW-07I	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
HIMW-07D	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
HIMW-11S	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
HIMW-11I	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
HIMW-16S	0	6.00	0.98	0	6.19	1.01	0	5.10	0.83	0	6.00	0.98	0	5.30	0.87	0	6.10	1.00
HIMW-16I	0	8.00	1.31	0	6.61	1.08	0	2.80	0.46	0	5.50	0.90	0	5.70	0.93	0	5.20	0.85
HIMW-17S	0	0.60	0.10	0	3.20	0.52	0	1.65	0.27	0	1.85	0.30	0	3.15	0.51	0	2.70	0.44
HIMW-18S	NI	NI	0.00	NI	NI	0.00	0	0.45	0.00	0	0.60	0.10	0	0.70	0.11	NI	NI	0.00
HIMW-18I	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
HIMW-19S	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	0	trace	0.00	0	0.80	0.13	NI	NI	0.00
HIMW-19I	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
HIMW-21	NI	NI	0.00	0	trace	0.00	NI	NI	0.00	0	0.35	0.51	0	1.20	1.76	NI	NI	0.00
PZ-08	0	0.40	0.07	0	1.30	0.21	0	1.30	0.00	0	1.65	0.27	0	1.20	0.20	0	1.30	0.21
IPR-02	0	0.20	0.29	NI	NI	0.00	0	0.35	0.00	NI	NI	0.00	0	0.10	0.15	0	0.40	0.59
IPR-05	NI	NI	0.00	NI	NI	0.00	0	1.75	0.00	NI	NI	0.00	0	1.40	0.06	NI	NI	0.00
IPR-06	0	0.40	0.59	0	0.90	1.32	0	0.50	0.00	0	0.55	0.81	0	1.15	1.69	0	1.90	2.79
IPR-09	NI	NI	0.00	NI	NI	0.00	0	1.10	1.62	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
IPR-12A	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
IPR-14	0	0.00	0.00	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
IPR-15	0	0.00	0.00	NI	NI	0.00	0	trace	0.00	NI	NI	0.00	0	trace	0.00	NI	NI	0.00
IPR-16	0	trace	0.00	NI	NI	0.00	0	0.05	0.07	0	0.40	0.54	0	0.95	1.28	NI	NI	0.00
IPR-17	0	0.40	0.54	NI	NI	0.00	0	trace	0.00	NI	NI	0.00	0	trace	0.00	NI	NI	0.00
IPR-18	0	0.00	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
IPR-19D	0	trace	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
IPR-20	0	trace	0.00	0	trace	0.00	0	0.75	1.10	0	0.30	0.44	0	0.60	0.88	NI	NI	0.00
IPR-21	0	0.50	0.73	0	0.60	0.88	0	0.80	1.18	0	0.85	1.25	0	0.80	1.18	0	1.95	2.86
IPR-22	0	0.30	0.44	0	1.00	1.47	0	1.30	1.91	0	0.90	1.32	0	1.25	1.84	0	2.30	3.38
IPR-23	0	trace	0.00	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00
IPR-24	0	trace	0.00	NI	NI	0.00	0	trace	0.00	0	0.55	0.81	0	0.60	0.88	NI	NI	0.00
IPR-25	0	0.60	0.88	0	2.20	3.23	0	0.70	0.00	0	0.55	0.81	0	0.80	1.18	0	0.80	1.18
IPR-26	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	0	trace	0.00	NI	NI	0.00
IPR-27	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	NI	NI	0.00	0	0.00	0.00	NI	NI	0.00
IPR-29	0	0.50	0.73	0	trace	0.00	0	0.55	0.81	0	0.30	0.44	0	2.15	3.16	NI	NI	0.00
	Volume Removed		6.97	Volume Removed		11.07	Volume Removed		8.24	Volume Removed		10.55	Volume Removed		17.80	Volume Removed		14.17

Total volume recovered during the first quarter 2010:

68.80 gal

No product recovery due to excessive snow cover

Total volume of NAPL recovered since April 2007:

487.8 gal

**Notes:**

- NI - well not included in the product recovery program during this round
- NA - No Access
- LNAPL - light non-aqueous phase liquid
- DNAPL - dense non-aqueous phase liquid
- (1) - Volume of product recovered estimated by multiplying the cross sectional area of well screen by the thickness of product layer measured prior to pumping.
- All HIMW (unless noted) and PZ monitoring wells are 2-inch diameter:
- All IPR monitoring wells (unless noted) and HIMW-21 are 6-inch diameter:
- Monitoring wells IPR-16 and IPR-17 are 5.75-inch diameter:
- Monitoring well IPR-05 and IPR-12A are 1-inch diameter:

- Vol = 0.163 gal / lift of well screen.
- Vol = 1.469 gal / lift of well screen.
- Vol = 1.349 gal / lift of well screen.
- Vol = 0.041 gal / lift of well screen.



**Table 4**  
**Hempstead Intersection Street Former MGP Site**  
**Dissolved-Phase Concentrations of**  
**Total BTEX Compounds and Total PAH Compounds**  
**for the First Quarter 2010**

Well ID	First Quarter 2010 (January 5-17, 2010) Concentrations	
	BTEX [ug/L]	PAH [ug/L]
HIMW-001D		
HIMW-001I		
HIMW-001S		
HIMW-002D		
HIMW-002I		
HIMW-002S		
HIMW-003D		
HIMW-003I		
HIMW-003S		
HIMW-004D		
HIMW-004I		
HIMW-004S		
HIMW-005D	108	1,722
HIMW-005I	166	3,047
HIMW-005S	ND	ND
HIMW-006D		
HIMW-006I		
HIMW-006S		
HIMW-007D		
HIMW-007I		
HIMW-007S		
HIMW-008D	ND	ND
HIMW-008I	ND	ND
HIMW-008S	ND	14
HIMW-009D		
HIMW-009I		
HIMW-009S		
HIMW-010D		
HIMW-010I		
HIMW-010S		
HIMW-011D		
HIMW-011I		
HIMW-011S		
HIMW-012D	ND	ND
HIMW-012I	40	124
HIMW-012S	ND	ND
HIMW-013D	5	18
HIMW-013I	206	85
HIMW-013S		
HIMW-014D		
HIMW-014I	41	26
HIMW-015D	ND	ND
HIMW-015I	9	11
HIMW-016I		
HIMW-016S		
HIMW-017S		
HIMW-018I		
HIMW-018S		
HIMW-019I		
HIMW-019S		
HIMW-020I	176	221
HIMW-020S	ND	ND
PZ-02		
PZ-03		
PZ-08		

Notes:

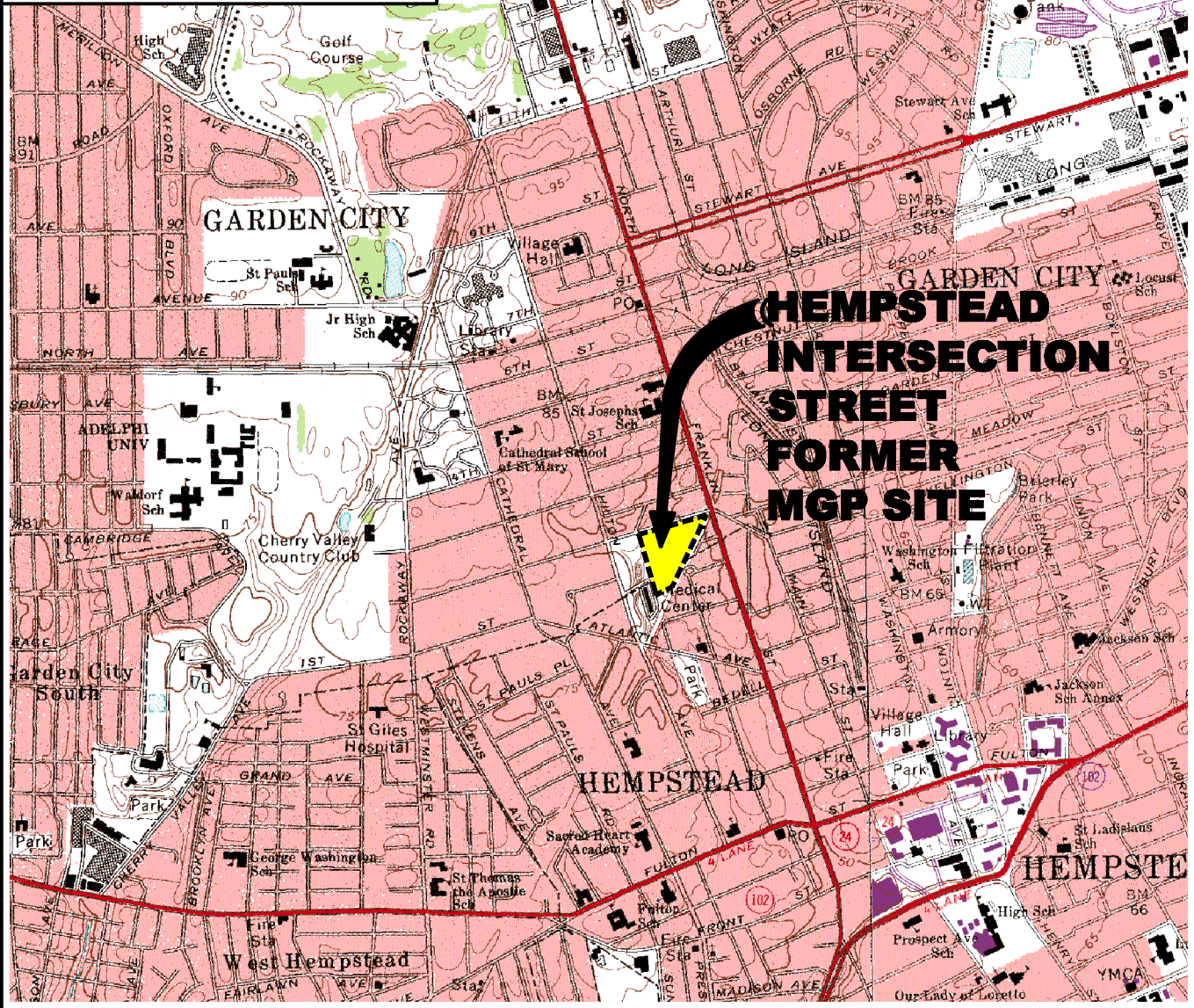
	A blank field is "Not Sampled".
	NAPL is periodically identified in this well.
ND	Not Detected.
ug/L	micrograms per liter

## **FIGURES**



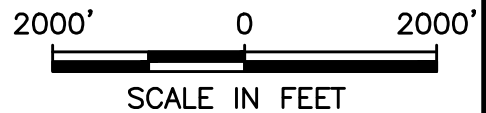


**KEY MAP**  
**NEW YORK STATE**



**NATIONAL GRID**  
**HEMPSTEAD INTERSECTION STREET**  
**FORMER MGP SITE**  
**HEMPSTEAD/GARDEN CITY, NY**

SOURCE:  
USGS 7.5 MINUTE SERIES  
TOPOGRAPHICAL QUADRANGLES:  
FREEPORT, NY (1969)  
LYNDBROOK, NY (1969)



**URS Corporation**

**LOCATION MAP**

**FIGURE 1**





**Legend**

- ▲ Piezometer
- ⊕ Monitoring Well
- ⊗ Product Recovery Well
- Former MGP Site Boundary

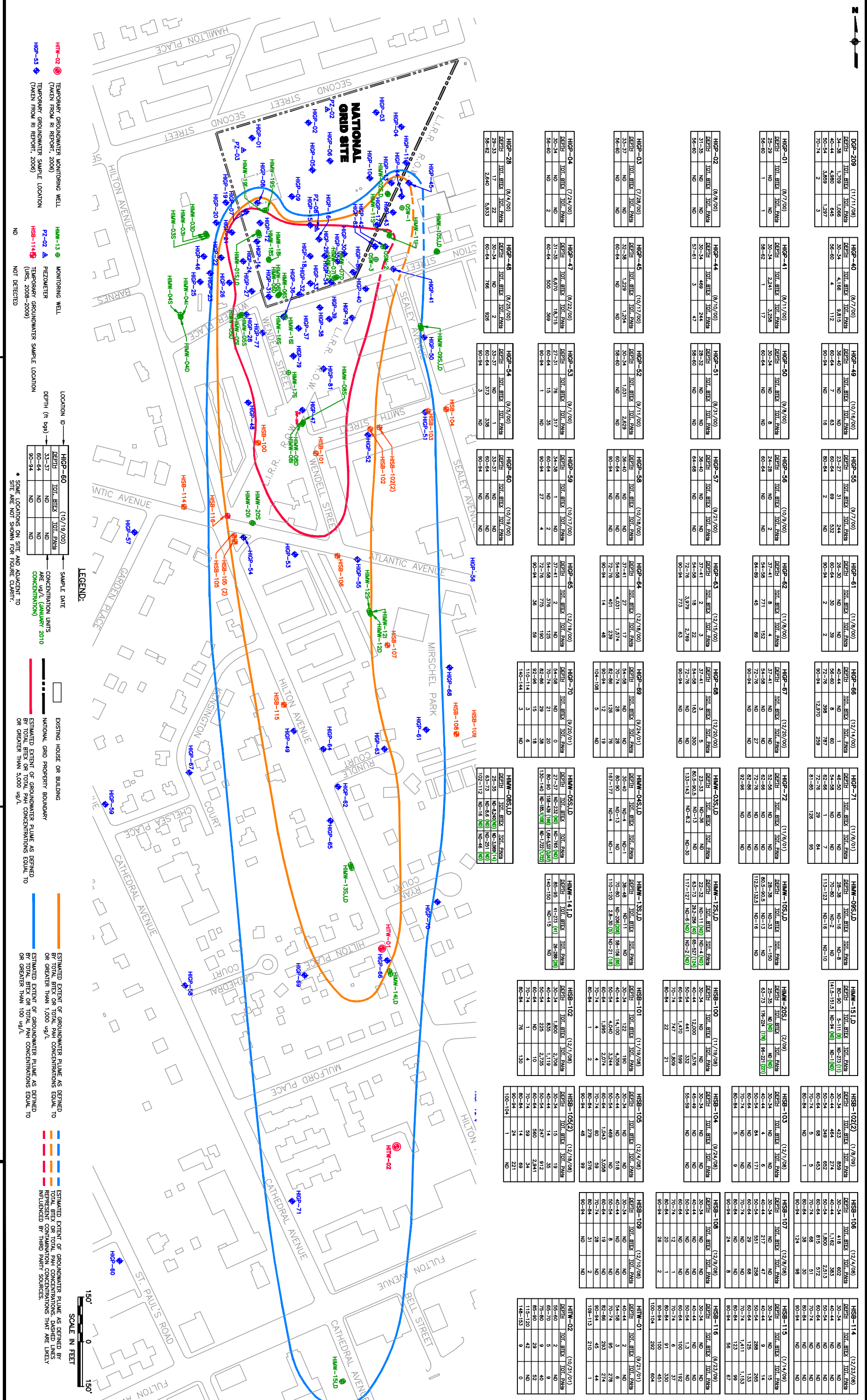
400 0 400 Feet



HEMPSTEAD/GARDEN CITY, NY  
SITE MAP

FIGURE 2





**URS Corporation**

**NATIONAL GRID  
 HEMPSTEAD INTERSECTION STREET  
 FORMER HGP SITE  
 HEMPSTEAD/GARDEN CITY, NY**

**EXTENT OF DISSOLVED-PHASE  
 PLUME AND GROUNDWATER  
 ANALYTICAL RESULTS**

**FIGURE 3**

DEPT#	TOI	BTEX	TOI	PAHs
DGP-209	ND	ND	ND	ND
34-38	1,209	1,086	ND	ND
50-54	3,889	1,297	ND	ND
70-74	2	3	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-40	ND	ND	ND	ND
30-34	4,106	9,815	ND	ND
50-54	4	112	ND	ND
70-74	1	17	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-49	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-54	ND	ND	ND	ND
70-74	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-55	ND	ND	ND	ND
20-24	51	244	ND	ND
50-54	9	16	ND	ND
70-74	2	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-61	ND	ND	ND	ND
20-24	ND	ND	ND	ND
50-54	2	2	ND	ND
70-74	2	2	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-66	ND	ND	ND	ND
40-44	ND	ND	ND	ND
50-54	398	787	ND	ND
70-74	12,970	259	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-71	ND	ND	ND	ND
40-44	ND	ND	ND	ND
50-54	1	7	ND	ND
70-74	29	54	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNM-09SLD	ND	ND	ND	ND
20-24	ND	ND	ND	ND
50-54	ND	ND	ND	ND
70-74	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNM-151D	ND	ND	ND	ND
50-54	ND	ND	ND	ND
70-74	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-102(2)	ND	ND	ND	ND
30-34	423	599	ND	ND
50-54	349	652	ND	ND
70-74	5	453	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-106	ND	ND	ND	ND
30-34	418	602	ND	ND
50-54	1,800	2,513	ND	ND
70-74	815	571	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-114	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-54	ND	ND	ND	ND
70-74	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-01	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	1	1	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-41	ND	ND	ND	ND
30-34	2,241	3,248	ND	ND
50-60	1	17	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-50	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-58	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-62	ND	ND	ND	ND
30-34	771	152	ND	ND
50-60	45	89	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-67	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-72	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNM-10SLD	ND	ND	ND	ND
20-24	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNM-20S1	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-103	ND	ND	ND	ND
30-34	423	599	ND	ND
50-60	349	652	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-107	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-115	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-02	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-44	ND	ND	ND	ND
30-34	489	244	ND	ND
50-60	3	47	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-51	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-57	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-63	ND	ND	ND	ND
30-34	18	22	ND	ND
50-60	3,979	2,789	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-68	ND	ND	ND	ND
30-34	5	5	ND	ND
50-60	163	300	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNM-03SLD	ND	ND	ND	ND
20-24	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNM-12SLD	ND	ND	ND	ND
20-24	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-100	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-104	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-108	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNB-116	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-03	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-45	ND	ND	ND	ND
30-34	1,254	ND	ND	ND
50-60	500	369	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-52	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-58	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

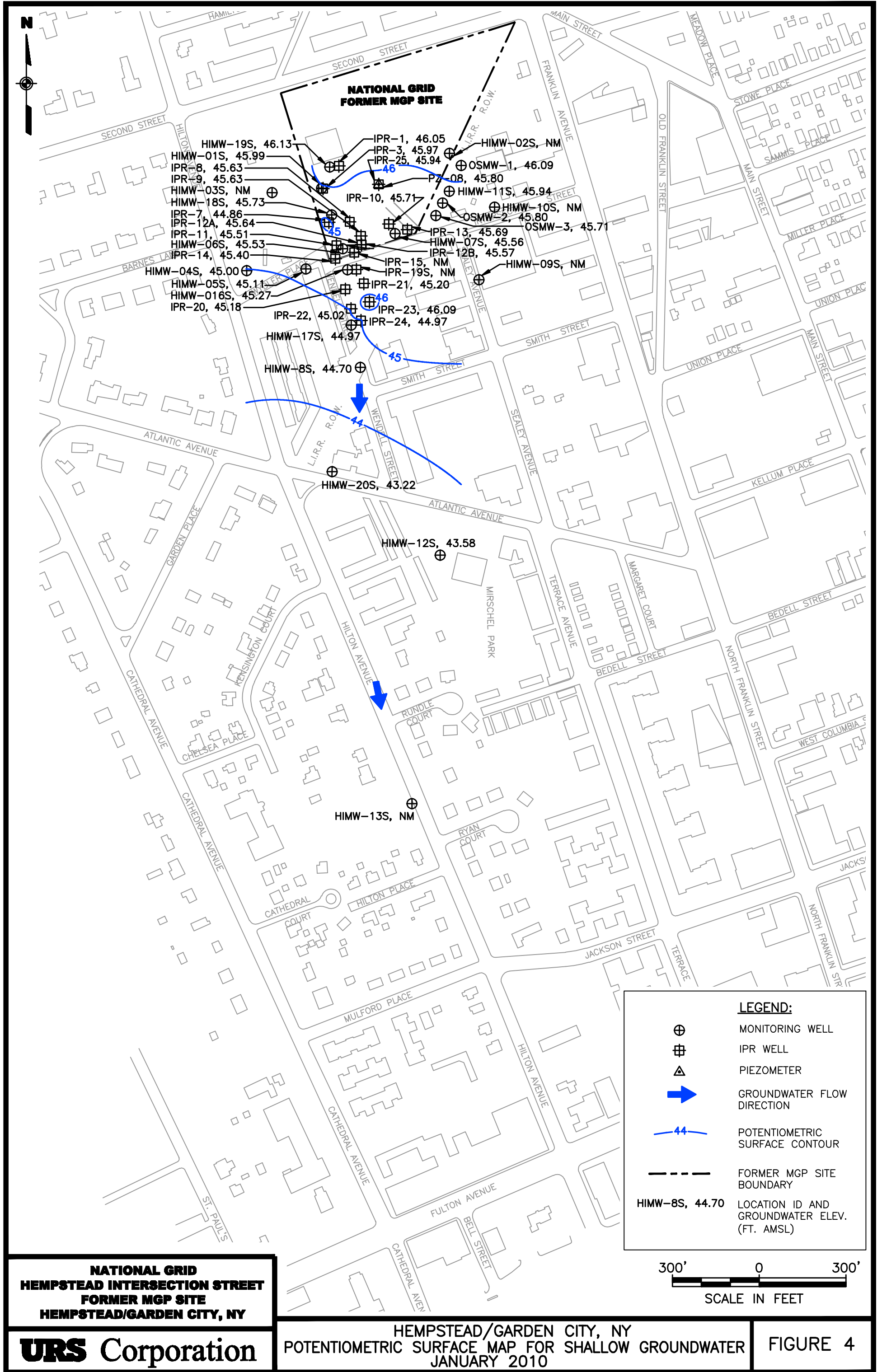
DEPT#	TOI	BTEX	TOI	PAHs
HGP-64	ND	ND	ND	ND
30-34	27	4	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-65	ND	ND	ND	ND
30-34	2	17	ND	ND
50-60	4,031	1,574	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HGP-69	ND	ND	ND	ND
30-34	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNM-04SLD	ND	ND	ND	ND
20-24	ND	ND	ND	ND
50-60	ND	ND	ND	ND

DEPT#	TOI	BTEX	TOI	PAHs
HNM-13SLD	ND	ND	ND	ND
20-24	ND	ND	ND	ND
50-60	ND	ND	ND	ND



**NATIONAL GRID  
HEMPSTEAD INTERSECTION STREET  
FORMER MGP SITE  
HEMPSTEAD/GARDEN CITY, NY**

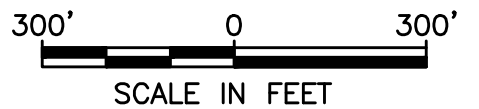
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**HEMPSTEAD/GARDEN CITY, NY  
POTENTIOMETRIC SURFACE MAP FOR SHALLOW GROUNDWATER  
JANUARY 2010**

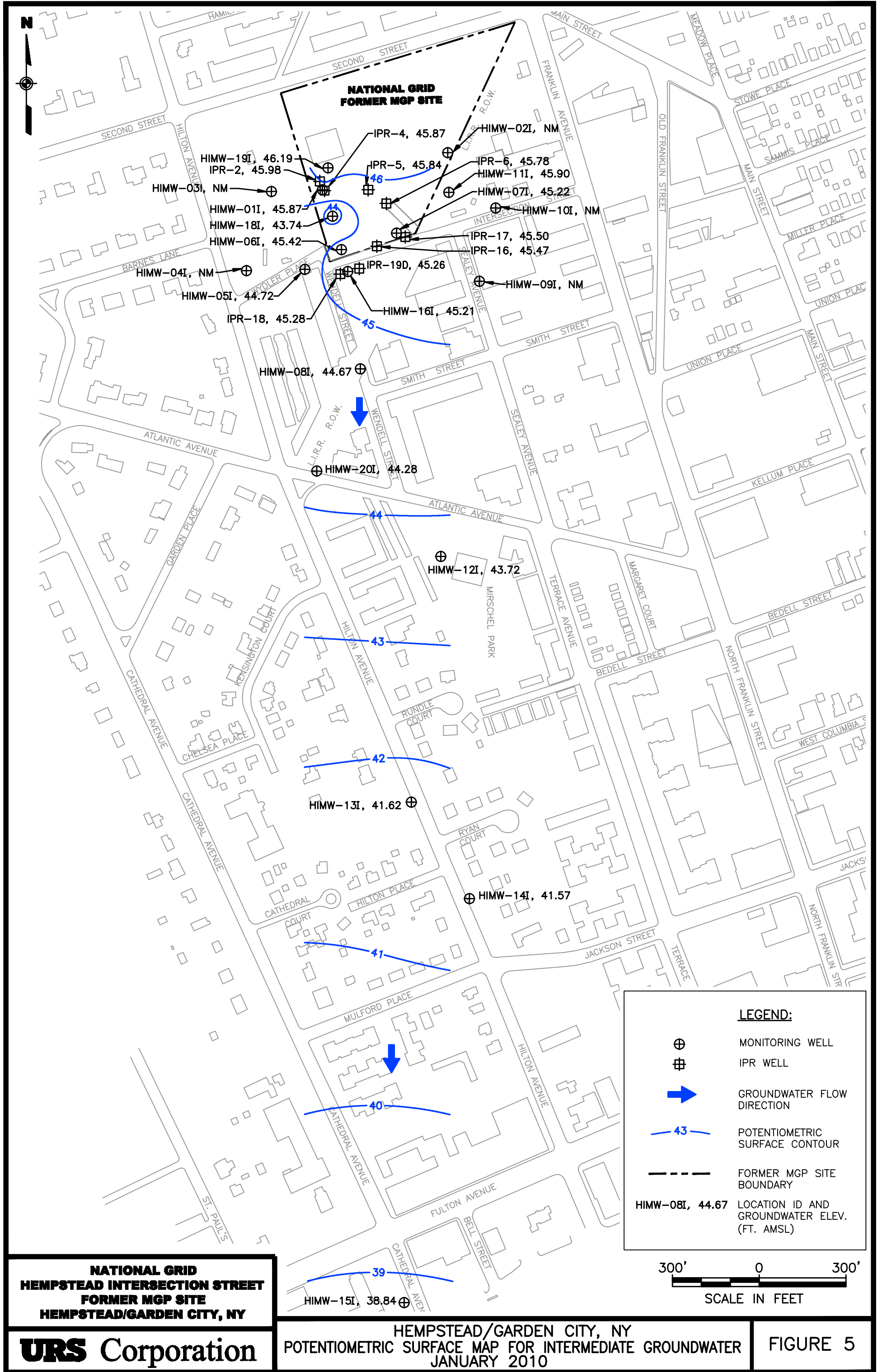
**FIGURE 4**

**LEGEND:**

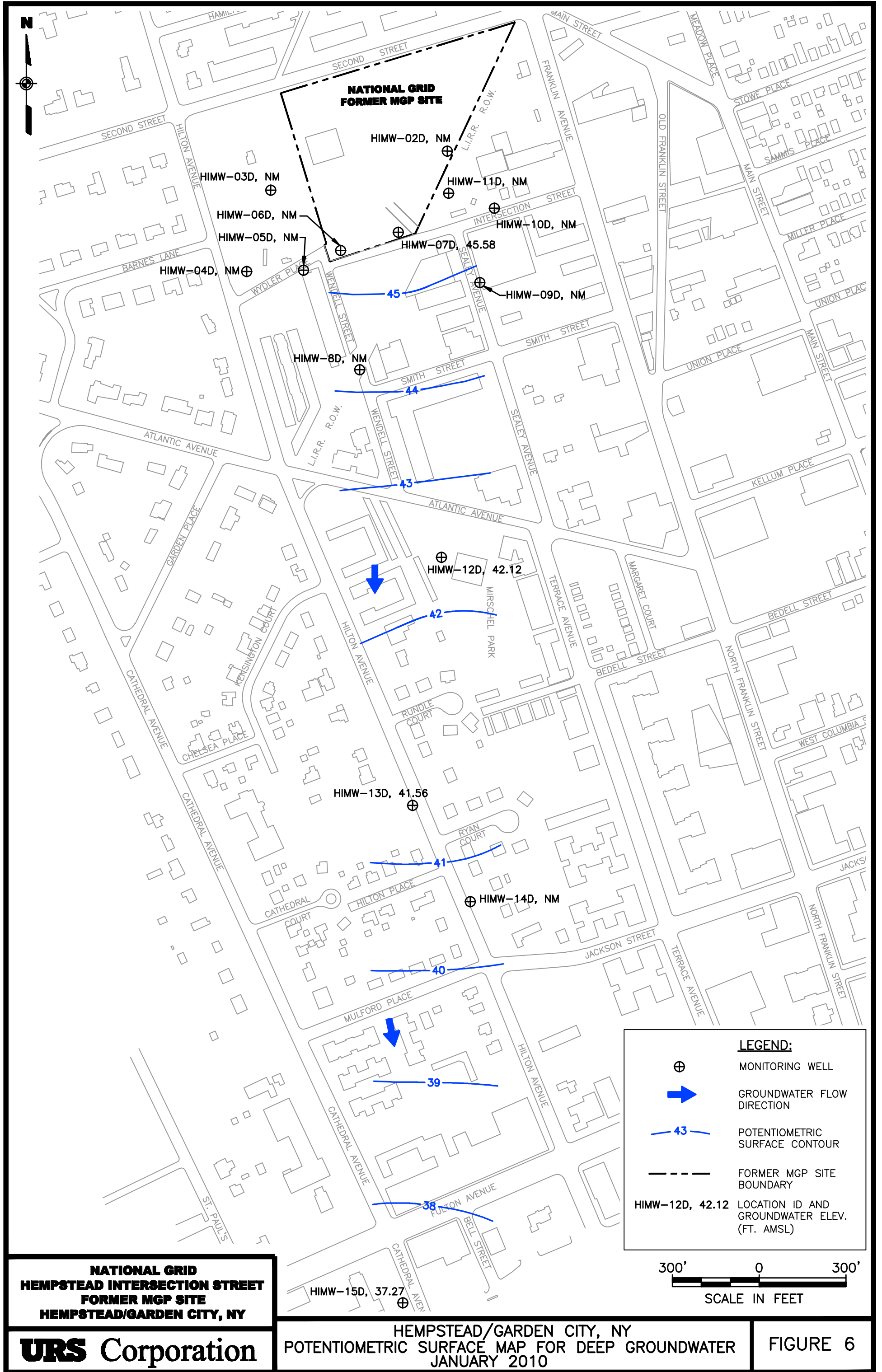
- ⊕ MONITORING WELL
- ⊞ IPR WELL
- △ PIEZOMETER
- ➔ GROUNDWATER FLOW DIRECTION
- 44— POTENTIOMETRIC SURFACE CONTOUR
- - - FORMER MGP SITE BOUNDARY
- HIMW-8S, 44.70 LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)











