3R - 391

AGWMR

08/08/2008

3R391

Stantec Consulting Corporation
10235 West Little York Suite 400
Houston TX 77040-3251
Tel: (713) 937-7973
Fax: (713) 983-8328

Stantec

August 8, 2008

Mr. Glenn Van Gonten
Senior Hydrogeologist
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis
Santa Fe, New Mexico 87505

Re: **2008 Groundwater Monitoring Report**
Gallegos-Gallup Sand Pit Site
San Juan County, New Mexico
OGRID No. 4323

Dear Mr. Van Gonten:

This letter transmits one copy of the above referenced report for you use. Should you have any questions or comments, please feel free to contact me at the number above or Mr. Steve Huddleson with Chevron Environmental Management Company at 713.372.1034.

Sincerely,
Stantec Consulting

Daniel Woodward
Project Manager

Attachment
cc: Eric Page, Chevron Environmental Management Company

RECEIVED
2008 AUG 21 AM 11 22

Chevron

Eric S. Page, P.G.
Project Manager

Mid-Continent Alaska Business Unit
Chevron Environmental Management Company
1400 Smith Street
Room 40029
Houston, Texas 77002
Tel 713 372 1022
epage@chevron.com

August 19, 2008

Mr. Bill Freeman
Navajo Nation Environmental Protection Agency
PO Box 1999
Shiprock, NM 87420

RE: 2007/2008 Annual Groundwater Monitoring Report
Gallegos-Gallup Sand Pits Site
San Juan County, New Mexico
OGRID No. 4323

Dear Mr. Freeman,

Enclosed for your use is a copy of the Annual Groundwater Monitoring Report for the subject site. The report includes data for the second half of 2007 as well as the first half of 2008. Chevron would like to schedule a meeting with you and the other project stakeholders at the end of September to discuss the path forward and to define the project endpoint. I will plan to contact you in early September to arrange a meeting time and location.

Should you have any questions about the contents of this report, please feel free to contact me at the phone number above.

Yours very truly,

Eric S. Page

Enclosure

Cc: James Walker, USEPA
Glenn von Gonten, New Mexico Oil Conservation Division
Brandon Powell, New Mexico Oil Conservation Division, District 3

Gallegos Groundwater Monitoring Report

OGRID No. 4323
Gallegos-Gallup Sand Pit
San Juan County, NM

89CH.49547.08

RECEIVED
2008 AUG 21 AM 11 22

July 8, 2008

Stantec

Gallegos Groundwater Monitoring Report

OGRID No. 4323
Gallegos-Gallup Sand Pit
San Juan County, NM

89CH.49547.08

July 8, 2008

Stantec

Stantec

Table of Contents

Figures

Tables

Appendices

1.0 INTRODUCTION

1.1 Site Setting and Background

The Gallegos-Gallup Sand Pit is an unlined earthen pit with operations dating to as early as 1962. The pit is located in San Juan County, New Mexico near Gallegos Canyon in Section 7, Township 26N, Range 7W (**Figure 1**). The pit is located on the Navajo Indian Reservation and falls under the regulatory oversight of the Navajo Nation Environmental Protection Agency (NNEPA) and Region VI of the United States Environmental Protection Agency (USEPA). The New Mexico Oil Conservation Division (NMOCD) is also involved in this project.

Six monitor wells (MW-1 through MW-6) were installed by Envirotech in September 2001 and December 2002 to assess and monitor groundwater conditions at the Gallegos-Gallup Sand Pit. In November 2003, the original six monitor wells were plugged and abandoned. Affected soils within the pit were excavated to a depth of 25 feet below ground surface (bgs) which is where groundwater was expected to be encountered. Approximately 4,380 yd^3 of soil were transported to a landfarm operated by Envirotech. Confirmation samples collected from the pit walls and bottom during excavation showed that concentrations of total petroleum hydrocarbons (TPH) on the north wall (4,800 mg/kg), northwest corner (1,890 mg/kg), and bottom (2,270 mg/kg) exceeded the negotiated closure level of 1,000 mg/kg. Groundwater was not encountered during the excavation. The NNEPA and USEPA subsequently approved backfilling the pit following application of a potassium permanganate solution and installation of a monitor well (MW-7) in the center of the former pit. The pit backfilling was completed on November 25, 2003.

Monitor well (MW-7) was installed to a depth of 45 feet bgs near the center of the former Gallegos-Gallup Sand Pit that was backfilled in 2003. During drilling, a layer of black crude oil staining was identified at a depth of approximately 30 ft below grade. During well development, approximately 0.01 ft of phase separated hydrocarbon (PSH) believed to be heavy crude was identified on the water surface. A groundwater sample was collected from the newly installed monitor well and analyzed for benzene, toluene, ethylbenzene and xylene (BTEX) contained a benzene concentration of 14.9 µg/L. This concentration exceeded the New Mexico Water Quality Control Commission (NMWQCC) standard of 10.0 µg/L. Other BTEX constituents were detected but all concentrations were below the NMWQCC standards.

A second groundwater sampling event, conducted in April 2004, identified a polycyclic aromatic hydrocarbon (PAH), naphthalene, at a concentration of 115 µg/L, exceeding the NMWQCC standard of 30 µg/L. BTEX constituents were not detected above the NMWQCC standards. A third sampling event, conducted in October 2004, confirmed the presence of naphthalene at 128 µg/L. BTEX constituents were not detected above NMWQCC standards.

Three additional monitor wells (MW-8, MW-9 and MW-10) were installed by SECOR in June 2005 to complete the delineation of BTEX and naphthalene at the site **(Figure 2)**. Groundwater samples

were collected from all four monitor wells (MW-7 through MW-10) on August 3, 2006, November 28, 2006, February 22, 2007, and April 26, 2007. The Groundwater Monitoring and Site Closure Report, by SECOR in June 2007 summarizes those results.

Additional groundwater samples were collected from the four monitor wells (MW-7 through MW-10) on August 8, 2007, November 14, 2007, February 13, 2008, and May 13, 2008. This report summarizes the last four groundwater sampling events and utilizes historical Site reports to analyze trends and possible remediation options.

2.0 FIELD ACTIVITIES

The scope of work for field activities executed from August 2007 through May 2008 included the following:

- Conducting quarterly groundwater sampling (3Q07 through 2Q08); and,
- Completing groundwater sampling report summarizing analytical results.

2.1 Monitor Well Gauging

Groundwater elevation measurements were collected with an electronic water/hydrocarbon interface probe prior to sampling. The historic static water levels and groundwater elevations are documented in **Table 1**. The depth to groundwater averages approximately 31.5 feet from top of casing. Potentiometric groundwater surface maps are provided in **Figures 3 through 6**. The direction of groundwater flow is toward the northwest with an average hydraulic gradient of approximately 0.005 vertical feet per horizontal foot. There has been very little change in gradient or direction of groundwater flow during the past 12 months. The depth to groundwater has been consistent throughout the past 12 months with less than 0.14 feet in variation per well.

2.1 Groundwater Sample Collection

Groundwater samples collected during the four events (August 28 and November 14, 2007 and February 13 and May 13, 2008) were delivered under chain-of-custody to Lancaster Laboratories located in Lancaster, Pennsylvania. The groundwater samples were analyzed for poly-aromatic hydrocarbon constituents including naphthalene, 1-methylnaphthalene and 2-methylnaphthalene by EPA Method 8270C.

Prior to groundwater sample collection, the monitor wells were purged a minimum of three well casing volumes. Purged groundwater was disposed of by a local waste disposal contractor. The groundwater samples were collected using dedicated disposable PVC bailers and then transferred to sample containers provided by the laboratory. Samples were labeled by the groundwater sampler, placed on ice in a cooler, kept near a temperature of 4°C, and shipped under chain-of-custody to the analytical laboratory. The analytical results for the four sampling events are presented in **Table 2** and depicted on **Figure 7**. Laboratory analytical reports for each sampling event are included in **Appendix A**.

3.0 ANALYTICAL RESULTS

3.1 Groundwater Analytical Results

3.1.1 PAH Constituents: Naphthalene, 1-Methylnaphthalene & 2-Methylnaphthalene

Naphthalene, 1-methylnaphthalene and 2-methylnaphthalene were not detected in any of the groundwater samples collected from monitor wells MW-8 through MW-10 during any of the quarterly sampling events (**Table 2**).

Monitor well MW-7 exhibited naphthalene, 1-methylnaphthalene and 2-methylnaphthalene concentrations above the method detection limit (MDL) on all four sampling events. Groundwater samples collected on February 13, 2008 (56 µg/L) and May 13, 2008 (38 µg/L) exhibited naphthalene concentrations above the NMWQCC standard of 30 µg/L. Additionally, only the third sampling event exhibited a concentration of 1-methylnaphthalene above the NMWQCC standard of 30 µg/L (36 µg/L). 2-methylnaphthalene was detected above the state standard (30 µg/L) in groundwater samples collected from MW-7 for the third (February 2008) and fourth (May 2008) sampling events at 70 µg/L and 38 µg/L, respectively.

4.0 SUMMARY

Quarterly groundwater level measurements indicate that the groundwater flow direction is consistently toward the northwest with an average hydraulic gradient of approximately 0.013 vertical feet per horizontal foot.

In summary,

- Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene concentrations have been below MDLs from monitor wells MW-8 through MW-10 for ten consecutive quarters;
- Historical groundwater sampling results for monitor well MW-7 indicate that the well has exhibited naphthalene concentrations that exceed the NMWQCC standard of 30 µg/L since its installation in April 2004;
- Concentrations of naphthalene in MW-7 were above NMWQCC standards for the third (February 2008) and fourth (May 2008) sampling events;
- The concentration of 1-methylnaphthalene in MW-7 was above the NMWQCC standard for the third (February 2008) sampling event;
- Concentrations of 2-methylnaphthalene in MW-7 were above NMWQCC standards for the third (February 2008) and fourth (May 2008) sampling events;
- Chevron proposes to continue groundwater monitoring until naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene concentrations in monitoring well MW-7 are below NMWQCC standards for four consecutive quarters.

5.0 RECOMMENDATIONS

Based on report findings and Site soil logs, Stantec recommends conducting a well injection event on Site, utilizing an oxidizing agent (PermeOx Plus) at locations upgradient and adjacent to MW-7 to remediate the PAHs in groundwater.

PermeOx Plus is a granular calcium peroxide-based product that slowly releases oxygen when wetted, for the purpose of accelerating the growth of microbes that biodegrade contaminants. It is well documented by Panther Technologies (a subsidiary of FMC Environmental Solutions) that the release of oxygen in the subsurface environment enhances the biodegradation of petroleum hydrocarbons. PermeOx Plus releases oxygen at higher rates of release than other solid peroxygen products and therefore provides a useful and cost-effective mechanism for enhancing the aerobic bioremediation of petroleum contaminants. Stantec will ensure that all applicable permits and notifications required by the State of New Mexico (NMOCD, New Mexico Environmental Department (NMED), Office of the State Engineer), the NNEPA, and the USEPA will be obtained prior to implementation of this work. Additionally, a work plan will be developed by Stantec and approved by CEMC prior to implementation of this work.