**NATIONAL GRID  
HEMPSTEAD INTERSECTION STREET  
FORMER MGP SITE  
HEMPSTEAD/GARDEN CITY, NY**

**URS Corporation**

**HEMPSTEAD/GARDEN CITY, NY  
POTENTIOMETRIC SURFACE MAP FOR DEEP GROUNDWATER  
JANUARY 2010**

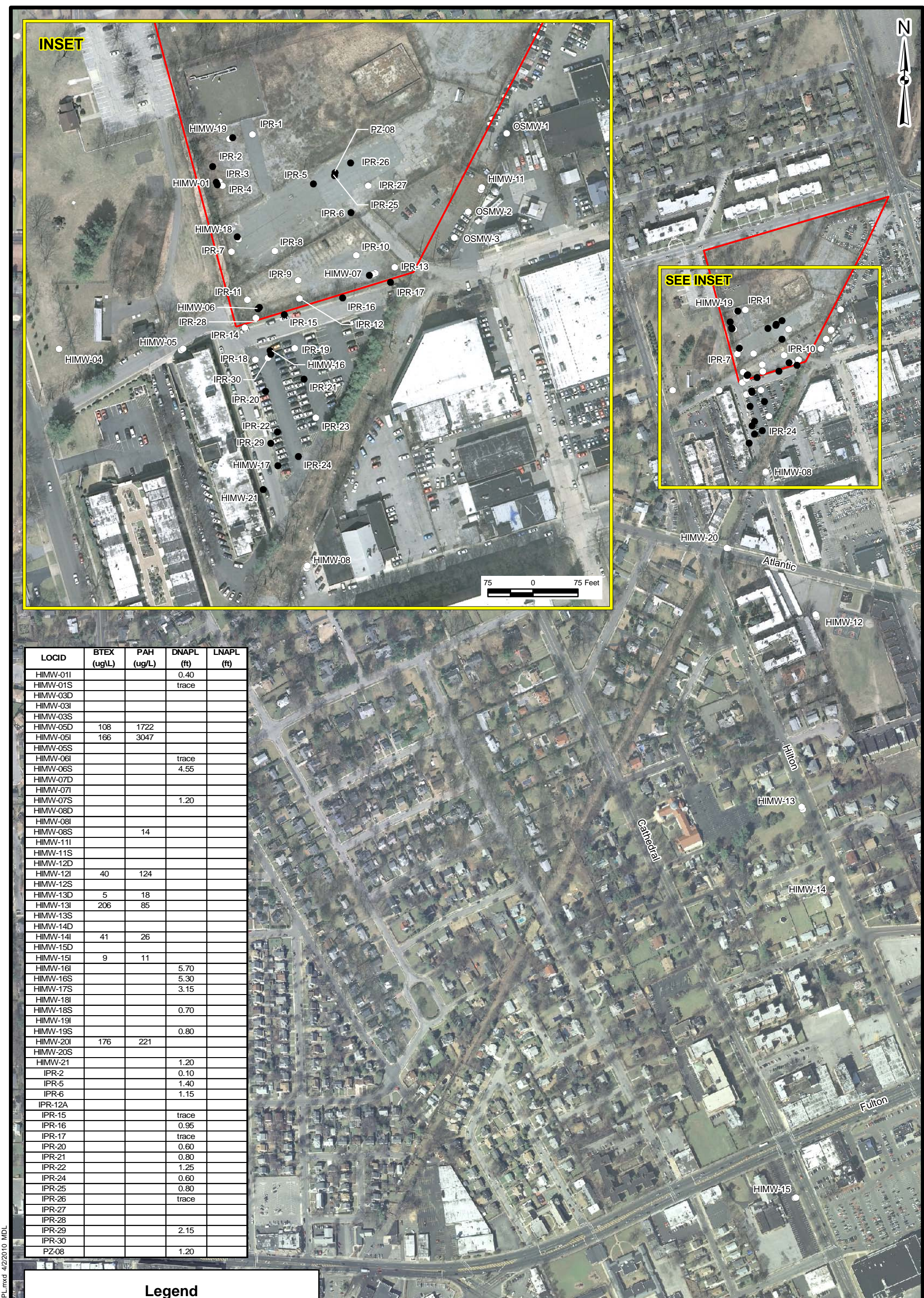
**FIGURE 6**

**LEGEND:**

- ⊕ MONITORING WELL
- ➔ GROUNDWATER FLOW DIRECTION
- 43 — POTENTIOMETRIC SURFACE CONTOUR
- - - FORMER MGP SITE BOUNDARY
- HIMW-12D, 42.12 LOCATION ID AND GROUNDWATER ELEV. (FT. AMSL)

300' 0 300'  
SCALE IN FEET





**Legend**

- Monitoring Well - Product Detected
- Monitoring Well - Product Not Detected
- Former MGP Site Boundary

**Notes:**  
 BTEX - Benzene, Toluene, Ethylbenzene, and Xylenes  
 PAH - Polynuclear Aromatic Hydrocarbons  
 DNAPL - Dense Non-Aqueous Phase Liquid  
 LNAPL - Light Non-Aqueous Phase Liquid  
 ug/L - Micrograms per Liter  
 ft - Feet of Product Thickness



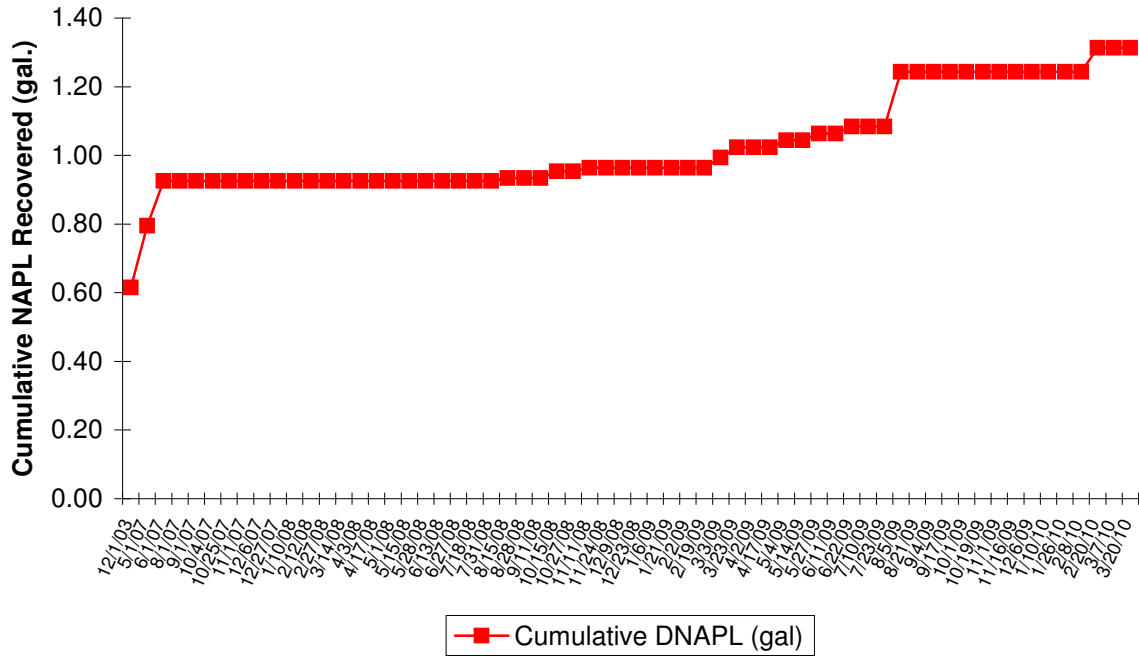
**HEMPSTEAD/GARDEN CITY, NY  
 TOTAL DISSOLVED-PHASE BTEX/PAH CONCENTRATIONS  
 AND FREE PRODUCT THICKNESS  
 FIRST QUARTER 2010**

**FIGURE 7**

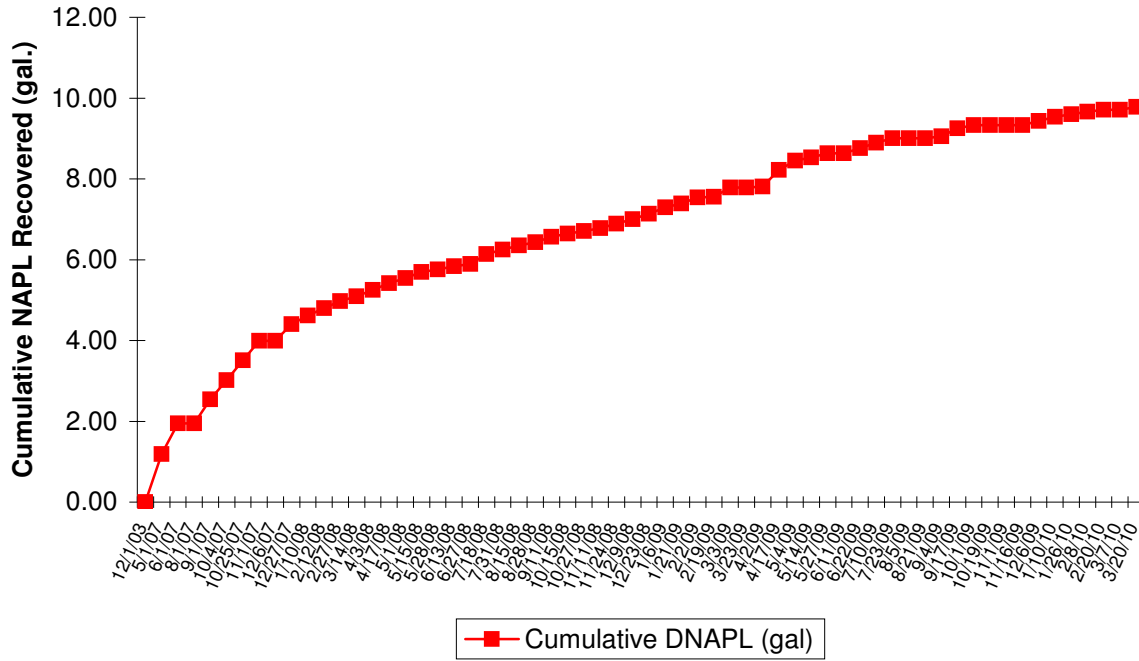
J:\1175065.00000\B\GIS\ARCMAP\0110 BTEXPAH-NAPL.mxd 4/22/10 MDL



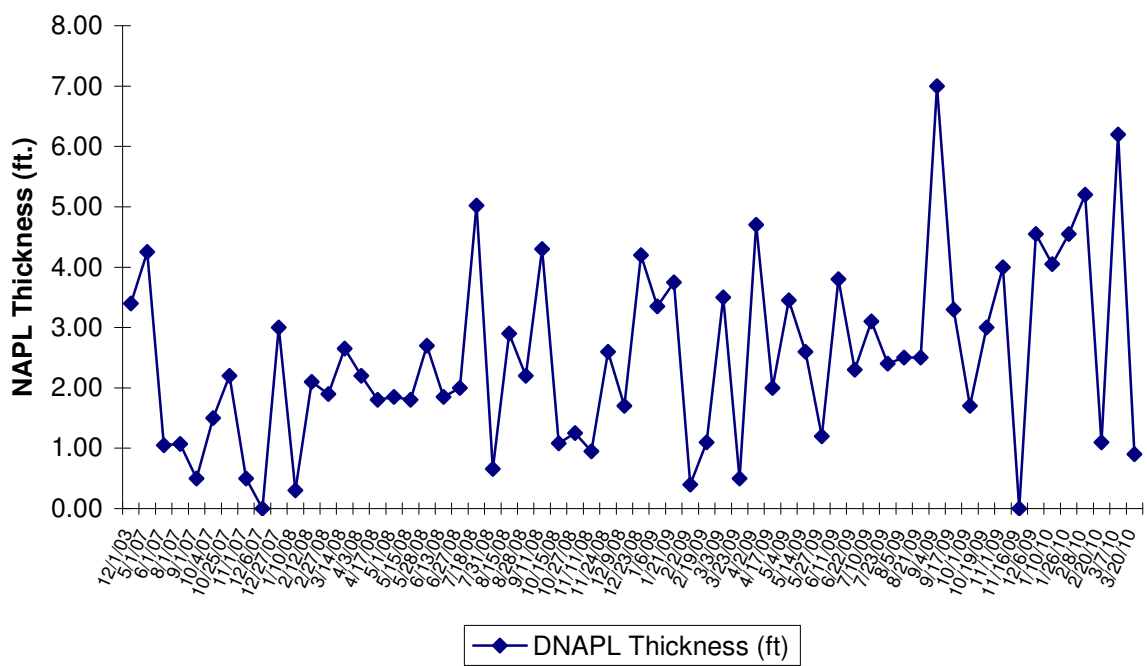
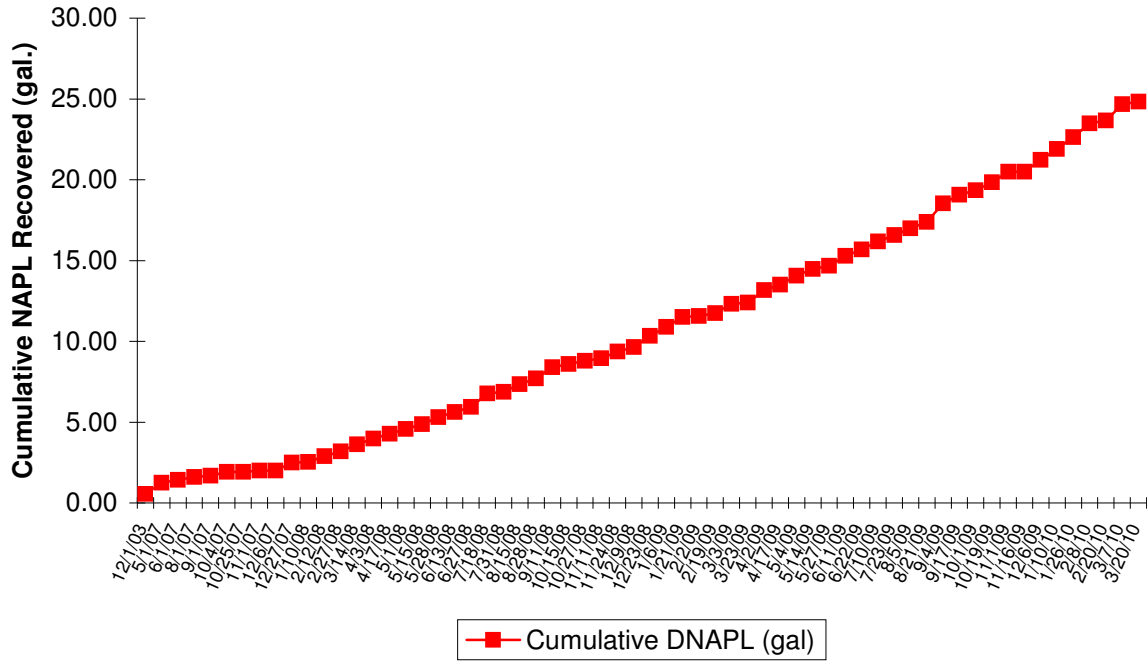
**FIGURE 8A**  
**Well HIMW-01S NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



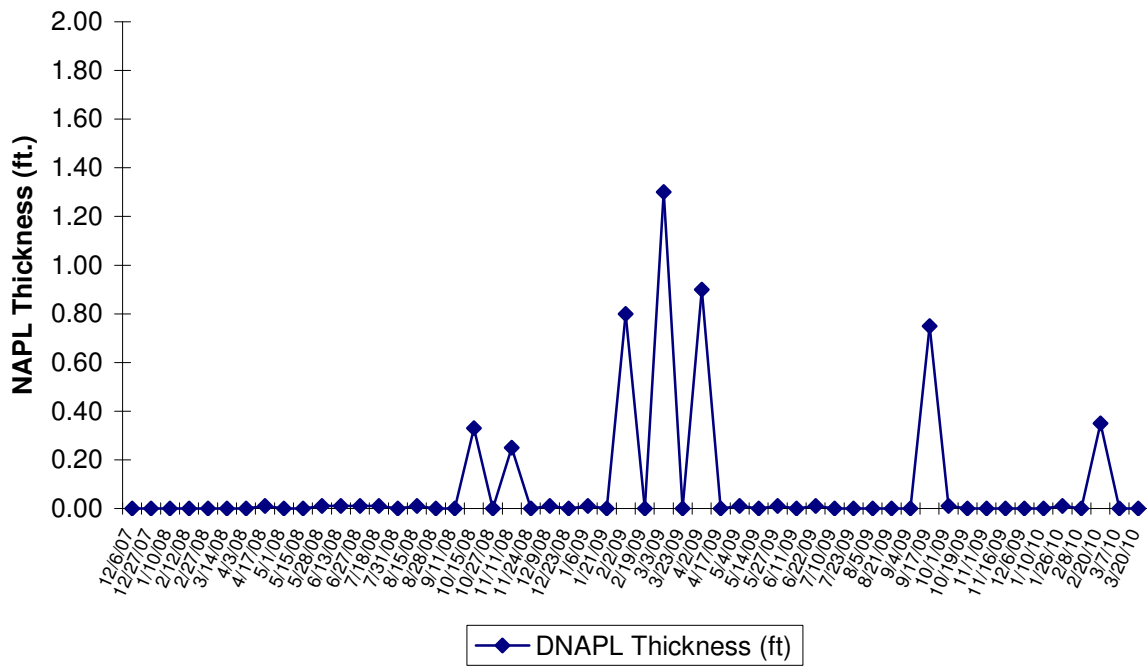
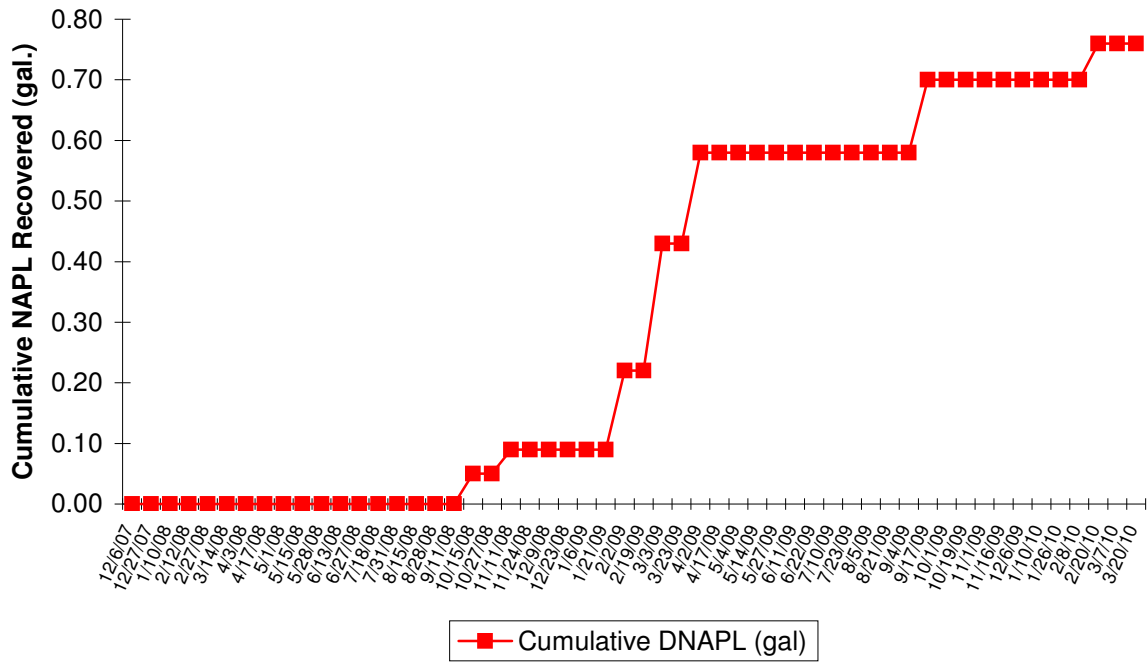
**FIGURE 8B**  
**Well HIMW-011 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



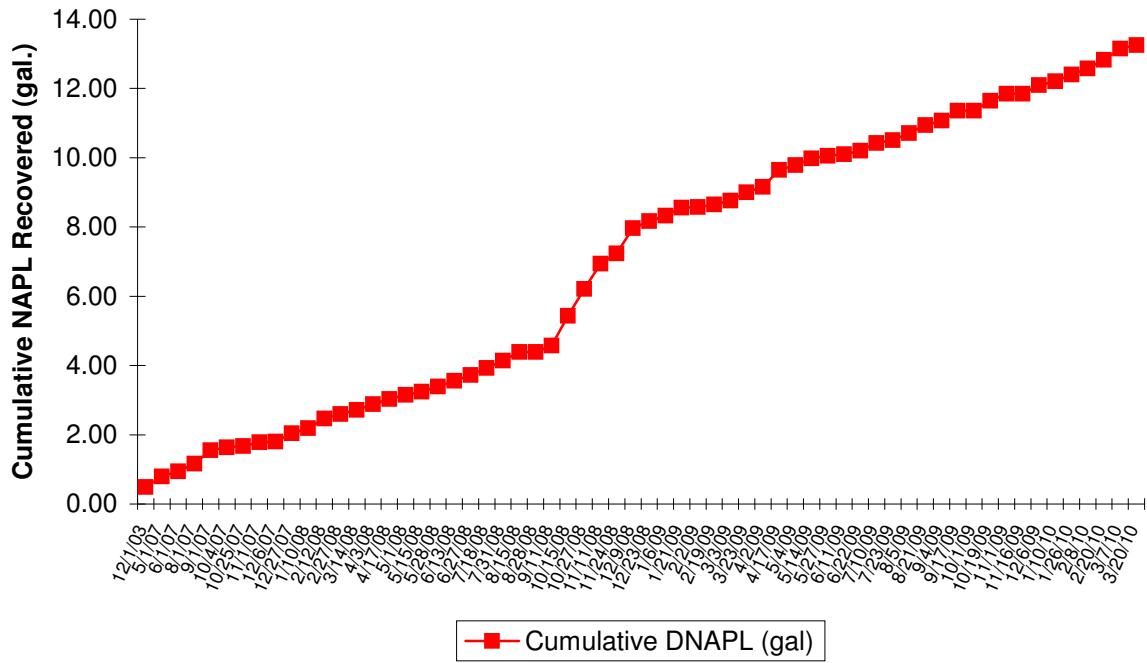
**FIGURE 8C**  
**Well HIMW-06S NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



**FIGURE 8D**  
**Well HIMW-06I NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

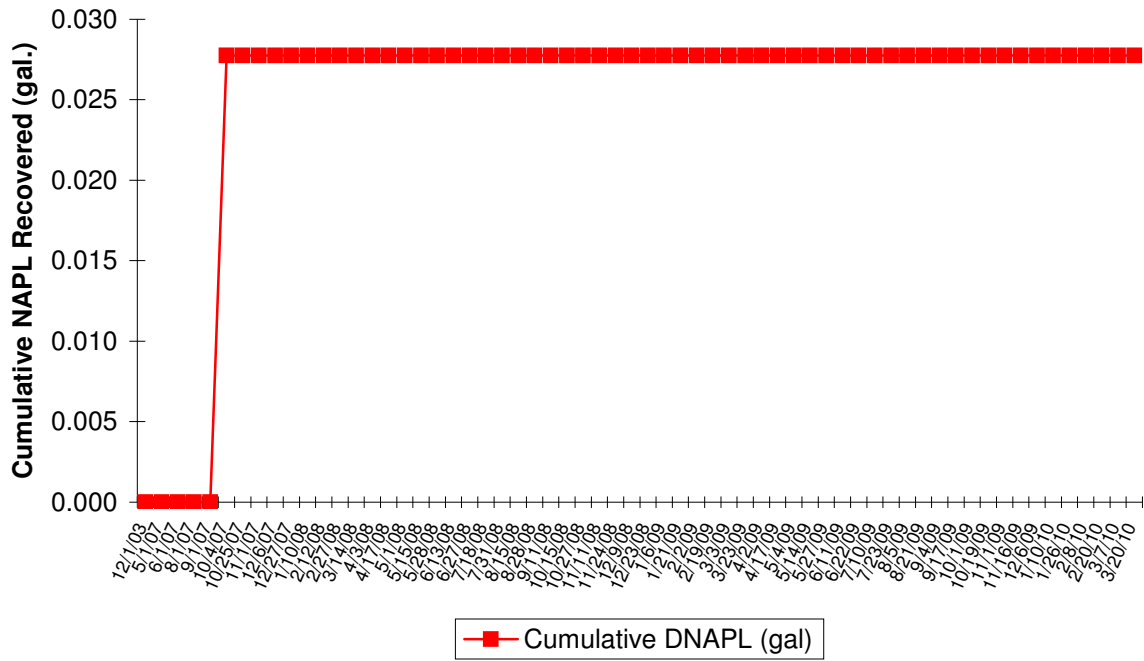


**FIGURE 8E**  
**Well HIMW-07S NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

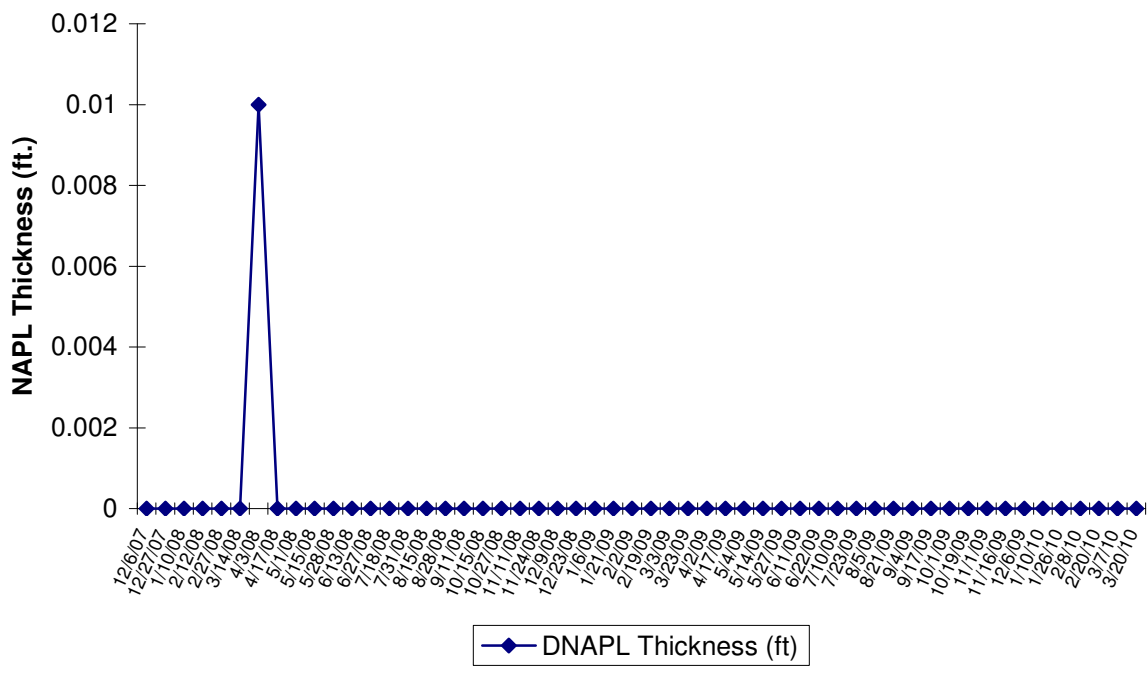
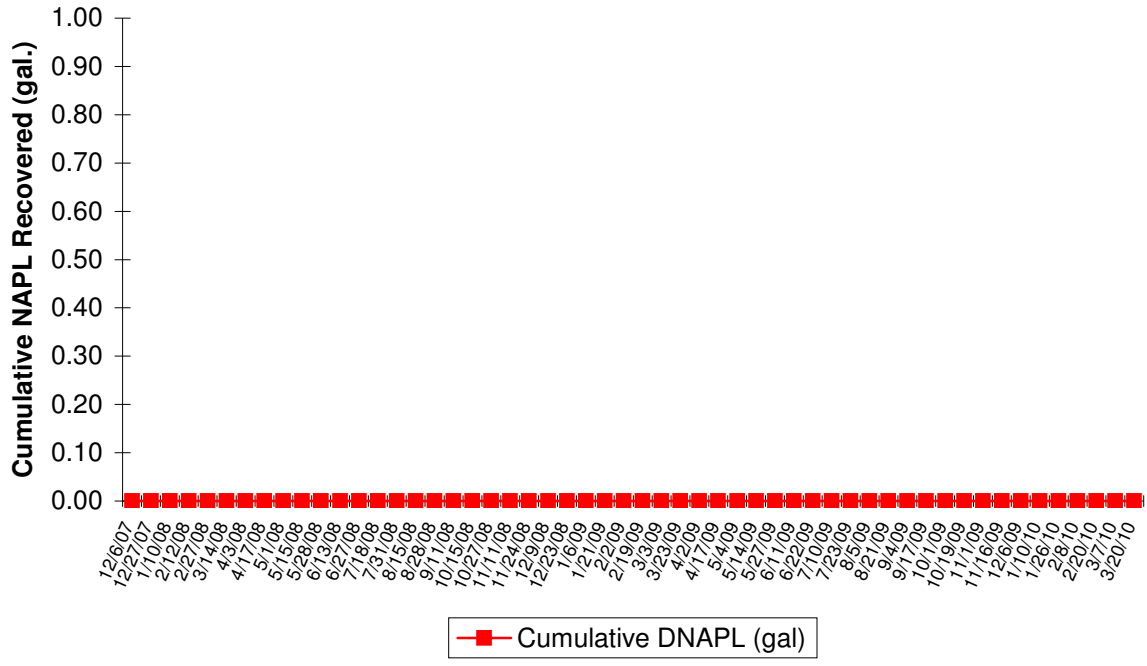




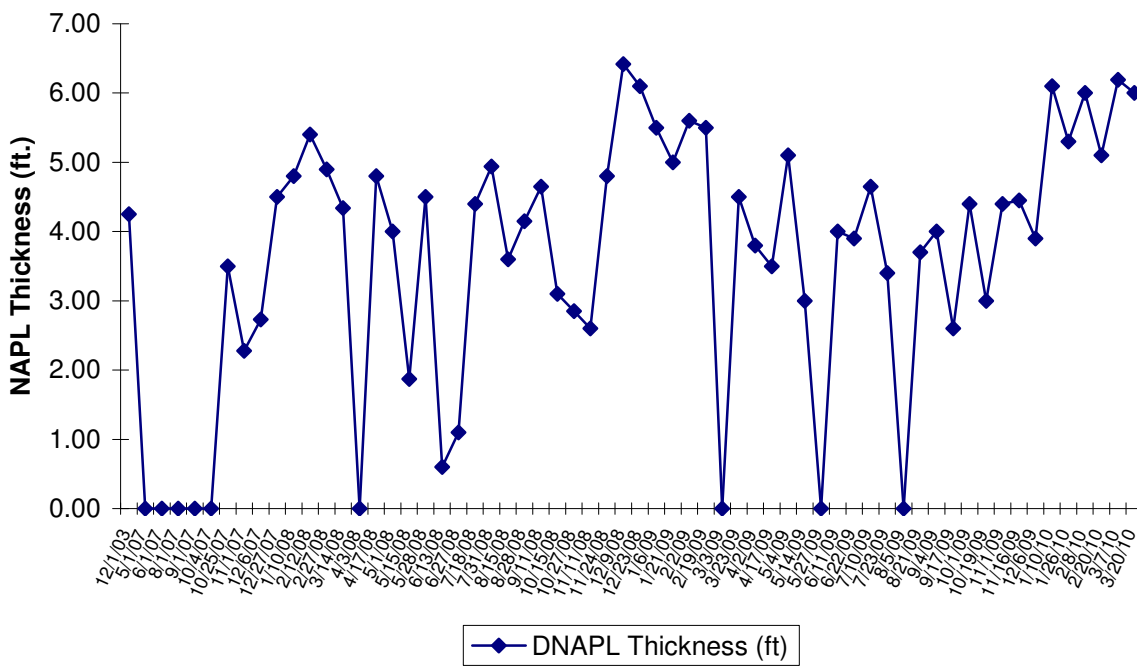
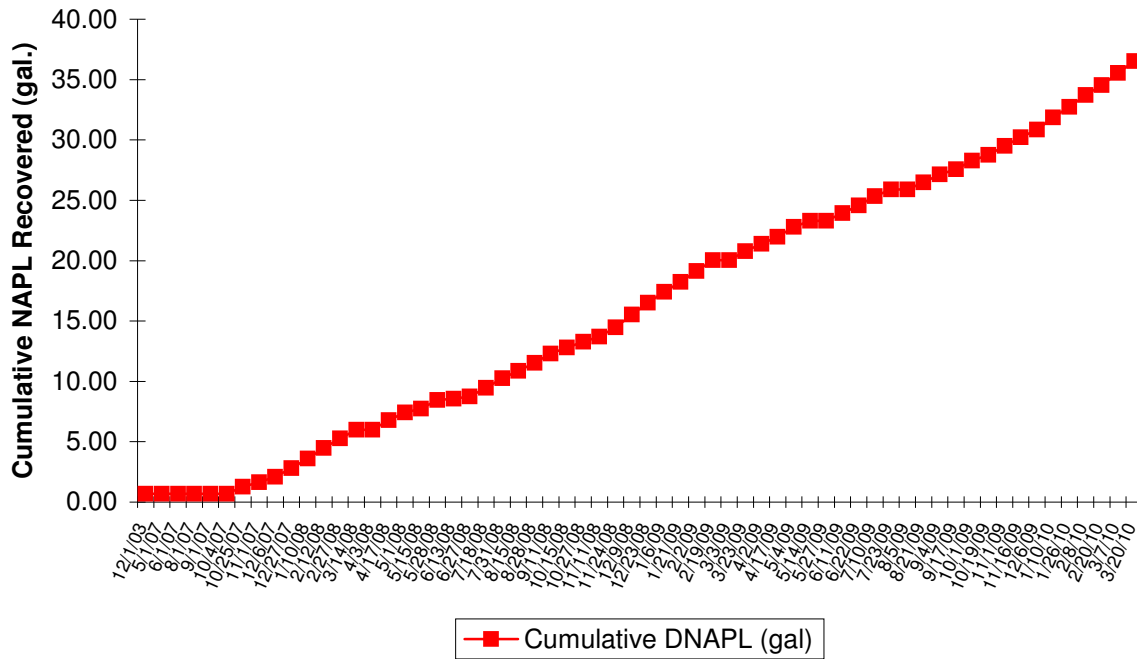
**FIGURE 8F**  
**Well HIMW-11S NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



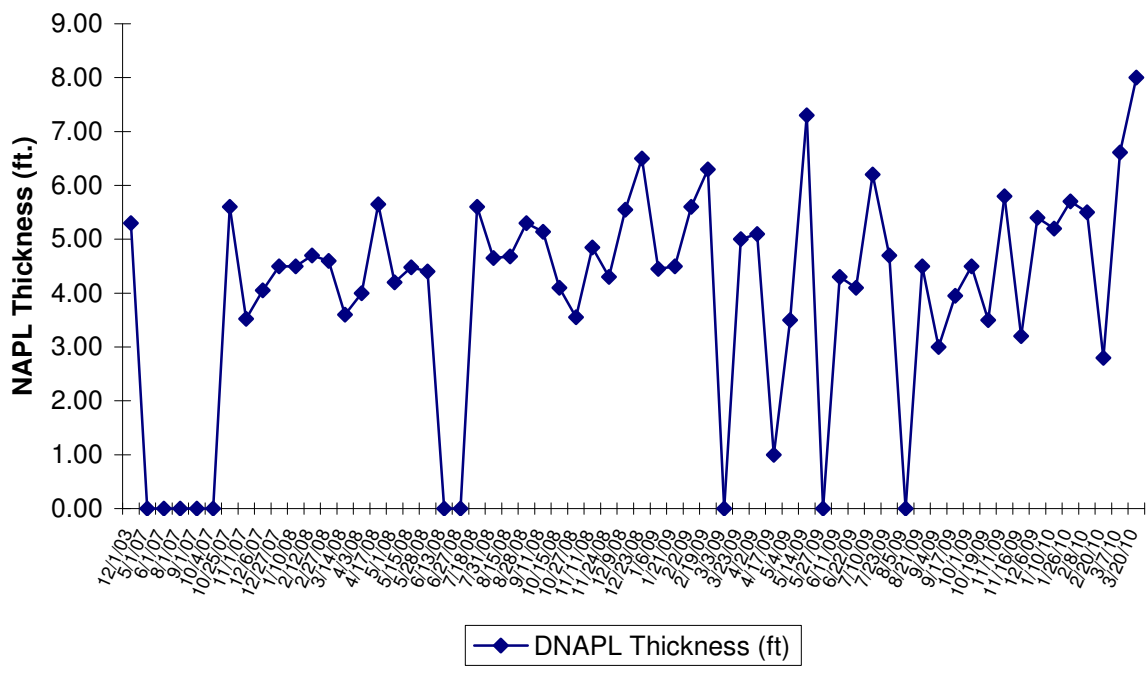
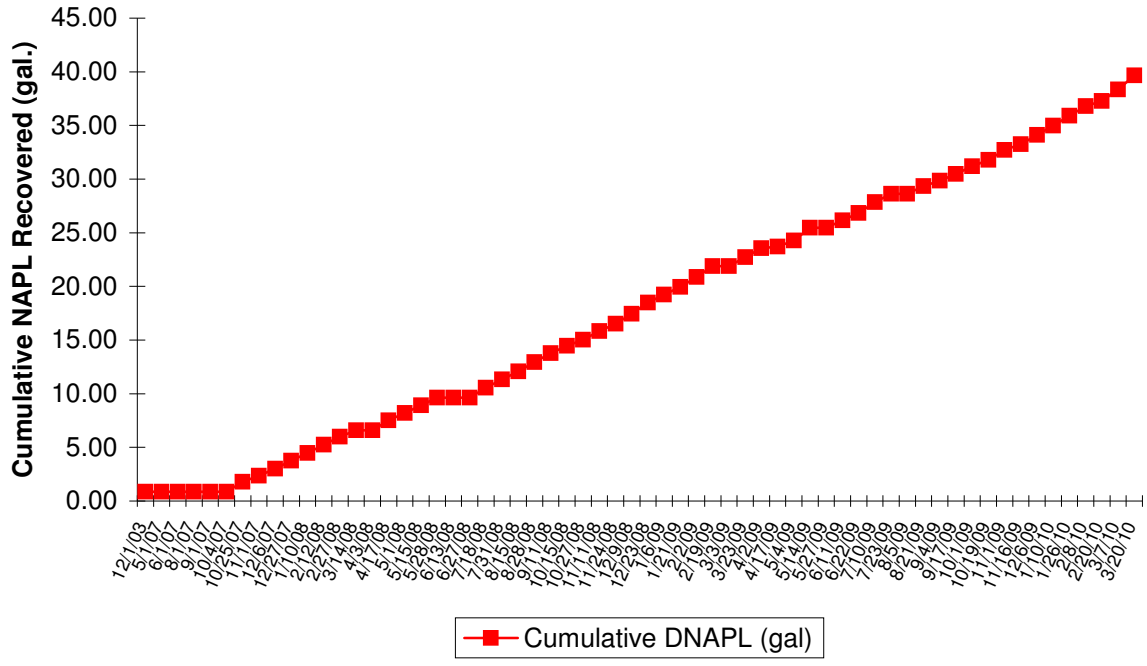
**FIGURE 8G**  
**Well HIMW-111 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



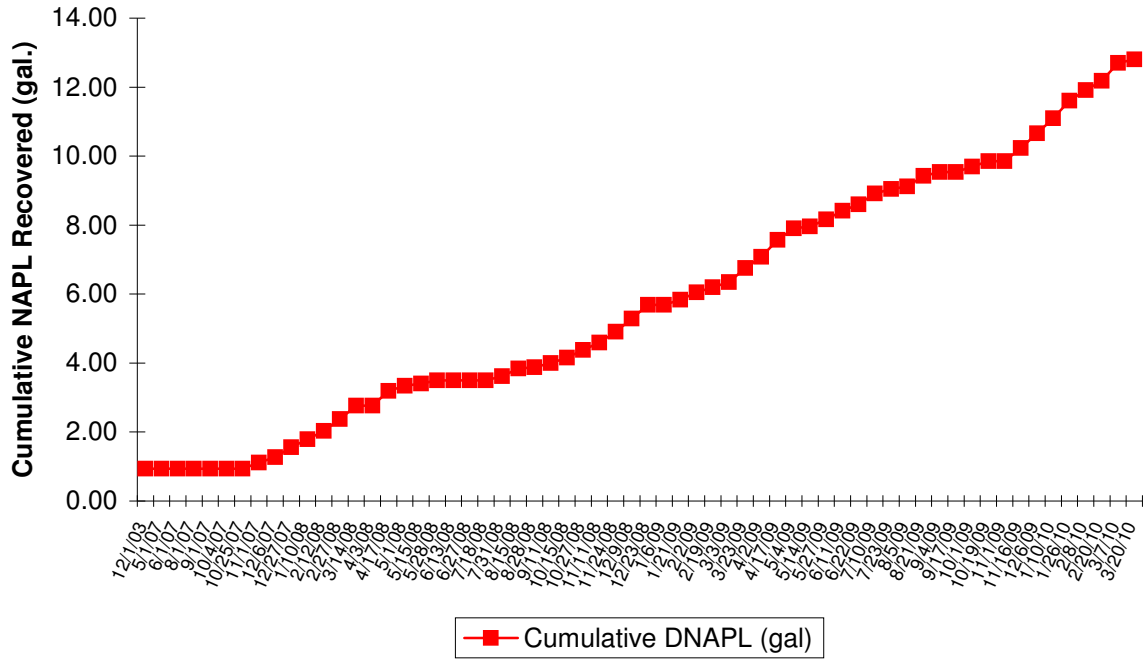
**FIGURE 8H**  
**Well HIMW-16S NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



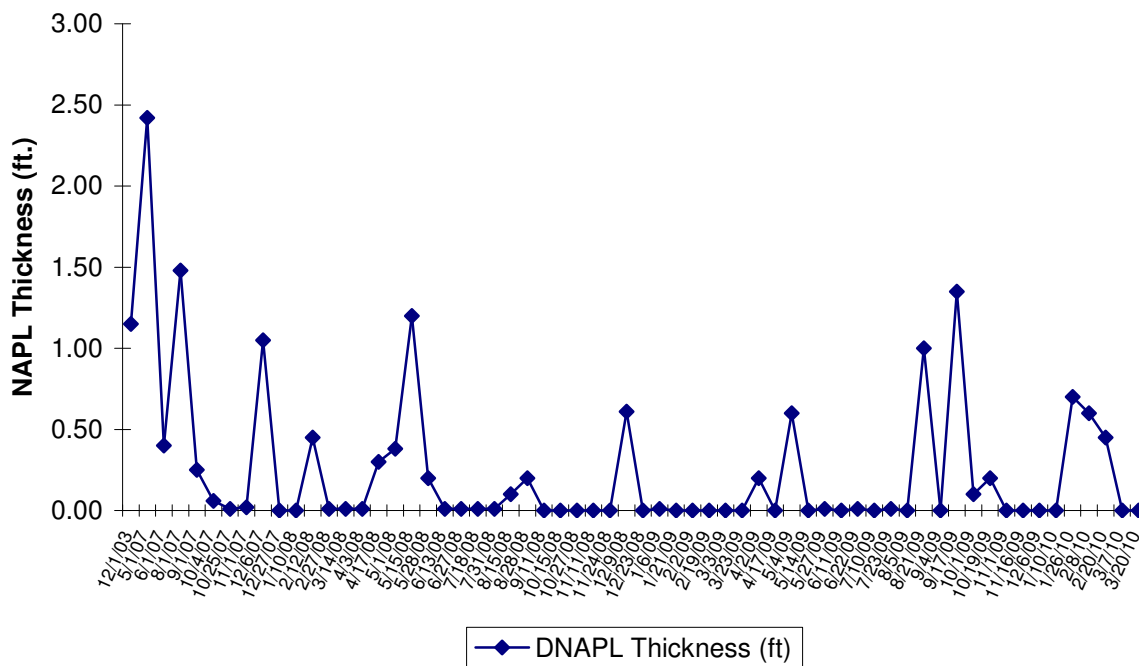
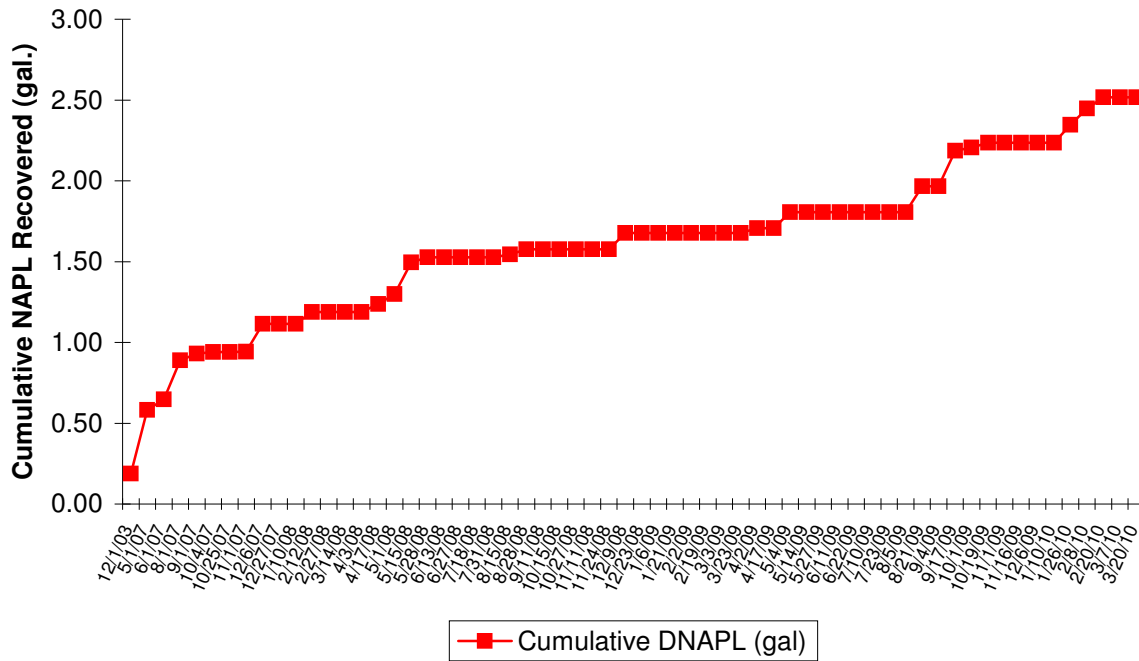
**FIGURE 8I**  
**Well HIMW-16I NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



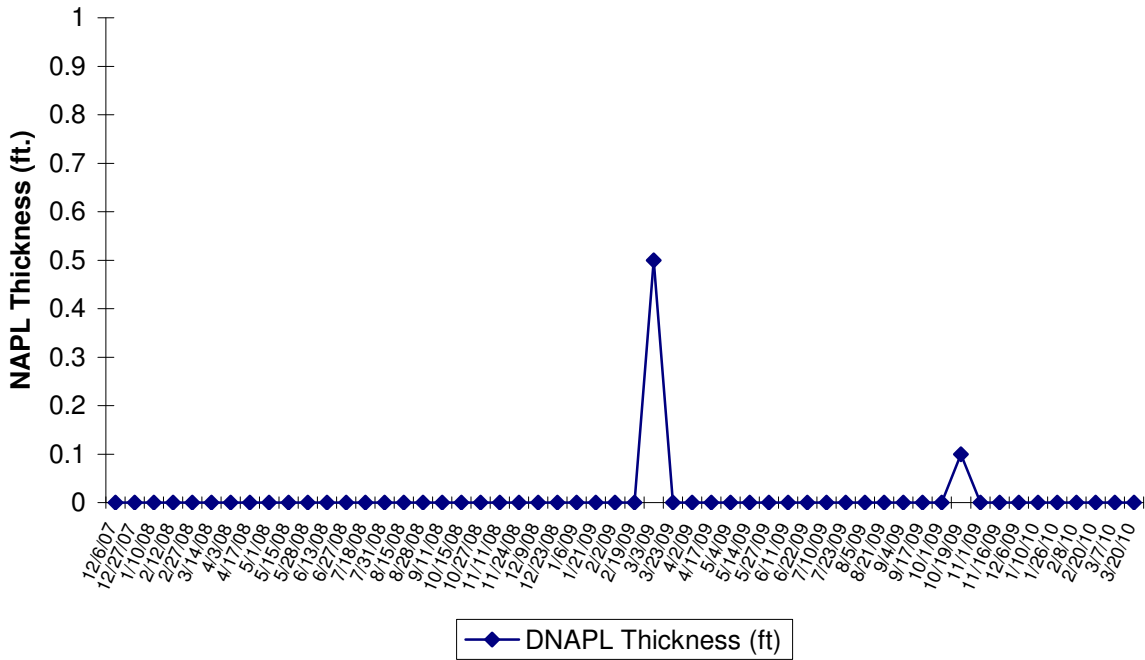
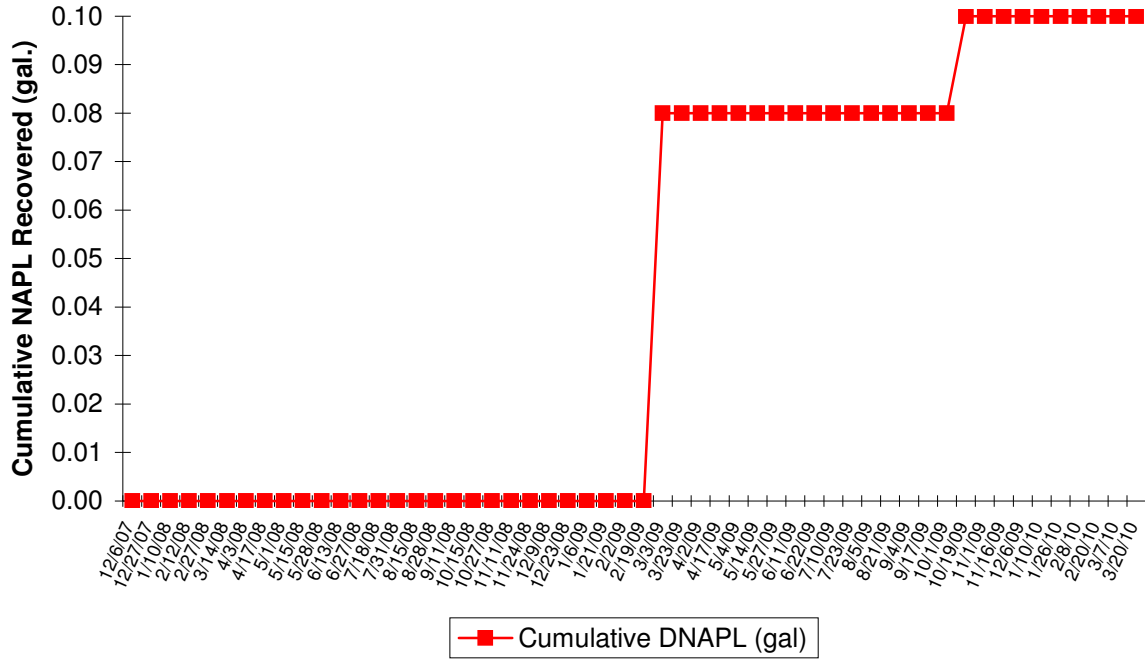
**FIGURE 8J**  
**Well HIMW-17S NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



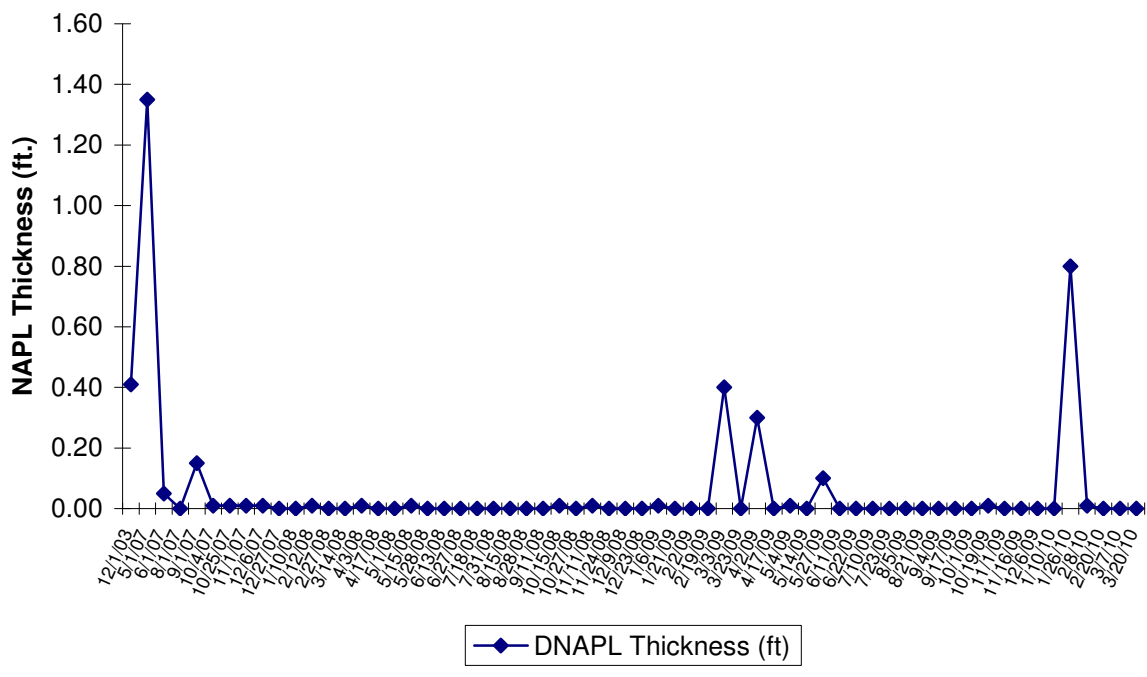
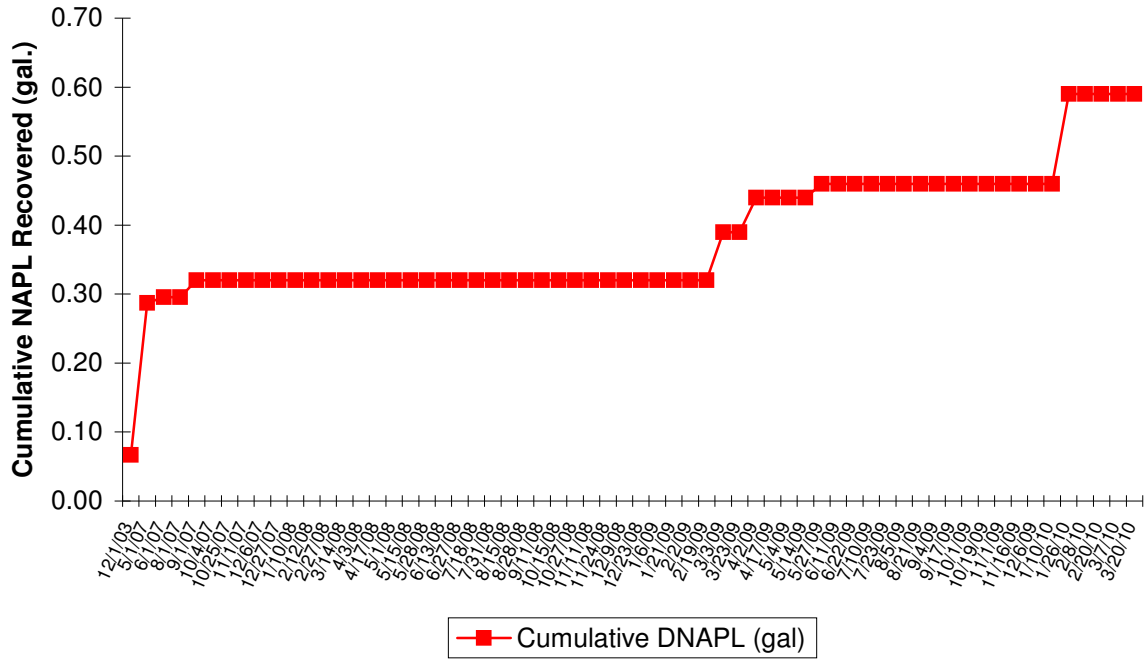
**FIGURE 8K**  
**Well HIMW-18S NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



**FIGURE 8L**  
**Well HIMW-18I NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

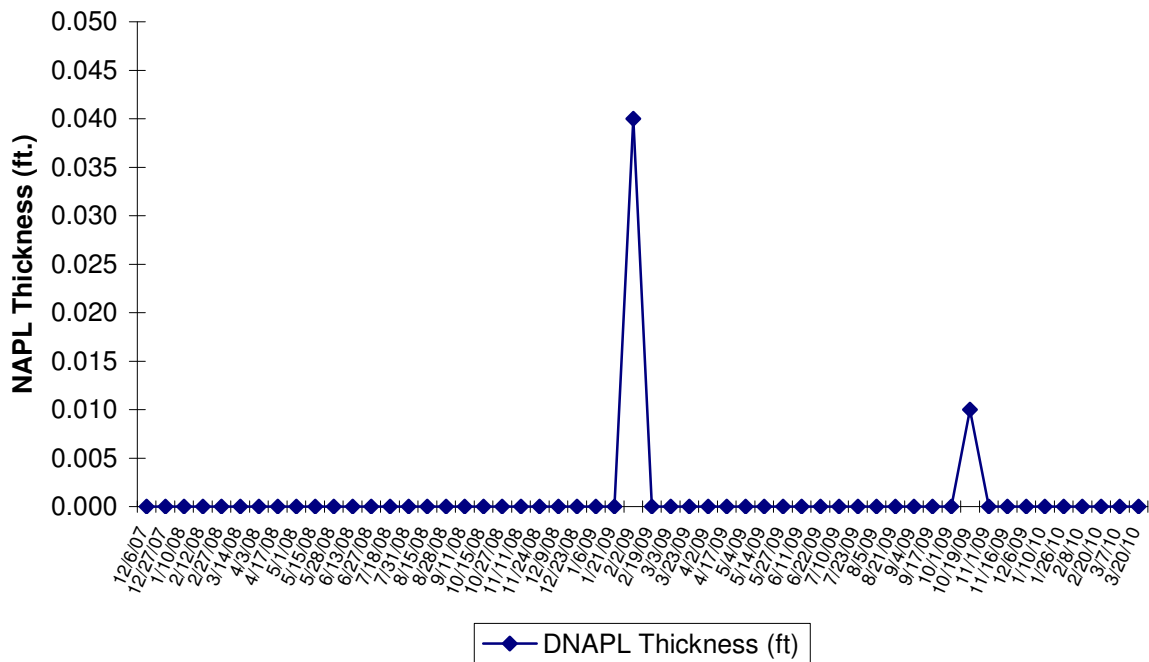
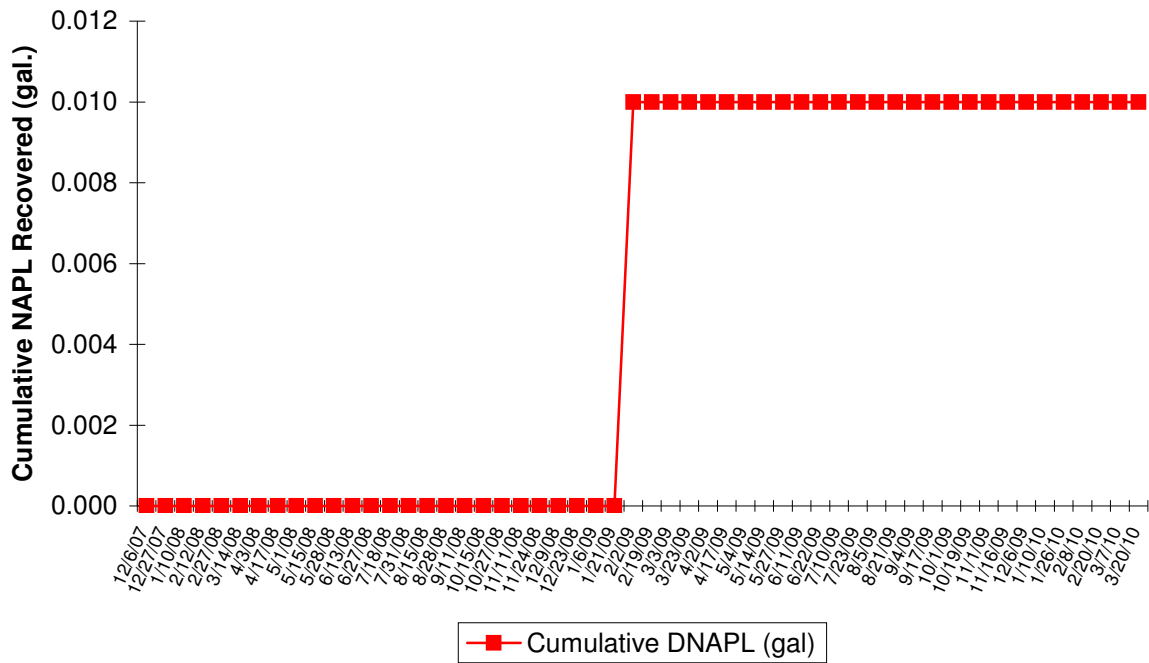