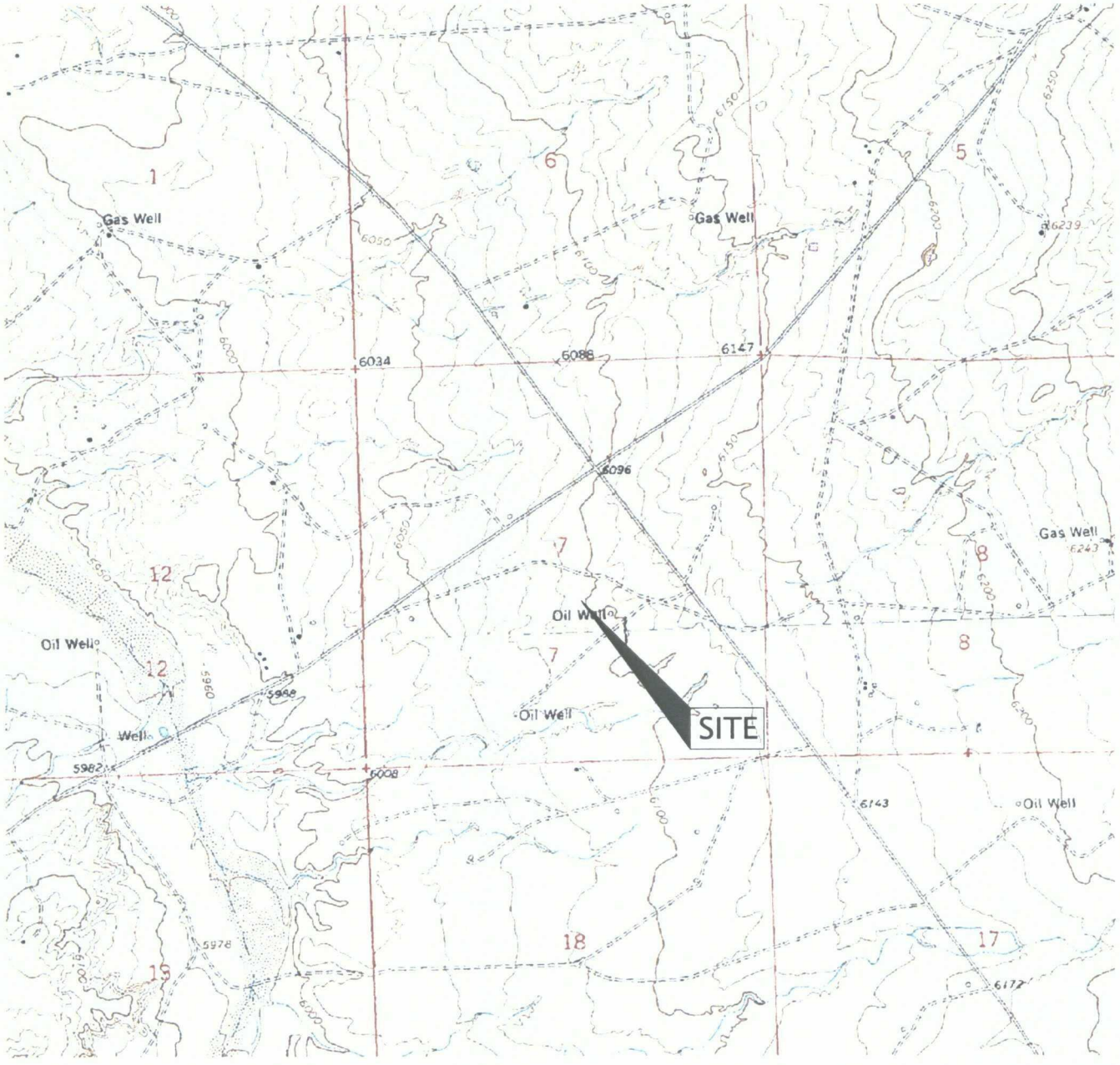
Based on the information above and data gathered during the previous four sampling events, the scope of work for future activities to be conducted in the assessment area will consist of:

- Conducting six (6) additional groundwater monitoring events analyzing groundwater samples for naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene from August 2008 through November 2009;
- Completing an oxidizing agent well injection upgradient and adjacent to MW-7 (November, 2008);
- Documenting groundwater monitoring and injection results at the end of November 2009, and;
- Attending a meeting (November, 2009) with the NNEPA, the NMOCD, and the United States Environmental Protection Agency (USEPA) Region 4 to present the results of groundwater sampling in relation to site closure.

Stantec

FIGURE 1

Site Location Map



REFERENCE: USGS 7.5 MINUTE QUADRANGLE; GALLEGOS TRADING POST AND CARSON TRADING POST, NEW MEXICO, 1995

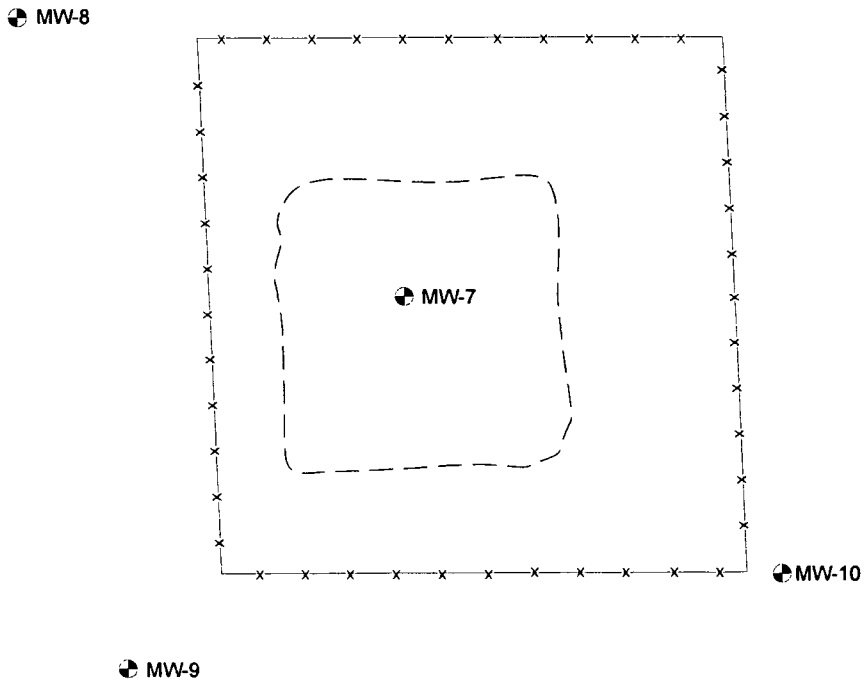
SECOR 10235 W. LITTLE YORK, SUITE 400 HOUSTON, TEXAS 77040-3251 (713) 937-7973	FOR: CHEVRON GALLEGOS - GALLUP SAND PIT NW SW S7 T26N R11W NEW MEXICO	**SITE LOCATION MAP**		FIGURE: **1**
	JOB NUMBER: 89CH.49401.04	DRAWN BY: ARA	CHECKED BY: GM	APPROVED BY: GM	DATE: 4/25/06

FILEPATH: K:\OTHER OFFICES WORK\HOUSTON\SITE-GALLEGOS, NM\GALLEGOS-TOPO.DWG MODIFIED BY AANDREWS ON MAY 03, 2006 - 15:15

Stantec

FIGURE 2

Site Plan



LEGEND

- MONITORING WELL LOCATION
- FENCE LINE/PROPERTY BOUNDARY
- SAND PIT EXCAVATION OUTLINE

0 30 60

APPROXIMATE SCALE (FEET)

N

SECOR
10235 W. LITTLE YORK, SUITE 400
HOUSTON, TEXAS 77040-3251
(713) 937-7973

FOR:
CHEVRON
GALLEGOS - GALLUP SAND PIT
NW SW S7 T26N R11W
NEW MEXICO

SITE PLAN

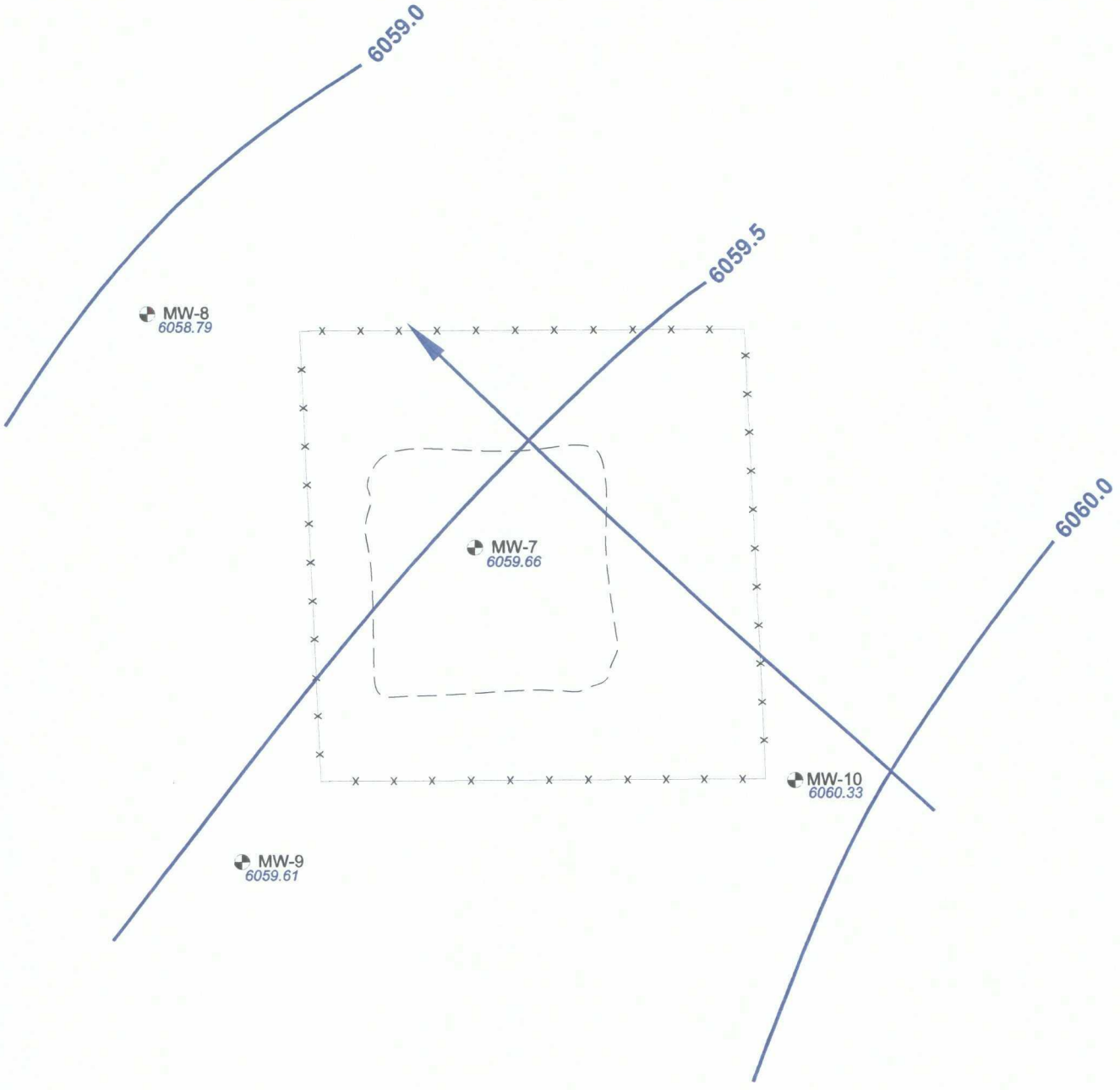
FIGURE: **2**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
89CH.49401.04	ARA	GM	GM	4/25/06