**FIGURE 8M**  
**Well HIMW-19S NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

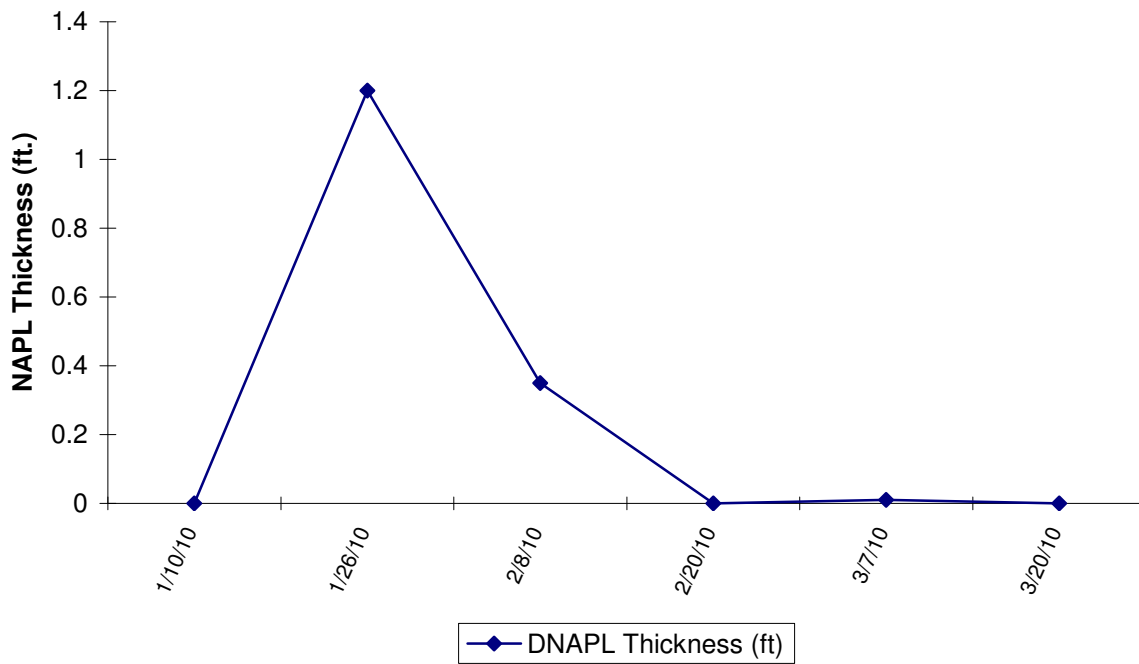
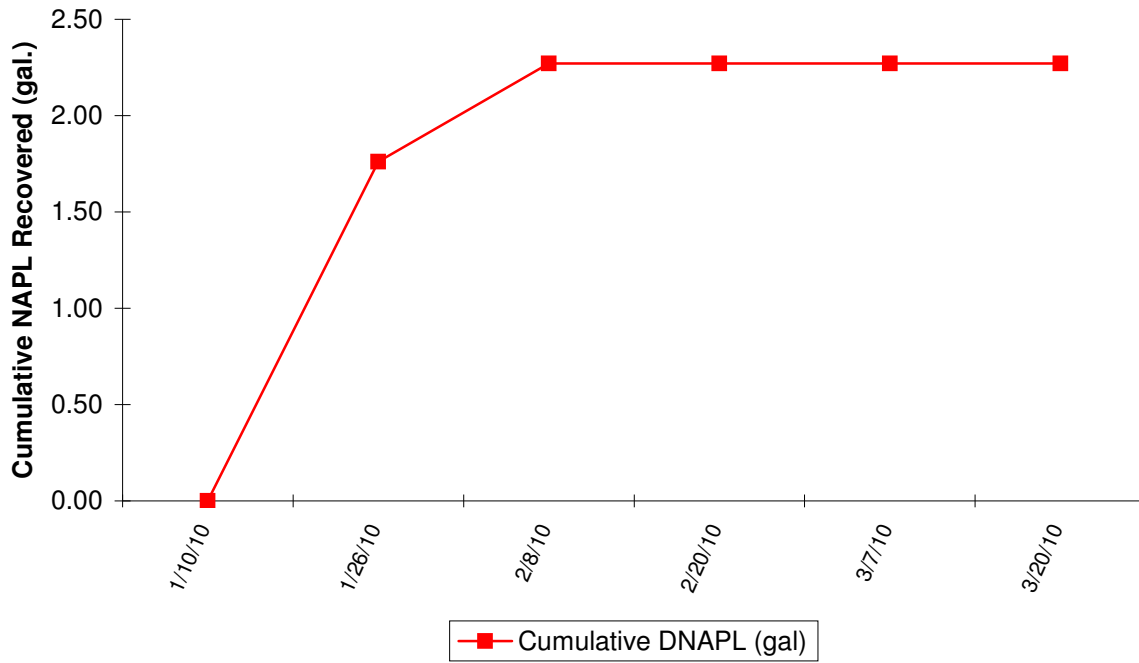




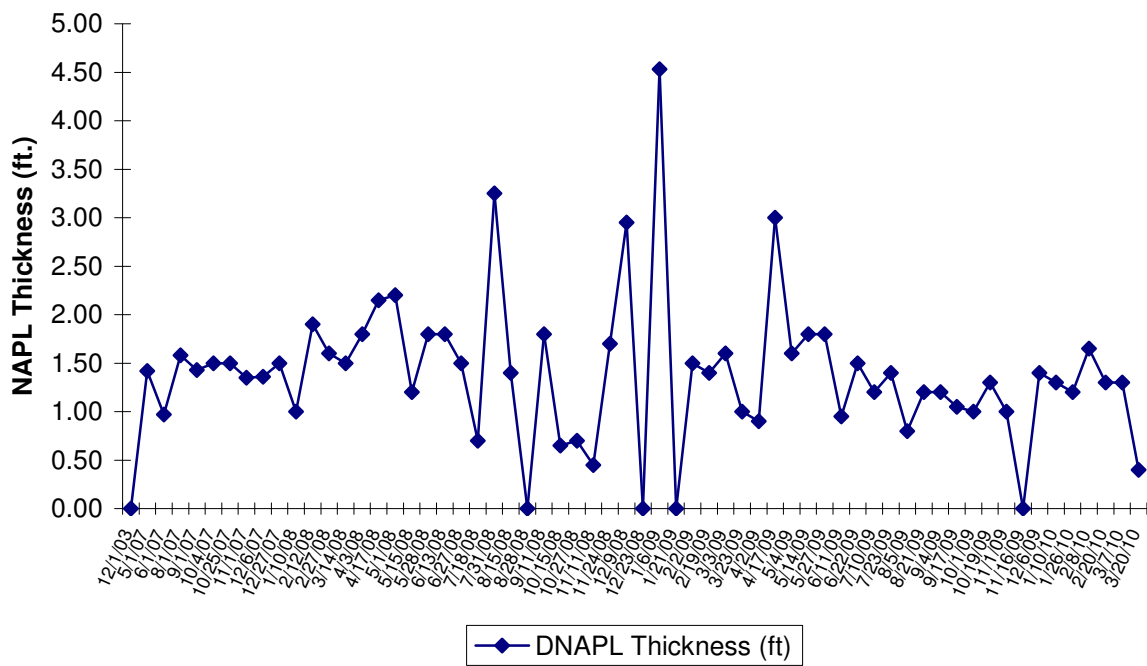
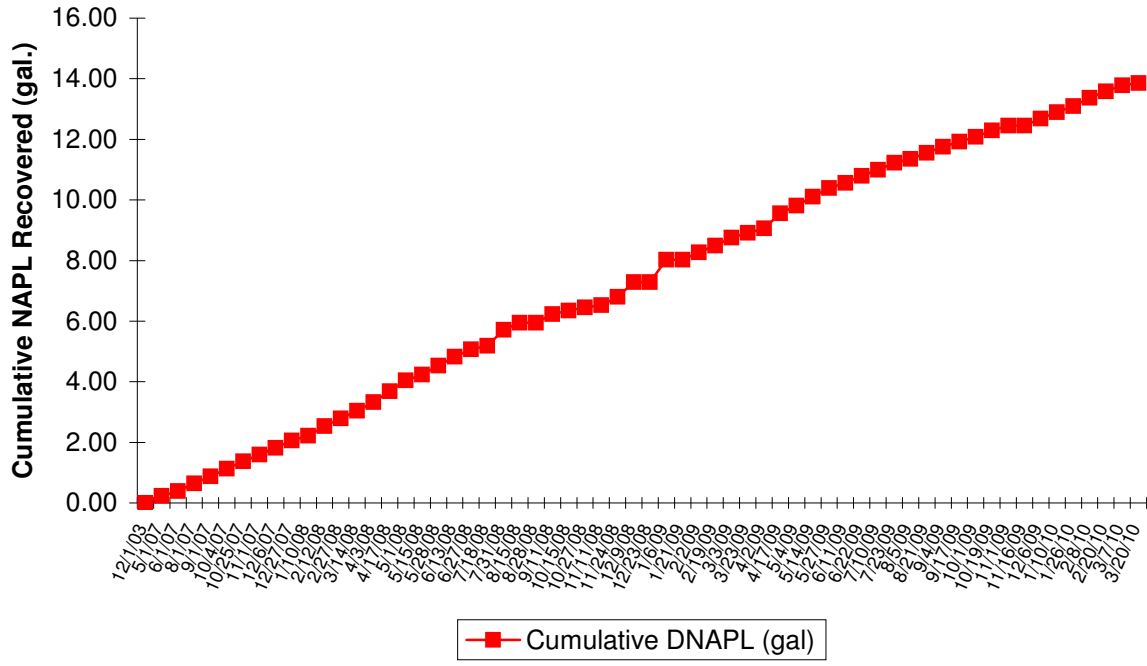
**FIGURE 8N**  
**Well HIMW-19I NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



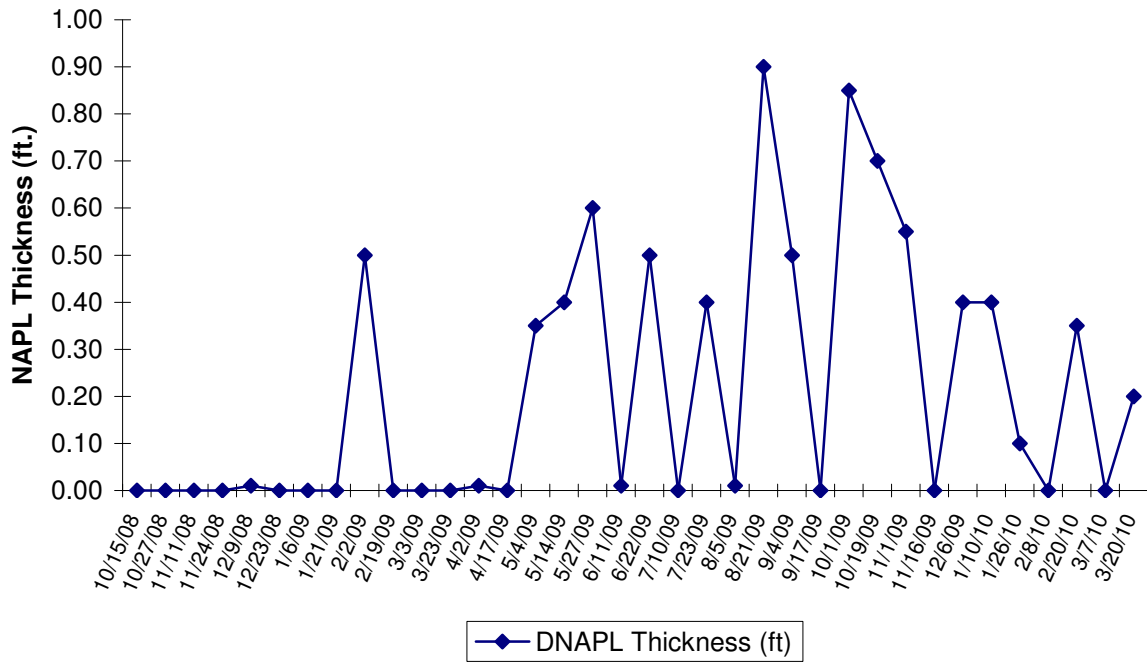
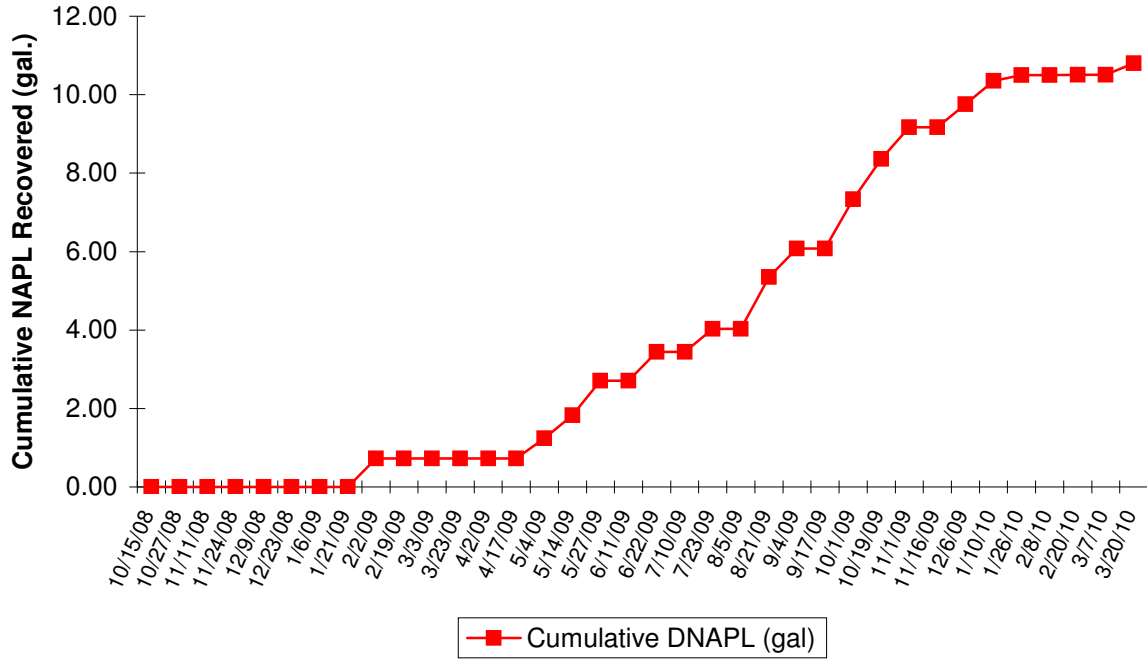
**FIGURE 80**  
**Well HIMW-21 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



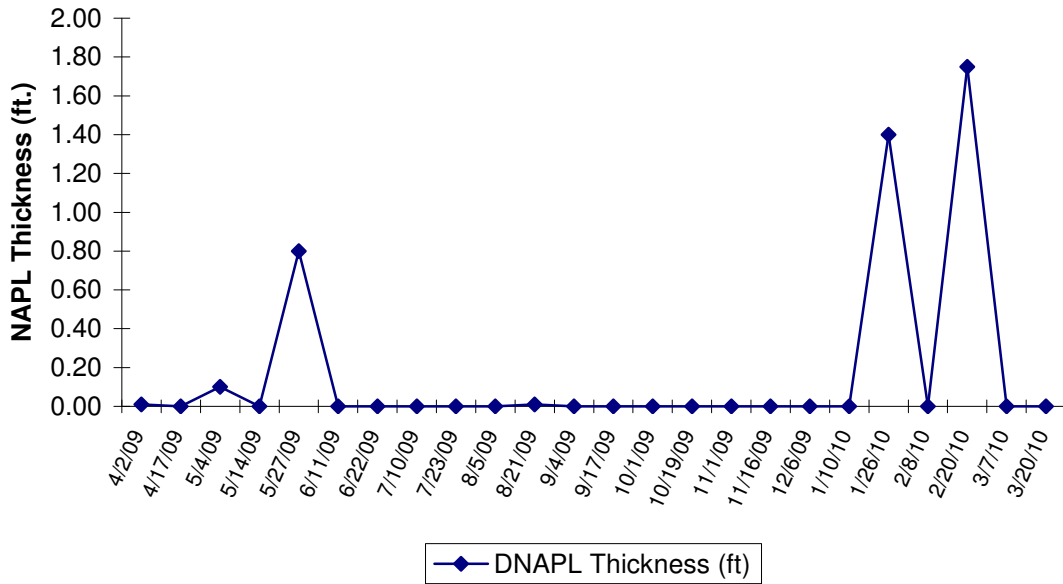
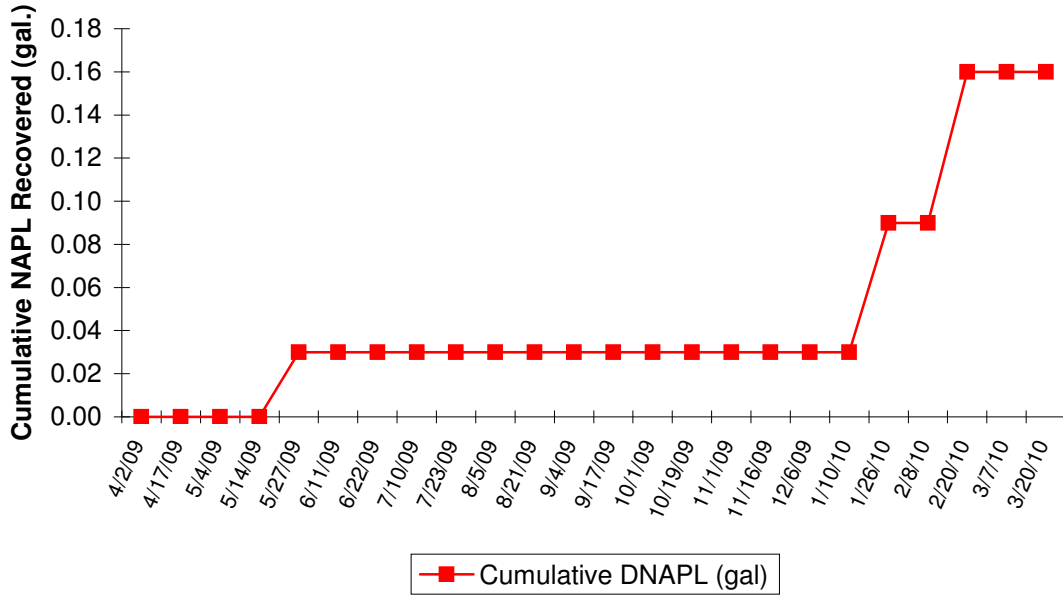
**FIGURE 8P**  
**Well PZ-08 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



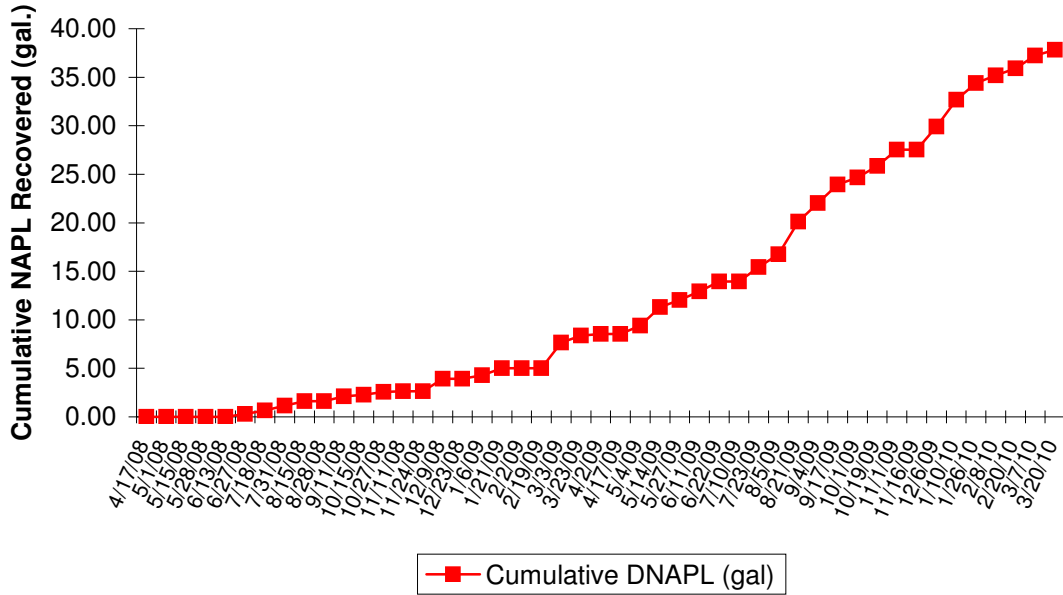
**FIGURE 8Q**  
**Well IPR-02 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



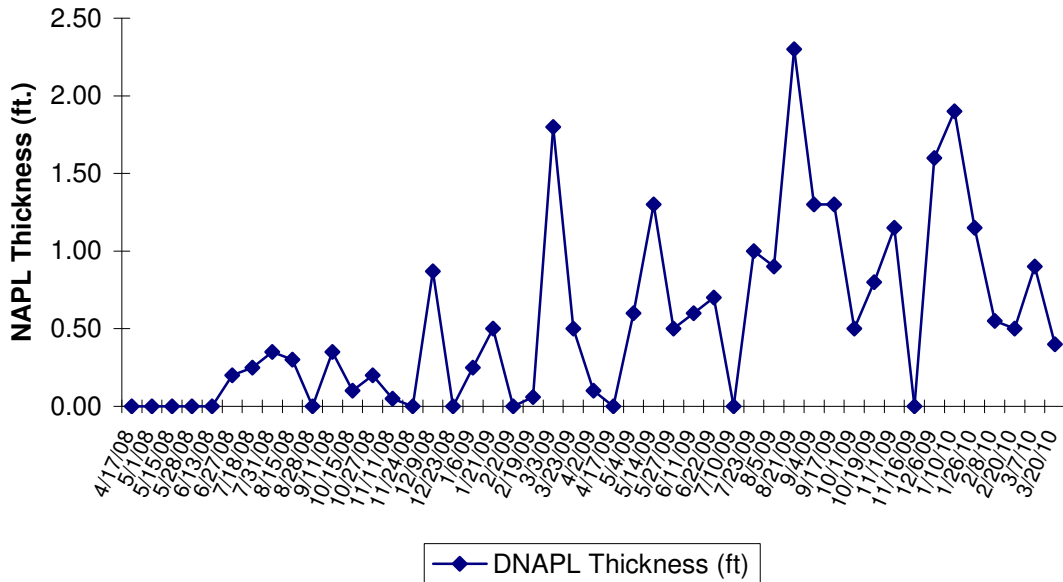
**FIGURE 8R**  
**Well IPR-05 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



**FIGURE 8S**  
**Well IPR-06 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

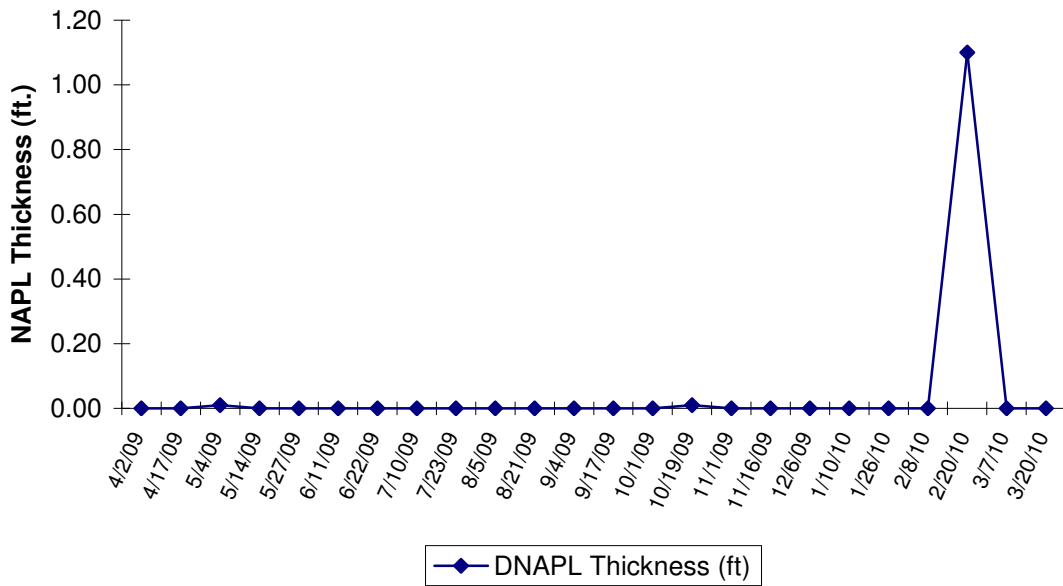
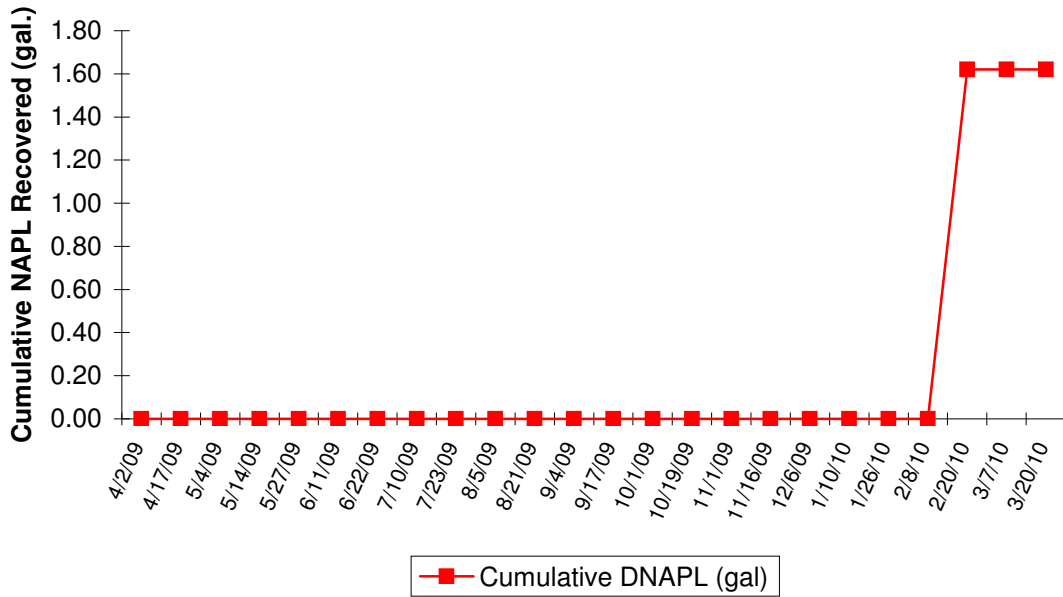


—■— Cumulative DNAPL (gal)

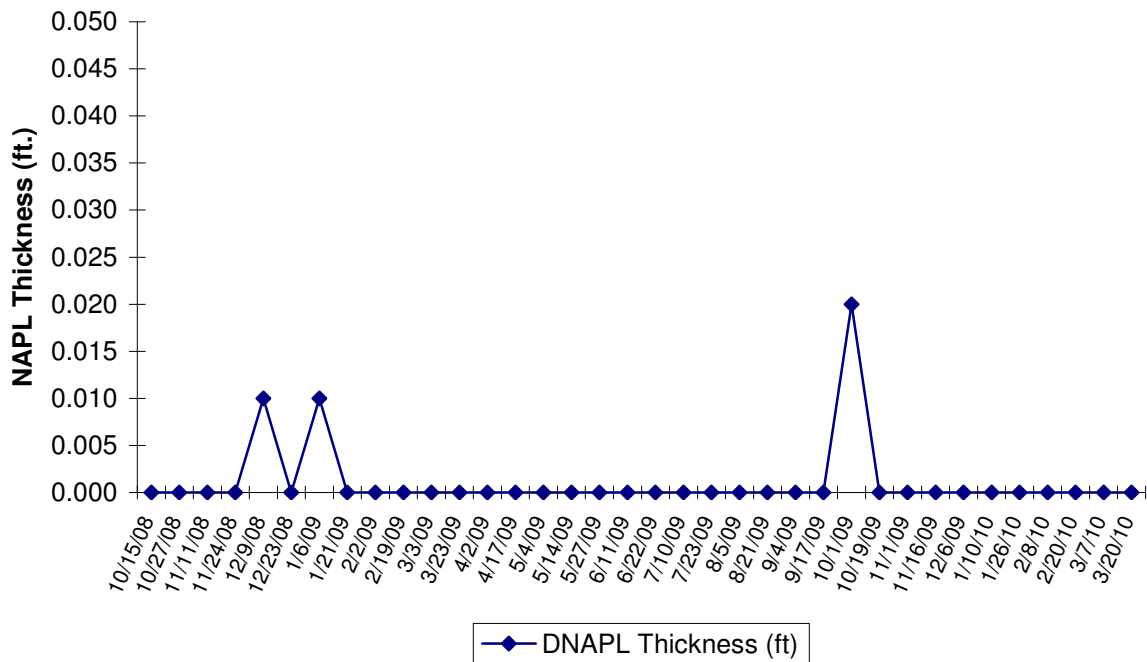
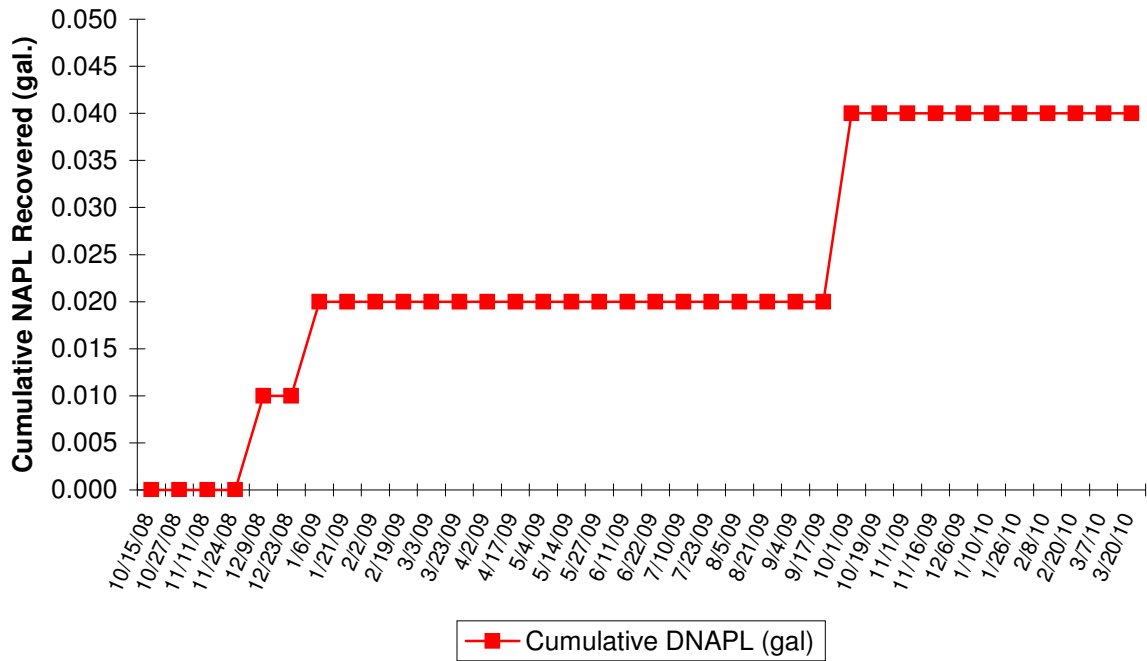


—◆— DNAPL Thickness (ft)

**FIGURE 8T**  
**Well IPR-09 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

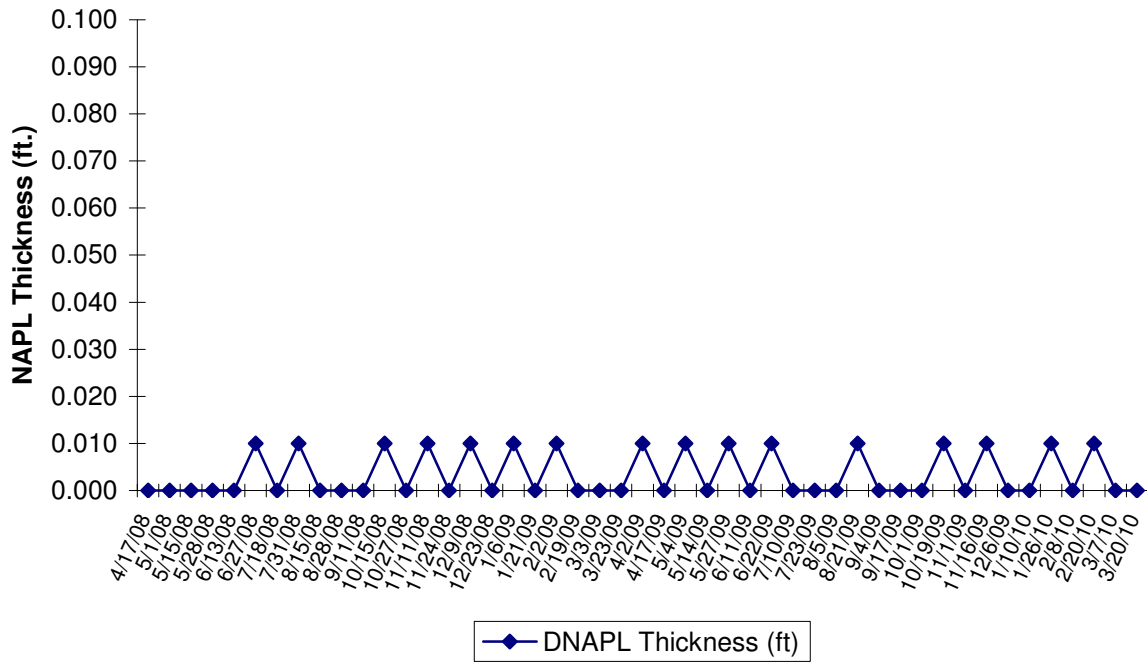
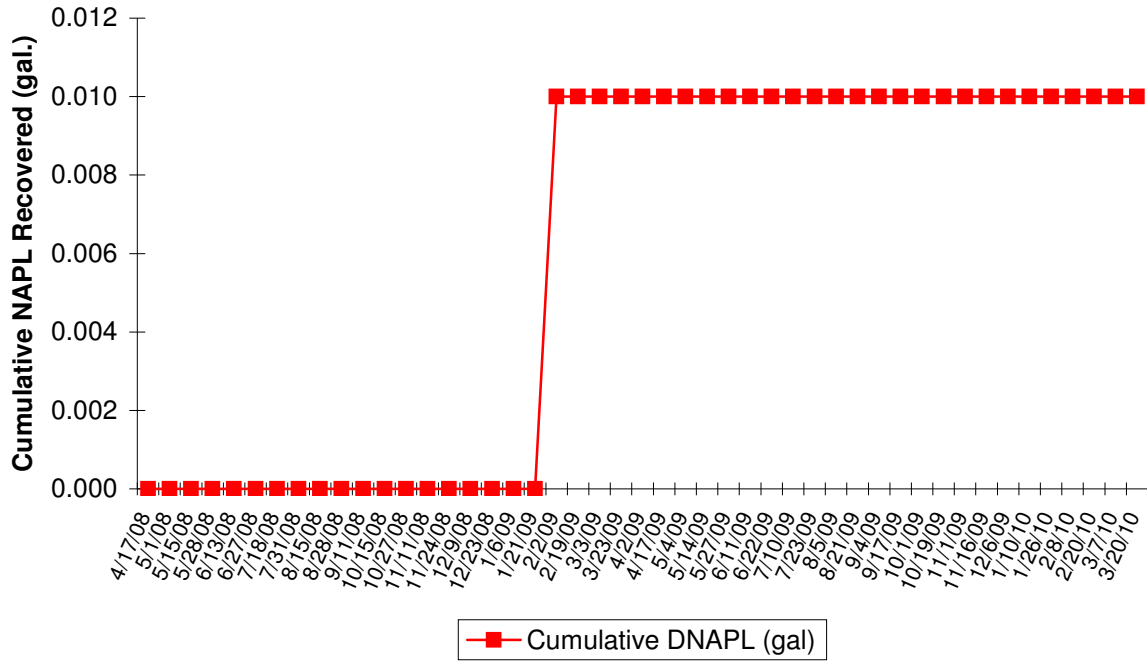


**FIGURE 8U**  
**Well IPR-12A NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

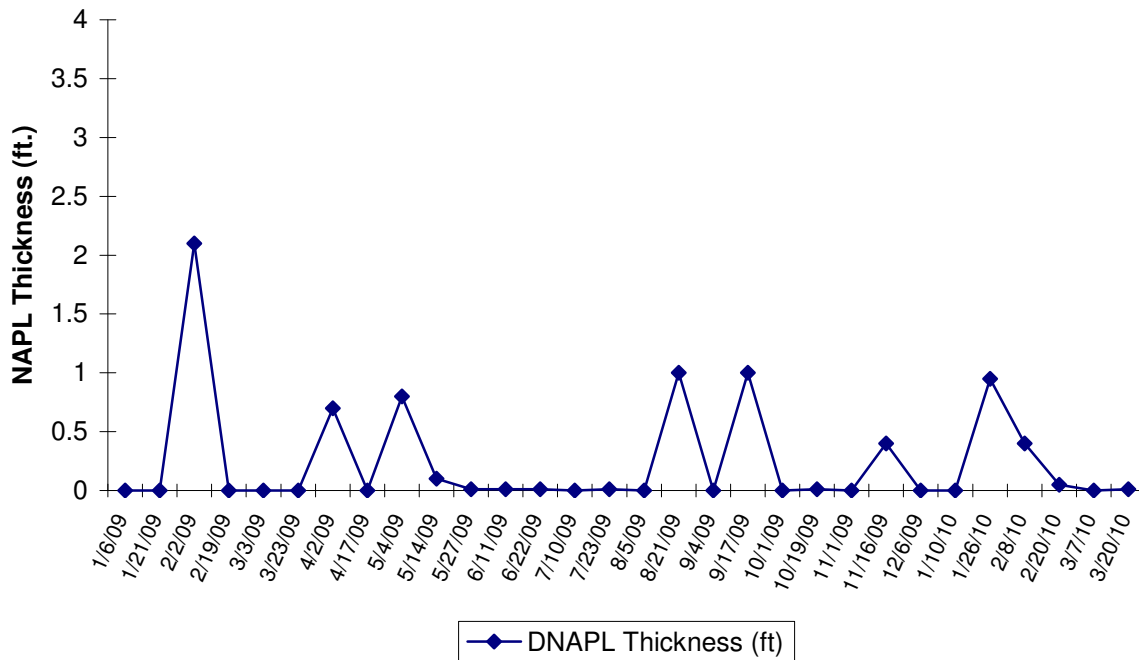
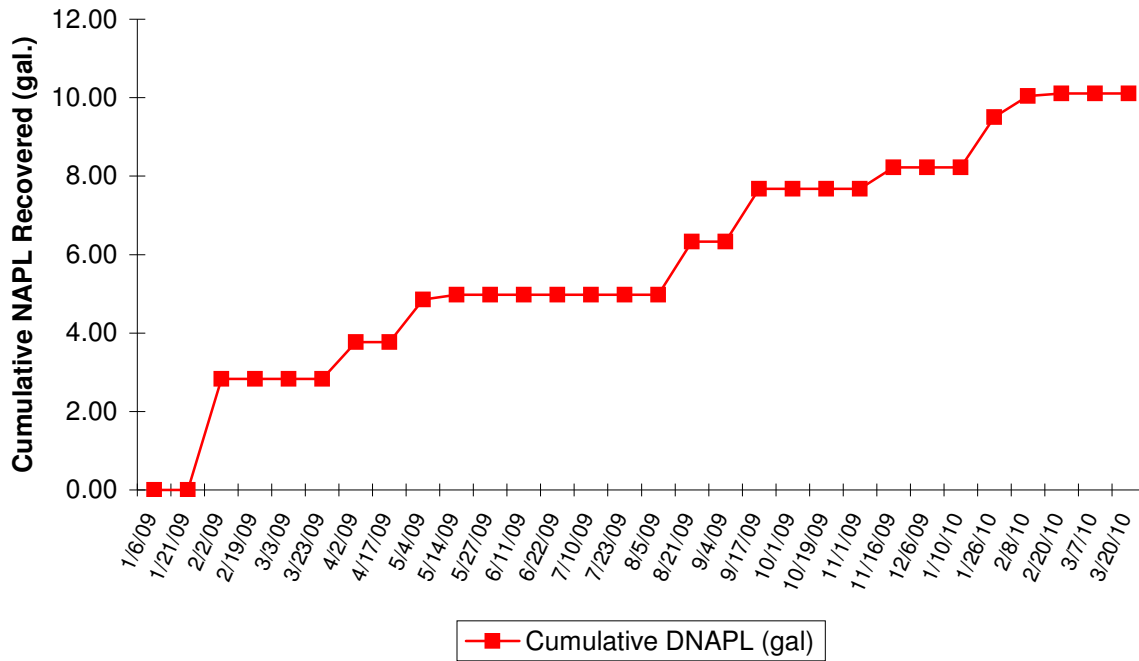




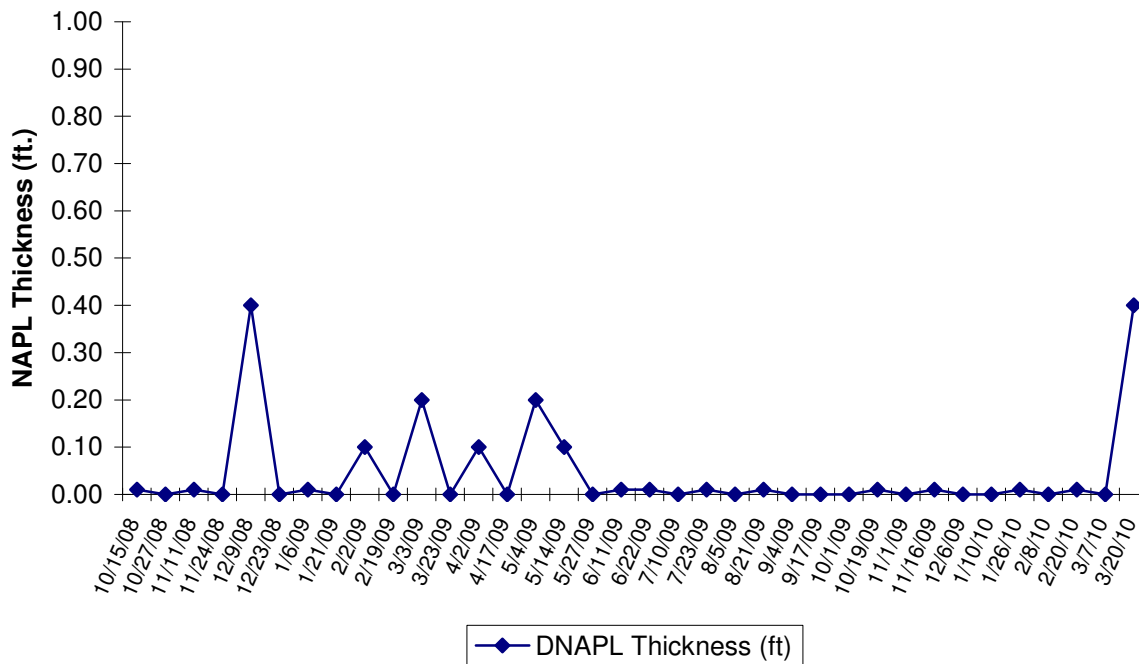
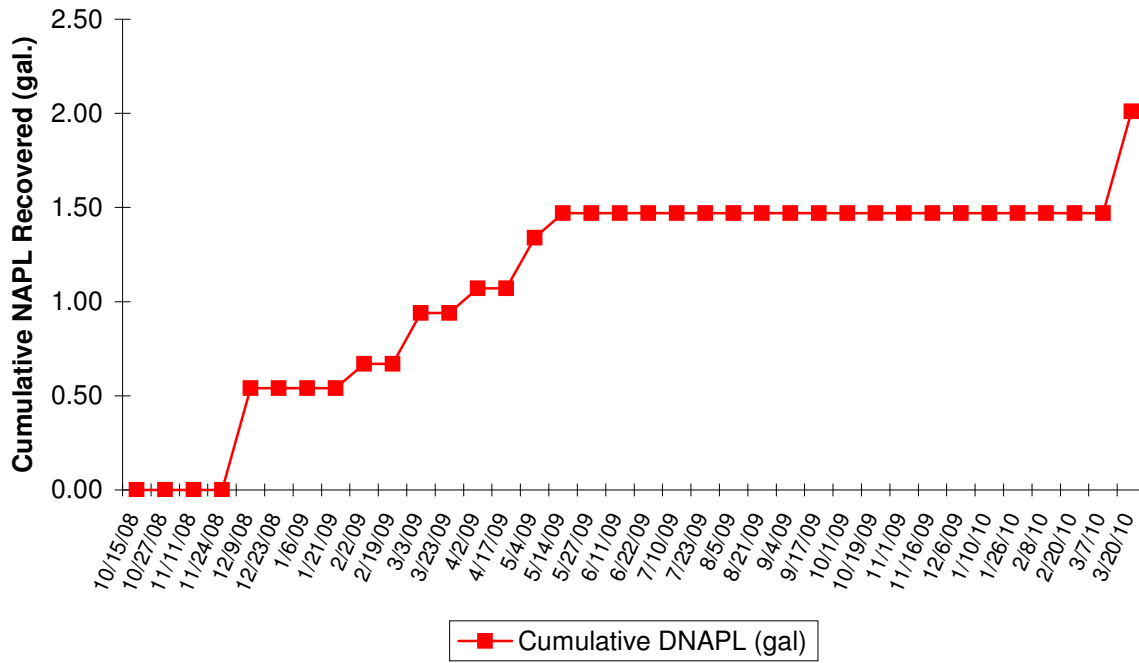
**FIGURE 8V**  
**Well IPR-15 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



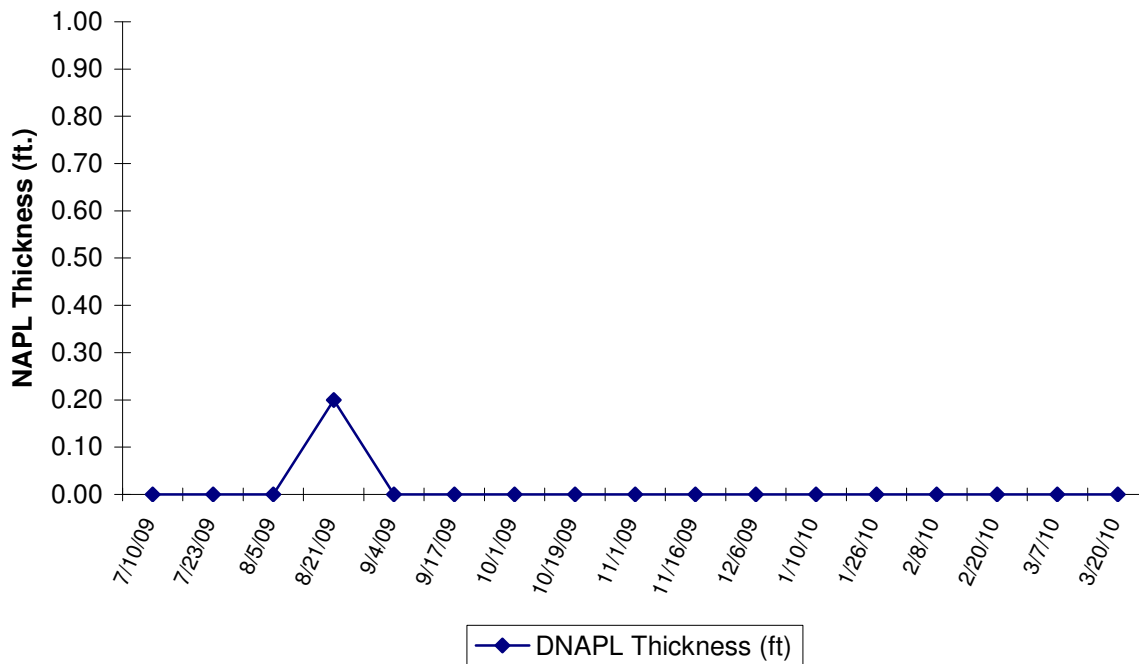
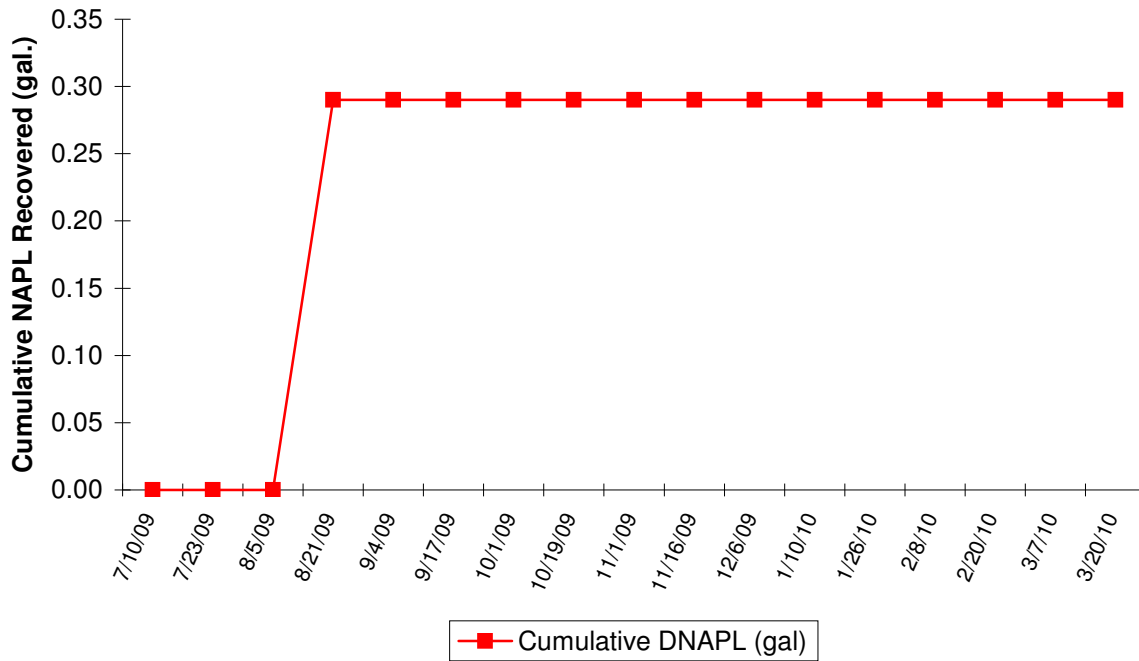
**FIGURE 8W**  
**Well IPR-16 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



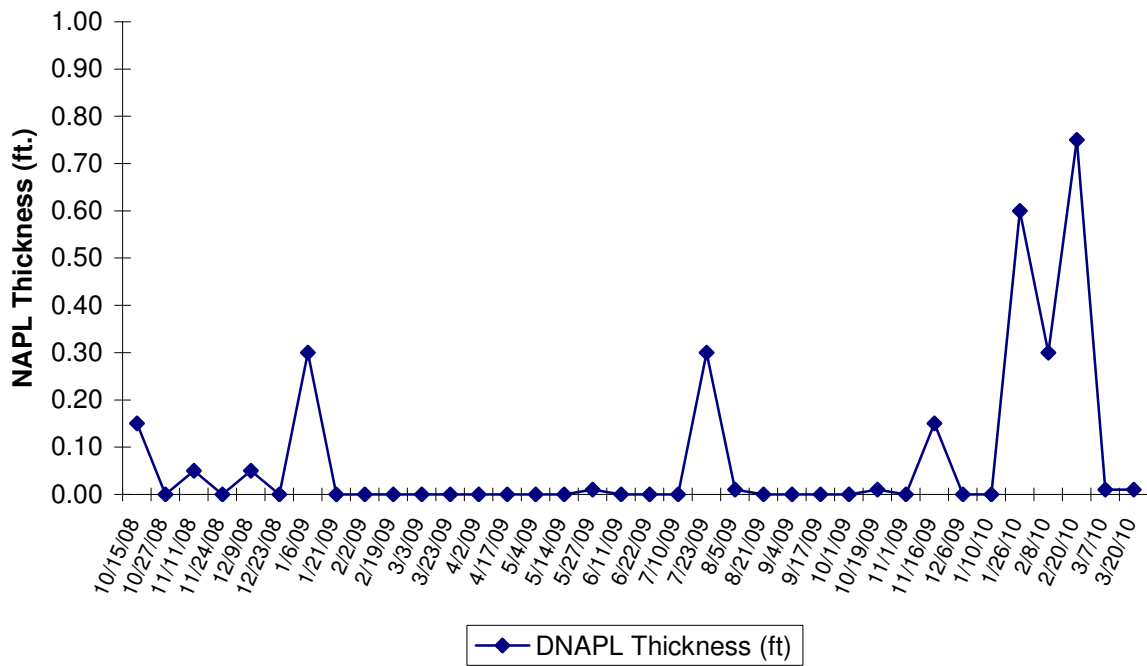
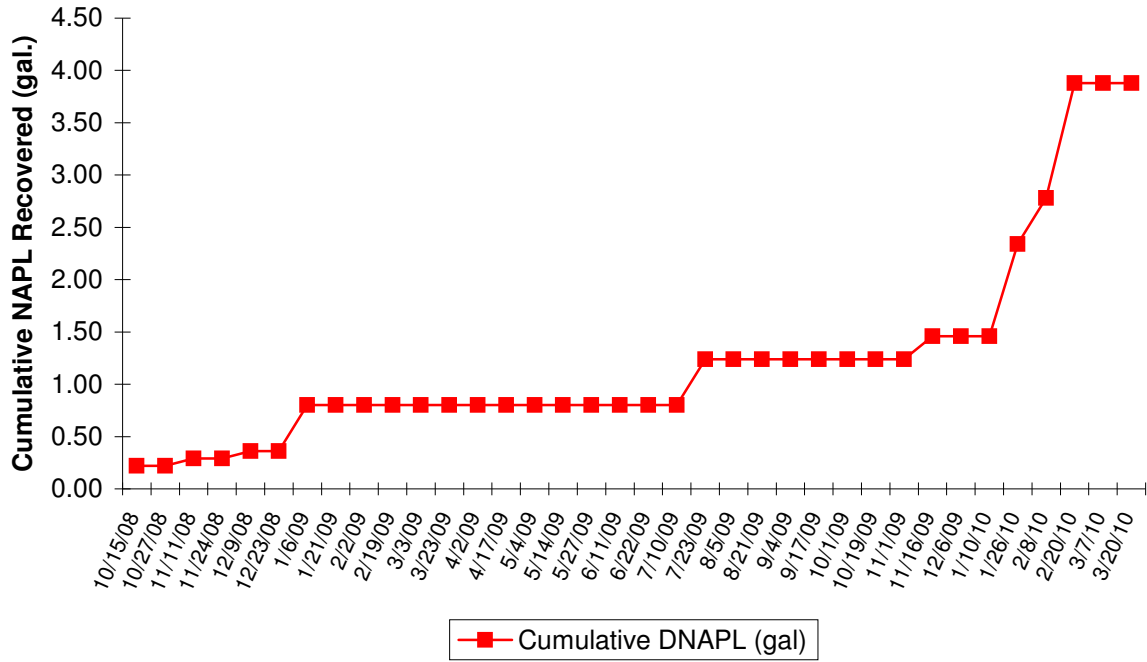
**FIGURE 8X**  
**Well IPR-17 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



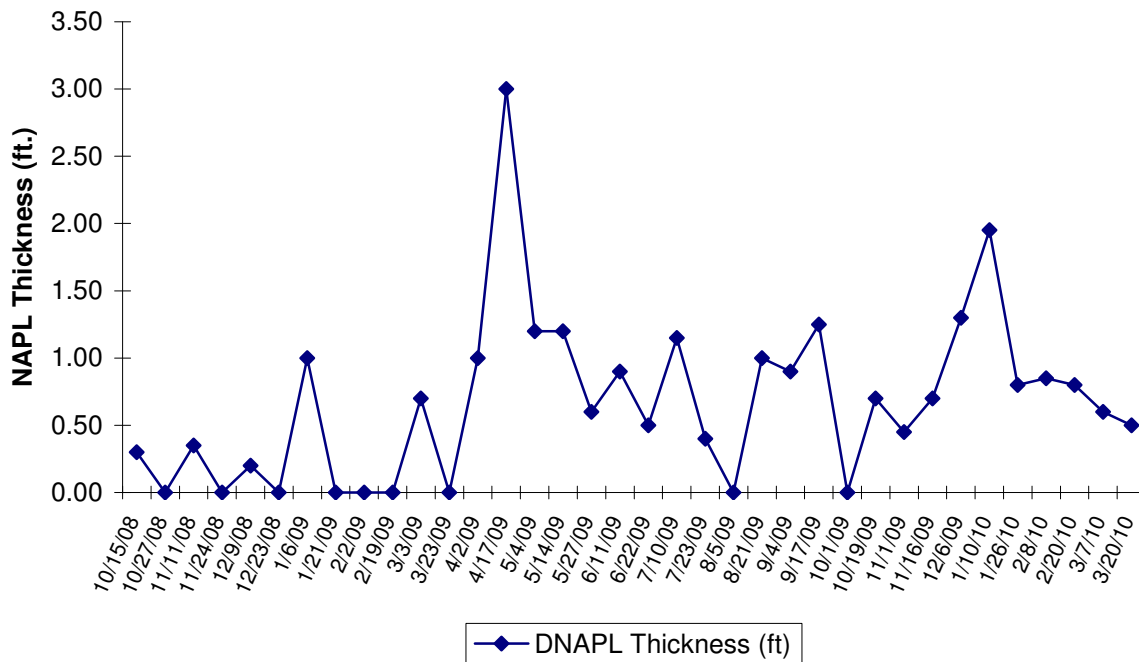
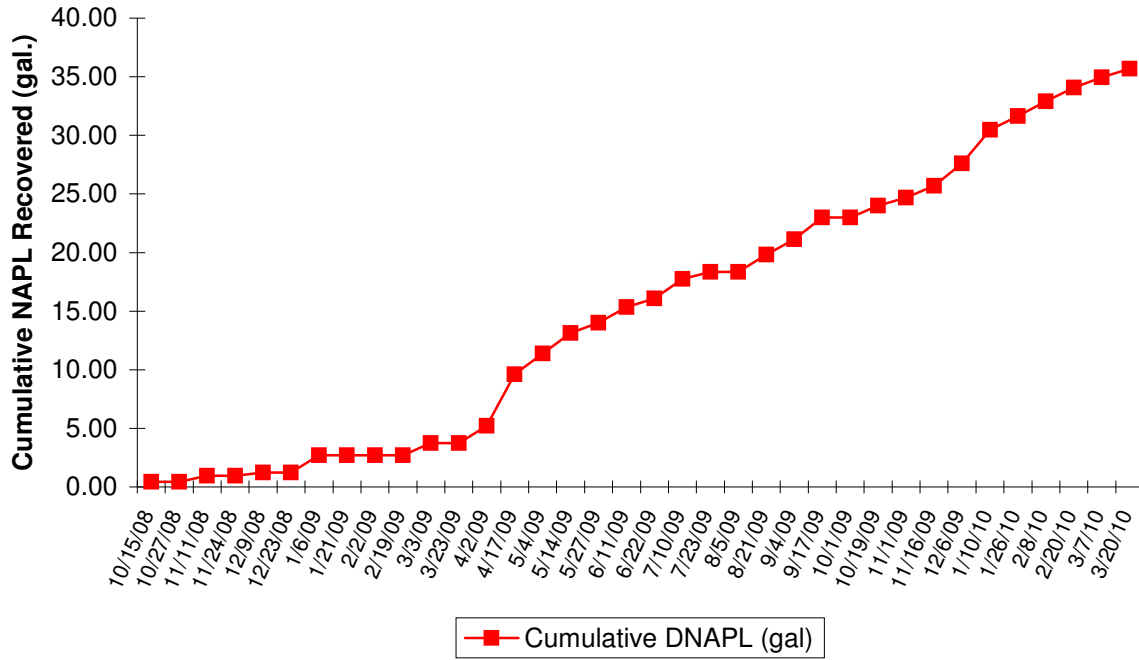
**FIGURE 8Y**  
**Well IPR-18 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