Stantec

FIGURE 3

Potentiometric Surface Map: May 13, 2008



LEGEND

- MONITORING WELL LOCATION
- FENCE LINE/PROPERTY BOUNDARY
- SAND PIT EXCAVATION OUTLINE
- 6058.74 — GROUNDWATER ELEVATION IN FEET RELATIVE TO A COMMON DATUM
- 6060 — CONTOUR LINE OF ESTIMATED EQUAL POTENTIOMETRIC ELEVATION IN FEET
- ESTIMATED GROUNDWATER FLOW DIRECTION

0 30 60

APPROXIMATE SCALE (FEET)

N

Stantec
10235 W. LITTLE YORK, SUITE 400
HOUSTON, TEXAS 77040-3251
(713) 937-7973

FOR:
CHEVRON
GALLEGOS - GALLUP SAND PIT
NW SW S7 T26N R11W
NEW MEXICO

POTENTIOMETRIC SURFACE MAP
MAY 13, 2008

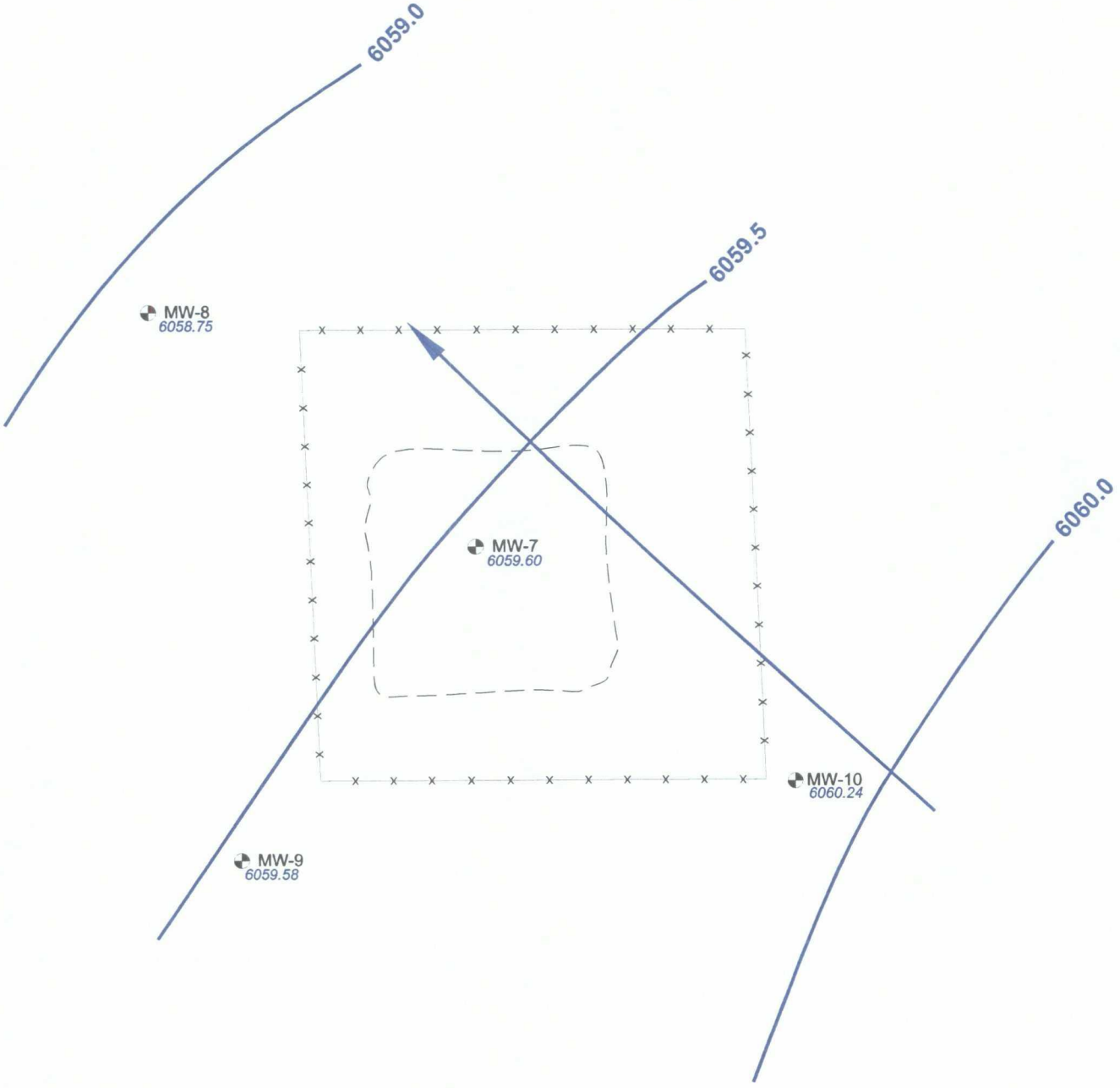
FIGURE: **3**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
89CH.49547.07	ARA	NH	GM	6/13/08

Stantec

FIGURE 4

Potentiometric Surface Map: February 13, 2008



LEGEND

- MONITORING WELL LOCATION
- FENCE LINE/PROPERTY BOUNDARY
- SAND PIT EXCAVATION OUTLINE
- 6058.74 — GROUNDWATER ELEVATION IN FEET RELATIVE TO A COMMON DATUM
- 6060 — CONTOUR LINE OF ESTIMATED EQUAL POTENTIOMETRIC ELEVATION IN FEET
- ESTIMATED GROUNDWATER FLOW DIRECTION

0 30 60

APPROXIMATE SCALE (FEET)

N

Stantec
10235 W. LITTLE YORK, SUITE 400
HOUSTON, TEXAS 77040-3251
(713) 937-7973

FOR:
CHEVRON
GALLEGOS - GALLUP SAND PIT
NW SW S7 T26N R11W
NEW MEXICO

POTENTIOMETRIC SURFACE MAP
FEBRUARY 13, 2008

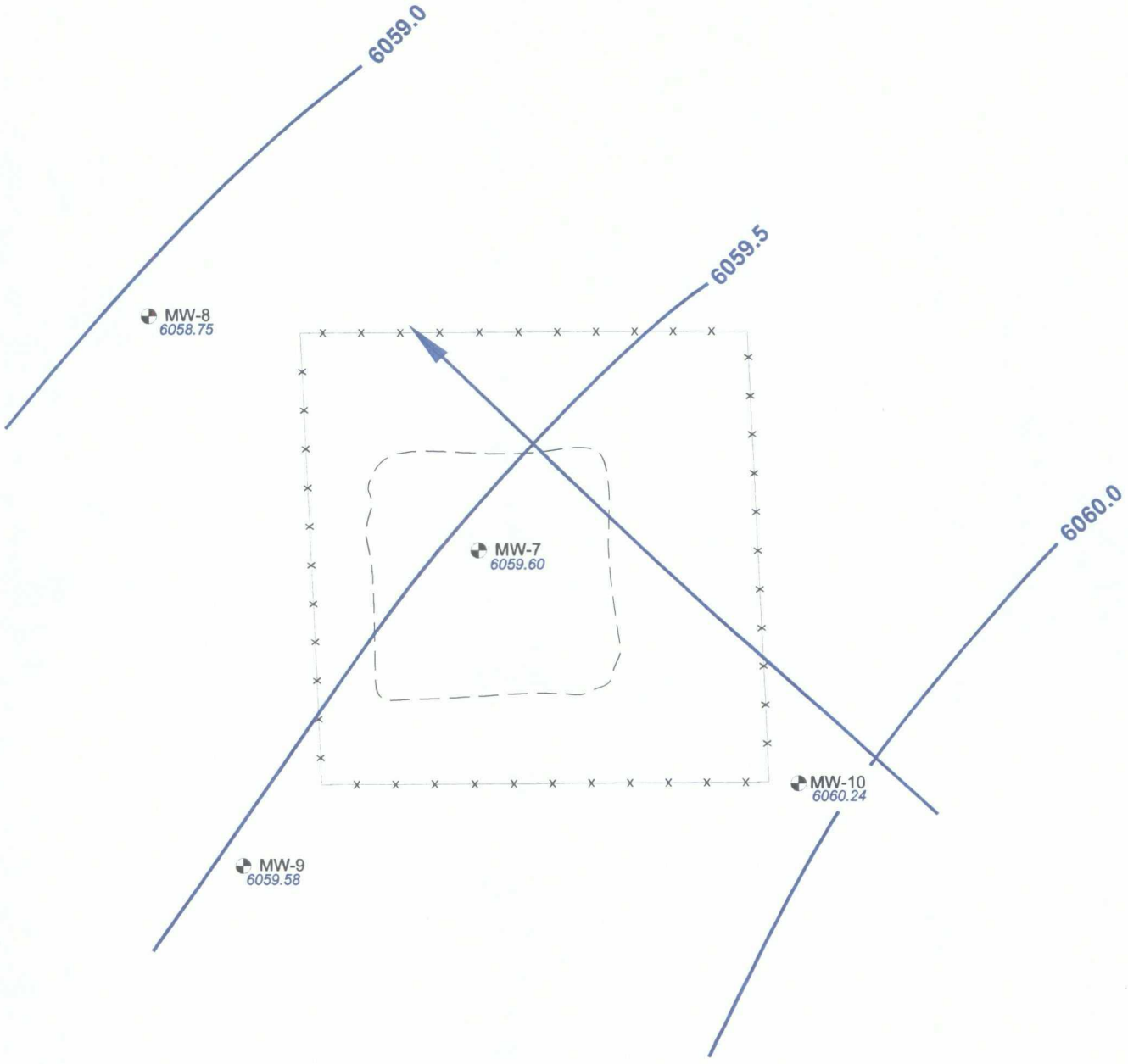
FIGURE: **4**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
89CH.49547.07	ARA	NH	GM	6/13/08

Stantec

FIGURE 5

Potentiometric Surface Map: November 13, 2007



LEGEND

- MONITORING WELL LOCATION
- FENCE LINE/PROPERTY BOUNDARY
- SAND PIT EXCAVATION OUTLINE
- 6058.74 — GROUNDWATER ELEVATION IN FEET RELATIVE TO A COMMON DATUM
- 6060 — CONTOUR LINE OF ESTIMATED EQUAL POTENTIOMETRIC ELEVATION IN FEET
- ESTIMATED GROUNDWATER FLOW DIRECTION

0 30 60

APPROXIMATE SCALE (FEET)

N

Stantec
10235 W. LITTLE YORK, SUITE 400
HOUSTON, TEXAS 77040-3251
(713) 937-7973

FOR:
CHEVRON
GALLEGOS - GALLUP SAND PIT
NW SW S7 T26N R11W
NEW MEXICO

POTENTIOMETRIC SURFACE MAP
NOVEMBER 13, 2007

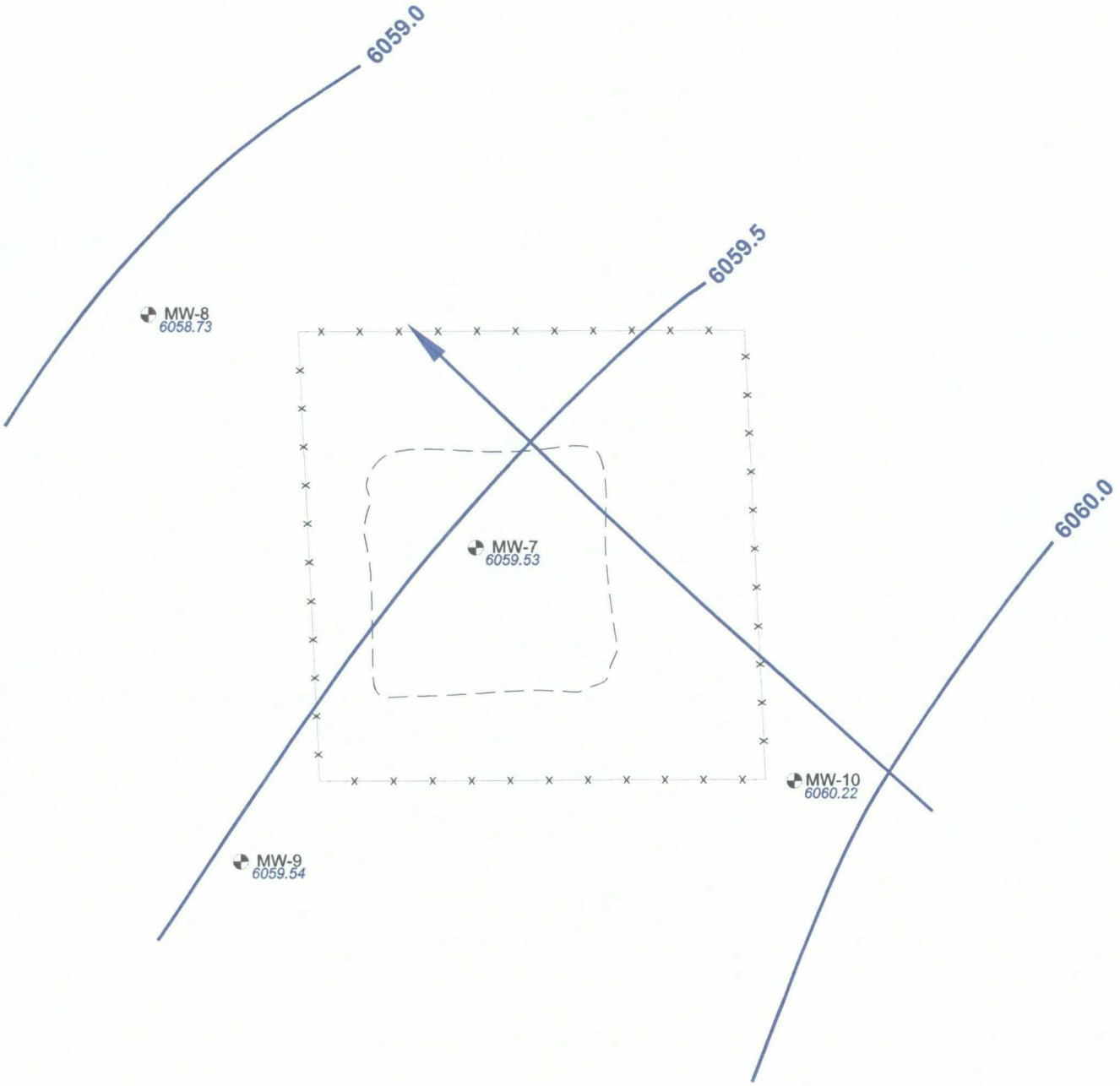
FIGURE: **5**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
89CH.49547.07	ARA	NH	GM	6/13/08

Stantec

FIGURE 6

Potentiometric Surface Map: August 28, 2007



LEGEND

- MONITORING WELL LOCATION
- FENCE LINE/PROPERTY BOUNDARY
- SAND PIT EXCAVATION OUTLINE
- 6058.74 — GROUNDWATER ELEVATION IN FEET RELATIVE TO A COMMON DATUM
- 6060 — CONTOUR LINE OF ESTIMATED EQUAL POTENTIOMETRIC ELEVATION IN FEET
- ESTIMATED GROUNDWATER FLOW DIRECTION

0 30 60

APPROXIMATE SCALE (FEET)

N

Stantec
10235 W. LITTLE YORK, SUITE 400
HOUSTON, TEXAS 77040-3251
(713) 937-7973

FOR:
CHEVRON
GALLEGOS - GALLUP SAND PIT
NW SW S7 T26N R11W
NEW MEXICO

POTENTIOMETRIC SURFACE MAP
AUGUST 28, 2007

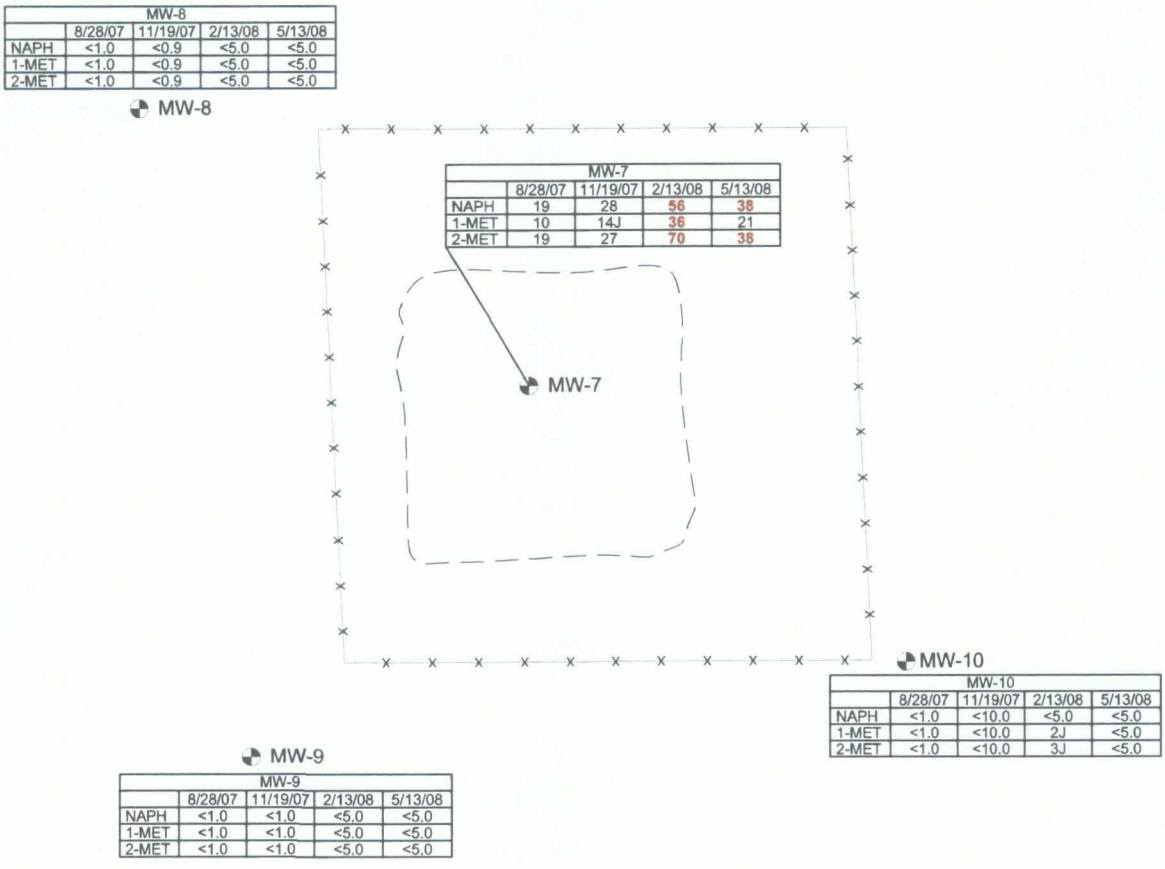
FIGURE: **6**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
89CH.49547.07	ARA	NH	GM	6/13/08

Stantec

FIGURE 7

Chemicals of Concern Groundwater Concentration Map



LEGEND

- MONITORING WELL LOCATION
- FENCE LINE/PROPERTY BOUNDARY
- SAND PIT EXCAVATION OUTLINE

MW-9	WELL ID
8/3/06	SAMPLE DATE
NAPH <1.0	NAPHTHALENE CONCENTRATION ug/L
1-MET <1.0	1-METHYLNAPHTHALENE CONCENTRATION ug/L
2-MET <1.0	2-METHYLNAPHTHALENE CONCENTRATION ug/L

70 BOLD EXCEEDS NMWQCC REMEDIATION STANDARDS (30 ug/L)

0 30 60

APPROXIMATE SCALE (FEET)

N

Stantec
10235 W. LITTLE YORK, SUITE 400
HOUSTON, TEXAS 77040-3251
(713) 937-7973

FOR:
CHEVRON
GALLEGOS - GALLUP SAND PIT
NW SW S7 T26N R11W
NEW MEXICO

CHEMICALS OF CONCERN GROUNDWATER CONCENTRATION MAP

FIGURE: **7**

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
89CH.49547.07	ARA	GM	GM	5/29/07