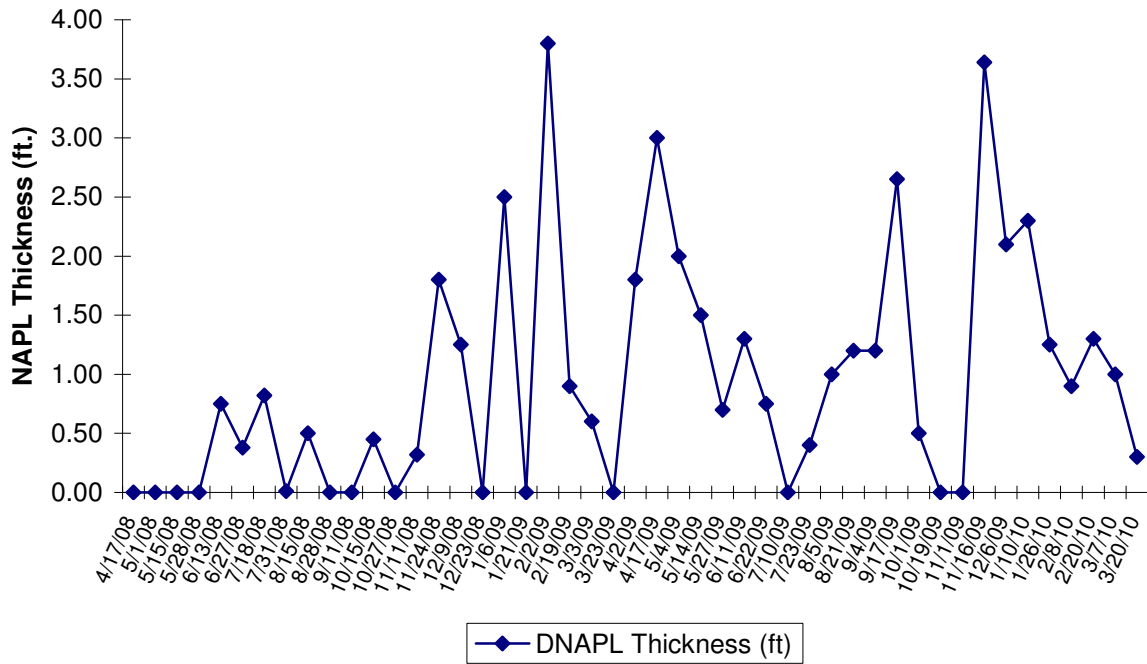
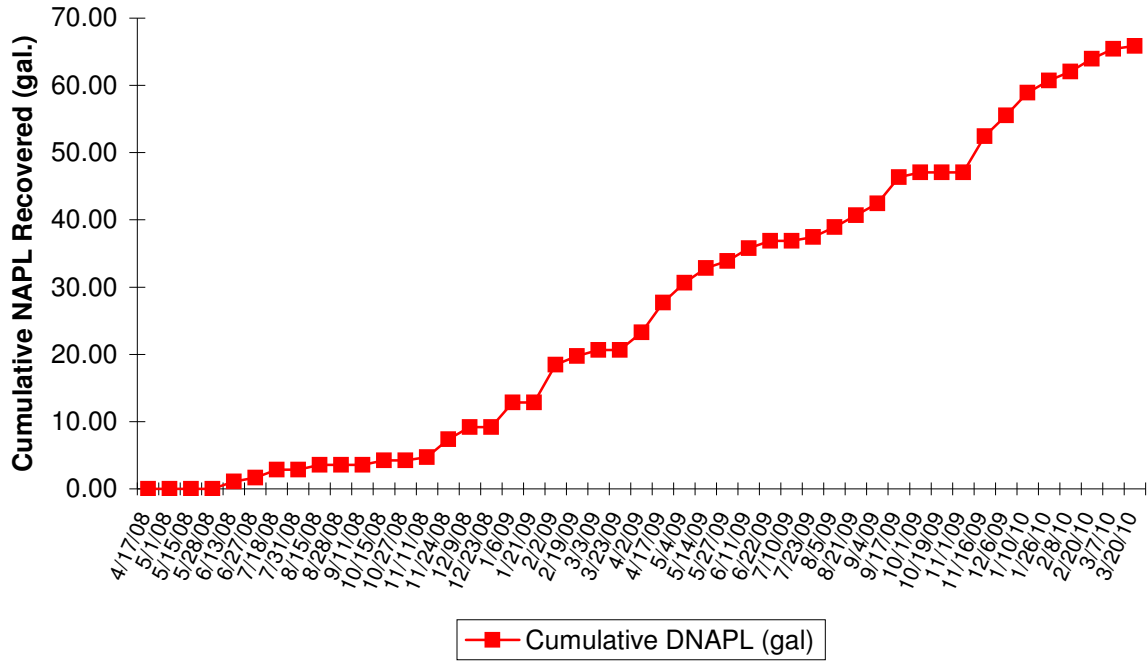
**FIGURE 8Z**  
**Well IPR-20 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



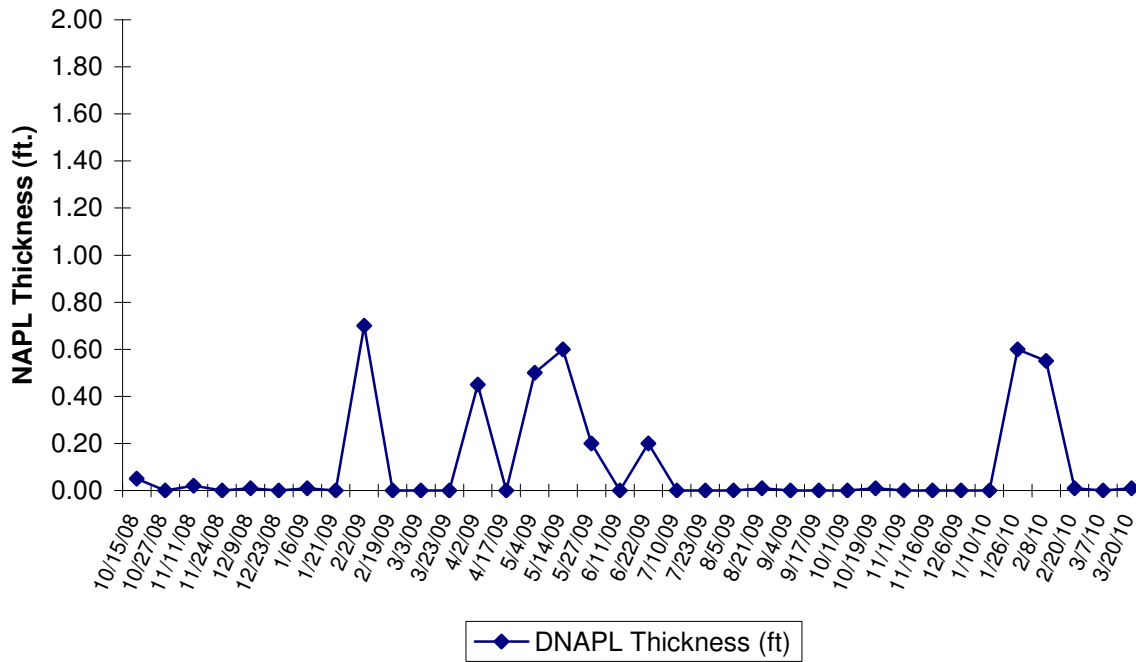
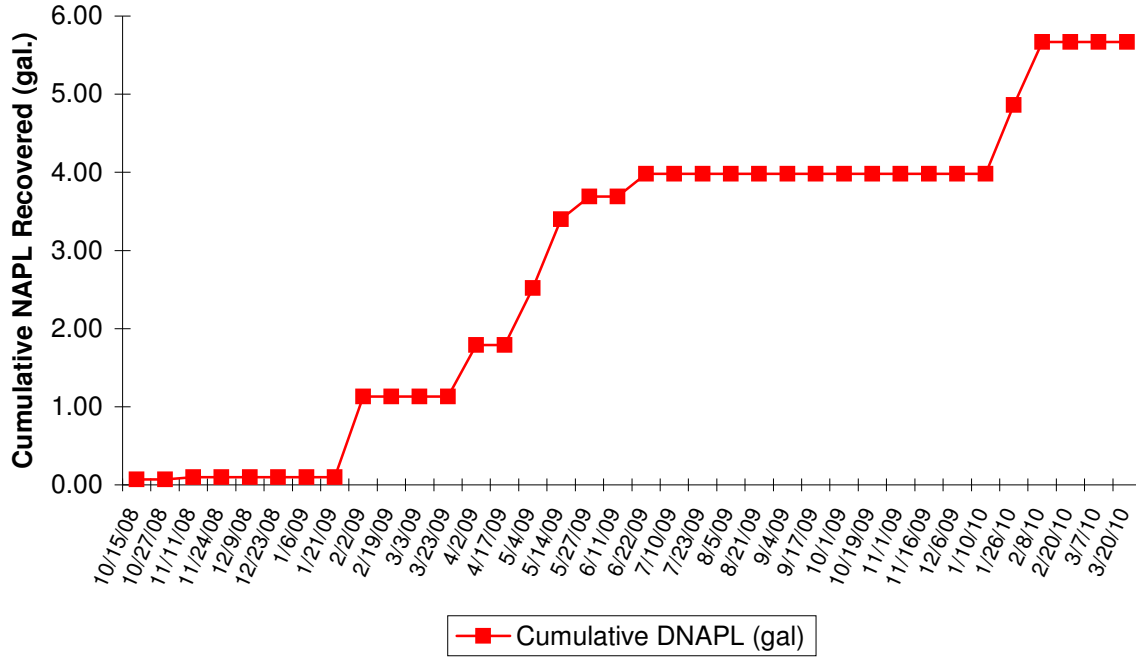
**FIGURE 8AA**  
**Well IPR-21 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



**FIGURE 8AB**  
**Well IPR-22 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

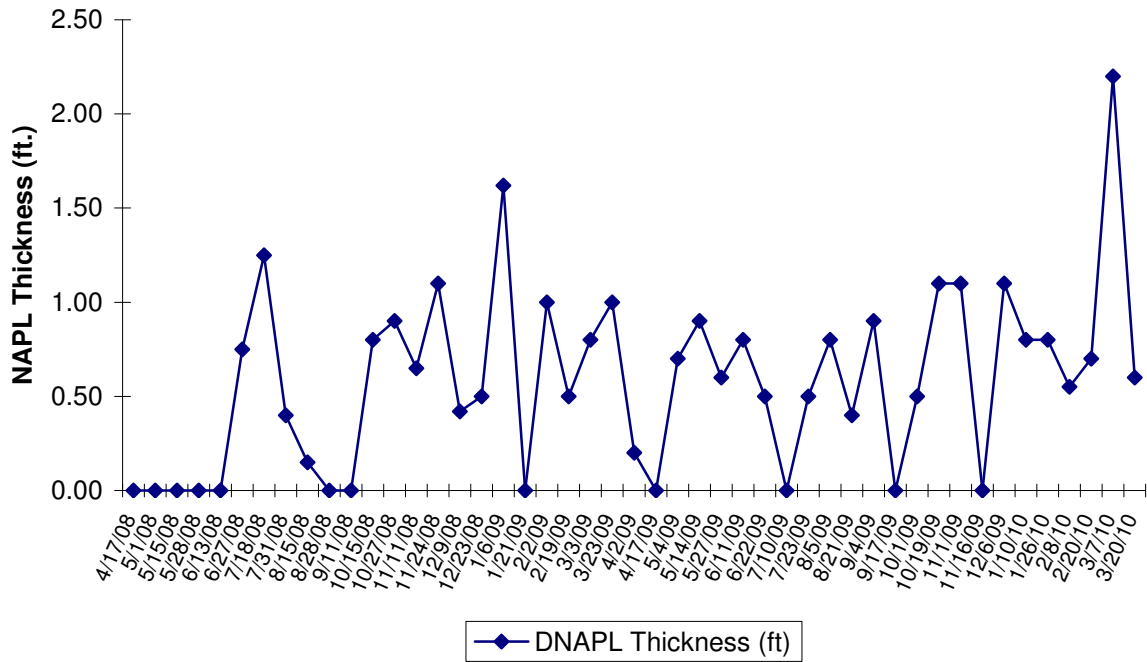
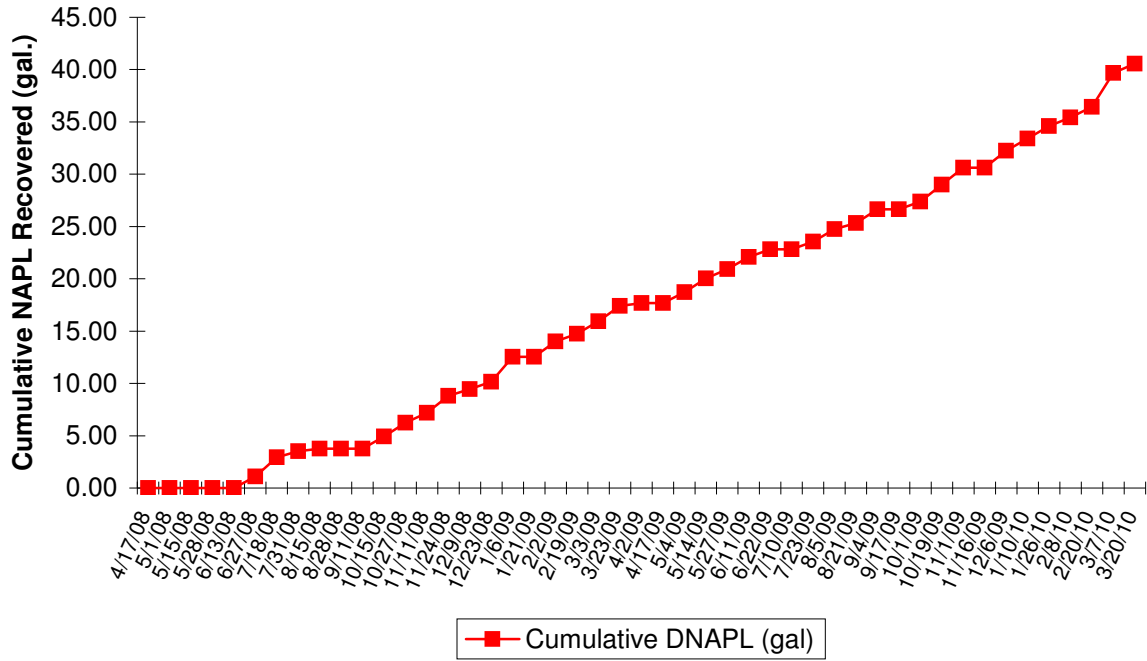


**FIGURE 8AC**  
**Well IPR-24 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**

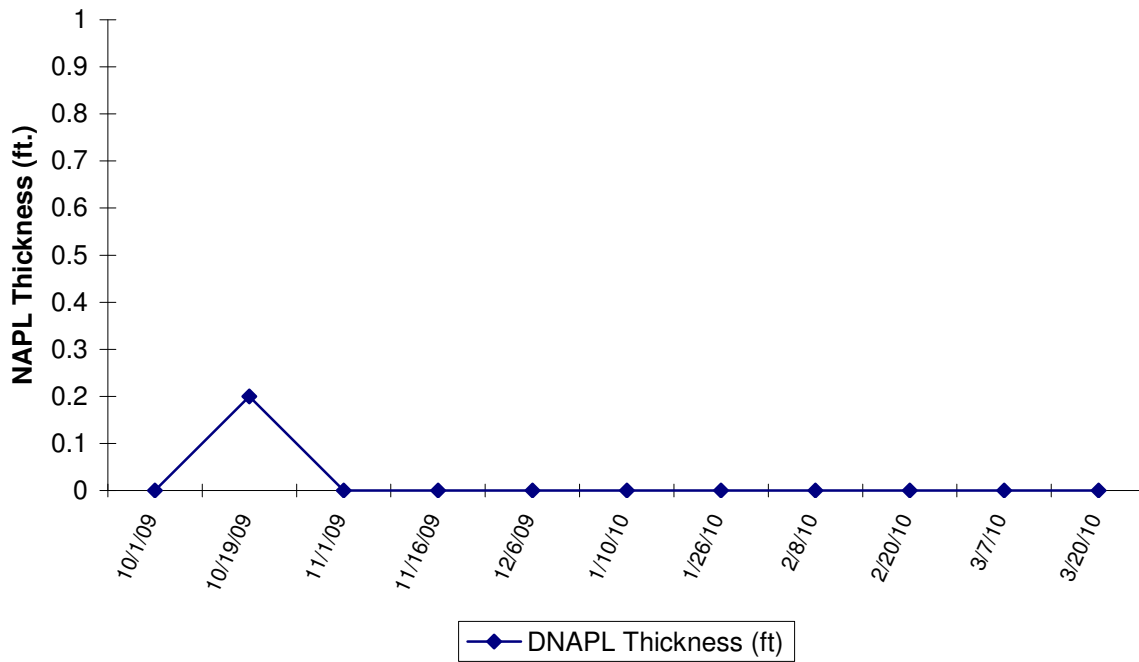
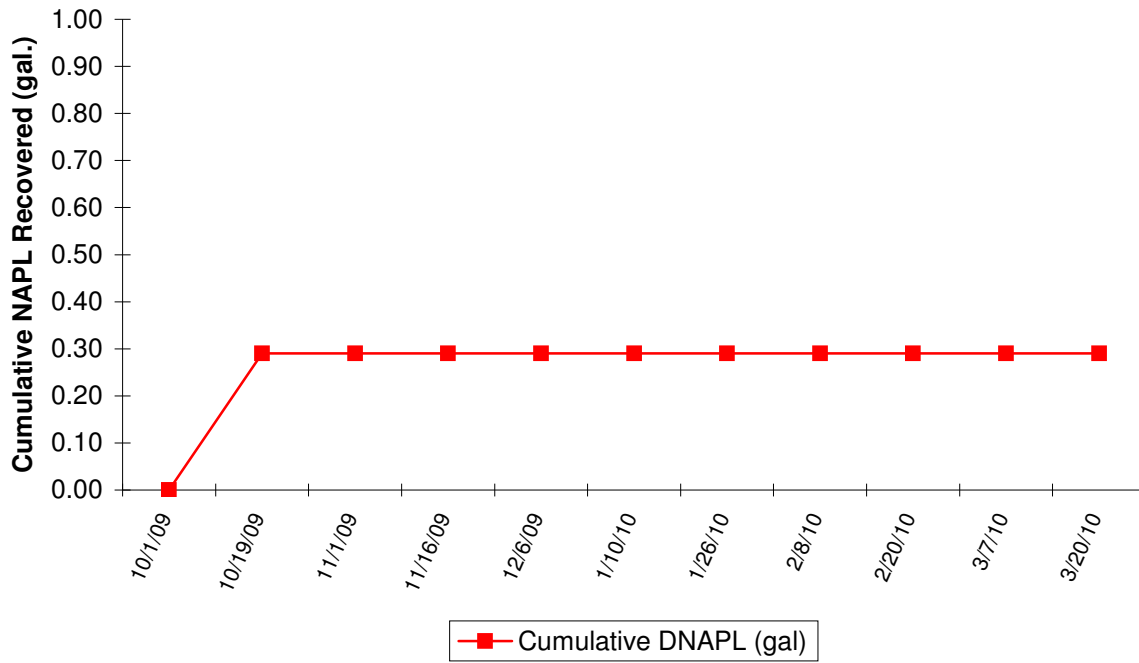




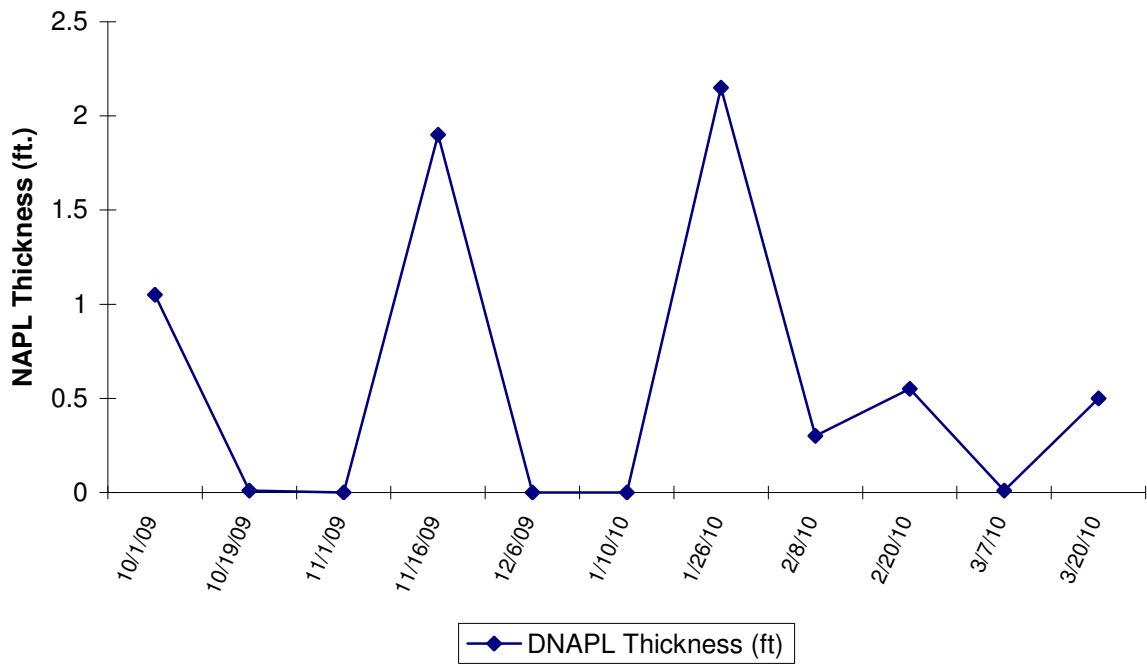
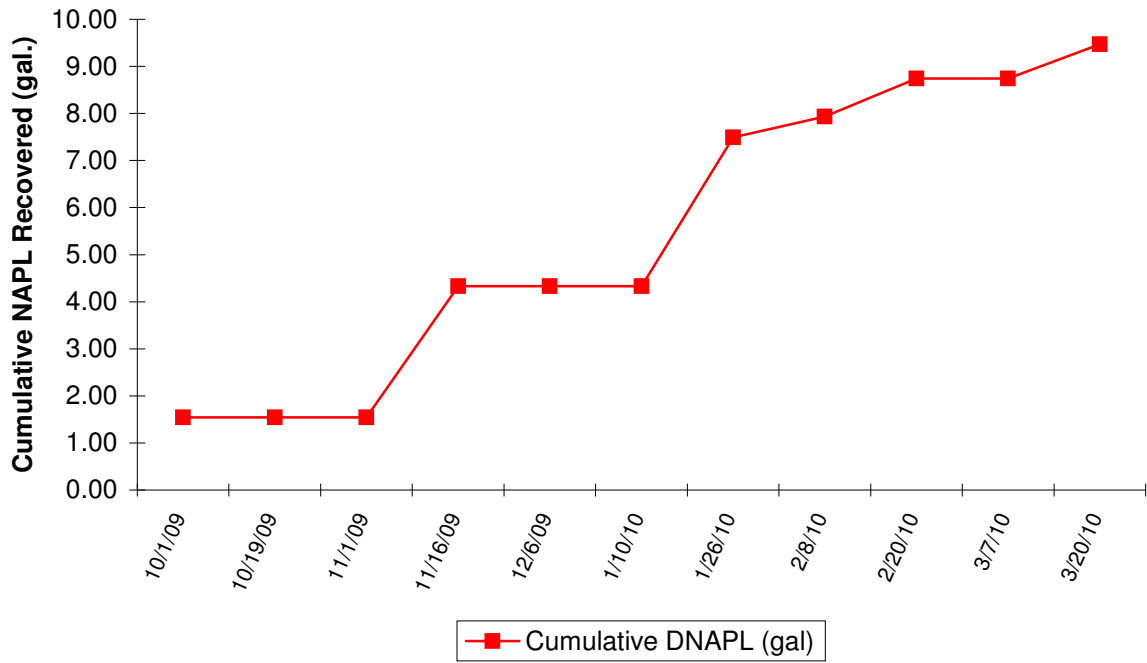
**FIGURE 8AD**  
**Well IPR-25 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



**FIGURE 8AE**  
**Well IPR-27 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



**FIGURE 8AF**  
**Well IPR-29 NAPL Thickness and Cumulative Recovery Plot**  
**Hempstead Intersection Street Former MGP Site**



**ATTACHMENT A**

**DATA USABILITY SUMMARY REPORT**

**(Provided in Electronic Format Only)**

**ATTACHMENT A  
DATA USABILITY SUMMARY REPORT  
FIRST QUARTER 2010**

**HEMPSTEAD INTERSECTION STREET FORMER MGP SITE  
VILLAGES OF GARDEN CITY AND HEMPSTEAD  
LONG ISLAND, NEW YORK**

**Analyses Performed by:  
H2M LABORATORIES, INC.**

**Prepared For:**

**NATIONAL GRID  
175 EAST OLD COUNTRY RD.  
HICKSVILLE, NY 11801**

**Prepared by:**

**URS CORPORATION  
77 GOODELL STREET  
BUFFALO, NY 14203**

**MARCH 2010**

## TABLE OF CONTENTS

	<u>Page No.</u>
I. INTRODUCTION .....	A-1
II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION .....	A-1
III. DATA DELIVERABLE COMPLETENESS .....	A-2
IV. HOLDING TIMES/SAMPLE RECEIPT .....	A-2
V. NON-CONFORMANCES.....	A-3
VI. SAMPLE RESULTS AND REPORTING .....	A-3
VII. SUMMARY.....	A-4

### TABLES (Following Text)

Table A-1	Validated Groundwater Sample Analytical Results
Table A-2	Validated Field QC Sample Analytical Results

### APPENDICES (Following Tables)

Appendix A	Validated Form 1's
Appendix B	Support Documentation

## I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *Draft DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for the Development of Data Usability Summary Reports*, December 2002.

Analytical data for sixteen (16) groundwater samples, two (2) field duplicates, one (1) matrix spike/matrix spike duplicate (MS/MSD) pair, and one (1) trip blank collected by URS personnel from January 5-7, 2010 are discussed in this DUSR. The samples were collected as part of the first quarter 2010 groundwater monitoring event at the Hempstead Intersection Street Former MGP Site.

## II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION

The samples were analyzed by H2M Laboratories, Inc. (Melville, NY) for the following parameters:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) – USEPA Method SW8260B, and
- Polynuclear aromatic hydrocarbons (PAHs) – USEPA Method SW8270C.

It should be noted that seven groundwater samples were collected for total cyanide analysis, but the results are not discussed in this DUSR because the data are being used for the in-situ solidification/stabilization (ISS) study conducted at the site.

A limited data validation was performed on the samples in accordance with the guidelines presented in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B, SOP HW-24, Rev. 2, October 2006*; and

- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D, SOP HW-22, Rev. 3, October 2006.*

The limited data validation included a review of completeness of all required deliverables; holding times; quality control (QC) results (instrument tunes, calibration standards, blanks, matrix spike recoveries, field duplicate analyses, laboratory control sample recoveries, and surrogate/internal standard recoveries) to determine if the data are within the protocol-required QC limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

Qualifications applied to the data during the data validation process include 'J' (estimated concentration) and 'UJ' (estimated quantitation limit). The validated analytical results are presented in Tables A-1 and A-2. Copies of the validated laboratory results (i.e., Form 1's) are presented in Appendix A. Documentation supporting the qualification of data, if necessary, is presented in Appendix B. Only problems affecting data usability are discussed in this report.

### **III. DATA DELIVERABLE COMPLETENESS**

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory, and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

### **IV. HOLDING TIMES/SAMPLE RECEIPT**

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC), except for the following instance.

- The sample collection time for HIMW-20I and its corresponding MS/MSD did not match on the COC. The laboratory contacted the URS field technician to resolve this discrepancy, and they were instructed to revise the sample time on the COC for the MS/MSD so that it matched that of the parent sample.



All samples were analyzed within the required holding times.

## V. NON-CONFORMANCES

For PAH analyses, the percent relative standard deviations (%RSDs) in the initial calibration (ICAL) were greater than 15% for naphthalene, anthracene, benzo(a)anthracene, and benzo(k)fluoranthene. The detected results for naphthalene and anthracene in the groundwater samples were qualified 'J'. No data qualification was necessary for benzo(a)anthracene and benzo(k)fluoranthene, per USEPA Region II guidelines, because they weren't detected in any of the groundwater samples.