Stantec

TABLE 1

Historical Groundwater Elevations

Table 1
Historical Groundwater Elevations
Gallegos-Gallup Sand Pit
Farmington, NM

Monitor Well ID	Date Gauged	TOC Elevation (ft. AMSL)	Depth To Groundwater (ft. TOC)	Water Elevation (ft. AMSL)	Depth to PSH (ft. TOC)	PSH Elevation (ft. AMSL)	PSH Thickness (ft.)	Thickness Adjustment (ft.)	Corrected Water Elevation (ft. AMSL)
MW-7	12/01/03	6,092.37	34.21	6,058.16	34.20	6,058.17	**0.01**	0.01	6,058.17
	04/16/04	6,092.37	34.03	6,058.34	34.0	6,058.37	**0.03**	0.03	6,058.37
	10/22/04	6,092.37	32.77	6,059.60	NA	NA	NA	NA	6,059.60
	06/24/05	6,092.37	33.03	6,059.34	33.0	6,059.37	**0.03**	0.03	6,059.37
	09/29/05	6,092.37	32.96	6,059.41	NA	NA	NA	NA	6,059.41
	12/21/05	6,092.37	32.87	6,059.50	NA	NA	NA	NA	6,059.50
	03/21/06	6,092.37	33.03	6,059.34	NA	NA	NA	NA	6,059.34
	08/03/06	6,092.37	33.19	6,059.18	NA	NA	NA	NA	6,059.18
	02/22/07	6,092.37	32.87	6,059.50	NA	NA	NA	NA	6,059.50
	04/26/07	6,092.37	32.82	6,059.55	NA	NA	NA	NA	6,059.55
	08/28/07	6,092.37	32.84	6,059.53	NA	NA	NA	NA	6,059.53
	11/13/07	6,092.37	32.85	6,059.52	NA	NA	NA	NA	6,059.52
	02/13/08	6,092.37	32.77	6,059.60	NA	NA	NA	NA	6,059.60
	05/13/08	6,092.37	32.71	6,059.66	NA	NA	NA	NA	6,059.66
MW-8	06/24/05	6,087.06	28.43	6,058.63	NA	NA	NA	NA	6,058.63
	09/29/05	6,087.06	28.43	6,058.63	NA	NA	NA	NA	6,058.63
	12/21/05	6,087.06	28.32	6,058.74	NA	NA	NA	NA	6,058.74
	03/21/06	6,087.06	28.49	6,058.57	NA	NA	NA	NA	6,058.57
	08/03/06	6,087.06	28.66	6,058.40	NA	NA	NA	NA	6,058.40
	02/22/07	6,087.06	28.39	6,058.67	NA	NA	NA	NA	6,058.67
	04/26/07	6,087.06	28.33	6,058.73	NA	NA	NA	NA	6,058.73
	08/28/07	6,087.06	28.33	6,058.73	NA	NA	NA	NA	6,058.73
	11/13/07	6,087.06	28.36	6,058.70	NA	NA	NA	NA	6,058.70
	02/13/08	6,087.06	28.31	6,058.75	NA	NA	NA	NA	6,058.75
	05/13/08	6,087.06	28.27	6,058.79	NA	NA	NA	NA	6,058.79
MW-9	06/24/05	6,089.63	30.18	6,059.45	NA	NA	NA	NA	6,059.45
	09/29/05	6,089.63	30.09	6,059.54	NA	NA	NA	NA	6,059.54
	12/21/05	6,089.63	30.03	6,059.60	NA	NA	NA	NA	6,059.60
	03/21/06	6,089.63	30.21	6,059.42	NA	NA	NA	NA	6,059.42
	08/03/06	6,089.63	30.39	6,059.24	NA	NA	NA	NA	6,059.24
	02/22/07	6,089.63	30.13	6,059.50	NA	NA	NA	NA	6,059.50
	04/26/07	6,089.63	30.06	6,059.57	NA	NA	NA	NA	6,059.57
	08/28/07	6,089.63	30.09	6,059.54	NA	NA	NA	NA	6,059.54
	11/13/07	6,089.63	30.11	6,059.52	NA	NA	NA	NA	6,059.52
	02/13/08	6,089.63	30.05	6,059.58	NA	NA	NA	NA	6,059.58
	05/13/08	6,089.63	30.02	6,059.61	NA	NA	NA	NA	6,059.61
MW-10	06/24/05	6,093.83	33.70	6,060.13	NA	NA	NA	NA	6,060.13
	09/29/05	6,093.83	33.70	6,060.13	NA	NA	NA	NA	6,060.13
	12/21/05	6,093.83	33.59	6,060.24	NA	NA	NA	NA	6,060.24
	03/21/06	6,093.83	33.76	6,060.07	NA	NA	NA	NA	6,060.07
	08/03/06	6,093.83	34.00	6,059.83	NA	NA	NA	NA	6,059.83
	02/22/07	6,093.83	33.65	6,060.18	NA	NA	NA	NA	6,060.18
	04/26/07	6,093.83	33.59	6,060.24	NA	NA	NA	NA	6,060.24
	08/28/07	6,093.83	33.61	6,060.22	NA	NA	NA	NA	6,060.22
	11/13/07	6,093.83	33.64	6,060.19	NA	NA	NA	NA	6,060.19
	02/13/08	6,093.83	33.59	6,060.24	NA	NA	NA	NA	6,060.24
	05/13/08	6,093.83	33.50	6,060.33	NA	NA	NA	NA	6,060.33

Notes:
AMSL - Above mean sea level
TOC - Top of casing
PSH - Phase separated hydrocarbon
NA - Not applicable (no PSH present)

Stantec

TABLE 2

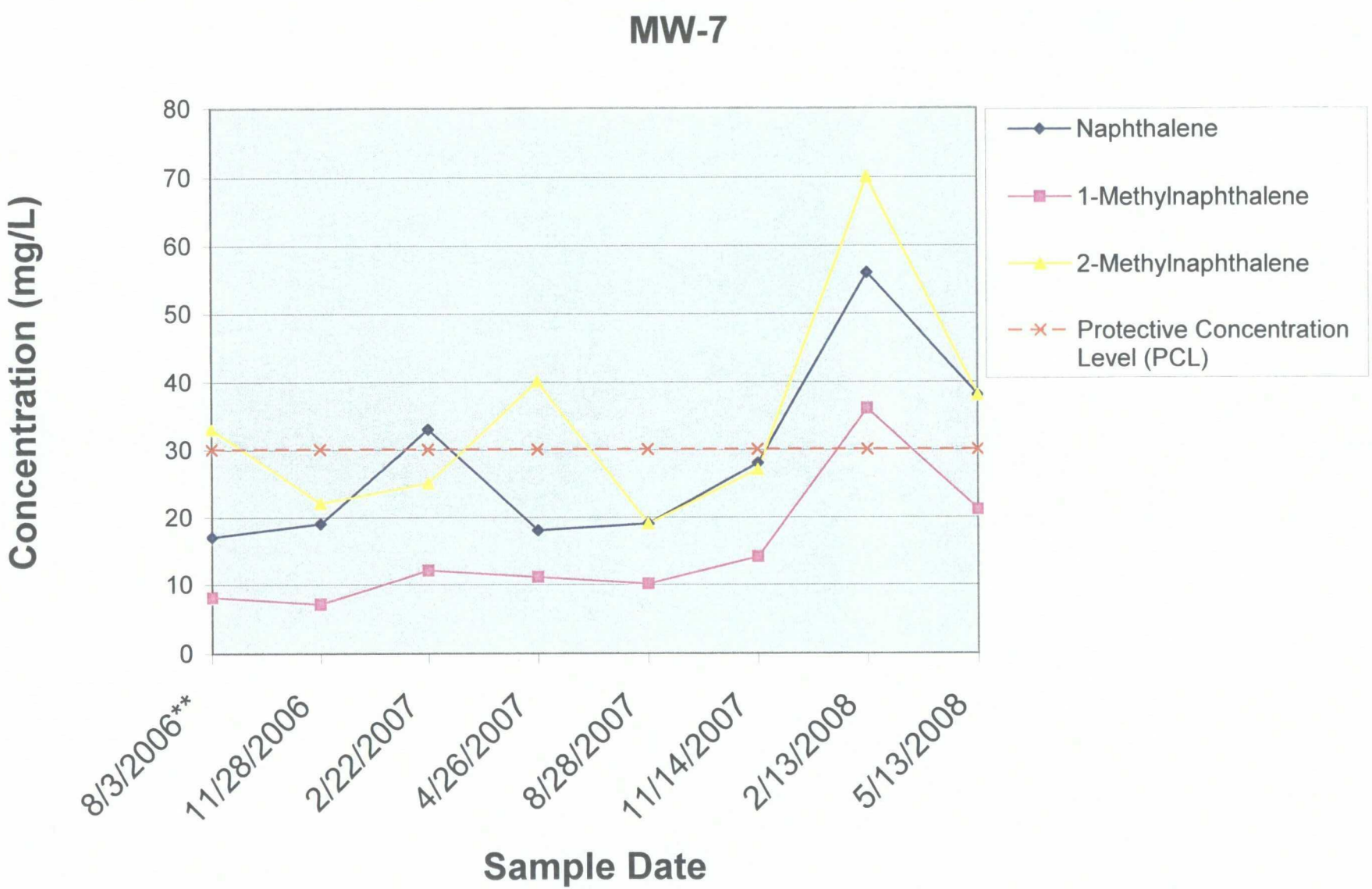
Groundwater Analytical Results

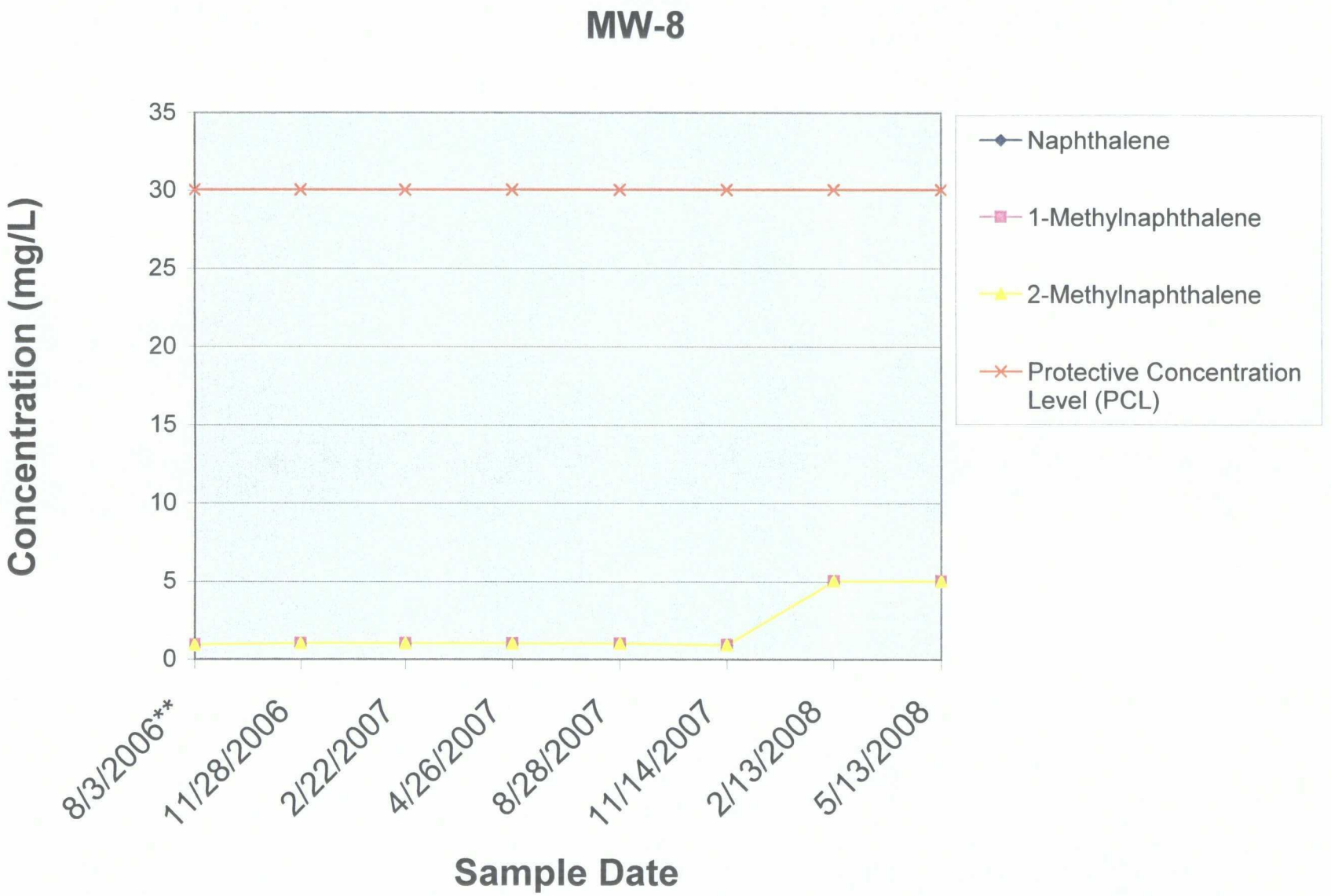
Table 2
Groundwater Analytical Results
Gallegos-Gallup Sand Pit
Farmington, NM

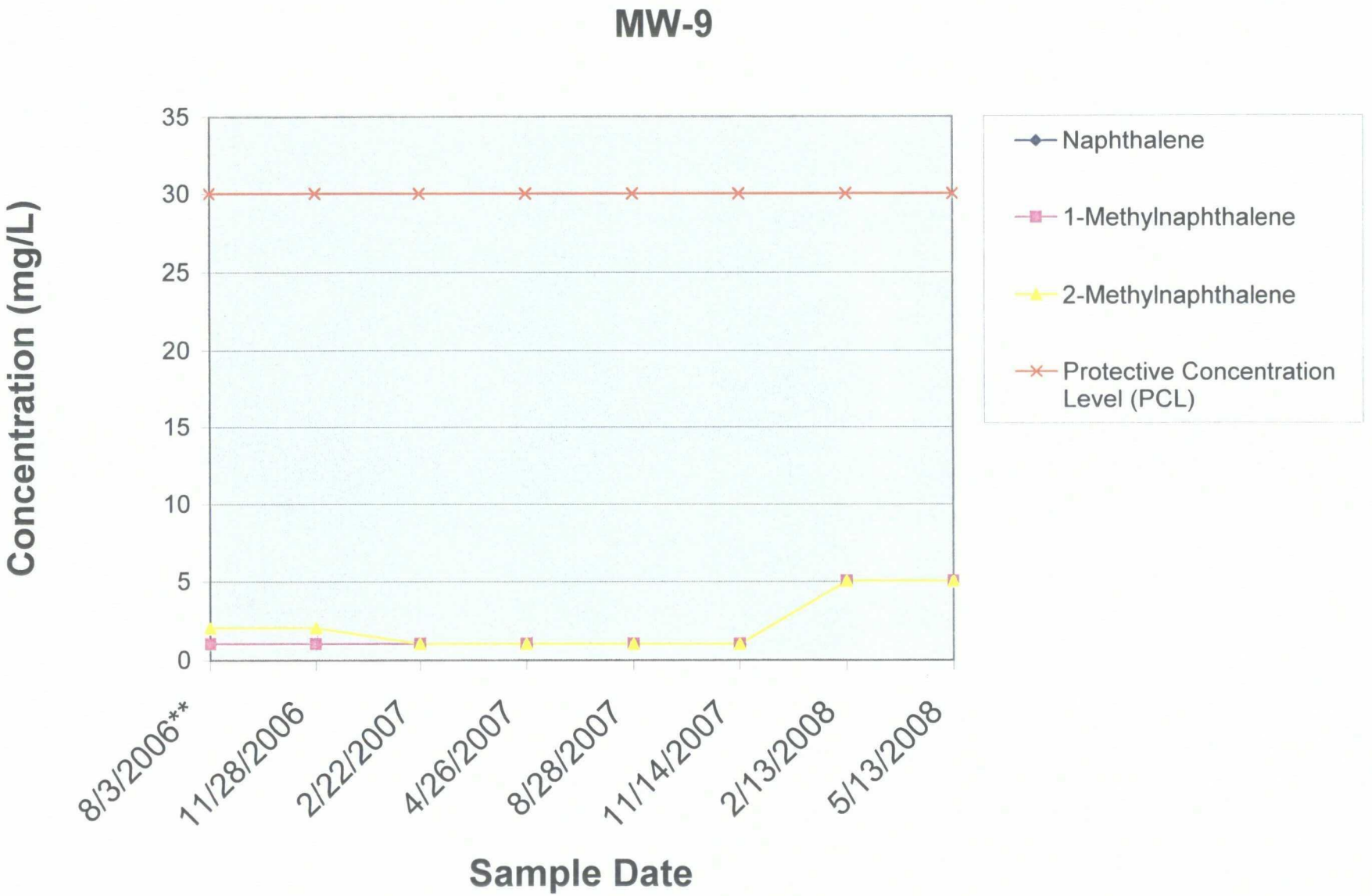
Parameter		Benzene	Toluene	Ethylbenzene	Total Xylene	Naphthalene	Naphthalene	1-Methylnaph thalene	2-Methylnaph thalene
Analytical Method*		EPA Method 8260B	EPA Method 8260B	EPA Method 8260B	EPA Method 8260B	EPA Method 8260B	Method **8270C**	EPA Method 8260B/**8270C**	EPA Method 8260B/**8270C**
NMWQCC Remediation Standards (ug/L)[1]		**10**	**750**	**750**	**620**	**30**	**30**	**30**	**30**
Units		***ug/L***	***ug/L***	***ug/L***	***ug/L***	***ug/L***	***ug/L***	***ug/L***	***ug/L***
Sample Identification	**Sample Date**								
MW-7	12/1/2003	**14.9**	36.1	21.2	80.1	NA	NA	NA	NA
	4/16/2004	<10	<10	<10	208	**115**	NA	NA	NA
	10/22/2004	<5	<5	46.7	188	**128**	NA	NA	NA
	6/24/2005	<1.0	<1.0	49.40	6.15	**124**	NA	**124**	**234**
	9/29/2005	<0.5	<0.7	3.0 J	1.0 J	7.0	NA	NA	**52**
	12/21/2005	<0.5	<0.7	5.0J	0.9 J	11	**37**	NA	**50**
	3/21/2006	<0.5	<0.7	37.0	4.0 J	**45**	22	NA	**54**
	8/3/2006**	NA	NA	NA	NA	NA	17	8	**33**
	11/28/2006	NA	NA	NA	NA	NA	19	7	22
	2/22/2007	NA	NA	NA	NA	NA	**33**	12	25
	4/26/2007	NA	NA	NA	NA	NA	18	11	**40**
	8/28/2007	NA	NA	NA	NA	NA	19	10	19
	11/14/2007	NA	NA	NA	NA	NA	28	14 J	27
	2/13/2008	NA	NA	NA	NA	NA	**56**	**36**	**70**
	5/13/2008	NA	NA	NA	NA	NA	**38**	21	**38**
MW-8	6/24/2005	1.89	<1.0	1.83	<1.0	1.93	NA	4.17	6.45
	9/29/2005	<0.5	<0.7	<0.8	<0.8	<1.0	NA	NA	2.0 J
	12/21/2005	<0.5	<0.7	<0.8	<0.8	<1.0	<1.0	NA	<2.0
	3/21/2006	<0.5	<0.7	<0.8	<0.8	<1.0	<1.0	NA	3.0 J
	8/3/2006	NA	NA	NA	NA	NA	<0.9	<0.9	<0.9
	11/28/2006	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	2/22/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	4/26/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	8/28/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	11/14/2007	NA	NA	NA	NA	NA	<0.9	<0.9	<0.9
	2/13/2008	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0
	5/13/2008	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0
MW-9	6/24/2005	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<2.0	<2.0
	9/29/2005	<0.5	<0.7	<0.8	<0.8	<1.0	NA	NA	<2.0
	12/21/2005	<0.5	<0.7	<0.8	<0.8	<1.0	<1.0	NA	<2.0
	3/21/2006	<0.5	<0.7	<0.8	<0.8	<1.0	<1.0	NA	<2.0
	8/3/2006	NA	NA	NA	NA	NA	<1.0	<1.0	<2.0
	11/28/2006	NA	NA	NA	NA	NA	<1.0	<1.0	<2.0
	2/22/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	4/26/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	8/28/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	11/14/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	2/13/2008	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0
	5/13/2008	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0
MW-10	6/24/2005	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<2.0	<2.0
	9/29/2005	<0.5	<0.7	<0.8	<0.8	<1.0	NA	NA	<2.0
	12/21/2005	<0.5	<0.7	<0.8	<0.8	<1.0	<1.0	NA	<2.0
	3/21/2006	<0.5	<0.7	<0.8	<0.8	<1.0	<1.0	NA	<2.0
	8/3/2006	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	11/28/2006	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	2/22/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	4/26/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	8/28/2007	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0
	11/14/2007	NA	NA	NA	NA	NA	<10.0	<10.0	<10.0
	2/13/2008	NA	NA	NA	NA	NA	<5.0	2J	3J
	5/13/2008	NA	NA	NA	NA	NA	<5.0	<5.0	<5.0