For PAH analyses, the percent differences (%Ds) between the ICAL average relative response factors (RRFs) and the RRFs in the continuing calibration (CCAL) standards were greater than 20.0% for benzo(b)fluoranthene, benzo(k)fluoranthene, and/or benzo(g,h,i)perylene. The following PAH results for all affected groundwater samples were qualified 'J' or 'UJ'.

Sample ID	Affected Compound
HIMW-05I, -08I, -08S, -08S-Dup, -12D, -12I, -12S, -13D, -13I, -14I, -15D, -15I, -20I, -20S, -20S-Dup	Benzo(k)fluoranthene
HIMW-05I, -12D, -12I, -12S, -20I	Benzo(b)fluoranthene, benzo(g,h,i)perylene

Documentation supporting the qualification of data (i.e., Forms 5, 6, and 7) is presented in Appendix B.

## VI. SAMPLE RESULTS AND REPORTING

All sample results were reported in accordance with method requirements and were adjusted for sample size and dilution factors. BTEX and PAH results detected below the quantitation limits were qualified 'J' by the laboratory. The results reported from secondary dilution analyses were qualified 'D' by the laboratory.

Field duplicates were collected from monitoring well locations HIMW-08S and HIMW-20S. The relative percent differences were generally  $\leq 20\%$ , which shows good field collection and laboratory analytical precision. USEPA Region II does not require data qualification for field duplicate precision.

## VII. SUMMARY

All sample analyses were found to be compliant with the method and validation criteria, and the data are usable as reported, except where noted above. URS does not recommend the re-collection of any samples at this time.

Prepared By: Peter R. Fairbanks  
Peter R. Fairbanks, Senior Chemist

Date: 3/4/10

Reviewed By: Mary E. Bitka  
Mary E. Bitka, Principal Chemist

Date: 3/4/10

## DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

- U – The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- D – The sample results are reported from a separate secondary dilution analysis.
- NJ – The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

## TABLE A-1 VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-005D	HIMW-005I	HIMW-005S	HIMW-008D	HIMW-008I
Sample ID			HIMW-05D	HIMW-5I	HIMW-05S	HIMW-8D	HIMW-08I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			01/17/10	01/10/10	01/17/10	01/15/10	01/12/10
Parameter	Units	Criteria*					
<b>Volatile Organic Compounds</b>							
Benzene	UG/L	-	2	3	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1	1 U	1 U	1 U
Toluene	UG/L	-	6	2	1 U	1 U	1 U
Xylene (total)	UG/L	-	100	160	1 U	1 U	1 U
Total BTEX	UG/L	100	108	166	ND	ND	ND
<b>Semivolatile Organic Compounds</b>							
2-Methylnaphthalene	UG/L	-	200 DJ	520 D	10 U	10 U	10 U
Acenaphthene	UG/L	-	2 J	12	10 U	10 U	10 U
Acenaphthylene	UG/L	-	20	170 DJ	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 UJ
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	25	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	1,500 DJ	2,300 DJ	10 U	10 U	10 U
Phenanthrene	UG/L	-	10 U	18	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1,722	3,047	ND	ND	ND

\*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. ND - Not detected.

Made By\_PRF 02/23/10; Checked By *[Signature]* 2/24/10

Detection Limits shown are PQL

**TABLE A-1  
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS  
NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE**

Location ID			HIMW-008S	HIMW-008S	HIMW-012D	HIMW-012I	HIMW-012S
Sample ID			HIMW-08S	HIMW-08S DUP	HIMW-12D	HIMW-12I	HIMW-12S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			01/12/10	01/12/10	01/06/10	01/07/10	01/07/10
Parameter	Units	Criteria*		Field Duplicate (1-1)			
<b>Volatile Organic Compounds</b>							
Benzene	UG/L	-	1 U	1 U	1 U	35	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	5	1 U
Total BTEX	UG/L	100	ND	ND	ND	40	ND
<b>Semivolatile Organic Compounds</b>							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	39	10 U
Acenaphthylene	UG/L	-	4 J	5 J	10 U	46	10 U
Anthracene	UG/L	-	2 J	2 J	10 U	1 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	2 J	2 J	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 UJ	10 UJ	10 UJ
Benzo(g,h,i)perylene	UG/L	-	2 J	2 J	10 UJ	10 UJ	10 UJ
Benzo(k)fluoranthene	UG/L	-	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	27	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	2 J	1 J	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	3 J	10 U
Phenanthrene	UG/L	-	10 U	10 U	10 U	8 J	10 U
Pyrene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	12	14	ND	124	ND

\*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. ND - Not detected.

Made By\_PRF 02/23/10; Checked By *CHL 2/24/10*


Detection Limits shown are PQL

## TABLE A-1 VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-013D	HIMW-013I	HIMW-014I	HIMW-015D	HIMW-015I
Sample ID			HIMW-13D	HIMW-13I	HIMW-14I	HIMW-15D	HIMW-15I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			01/06/10	01/06/10	01/05/10	01/05/10	01/05/10
Parameter	Units	Criteria*					
<b>Volatile Organic Compounds</b>							
Benzene	UG/L	-	3	190	39	1 U	8
Ethylbenzene	UG/L	-	1 U	7	1 U	1 U	1 U
Toluene	UG/L	-	1 U	2	1 U	1 U	1
Xylene (total)	UG/L	-	2	7	2	1 U	1 U
Total BTEX	UG/L	100	5	206	41	ND	9
<b>Semivolatile Organic Compounds</b>							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	6 J	7 J	7 J	10 U	2 J
Acenaphthylene	UG/L	-	12	56	13	10 U	8 J
Anthracene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10	3 J	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Phenanthrene	UG/L	-	10 U	9 J	3 J	10 U	1 J
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	18	85	26	ND	11

\*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. ND - Not detected.

Made By\_PRF 02/23/10; Checked By QML 2/24/10

Detection Limits shown are PQL

**TABLE A-1**  
**VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
**NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE**

Location ID			HIMW-020I	HIMW-020S	HIMW-020S
Sample ID			HIMW-20I	HIMW-20S	HIMW-20S DUP
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-
Date Sampled			01/08/10	01/13/10	01/13/10
Parameter	Units	Criteria*			Field Duplicate (1-1)
<b>Volatile Organic Compounds</b>					
Benzene	UG/L	-	140	1 U	1 U
Ethylbenzene	UG/L	-	6	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U
Xylene (total)	UG/L	-	30	1 U	1 U
Total BTEX	UG/L	100	176	ND	ND
<b>Semivolatile Organic Compounds</b>					
2-Methylnaphthalene	UG/L	-	2 J	10 U	10 U
Acenaphthene	UG/L	-	9 J	10 U	10 U
Acenaphthylene	UG/L	-	140 D	10 U	10 U
Anthracene	UG/L	-	4 J	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 UJ	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 UJ	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 UJ	10 UJ	10 UJ
Chrysene	UG/L	-	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U
Fluorene	UG/L	-	20	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U
Naphthalene	UG/L	-	15 J	10 U	10 U
Phenanthrene	UG/L	-	31	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	221	ND	ND

\*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. ND - Not detected.

Made By\_PRF 02/23/10; Checked By CHL/ab/10

Detection Limits shown are PQL

**TABLE A-2**  
**VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS**  
**NATIONAL GRID - HEMPSTEAD INTERSECTION STREET FORMER MGP SITE**

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB-010610	TB-010710	TB 011110	TB-01-13-10	TB-011710
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			01/06/10	01/07/10	01/11/10	01/13/10	01/17/10
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
<b>Volatile Organic Compounds</b>							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND

\*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

J - The reported concentration is an estimated value.

ND - Not detected.

Made By\_PRF 02/22/10\_; Checked By\_ *AWP* 2/24/10

Detection Limits shown are PQL



**APPENDIX A**  
**VALIDATED FORM 1'S**

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05D

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001524-001A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68219.D  
 Level: (low/med) LOW Date Received: 01/19/10  
 % Moisture: not dec. Date Analyzed: 01/28/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	2	
108-88-3	Toluene	6	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	100	

KEY-URS087 S78

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-5I

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001273-001A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68057.D  
 Level: (low/med) LOW Date Received: 01/11/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(pg/L or pg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	3	
108-88-3	Toluene	2	
100-41-4	Ethylbenzene	1	
1330-20-7	Xylene (total)	160	

KEY-URS087 S68

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-058

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001524-002A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68220.D  
 Level: (low/med) LOW Date Received: 01/19/10  
 % Moisture: not dec. Date Analyzed: 01/28/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S79

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08I

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001396-003A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68062.D  
 Level: (low/med) LOW Date Received: 01/13/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S71

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08S

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001396-004A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68066.D  
 Level: (low/med) LOW Date Received: 01/13/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg)	UG/L Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08S DUP

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001396-005A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68067.D  
 Level: (low/med) LOW Date Received: 01/13/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg)	UG/L Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-8D

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_

Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087

Matrix: (soil/water) WATER Lab Sample ID: 1001462-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68070.D

Level: (low/med) LOW Date Received: 01/15/10

% Moisture: not dec. Date Analyzed: 01/19/10

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S77



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-12D

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_

Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087

Matrix: (soil/water) WATER Lab Sample ID: 1001198-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67996.D

Level: (low/med) LOW Date Received: 01/08/10

% Moisture: not dec. Date Analyzed: 01/08/10

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S64

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-12I

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001198-002A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67997.D  
 Level: (low/med) LOW Date Received: 01/08/10  
 % Moisture: not dec. Date Analyzed: 01/08/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg)	UG/L Q
71-43-2	Benzene	35	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylenes (total)	5	

KEY-URS087 S65

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-12S

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_

Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087

Matrix: (soil/water) WATER Lab Sample ID: 1001198-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67998.D

Level: (low/med) LOW Date Received: 01/08/10

% Moisture: not dec. Date Analyzed: 01/08/10

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S66

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13D

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001129-001A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67991.D  
 Level: (low/med) LOW Date Received: 01/06/10  
 % Moisture: not dec. Date Analyzed: 01/08/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg)	UG/L Q
71-43-2	Benzene	3	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	2	

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13I

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001129-002A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67992.D  
 Level: (low/med) LOW Date Received: 01/06/10  
 % Moisture: not dec. Date Analyzed: 01/08/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg)	UG/L
71-43-2	Benzene	190	
108-88-3	Toluene	2	
100-41-4	Ethylbenzene	7	
1330-20-7	Xylene (total)	7	

KEY-URS087 S59

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14I

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001129-003A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67993.D  
 Level: (low/med) LOW Date Received: 01/06/10  
 % Moisture: not dec. Date Analyzed: 01/08/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	39	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	2	

KEY-URS087 S60

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-15D

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001129-004A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67994.D  
 Level: (low/med) LOW Date Received: 01/06/10  
 % Moisture: not dec. Date Analyzed: 01/08/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S61

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-15I

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001129-005A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67995.D  
 Level: (low/med) LOW Date Received: 01/06/10  
 % Moisture: not dec. Date Analyzed: 01/08/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	8	
108-88-3	Toluene	1	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S62



1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20I

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001273-002A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68054.D  
 Level: (low/med) LOW Date Received: 01/11/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	140	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	6	
1330-20-7	Xylene (total)	30	

KEY-URS087 S69

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001396-006A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68068.D  
 Level: (low/med) LOW Date Received: 01/13/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S74

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S DUP

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001396-007A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68069.D  
 Level: (low/med) LOW Date Received: 01/13/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ ( $\mu$ L) Soil Aliquot Volume \_\_\_\_\_ ( $\mu$ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		( $\mu$ g/L or $\mu$ g/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S75

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-010610

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001129-006A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67990.D  
 Level: (low/med) LOW Date Received: 01/06/10  
 % Moisture: not dec. Date Analyzed: 01/08/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S63

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-010710

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001198-004A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A67999.D  
 Level: (low/med) LOW Date Received: 01/08/10  
 % Moisture: not dec. Date Analyzed: 01/08/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg)	UG/L Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB 011110

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001273-003A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68071.D  
 Level: (low/med) LOW Date Received: 01/11/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

KEY-URS087 S70

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-01-13-10

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Matrix: (soil/water) WATER Lab Sample ID: 1001396-008A  
 Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A68063.D  
 Level: (low/med) LOW Date Received: 01/13/10  
 % Moisture: not dec. Date Analyzed: 01/19/10  
 GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00  
 Soil Extract Volume: \_\_\_\_\_ (μL) Soil Aliquot Volume \_\_\_\_\_ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A  
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB-011710

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478

Case No.: KEY-URS SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087

Matrix: (soil/water)

WATER

Lab Sample ID: 1001524-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A68221.D

Level: (low/med)

LOW

Date Received: 01/19/10

% Moisture: not dec.

Date Analyzed: 01/28/10

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: \_\_\_\_\_

( $\mu$ L)

Soil Aliquot Volume \_\_\_\_\_ ( $\mu$ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		( $\mu$ g/L or $\mu$ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U



## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05D

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001524-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51873.DLevel: (low/med) LOWDate Received: 01/19/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/20/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/21/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	<del>1500</del> <del>750</del>		<del>ED</del>
91-57-6	2-Methylnaphthalene	<del>200</del> <del>220</del>		<del>ED</del> J
208-96-8	Acenaphthylene	20		
83-32-9	Acenaphthene	2		J
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U
207-08-9	Benzo (k) fluoranthene	10		U
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1,2,3-cd) pyrene	10		U
53-70-3	Dibenzo (a,h) anthracene	10		U
191-24-2	Benzo (g,h,i) perylene	10		U

(1) Cannot be separated from Diphenylamine

2/23/10  
22

10  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMM-05DDL

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478

Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087

Matrix: (soil/water) WATER

Lab Sample ID: 1001524-001BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C51884.D

Level: (low/med) LOW

Date Received: 01/19/10

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/20/10

Concentrated Extract Volume: 1000 (µL)

Date Analyzed: 01/22/10

Injection Volume: 2 (µL)

Dilution Factor: 50.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/kg)	UG/L	Q
91-20-3	Naphthalene	1500		D J
91-57-6	2-Methylnaphthalene	200		DJ
208-96-8	Acenaphthylene	500		U
83-32-9	Acenaphthene	500		U
86-73-7	Fluorene	500		U
85-01-8	Phenanthrene	500		U
120-12-7	Anthracene	500		U
206-44-0	Fluoranthene	500		U
129-00-0	Pyrene	500		U
56-55-3	Benzo (a) anthracene	500		U
218-01-9	Chrysene	500		U
205-99-2	Benzo (b) fluoranthene	500		U
207-08-9	Benzo (k) fluoranthene	500		U
50-32-8	Benzo (a) pyrene	500		U
193-39-5	Indeno (1,2,3-cd) pyrene	500		U
53-70-3	Dibenzo (a,h) anthracene	500		U
191-24-2	Benzo (g,h,i) perylene	500		U

(1) Cannot be separated from Diphenylamine

2/23/10

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-5I

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001273-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51748.DLevel: (low/med) LOWDate Received: 01/11/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/13/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/14/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	<del>2300</del> <del>1200</del>		<del>#</del> DJ
91-57-6	2-Methylnaphthalene	<del>520</del> <del>560</del>		<del>#</del> D
208-96-8	Acenaphthylene	170		EQJ
83-32-9	Acenaphthene	12		
86-73-7	Fluorene	25		
85-01-8	Phenanthrene	18		
120-12-7	Anthracene	2		J
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U J
207-08-9	Benzo (k) fluoranthene	10		U J
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1,2,3-cd) pyrene	10		U
53-70-3	Dibenzo (a,h) anthracene	10		U
191-24-2	Benzo (g,h,i) perylene	10		U J

(1) Cannot be separated from Diphenylamine

2/23/10  
2

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-5IDL

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001273-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51792.DLevel: (low/med) LOWDate Received: 01/11/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/13/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/18/10Injection Volume: 2 (µL)Dilution Factor: 50.00GPC Cleanup: (Y/N) N

pH: \_\_\_\_\_

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	2300		D J
91-57-6	2-Methylnaphthalene	520		D
208-96-8	Acenaphthylene	170		DJ
83-32-9	Acenaphthene	500		U
86-73-7	Fluorene	500		U
85-01-8	Phenanthrene	500		U
120-12-7	Anthracene	500		U
206-44-0	Fluoranthene	500		U
129-00-0	Pyrene	500		U
56-55-3	Benzo (a) anthracene	500		U
218-01-9	Chrysene	500		U
205-99-2	Benzo (b) fluoranthene	500		U
207-08-9	Benzo (k) fluoranthene	500		U
50-32-8	Benzo (a) pyrene	500		U
193-39-5	Indeno (1,2,3-cd) pyrene	500		U
53-70-3	Dibenzo (a,h) anthracene	500		U
191-24-2	Benzo (g,h,i) perylene	500		U

(1) Cannot be separated from Diphenylamine

2/23/10  
2

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-05S

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001524-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51874.DLevel: (low/med) LOWDate Received: 01/19/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/20/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/21/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a, h) anthracene	10	U
191-24-2	Benzo (g, h, i) perylene	10	U

(1) Cannot be separated from Diphenylamine

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-8D

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478

Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087

Matrix: (soil/water) WATER

Lab Sample ID: 1001462-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C51840.D

Level: (low/med) LOW

Date Received: 01/15/10

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/19/10

Concentrated Extract Volume: 1000 (µL)

Date Analyzed: 01/20/10

Injection Volume: 2 (µL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U
207-08-9	Benzo (k) fluoranthene	10		U
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1, 2, 3-cd) pyrene	10		U
53-70-3	Dibenzo (a, h) anthracene	10		U
191-24-2	Benzo (g, h, i) perylene	10		U

(1) Cannot be separated from Diphenylamine

1C

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-081

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001396-003BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51805.DLevel: (low/med) LOWDate Received: 01/13/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/18/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U J
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a,h) anthracene	10	U
191-24-2	Benzo (g,h,i) perylene	10	U

(1) Cannot be separated from Diphenylamine

2/23/10  
2

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-088

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001396-004BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51808.DLevel: (low/med) LOWDate Received: 01/13/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/18/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	4		J
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	2		J
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U
207-08-9	Benzo (k) fluoranthene	10		U
50-32-8	Benzo (a) pyrene	2		J
193-39-5	Indeno (1,2,3-cd) pyrene	2		J
53-70-3	Dibenzo (a,h) anthracene	10		U
191-24-2	Benzo (g,h,i) perylene	2		J

(1) Cannot be separated from Diphenylamine

2/23/10



## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-08S DUP

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001396-005BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51809.DLevel: (low/med) LOWDate Received: 01/13/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/18/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	5	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	2	J
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U J
50-32-8	Benzo (a) pyrene	2	J
193-39-5	Indeno (1,2,3-cd) pyrene	1	J
53-70-3	Dibenzo (a,h) anthracene	10	U
191-24-2	Benzo (g,h,i) perylene	2	J

(1) Cannot be separated from Diphenylamine

2/23/10

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-12D

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478

Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087

Matrix: (soil/water) WATER

Lab Sample ID: 1001198-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C51745.D

Level: (low/med) LOW

Date Received: 01/08/10

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/13/10

Concentrated Extract Volume: 1000 (µL)

Date Analyzed: 01/14/10

Injection Volume: 2 (µL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U J
207-08-9	Benzo (k) fluoranthene	10		U J
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1, 2, 3-cd) pyrene	10		U
53-70-3	Dibenzo (a, h) anthracene	10		U
191-24-2	Benzo (g, h, i) perylene	10		U J

(1) Cannot be separated from Diphenylamine

2/23/10  
a

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-12I

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001198-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51746.DLevel: (low/med) LOWDate Received: 01/08/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/13/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/14/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	3	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	46	
83-32-9	Acenaphthene	39	
86-73-7	Fluorene	27	
85-01-8	Phenanthrene	8	J
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U J
207-08-9	Benzo (k) fluoranthene	10	U J
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1, 2, 3-cd) pyrene	10	U
53-70-3	Dibenzo (a, h) anthracene	10	U
191-24-2	Benzo (g, h, i) perylene	10	U J

(1) Cannot be separated from Diphenylamine

2/23/10

1C

EPA SAMPLE NO.

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-12S

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001198-003BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51747.DLevel: (low/med) LOWDate Received: 01/08/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/13/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/14/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U J
207-08-9	Benzo (k) fluoranthene	10		U J
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1, 2, 3-cd) pyrene	10		U
53-70-3	Dibenzo (a, h) anthracene	10		U
191-24-2	Benzo (g, h, i) perylene	10		U J

(1) Cannot be separated from Diphenylamine

2/23/10  
a

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13D

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001129-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51678.DLevel: (low/med) LOWDate Received: 01/06/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/06/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/11/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	12		
83-32-9	Acenaphthene	6		J
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U
207-08-9	Benzo (k) fluoranthene	10		U J
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1, 2, 3-cd) pyrene	10		U
53-70-3	Dibenzo (a, h) anthracene	10		U
191-24-2	Benzo (g, h, i) perylene	10		U

(1) Cannot be separated from Diphenylamine

2/23/10  
2

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-13I

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001129-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51679.DLevel: (low/med) LOWDate Received: 01/06/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/06/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/11/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	2		J
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	56		
83-32-9	Acenaphthene	7		J
86-73-7	Fluorene	10		
85-01-8	Phenanthrene	9		J
120-12-7	Anthracene	1		J
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U
207-08-9	Benzo (k) fluoranthene	10		U J
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1,2,3-cd) pyrene	10		U
53-70-3	Dibenzo (a,h) anthracene	10		U
191-24-2	Benzo (g,h,i) perylene	10		U

(1) Cannot be separated from Diphenylamine

2/23/10

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-14I

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478

Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087

Matrix: (soil/water) WATER

Lab Sample ID: 1001129-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C51680.D

Level: (low/med) LOW

Date Received: 01/06/10

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/06/10

Concentrated Extract Volume: 1000 (µL)

Date Analyzed: 01/11/10

Injection Volume: 2 (µL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	13		
83-32-9	Acenaphthene	7		J
86-73-7	Fluorene	3		J
85-01-8	Phenanthrene	3		J
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U
207-08-9	Benzo (k) fluoranthene	10		U J
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1,2,3-cd) pyrene	10		U
53-70-3	Dibenzo (a,h) anthracene	10		U
191-24-2	Benzo (g,h,i) perylene	10		U

(1) Cannot be separated from Diphenylamine

*2/23/10*

1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-15D

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478

Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087

Matrix: (soil/water) WATER

Lab Sample ID: 1001129-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C51681.D

Level: (low/med) LOW

Date Received: 01/06/10

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/06/10

Concentrated Extract Volume: 1000 (µL)

Date Analyzed: 01/11/10

Injection Volume: 2 (µL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U
207-08-9	Benzo (k) fluoranthene	10		U J
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1,2,3-cd) pyrene	10		U
53-70-3	Dibenzo (a,h) anthracene	10		U
191-24-2	Benzo (g,h,i) perylene	10		U

(1) Cannot be separated from Diphenylamine

*2/23/10*



1C

EPA SAMPLE NO.

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-15I

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001129-005BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51682.DLevel: (low/med) LOWDate Received: 01/06/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/06/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/11/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	8	J
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	1	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U J
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a,h) anthracene	10	U
191-24-2	Benzo (g,h,i) perylene	10	U

(1) Cannot be separated from Diphenylamine

2/23/10

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20I

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001273-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51749.DLevel: (low/med) LOWDate Received: 01/11/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/13/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/14/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	15		J
91-57-6	2-Methylnaphthalene	2		J
208-96-8	Acenaphthylene	<del>120</del> 140		ED
83-32-9	Acenaphthene	9		J
86-73-7	Fluorene	20		
85-01-8	Phenanthrene	31		
120-12-7	Anthracene	4		J
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U J
207-08-9	Benzo (k) fluoranthene	10		U J
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1,2,3-cd) pyrene	10		U
53-70-3	Dibenzo (a,h) anthracene	10		U
191-24-2	Benzo (g,h,i) perylene	10		U J

(1) Cannot be separated from Diphenylamine

2/23/10  
2

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20IDL

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001273-002BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51793.DLevel: (low/med) LOWDate Received: 01/11/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/13/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/18/10Injection Volume: 2 (µL)Dilution Factor: 5.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	17		DJ
91-57-6	2-Methylnaphthalene	50		U
208-96-8	Acenaphthylene	140		D
83-32-9	Acenaphthene	11		DJ
86-73-7	Fluorene	21		DJ
85-01-8	Phenanthrene	35		DJ
120-12-7	Anthracene	50		U
206-44-0	Fluoranthene	50		U
129-00-0	Pyrene	50		U
56-55-3	Benzo (a) anthracene	50		U
218-01-9	Chrysene	50		U
205-99-2	Benzo (b) fluoranthene	50		U
207-08-9	Benzo (k) fluoranthene	50		U
50-32-8	Benzo (a) pyrene	50		U
193-39-5	Indeno (1,2,3-cd) pyrene	50		U
53-70-3	Dibenzo (a,h) anthracene	50		U
191-24-2	Benzo (g,h,i) perylene	50		U

(1) Cannot be separated from Diphenylamine

2/23/10  
a

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001396-006BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51806.DLevel: (low/med) LOWDate Received: 01/13/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/18/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U J
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1, 2, 3-cd) pyrene	10	U
53-70-3	Dibenzo (a, h) anthracene	10	U
191-24-2	Benzo (g, h, i) perylene	10	U

(1) Cannot be separated from Diphenylamine

2/23/10  
2

## SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S DUP

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Matrix: (soil/water) WATERLab Sample ID: 1001396-007BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C51807.DLevel: (low/med) LOWDate Received: 01/13/10% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/10Concentrated Extract Volume: 1000 (µL)Date Analyzed: 01/18/10Injection Volume: 2 (µL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: \_\_\_\_\_Extraction: (Type) SEPF

## CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo (a) anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo (b) fluoranthene	10		U
207-08-9	Benzo (k) fluoranthene	10		U
50-32-8	Benzo (a) pyrene	10		U
193-39-5	Indeno (1,2,3-cd) pyrene	10		U
53-70-3	Dibenzo (a,h) anthracene	10		U
191-24-2	Benzo (g,h,i) perylene	10		U

(1) Cannot be separated from Diphenylamine

2/23/10  
2

**APPENDIX B**

**SUPPORT DOCUMENTATION**

# H2M LABS, INC.

**SDG NARRATIVE FOR VOLATILE ORGANICS**  
**SAMPLES RECEIVED: 1/6/10, 1/8/10, 1/11/10/ 1/13/10, 1/15/10 & 1/19/10**  
**SDG #: KEY-URS087**

For Sample(s):

HIMW-13D	HIMW-12D	TB 011110	TB-01-13-10
HIMW-13I	HIMW-12I	HIMW-08I	HIMW-8D
HIMW-14I	HIMW-12S	HIMW-08S	HIMW-05D
HIMW-15D	TB-010710	HIMW-08S DUP	HIMW-05S
HIMW-15I	HIMW-5I	HIMW-20S	TB-011710
TB-010610	HIMW-20I	HIMW-20S DUP	


The above water sample(s) was/were analyzed for a select list of volatile organic analytes (BTEX) by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis.

Sample HIMW-20I was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met except for the percent recovery and RPD for benzene in both the matrix spike and the matrix spike duplicate.

**I certify that this data package is in compliance with the terms and conditions of the contract, 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.**

Date Reported: February 12, 2010

\*\*\*\*\*  
\*  \*  
\* \*\*\*\*\*

Joani M. Slavin  
Senior Vice President

KEY-URS087 A2

# H2M LABS, INC.

**SDG NARRATIVE FOR SEMIVOLATILE ORGANICS**  
**SAMPLE RECEIVED: 1/6/10, 1/8/10, 1/11/10, 1/13/10, 1/15/10 & 1/19/10**  
**SDG #: KEY-URS087**

Page 1 of 2

For Sample(s):

HIMW-13D	HIMW-12I	HIMW-08S DUP
HIMW-13I	HIMW-12S	HIMW-20S
HIMW-14I	HIMW-5I	HIMW-20S DUP
HIMW-15D	HIMW-20I	HIMW-8D
HIMW-15I	HIMW-08I	HIMW-05D
HIMW-12D	HIMW-08S	HIMW-05S

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-20I was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPDs were within Q. C. limits.

Samples HIMW-5I, HIMW-20I and HIMW-05D were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

Matrix interference caused low area counts for the internal standard naphthalene-d8 in samples HIMW-5I and HIMW-05D. All internal area counts were acceptable in the dilution of these samples.

The surrogate compound nitrobenzene-d5 recovered high in sample HIMW-5I. No surrogate recoveries are reportable in the dilution of this sample, as well as sample HIMW-05D, as the compounds were diluted out below reportable levels.

In the initial calibration, the %RSD exceeded 15% for the following analytes:

- ◆ naphthalene 18.4% ✓
- ◆ anthracene 15.1%
- ◆ Benzo(a)anthracene 15.9% - this compound was not detected in any samples.
- ◆ Benzo(k)fluoranthene 28.9% -this compound was not detected in any samples.

The %D exceeded 15% for several analytes in the continuous calibration verifications (CCVs) as follows:

CCV 1/11/10: Benzo(k)fluoranthene  
CCV 1/14/10: Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene,  
Benzo(g,h,i)perylene  
CCV 1/18/10: Benzo(k)fluoranthene  
CCV 1/20/10: Benzo(b)fluoranthene  
CCV 1/21/10: Benzo(k)fluoranthene

KEY-URS087 A3



# H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS  
SAMPLE RECEIVED: 1/6/10, 1/8/10, 1/11/10, 1/13/10, 1/15/10 & 1/19/10  
SDG #: KEY-URS087

Page 2 of 2

These compounds were not detected in any samples. Five laboratory fortified blanks were analyzed and all recoveries were within acceptance limits.