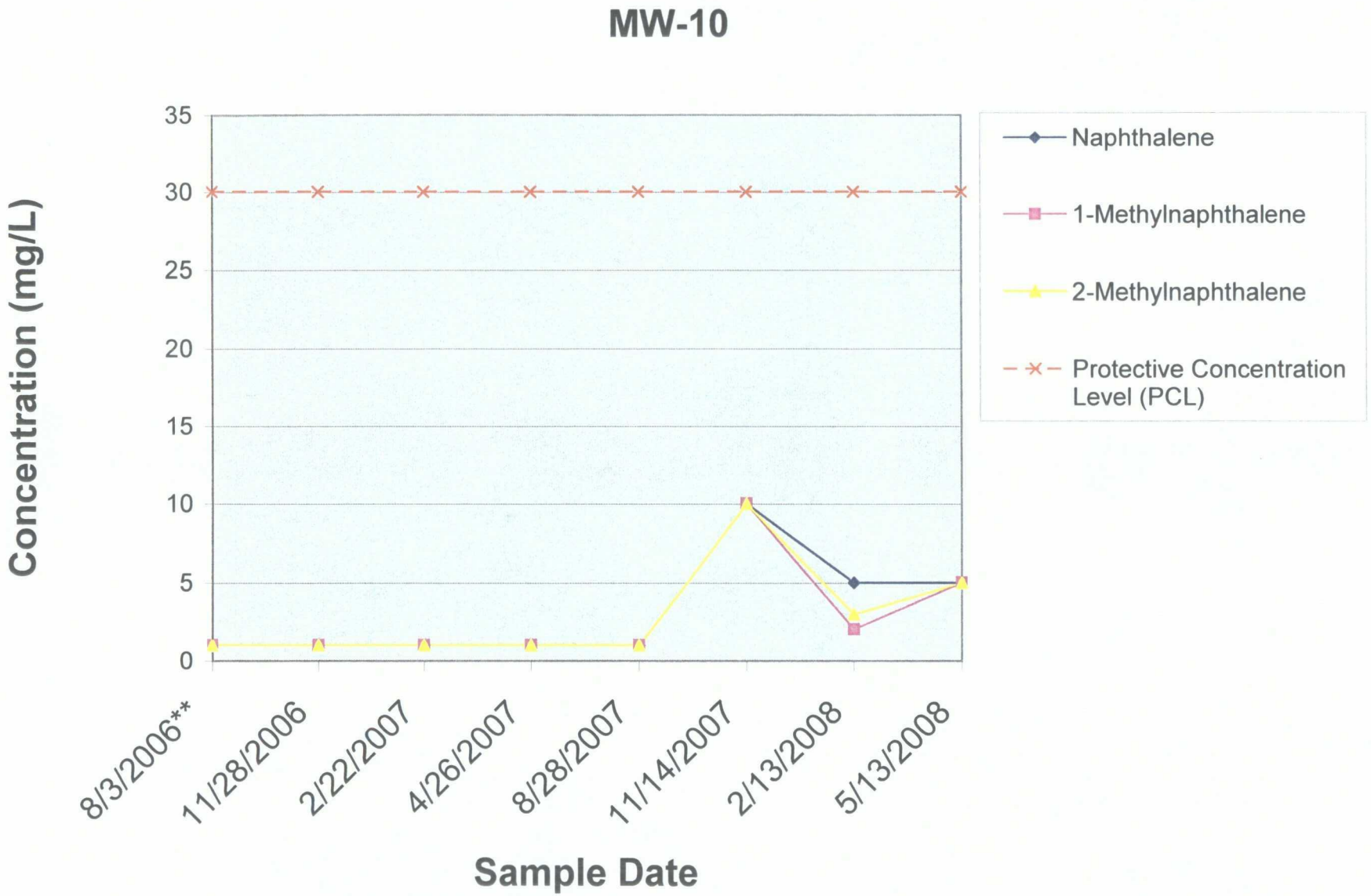
Notes:
* - EPA Method 8021B was used for samples collected on 12/1/2003
** - EPA Method 8270C was used for samples collected on and after 8/3/2006
NMWQCC - New Mexico Water Quality Control Commission
1. Based on NMWQCC Standards published in Document Title 20, Chapter 6, Part 2
ug/l - micrograms per liter
NA = Not analyzed
Bold - Result exceeds NMWQCC Standard

J - The reported result is an estimated value.


MW-7
Concentration (mg/L)
80
70
60
50
40
30
20
10
0
8/3/2006**
11/28/2006
2/22/2007
4/26/2007
8/28/2007
11/14/2007
2/13/2008
5/13/2008
Sample Date
Naphthalene
1-Methylnaphthalene
2-Methylnaphthalene
Protective Concentration Level (PCL)


MW-8
Concentration (mg/L)
35
30
25
20
15
10
5
0
8/3/2006**
11/28/2006
2/22/2007
4/26/2007
8/28/2007
11/14/2007
2/13/2008
5/13/2008
Sample Date
Naphthalene
1-Methylnaphthalene
2-Methylnaphthalene
Protective Concentration Level (PCL)


MW-9
Concentration (mg/L)
35
30
25
20
15
10
5
0
8/3/2006**
11/28/2006
2/22/2007
4/26/2007
8/28/2007
11/14/2007
2/13/2008
5/13/2008
Sample Date
Naphthalene
1-Methylnaphthalene
2-Methylnaphthalene
Protective Concentration Level (PCL)


MW-10
Concentration (mg/L)
35
30
25
20
15
10
5
0
8/3/2006**
11/28/2006
2/22/2007
4/26/2007
8/28/2007
11/14/2007
2/13/2008
5/13/2008
Sample Date
Naphthalene
1-Methylnaphthalene
2-Methylnaphthalene
Protective Concentration Level (PCL)

Stantec

APPENDIX A

Laboratory Analytical Reports

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

713-937-7973

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 1065470. Samples arrived at the laboratory on Wednesday, November 14, 2007. The PO# for this group is 89CH.49401.71 and the release number is GALLEGOS.

Client Description	Lancaster Labs Number
MW-10 Grab Water Sample	5212218
MW-9 Grab Water Sample	5212219
MW-8 Grab Water Sample	5212220
MW-7 Grab Water Sample	5212221

ELECTRONIC COPY TO SECOR International, Inc. Attn: Eric Page

Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Questions? Contact your Client Services Representative
Gwen A Birchall at (717) 656-2300

Respectfully Submitted,

Chad A. Moline
Group Leader

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW 5212218

MW-10 Grab Water Sample
Gallegos Sand Pits

Collected:11/13/2007 10:05 by SB

Account Number: 11842

Submitted: 11/14/2007 09:35
Reported: 11/27/2007 at 12:52
Discard: 12/28/2007

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

GAW10
I 5E w

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	N.D.	10.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	N.D.	10.	ug/l	1
03947	Naphthalene	91-20-3	N.D.	10.	ug/l	1

Due to the nature of the sample matrix, a reduced aliquot was used for analysis. The reporting limits were raised accordingly.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11/26/2007 01:21	William T Parker	1
07807	BNA Water Extraction	SW-846 3510C	1	11/15/2007 19:15	Elaine F Stoltzfus	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW 5212219

MW-9 Grab Water Sample
Gallegos Sand Pits

Collected:11/13/2007 10:20 by SB

Account Number: 11842

Submitted: 11/14/2007 09:35
Reported: 11/27/2007 at 12:52
Discard: 12/28/2007

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

GALW9
I 5E w

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	N.D.	1.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	N.D.	1.	ug/l	1
03947	Naphthalene	91-20-3	N.D.	1.	ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11/26/2007 01:43	William T Parker	1
07807	BNA Water Extraction	SW-846 3510C	1	11/15/2007 19:15	Elaine F Stoltzfus	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW 5212220

MW-8 Grab Water Sample
Gallegos Sand Pits

Collected:11/13/2007 10:25 by SB

Account Number: 11842

Submitted: 11/14/2007 09:35
Reported: 11/27/2007 at 12:52
Discard: 12/28/2007

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

GALW8
I 5E w

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	N.D.	0.9	ug/l	1
03905	2-Methylnaphthalene	91-57-6	N.D.	0.9	ug/l	1
03947	Naphthalene	91-20-3	N.D.	0.9	ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11/26/2007 02:06	William T Parker	1
07807	BNA Water Extraction	SW-846 3510C	1	11/15/2007 19:15	Elaine F Stoltzfus	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW 5212221

MW-7 Grab Water Sample

Gallegos Sand Pits
Collected:11/13/2007 10:32 by SB

Account Number: 11842

Submitted: 11/14/2007 09:35
Reported: 11/27/2007 at 12:52
Discard: 12/28/2007

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

GALW7
I 5E w

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
07805	PAHs in Water by GC/MS						
02752	1-Methylnaphthalene	90-12-0	14.	J	5.	ug/l	5
03905	2-Methylnaphthalene	91-57-6	27.		5.	ug/l	5
03947	Naphthalene	91-20-3	28.		5.	ug/l	5

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	11/26/2007 02:29	William T Parker	5
07807	BNA Water Extraction	SW-846 3510C	1	11/15/2007 19:15	Elaine F Stoltzfus	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Quality Control Summary

Client Name: SECOR International, Inc. Group Number: 1065470
Reported: 11/27/07 at 12:52 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 07319WAA026	Sample number(s): 5212218-5212221							
1-Methylnaphthalene	N.D.	1.	ug/l	90	87	65-107	4	30
2-Methylnaphthalene	N.D.	1.	ug/l	91	88	64-105	3	30
Naphthalene	N.D.	1.	ug/l	95	91	68-108	4	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in Water by GC/MS
Batch number: 07319WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
5212218	95	106	81
5212219	94	107	78
5212220	89	100	76
5212221	87	100	80
Blank	66	72	64
LCS	98	107	88
LCSD	94	104	86
Limits:	51-123	63-118	52-151

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron Generic Analysis Request/Chain of Custody

008544

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11842 Sample #: 5212218-21 SCR#:
Grp# 1065470

Facility #: Gallegos Sand Pits - 89CH.49547.07
Site Address: Farmington, New Mexico
Chevron PM: S Huddleson Lead Consultant: E. Page
Consultant/Office: SECOR - Houston
Consultant Prj. Mgr.: Eric Page
Consultant Phone #: 713-937-7973 Fax #:
Sampler: SB/AV
Service Order #: ☐ Non SAR:

Matrix: Soil, Water (☐ Potable ☑ NPDES), Oil ☐ Air ☐

Analyses Requested / Preservation Codes: T

Preservative Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, O = Other

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil ☐ Air ☐	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates	TPH G	TPH D ☐ Extended Rng. ☐ Silica Gel Cleanup	Lead Total ☐ Diss. ☐ Method	VPH/EPH	NWTPH H HCID ☐ quantification	PAH's 8270		
MW-10	11-13-07	1005	✓			✓		2									✓		
MW-9	11-13-07	1020	✓			✓		2									✓		
MW-8	11-13-07	1025	✓			✓		2									✓		
MW-7	11-13-07	1032	✓			✓		2									✓		

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ___ oxy's on highest hit
☐ Run ___ oxy's on all hits

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
STD. TAT (circled) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary — Type I - Full
Type VI (Raw Data) — Disk / EDD
WIP (RWQCB) — Standard Format
Disk — ________ Other.