**I certify that this data package is in compliance with the terms and conditions of the contract, 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.**

Date Reported: February 2, 2010

\*\*\*\*\*  
\* Nicole R. Crespi \*  
\*\*\*\*\*  
Nicole R. Crespi  
Quality Assurance Manager

KEY-URS087 A4

5B  
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Lab File ID: A\C51674.D DFTPP Injection Date: 01/11/10  
 Instrument ID: HP5972 DFTPP Injection Time: 13:01

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	59.6
68	Less than 2% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	53.3
70	Less than 2% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	40.7
197	Less than 1% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	22.0
365	Greater than 1% of mass 198	1.5
441	Present, but less than mass 443	0.2
442	40.0 - 110.0% of mass 198	59.1
443	17.0 - 23.0% of mass 442	11.2 (19.0)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	AIC51675.D	01/11/10	13:16
02	LFB-34512	LFB-34512	AIC51677.D	01/11/10	14:22
03	HIMW-13D	1001129-001B	AIC51678.D	01/11/10	14:55
04	HIMW-13I	1001129-002B	AIC51679.D	01/11/10	15:28
05	HIMW-14I	1001129-003B	AIC51680.D	01/11/10	16:01
06	HIMW-15D	1001129-004B	AIC51681.D	01/11/10	16:34
07	HIMW-15I	1001129-005B	AIC51682.D	01/11/10	17:06
08	MB-34512	MB-34512	AIC51683.D	01/11/10	17:39

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Lab File ID: A\C51741.D DFTPP Injection Date: 01/14/10  
 Instrument ID: HP5972 DFTPP Injection Time: 11:29

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.0
68	Less than 2% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	51.0
70	Less than 2% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	42.4
197	Less than 1% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	20.9
365	Greater than 1% of mass 198	1.4
441	Present, but less than mass 443	0.2
442	40.0 - 110.0% of mass 198	54.4
443	17.0 - 23.0% of mass 442	10.8 (19.8)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	AIC51742.D	01/14/10	11:45
02	MB-34842	MB-34842	AIC51743.D	01/14/10	12:18
03	LFB-34842	LFB-34842	AIC51744.D	01/14/10	12:51
04	HIMW-12D	1001198-001B	AIC51745.D	01/14/10	13:24
05	HIMW-12I	1001198-002B	AIC51746.D	01/14/10	13:57
06	HIMW-12S	1001198-003B	AIC51747.D	01/14/10	14:30
07	HIMW-5I	1001273-001B	AIC51748.D	01/14/10	15:03
08	HIMW-20I	1001273-002B	AIC51749.D	01/14/10	15:35
09	HIMW-20IMS	1001273-002BMS	AIC51750.D	01/14/10	16:08
10	HIMW-20IMSD	1001273-002BMSD	AIC51751.D	01/14/10	16:41

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK  
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC. Contract: \_\_\_\_\_  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: \_\_\_\_\_ SDG No.: KEY-URS087  
 Lab File ID: A\C51787.D DFTPP Injection Date: 01/18/10  
 Instrument ID: HP5972 DFTPP Injection Time: 11:05

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	58.1
68	Less than 2% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	53.2
70	Less than 2% of mass 69	0.1 (0.2)1
127	40.0 - 60.0% of mass 198	43.6
197	Less than 1% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.4
275	10.0 - 30.0% of mass 198	20.1
365	Greater than 1% of mass 198	1.2
441	Present, but less than mass 443	0.5
442	40.0 - 110.0% of mass 198	49.3
443	17.0 - 23.0% of mass 442	9.2 (18.6)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	AIC51788.D	01/18/10	11:21
02	HIMW-5IDL	1001273-001BDL	AIC51792.D	01/18/10	13:36
03	HIMW-20IDL	1001273-002BDL	AIC51793.D	01/18/10	14:10
04	MB-34677	MB-34677	AIC51803.D	01/18/10	19:40
05	LFB-34677	LFB-34677	AIC51804.D	01/18/10	20:13
06	HIMW-08I	1001396-003B	AIC51805.D	01/18/10	20:46
07	HIMW-20S	1001396-006B	AIC51806.D	01/18/10	21:18
08	HIMW-20S DUP	1001396-007B	AIC51807.D	01/18/10	21:51
09	HIMW-08S	1001396-004B	AIC51808.D	01/18/10	22:24
10	HIMW-08S DUP	1001396-005B	AIC51809.D	01/18/10	22:56

(BNA) IN WATER INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS087

Instrument ID: HP5972

Calibration Dates: 12/31/2009 12/31/2009

Heated Purge: (Y/N) N

Calibration Times: 8:57 12:14

GC Column: R-5SILMS

ID: .25 (mm)

LAB FILE ID: SSTD005= C51546.D SSTD010= C51545.D SSTD025= C51540.D SSTD040= C51544.D SSTD060= C51543.D

SSTD080= C51541.D

COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R <sup>2</sup>
Benzoic acid	0.2183371	0.2727248	0.2636832	0.2908879	0.2890424	0.2735883	0.268	9.9	
Aniline	1.6792918	1.7647283	1.7481944	1.7856708	1.7524651	1.8548279	1.764	3.2	
Phenol	* 1.5228927	1.6226650	1.5530862	2.0501878	2.1450612	2.0999935	1.832	16.1	*
Bis(2-chloroethyl)ether	1.5851595	1.7666103	1.6431535	1.9834499	1.9621928	1.8356064	1.796	9.1	
N-Nitrosodimethylamine	0.7041901	0.8128330	0.7618678	0.8440948	0.848056	0.9039105	0.812	8.7	
2-Chlorophenol	1.4552210	1.6132552	1.5588828	1.6954545	1.6839994	1.6868066	1.616	5.9	
1,3-Dichlorobenzene	1.4270715	1.4696405	1.4387796	1.5530562	1.5084489	1.5249756	1.487	3.4	
Benzyl alcohol	0.8531577	0.9135693	0.8831659	1.0025253	1.005428	0.9895277	0.941	7.1	
1,4-Dichlorobenzene	* 1.7168433	1.7399575	1.6987025	1.8119658	1.8101763	1.8015107	1.763	2.9	*
1,2-Dichlorobenzene	1.4281974	1.4834247	1.4568606	1.5412911	1.4940355	1.4337097	1.473	2.9	
2-Methylphenol	1.1665752	1.2859196	1.2059444	1.3619529	1.3645332	1.3664415	1.292	6.8	
2,2'-oxybis(1-Chloropropane)	3.4386409	3.6749278	3.4617693	3.6858197	3.520576	3.3017542	3.514	4.2	
4-Methylphenol	1.2420161	1.3098002	1.2818374	1.4472611	1.5347138	1.4886008	1.384	8.8	
N-Nitroso-di-n-propylamine	* 0.8519754	0.8962246	0.8448873	0.9043836	0.8531939	0.8777524	0.856	4.9	*
Hexachloroethane	0.5749272	0.6290612	0.6142925	0.6618363	0.6442733	0.5769770	0.617	5.7	
Nitrobenzene	0.2914796	0.3067753	0.2598607	0.2756359	0.2550182	0.2366180	0.271	9.5	
Isophorone	0.6726134	0.6799703	0.5942742	0.6338641	0.5942364	0.7894161	0.661	11.0	
2-Nitrophenol	* 0.2229603	0.2329815	0.2069644	0.2195012	0.2097138	0.1972869	0.215	5.9	*
2,4-Dimethylphenol	0.3146266	0.3201436	0.2777401	0.2845755	0.2690622	0.2469553	0.286	9.7	
Bis(2-chloroethoxy)methane	0.4865622	0.5902000	0.4771689	0.4735743	0.4384817	0.4007343	0.469	9.9	
2,4-Dichlorophenol	* 0.2774563	0.2873121	0.2579360	0.2576917	0.2448195	0.2277942	0.259	8.3	*
1,2,4-Trichlorobenzene	0.3139508	0.3126825	0.2736159	0.2730520	0.2536112	0.2284225	0.276	12.1	
Naphthalene	1.067448	1.0752605	0.9295099	0.8633800	0.7680666	0.6617198	0.894	18.4	

(BNA) IN WATER INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS087

Instrument ID: HP5972

Calibration Dates: 12/31/2009 12/31/2009

Heated Purge: (Y/N) N

Calibration Times: 8:57 12:14

GC Column: R-5SILMS

ID: .25 (mm)

LAB FILE ID: SSTD005= C51546.D SSTD010= C51545.D SSTD025= C51540.D SSTD040= C51544.D SSTD060= C51543.D

SSTD080= C51541.D

COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R <sup>2</sup>
4-Chloroaniline	0.4626166	0.4756677	0.4135844	0.4144568	0.3803395	0.3286289	0.413	13.1	
Hexachlorobutadiene	* 0.1638719	0.1632665	0.1432572	0.1357991	0.1237875	0.1076227	0.140	15.9	*
4-Chloro-3-methylphenol	* 0.2516060	0.2556728	0.2325156	0.2386897	0.2262742	0.2027188	0.235	8.2	*
2-Methylnaphthalene	0.6272103	0.6349693	0.5534995	0.5516462	0.5055423	0.4614515	0.556	12.2	
Hexachlorocyclopentadiene	* 0.3162648	0.3576189	0.2020383	0.3132853	0.1886503	0.1807343	0.260	29.9	*
2,4,6-Trichlorophenol	* 0.3729847	0.4083355	0.3845386	0.4083278	0.4109901	0.3994329	0.397	3.9	*
2,4,5-Trichlorophenol	0	0.4385423	0.4094445	0.4559032	0.4457711	0.4305161	0.436	4.0	
2-Chloronaphthalene	1.3371916	1.3894705	1.2514338	1.2075447	1.1355749	1.0428178	1.227	10.4	
2-Nitroaniline	1.3528223	0.3494665	0.3314338	0.3567596	0.3644170	0.3545087	0.352	3.6	
Dimethylphthalate	1.8689484	1.4327069	1.5038715	1.5470685	1.5180637	1.4520655	1.468	4.8	
Acenaphthylene	0.3445624	0.3814468	0.3579434	0.390085	0.3957701	0.3866039	1.870	4.3	
2,6-Dinitrotoluene	0	0.4103807	0.4137966	0.4562878	0.4558613	0.4230082	0.376	5.4	
3-Nitroaniline	* 1.1335866	1.1911811	1.1074032	1.1584379	1.1324781	1.0392318	0.432	5.2	*
Acenaphthene	0	0.2035241	0.2289702	0.2728735	0.2885591	0.2931931	0.257	15.3	*
2,4-Dinitrophenol	0	0.1344146	0.1424698	0.1637465	0.1916914	0.1879082	0.168	16.3	*
4-Nitrophenol	1.5631664	1.6580995	1.5443060	1.5805899	1.5677659	1.4806494	1.566	3.7	
Dibenzofuran	0.4409363	0.4758431	0.4564468	0.4899451	0.4896836	0.4640929	0.469	4.1	
2,4-Dinitrotoluene	1.358719	1.4367831	1.3417108	1.4078418	1.3628956	1.2074632	1.363	5.9	
Diethylphthalate	0.5802401	0.6196545	0.5696220	0.570622	0.5394612	0.4687478	0.558	9.1	
4-Chlorophenyl-phenylether	1.2413481	1.3157842	1.2109748	1.1936475	1.1070305	0.9489826	1.170	10.9	
Fluorene	0	0.4086513	0.4087957	0.4508094	0.4625934	0.4552487	0.437	6.0	
4-Nitroaniline	0	0.2140917	0.2133549	0.2368682	0.2314659	0.1992441	0.219	6.9	
4,6-Dinitro-2-methylphenol	0	0.2140917	0.2133549	0.2368682	0.2314659	0.1992441	0.219	6.9	

(BNA) IN WATER INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS SAS No.:

SDG No.: KEY-URS087

Instrument ID: HP5972

Calibration Dates: 12/31/2009 12/31/2009

Heated Purge: (Y/N) N

Calibration Times: 8:57 12:14

GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID: SSTD005= C51546.D SSTD010= C51545.D SSTD025= C51540.D SSTD040= C51544.D SSTD060= C51543.D  
 SSTD080= C51541.D

COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R <sup>2</sup>
N-Nitrosodiphenylamine	0.7541156	0.8000142	0.7492154	0.7479464	0.7093829	0.6467449	0.735	7.0	*
1,2-Diphenylhydrazine	0.8857504	0.9204554	0.939424	0.9880284	0.9821554	0.9410886	0.943	4.1	
4-Bromophenyl-phenylether	0.2375487	0.2660386	0.2386336	0.2261970	0.2087700	0.1898796	0.228	11.6	
Hexachlorobenzene	0.2851683	0.2893878	0.2565974	0.2499764	0.2359094	0.2258918	0.257	10.0	
Pentachlorophenol	0	0.1841743	0.1837983	0.1849094	0.1845323	0.1860409	0.185	0.5	*
Phenanthrene	1.1516995	1.2279337	1.1038863	1.0805874	1.0372175	1.0034658	1.011	7.3	
Anthracene	1.2132887	1.2512931	1.0974803	0.9844598	0.9161227	0.8613277	1.054	15.1	
Carbazole	1.061688	1.1791136	1.1130670	1.1174526	1.0800046	1.0299448	1.097	4.7	
Benzidine	0.3391217	0.4131877	0.4068472	0.3136484	0.2899763	0.2778721	0.340	17.1	
Di-n-butyl phthalate	1.6540992	1.7838880	1.6350057	1.6295657	1.5376599	1.4215709	1.610	7.6	
Fluoranthene	1.1373126	1.2014070	1.0777337	1.0476432	1.004499	0.9440631	1.069	8.6	*
Pyrene	1.3245079	1.3824091	1.3399085	1.3137916	1.2505083	1.1773543	1.298	5.6	
Butyl benzyl phthalate	0.8415413	0.8503549	0.7676241	0.6943983	0.5853590	0.5249241	0.711	18.9	
3,3'-Dichlorobenzidine	0.3404974	0.3342059	0.3768331	0.3089863	0.2534310	0.1890541	0.301	22.7	
Benzo(a)anthracene	1.1916203	1.2095164	1.0396766	0.9325223	0.864632	0.8393741	1.013	15.9	
Chrysene	1.1380887	1.2047893	1.1012709	1.0416244	0.9946005	0.8996553	1.063	10.2	
Bis(2-ethylhexyl)phthalate	1.1140985	1.1455413	0.9528984	0.7850670	0.6553331	0.5648311	0.870	27.6	
Octachlorocyclopentene	0.2095329	0.2064418	0.1796603	0.175118	0.1532050	0.1403746	0.177	15.6	
Di-n-octyl phthalate	2.1113955	2.2436310	2.1690050	2.0071174	1.9511808	1.7552174	2.040	8.6	*
Benzo(b)fluoranthene	1.3808658	1.2632923	1.3740211	1.1328628	1.1462062	1.1814507	1.246	8.9	
Benzo(k)fluoranthene	1.1452194	1.3314684	1.0023886	0.9392125	0.7905275	0.537382	0.958	28.9	
Benzo(a)pyrene	1.1402368	1.2396181	1.2096283	1.1745819	1.1245182	1.0459485	1.156	5.9	*
Indeno(1,2,3-cd)pyrene	1.2004654	1.2785986	1.2762249	1.2029890	1.144152	1.0680637	1.195	6.7	

(BNA) IN WATER INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC. Contract: H2M LABS, INC.  
 Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS087  
 Instrument ID: HP5972 Calibration Dates: 12/31/2009 12/31/2009  
 Heated Purge: (Y/N) N Calibration Times: 8:57 12:14  
 GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID: SSTD005= C51546.D SSTD010= C51545.D SSTD025= C51540.D SSTD040= C51544.D SSTD060= C51543.D  
 SSTD080= C51541.D

COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R <sup>2</sup>
Dibenz(o,h)anthracene	0.9503525	1.0226053	1.0235789	0.9851895	0.9607524	0.919715	0.977	4.2	
Benzo(g,h,i)perylene	1.0219697	1.0971458	1.1139477	1.0492495	1.0163594	0.9493	1.041	5.7	
2-Fluorophenol	1.3032696	1.3454814	1.3903459	1.4507058	1.5610705	1.5862643	1.440	8.0	
Nitrobenzene-d5	0.3276208	0.2701664	0.2774678	0.2792444	0.2630311	0.233002	0.275	11.2	
Phenol-d5	1.5452997	1.6258695	1.6580709	1.7405918	1.8403708	1.8369513	1.708	7.0	
2,4,6-Tribromophenol	0.1989876	0.210847	0.2044070	0.193249	0.1923377	0.1799444	0.197	5.5	
2-Fluorobiphenyl	1.2741383	1.1139049	1.1846549	1.2017760	1.2065991	1.1046345	1.181	5.4	
4-Terphenyl-d14	0.9054268	0.8146628	0.8087072	0.7063042	0.6689941	0.5917715	0.749	15.3	
2-Chlorophenol-d4	1.4999789	1.5662568	1.5904866	1.6187451	1.6967355	1.7238722	1.616	5.2	
1,2-Dichlorobenzene-d4	0.9328210	0.7870195	0.9089927	0.9442049	0.9334194	0.8446755	0.892	7.0	

\* Compounds with required minimum RRF and maximum %RSD values.  
 All other compounds must meet a minimum RRF of 0.010.



7D

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Instrument ID: HP5972Calibration Date: 1/11/201 Time: 13:16Lab File ID: A\C51675.DInit. Calib. Date(s): 12/31/09 12/31/09EPA Sample No.(SSTD050##): SSTD025Init. Calib. Times: 8:57 12:14GC Column: R-5SILMSID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	0.894	0.928		3.8	
2-Methylnaphthalene	0.556	0.559		0.6	
Acenaphthylene	1.870	1.840		-1.6	
Acenaphthene	1.127	1.153		2.3	20.0
Fluorene	1.170	1.259		7.6	
Phenanthrene	1.101	1.091		-0.9	
Anthracene	1.054	1.157		9.8	
Fluoranthene	1.069	1.110		3.9	20.0
Pyrene	1.298	1.222		-5.9	
Benzo(a)anthracene	1.013	1.101		8.7	
Chrysene	1.063	1.065		0.2	
Benzo(b)fluoranthene	1.246	1.417		13.7	
Benzo(k)fluoranthene	0.958	1.175		22.7	
Benzo(a)pyrene	1.156	1.202		4.0	20.0
Indeno(1,2,3-cd)pyrene	1.195	1.325		10.9	
Dibenzo(a,h)anthracene	0.977	1.077		10.2	
Benzo(g,h,i)perylene	1.041	1.104		6.0	

All other compounds must meet a minimum RRF of 0.010.

FORM VII SV- 1

OLM04.2

KEY-URS087 B168

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Instrument ID: HP5972Calibration Date: 1/14/201 Time: 11:45Lab File ID: A\C51742.DInit. Calib. Date(s): 12/31/09 12/31/09EPA Sample No.(SSTD050##): SSTD025Init. Calib. Times: 8:57 12:14GC Column: R-5SILMSID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	0.894	0.917		2.5	
2-Methylnaphthalene	0.556	0.554		-0.3	
Acenaphthylene	1.870	1.818		-2.8	
Acenaphthene	1.127	1.141		1.2	20.0
Fluorene	1.170	1.230		5.2	
Phenanthrene	1.101	1.087		-1.3	
Anthracene	1.054	1.176		11.6	
Fluoranthene	1.069	1.141		6.8	20.0
Pyrene	1.298	1.233		-5.0	
Benzo(a)anthracene	1.013	1.130		11.6	
Chrysene	1.063	1.036		-2.6	
Benzo(b)fluoranthene	1.246	1.525		22.4	
Benzo(k)fluoranthene	0.958	1.255		31.0	
Benzo(a)pyrene	1.156	1.240		7.3	20.0
Indeno(1,2,3-cd)pyrene	1.195	1.013		-15.2	
Dibenzo(a,h)anthracene	0.977	0.835		-14.5	
Benzo(g,h,i)perylene	1.041	0.747		-28.3	

All other compounds must meet a minimum RRF of 0.010.

## SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: \_\_\_\_\_

Lab Code: 10478Case No.: KEY-URS

SAS No.: \_\_\_\_\_

SDG No.: KEY-URS087Instrument ID: HP5972Calibration Date: 1/18/201 Time: 11:21Lab File ID: A\C51788.DInit. Calib. Date(s): 12/31/09 12/31/09EPA Sample No.(SSTD050##): SSTD025Init. Calib. Times: 8:57 12:14GC Column: R-5SILMSID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	0.894	0.934		4.4	
2-Methylnaphthalene	0.556	0.553		-0.5	
Acenaphthylene	1.870	1.852		-0.9	
Acenaphthene	1.127	1.152		2.2	20.0
Fluorene	1.170	1.232		5.3	
Phenanthrene	1.101	1.109		0.7	
Anthracene	1.054	1.186		12.5	
Fluoranthene	1.069	1.119		4.7	20.0
Pyrene	1.298	1.261		-2.9	
Benzo(a)anthracene	1.013	1.095		8.1	
Chrysene	1.063	1.052		-1.1	
Benzo(b)fluoranthene	1.246	1.376		10.4	
Benzo(k)fluoranthene	0.958	1.268		32.4	
Benzo(a)pyrene	1.156	1.265		9.5	20.0
Indeno(1,2,3-cd)pyrene	1.195	1.336		11.8	
Dibenzo(a,h)anthracene	0.977	1.101		12.7	
Benzo(g,h,i)perylene	1.041	1.113		6.9	

All other compounds must meet a minimum RRF of 0.010.

# H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

National Grid  
Hempstead, NY

11176098.00004

SAMPLERS (signature)/Client

*[Signature]* / DAVID SWAIN

Megan Drazdol / Megan Drazdol

DELIVERABLES:

TURNAROUND TIME:

Standard for STEX, PAH

31292

## EXTERNAL CHAIN OF CUSTODY

CLIENT: H2M SDG NO: KE-YURS 087

Project Contact: Kevin Lonnare

Phone Number: (716) 861-7661

PIS/Quote #

NOTES:

DATE	TIME MATRIX	FIELD I.D.	ANALYSIS REQUESTED			INORG.	REMARKS:
			ORGANIC	PCB	Metals		
1/5/10	1040 GW	HIMW-15D	X	X	X	1001129-004	
1/5/10	1255 GW	HIMW-15I	X	X	X	-005	
1/5/10	1500 GW	HIMW-14I	X	X	X	-003	
1/6/10	1025 GW	HIMW-13I	X	X	X	-002	
1/6/10	1220 GW	HIMW-13D	X	X	X	-001	
1/6/10	1220 GW	TB010610	X	X	X	-006	

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

SAMPLES WERE:

- Shipped or Hand Delivered
- Ambient or chilled, Temp.
- Received in good condition: Y or N
- Property preserved: Y or N

COC TAGS WERE:

- Present on outer package: Y or N
- Unbroken on outer package: Y or N
- COC record present & complete upon sample receipt: Y or N

Received by: (Signature) Date Time

Received by: (Signature) Date Time

Received by: (Signature) Date Time

Received by: (Signature) Date Time

WHITE COPY 087 ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY



# H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076  
 Tel: (631) 694-3040 Fax: (631) 420-8436

31294

## EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER National Grid Hempstead, NY		H2M SDG NO: KE-Y-UPS 087																																											
SAMPLERS: (signature)/Client <i>[Signature]</i> / DAVID SWAN		Project Contact: Kevin Connors																																											
DELIVERABLES: Megan D'Amico / Megan D'Amico		Phone Number: 671(6)861-7661																																											
TURNAROUND TIME: Standard		PIS/Quote #																																											
CLIENT: <b>Sample Description</b> → <b>Total No. of Containers</b> <b>ANALYSIS REQUESTED</b> <b>INORG.</b> <b>REMARKS:</b>																																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">DATE</th> <th rowspan="2">TIME</th> <th rowspan="2">MATRIX</th> <th rowspan="2">FIELD I.D.</th> <th colspan="2">ANALYSIS REQUESTED</th> <th rowspan="2">INORG.</th> <th rowspan="2">REMARKS:</th> </tr> <tr> <th>ORGANIC</th> <th>Metal</th> </tr> </thead> <tbody> <tr> <td>1/8/10</td> <td>13:00</td> <td>GW</td> <td>H1MW-201Z</td> <td>X</td> <td>X</td> <td>2</td> <td>1001273 - 002 A-B</td> </tr> <tr> <td>1/8/10</td> <td>17:45</td> <td>GW</td> <td>MS/MSD H1MW-201I</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>1/10/10</td> <td>10:00</td> <td>GW</td> <td>H1MW-51I</td> <td>X</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>1/11/10</td> <td>10:00</td> <td>GW</td> <td>TB 011110</td> <td>X</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				DATE	TIME	MATRIX	FIELD I.D.	ANALYSIS REQUESTED		INORG.	REMARKS:	ORGANIC	Metal	1/8/10	13:00	GW	H1MW-201Z	X	X	2	1001273 - 002 A-B	1/8/10	17:45	GW	MS/MSD H1MW-201I	X	X			1/10/10	10:00	GW	H1MW-51I	X	X			1/11/10	10:00	GW	TB 011110	X			
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<b>LABORATORY USE ONLY</b> Discrepancies Between Sample Labels and COC Record? Y or N Explain: Samples used: 1. Shipped or Hand Delivered: <input checked="" type="checkbox"/> Air/Bus 2. Ambient or chilled, Temp: <input checked="" type="checkbox"/> 3. Received in good condition: Y or N 4. Properly preserved: <input checked="" type="checkbox"/> Y or N COC Trace was: 1. Present on outer package: <input checked="" type="checkbox"/> Y or N 2. Unbroken on outer package: <input checked="" type="checkbox"/> Y or N 3. COC record present & complete upon sample receipt: <input checked="" type="checkbox"/> Y or N																																													

WHITE COPY ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS 087*

Client Name **KEY-URS**

Date and Time Received: **1/11/2010 4:07:00 PM**

Work Order Number **1001273**

Received by **EM**

Checklist completed by *[Signature]* Date **1/11/10**

Reviewed by *[Signature]* Date **1/12/10**

Matrix:

Carrier name Pickup

- Shipping container/cooler in good condition? Yes  No  Not Applicable
- Custody seals intact on shipping container/cooler? Yes  No  Not Applicable
- Custody seals intact on sample bottles? Yes  No  Not Applicable
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No
- Water - VOA vials have zero headspace? Yes  No
- No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No

Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted YES Date contacted: 1/12/10 Person contacted MEGAN DASCOLI

Contacted by: JEN ARACI Regarding: \_\_\_\_\_

Comments: Parent and MS/MSD for sample H1MW-201 do not have matching collection times.

Corrective Action AS PER MEGAN DASCOLI USE PARENT SAMPLE TIME FOR MS/MSD.

KEY-URS087 A22

# H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076  
 Tel: (631) 694-3040 Fax: (631) 420-8436

22340

## EXTERNAL CHAIN OF CUSTODY

**CLIENT:** UPS Corp.  
**H2M SDG NO:** KEY-URS 087

**Project Contact:** Kevin Connare  
**Phone Number:** (716) 861-7661  
**P/S/Quote #**

**NOTES:**

**PROJECT NAME/NUMBER:** National Grid Hempstead, NY 1176098

**SAMPLERS: (signature)/Client:** John Crespo / Vivian Bermudez

**DELIVERABLES:**

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	ANALYSIS REQUESTED			INORG.	LAB I.D. NO.	REMARKS:
					ORGANIC	INORG.	INORG.			
1/12/10	11:33	GW	HIMW-DBS	5	X	X	X	5024-1001396-009-006		
1/12/10	15:25	GW	HLMW-DBI	4	X	X		11110-004-005	Duplicate Sample	
1/12/10	11:33	GW	HIMW-DBS DUP	5	X	X	X	11110-006-007	Duplicate Sample	
1/13/10	9:33	GW	HIMW-D15	1			X	-001-		
1/13/10	12:28	GW	HIMW-D45	1			X	-002-		
1/13/10	15:21	GW	HIMW-2DS	5	X	X	X	-006-		
1/13/10	15:21	GW	HIMW-2DS DUP	5	X	X	X	-007-	Duplicate sample	
1/13/10			TB					-008-		

**LABORATORY USE ONLY**

**Discrepancies Between Sample Labels and COC Record? Y or N**

**Explain:**

**Samples were:**

- Shipped or Hand Delivered
- Airbill
- Ambient or chilled, Temp
- Received in good condition: Y or N
- Property preserved: Y or N

**COC Test was:**

- Present on outer package: Y or N
- Unbroken on outer package: Y or N
- COC record present & complete upon sample receipt: Y or N

**Requisitioned by: (Signature)** Vivian Bermudez **Date:** 1/13/10 **Time:** 15:45 **Received by: (Signature)** Kevin Connare

**Requisitioned by: (Signature)** Kevin Connare **Date:** 1/13/10 **Time:** 9:25 **Received by: (Signature)** M. Adal

**Requisitioned by: (Signature)** **Date:** **Time:** **Received by: (Signature)**

**Requisitioned by: (Signature)** **Date:** **Time:** **Received by: (Signature)**

WHITE COPY - ORIGINAL  
 KEY-URS087 A29

YELLOW COPY - CLIENT

PINK COPY - LABORATORY



# H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076  
 Tel: (631) 694-3040 Fax: (631) 420-8436

22341

## EXTERNAL CHAIN OF CUSTODY

**CLIENT:** **H2M SDG NO:** Key-URS 087087

**PROJECT NAME/NUMBER:** National Grid  
 Hempstead, NY  
 11176098

**SAMPLERS:** (signature)/Client  
 John Crespo/  
 Vivian Bermudez / *[Signature]*

**DELIVERABLES:**

**TURNAROUND TIME:** Standard

**Sample Container Description:** ↑ BTEX  
 Total Cyanide

**ANALYSIS REQUESTED:**

DATE	TIME	MATRIX	FIELD I.D.	ANALYSIS REQUESTED			INORG.	REMARKS:
				VOA	BN	Metals		
1/15/10	13:26	GW	HIMW - 0B7	X	X		3	1001462-001
1/15/10	15:26	GW	HIMW - 0B7	X	X			↓ 001
1/15/10	7:30		IPR - 22		X			1001467-003
1/15/10	9:47		IPR - D6		X			↓ 002
1/15/10	17:25		HIMW - D7S		X			↓ 001

**LABORATORY USE ONLY**

**Discrepancies Between Sample Labels and COC Record? Y or N**

**Explain:**

**Samples were:**

- Shipped  ps Head Delivered  Airbill#
- Ambient or chilled/Temp. 4.7
- Received in good condition: Y or N
- Properly preserved: Y or N

**COC Type was:**

- Present on outer package: Y or N
- Unbroken on outer package: Y or N
- COC record present & complete upon sample receipt: Y or N

WHITE COPY 087 A3

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