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	11/13/07	1130			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS FedEx (circled) Other ______			Received by: [signature]	11/14/07	0935

Temperature Upon Receipt 1.0 C° Custody Seals Intact? Yes (circled) No

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 3566 Rev. 1/31/02
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

SECOR International, Inc.
10235 West Little York Road
Houston TX 77040

713-937-7973

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 1077351. Samples arrived at the laboratory on Wednesday, February 13, 2008. The PO# for this group is 89CH.49547.07 and the release number is GALLEGOS.

Client Description	Lancaster Labs Number
MW-10 Grab Water Sample	5279259
MW-9 Grab Water Sample	5279260
MW-8 Grab Water Sample	5279261
MW-7 Grab Water Sample	5279262

ELECTRONIC COPY TO SECOR International, Inc. Attn: Ronnie Kallus

Lancaster Laboratories

Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Questions? Contact your Client Services Representative
Gwen A Birchall at (717) 656-2300

Respectfully Submitted,

Chad A. Moline
Group Leader

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5279259 **Group No. 1077351**

MW-10 Grab Water Sample
Gallegos Sand Pits

Collected: 02/12/2008 08:40 by SB

Account Number: 11842

Submitted: 02/13/2008 10:50
Reported: 02/25/2008 at 14:57
Discard: 03/27/2008

SECOR International, Inc.
10235 West Little York Road
Houston TX 77040

GAL10

CAT No.	Analysis Name	CAS Number	As Received Result		As Received Method Detection Limit	Units	Dilution Factor
07805	PAHs in Water by GC/MS						
02752	1-Methylnaphthalene	90-12-0	2.	J	1.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	3.	J	1.	ug/l	1
03947	Naphthalene	91-20-3	N.D.		1.	ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	02/20/2008 09:59	Brian K Graham	1
07807	BNA Water Extraction	SW-846 3510C	1	02/19/2008 03:15	Sherry L Morrow	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5279260 **Group No. 1077351**

MW-9 Grab Water Sample
Gallegos Sand Pits

Collected: 02/12/2008 09:55 by SB

Account Number: 11842

Submitted: 02/13/2008 10:50
Reported: 02/25/2008 at 14:57
Discard: 03/27/2008

SECOR International, Inc.
10235 West Little York Road
Houston TX 77040

GAL-9

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	< 5.	5.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	< 5.	5.	ug/l	1
03947	Naphthalene	91-20-3	< 5.	5.	ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	02/20/2008 10:22	Brian K Graham	1
07807	BNA Water Extraction	SW-846 3510C	1	02/19/2008 03:15	Sherry L Morrow	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5279261 **Group No. 1077351**

MW-8 Grab Water Sample
Gallegos Sand Pits

Collected:02/12/2008 10:05 by SB

Account Number: 11842

Submitted: 02/13/2008 10:50
Reported: 02/25/2008 at 14:57
Discard: 03/27/2008

SECOR International, Inc.
10235 West Little York Road
Houston TX 77040

GAL-8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	< 5.	5.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	< 5.	5.	ug/l	1
03947	Naphthalene	91-20-3	< 5.	5.	ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	02/20/2008 10:46	Brian K Graham	1
07807	BNA Water Extraction	SW-846 3510C	1	02/19/2008 03:15	Sherry L Morrow	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5279262 **Group No. 1077351**

MW-7 Grab Water Sample
Gallegos Sand Pits

Collected: 02/12/2008 10:10 by SB

Account Number: 11842

Submitted: 02/13/2008 10:50
Reported: 02/25/2008 at 14:57
Discard: 03/27/2008

SECOR International, Inc.
10235 West Little York Road
Houston TX 77040

GAL-7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	36.	5.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	70.	5.	ug/l	1
03947	Naphthalene	91-20-3	56.	5.	ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	02/20/2008 11:10	Brian K Graham	1
07807	BNA Water Extraction	SW-846 3510C	1	02/19/2008 03:15	Sherry L Morrow	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Quality Control Summary

Client Name: SECOR International, Inc. Group Number: 1077351
Reported: 02/25/08 at 02:57 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 08049WAA026	Sample number(s): 5279259-5279262							
1-Methylnaphthalene	N.D.	5.	ug/l	84	87	78-105	4	30
2-Methylnaphthalene	N.D.	5.	ug/l	87	89	78-107	2	30
Naphthalene	N.D.	5.	ug/l	86	91	77-107	6	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in Water by GC/MS
Batch number: 08049WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
5279259	92	91	63
5279260	93	92	73
5279261	88	89	78
5279262	106	77	78
Blank	86	84	83
LCS	91	91	86
LCSD	94	91	87
Limits:	44-127	63-114	44-127

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron Generic Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11842 Sample #: 5379259-62 SCR#: 008190 44858

Group# 1077351

Facility #: Gallegos Sand Pits
Site Address: Farmington, New Mexico
Chevron PM: M. Hudson Lead Consultant: R. Kellus
Consultant/Office: SECOR - Houston
Consultant Prj. Mgr.: Ronnie Kellus
Consultant Phone #: 713-937-7973 Fax #: 713-213-5071
Sampler: SB/RB
Service Order #: ☐ Non SAR:

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Water	Oil ☐ Air ☐	Potable ☐ NPDES ☑	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates	TPH G	TPH D ☐ Extended Rng. ☐ Silica Gel Cleanup	Lead Total ☐ Diss. ☐ Method	VPH/EPH	NWTPH H HCID ☐ quantification	PAH's 8270	T
MW-10	2-12-08	0940	✓			✓			2									✓	
MW-9	2-12-08	0955	✓			✓			2									✓	
MW-8	2-12-08	1005	✓			✓			2									✓	
MW-7	2-12-08	1010	✓			✓			2									✓	

(All Times are CST)

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I - Full
Type VI (Raw Data) Disk / EDD
WIP (RWQCB) Standard Format
Disk _____ Other.

		Date	Time		Date	Time
Relinquished by:		2-20-08	0655	Received by:		
Relinquished by:		2/12/08	1100	Received by:		
Relinquished by:				Received by:		
Relinquished by Commercial Carrier: UPS FedEx Other				Received by:	2/13/08	1550
Temperature Upon Receipt 4.7 C°				Custody Seals Intact? Yes No		

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

713-937-7973

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 1091187. Samples arrived at the laboratory on Wednesday, May 14, 2008. The PO# for this group is 89CH.49547.07 and the release number is GALLEGOS.

Client Description	Lancaster Labs Number
MW-10 Grab Water Sample	5360409
MW-9 Grab Water Sample	5360410
MW-8 Grab Water Sample	5360411
MW-7 Grab Water Sample	5360412

ELECTRONIC COPY TO SECOR International, Inc. Attn: Chad Vowell

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Questions? Contact your Client Services Representative
Wendy A Kozma at (717) 656-2300

Respectfully Submitted,

Chad A. Moline
Group Leader

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5360409 **Group No. 1091187**

MW-10 Grab Water Sample
Gallegos Sand Pits

Collected:05/13/2008 09:20 by SB

Account Number: 11842

Submitted: 05/14/2008 09:40
Reported: 06/09/2008 at 13:36
Discard: 07/10/2008

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

GMW10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	< 5.	5.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	< 5.	5.	ug/l	1
03947	Naphthalene	91-20-3	< 5.	5.	ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	05/23/2008 10:28	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	05/17/2008 05:30	Tracy L Schickel	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5360410 **Group No. 1091187**

MW-9 Grab Water Sample
Gallegos Sand Pits

Collected:05/13/2008 09:30 by SB

Account Number: 11842

Submitted: 05/14/2008 09:40
Reported: 06/09/2008 at 13:36
Discard: 07/10/2008

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

GSMW9

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	< 5.	5.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	< 5.	5.	ug/l	1
03947	Naphthalene	91-20-3	< 5.	5.	ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	05/23/2008 10:52	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	05/17/2008 05:30	Tracy L Schickel	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5360411 **Group No. 1091187**

MW-8 Grab Water Sample
Gallegos Sand Pits

Collected:05/13/2008 09:40 by SB

Account Number: 11842

Submitted: 05/14/2008 09:40
Reported: 06/09/2008 at 13:36
Discard: 07/10/2008

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

GSMW8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	< 5.	5.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	< 5.	5.	ug/l	1
03947	Naphthalene	91-20-3	< 5.	5.	ug/l	1

Surrogate recoveries are outside of QC limits for the initial GC/MS semivolatile analysis. The analysis was repeated outside of the required hold time and the surrogate recoveries are within the limits. The data reported is from the initial extraction of the sample.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	05/23/2008 11:40	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	05/17/2008 05:30	Tracy L Schickel	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5360412 **Group No. 1091187**

MW-7 Grab Water Sample
Gallegos Sand Pits

Collected: 05/13/2008 09:50 by SB

Account Number: 11842

Submitted: 05/14/2008 09:40
Reported: 06/09/2008 at 13:36
Discard: 07/10/2008

SECOR International, Inc.
10235 W. Little York
Ste 400
Houston TX 77040

GSMW7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
07805	PAHs in Water by GC/MS					
02752	1-Methylnaphthalene	90-12-0	21.	1.	ug/l	1
03905	2-Methylnaphthalene	91-57-6	38.	1.	ug/l	1
03947	Naphthalene	91-20-3	38.	1.	ug/l	1

Surrogate recoveries are outside of QC limits for the initial GC/MS semivolatile analysis. The analysis was repeated outside of the required hold time and the surrogate recoveries are within the limits. The data reported is from the initial extraction of the sample.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07805	PAHs in Water by GC/MS	SW-846 8270C	1	05/23/2008 11:16	Joseph M Gambler	1
07807	BNA Water Extraction	SW-846 3510C	1	05/17/2008 05:30	Tracy L Schickel	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Quality Control Summary

Client Name: SECOR International, Inc. Group Number: 1091187
Reported: 06/09/08 at 01:36 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 08137WAG026	Sample number(s): 5360409-5360412							
1-Methylnaphthalene	N.D.	1.	ug/l	89		78-105		
2-Methylnaphthalene	N.D.	1.	ug/l	89		78-107		
Naphthalene	N.D.	1.	ug/l	89		77-107		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 08137WAG026	Sample number(s): 5360409-5360412 UNSPK: P360618								
1-Methylnaphthalene	86	97	75-109	4	30				
2-Methylnaphthalene	88	89	61-125	1	30				
Naphthalene	-148 (2)	-184 (2)	73-113	5	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in Water by GC/MS
Batch number: 08137WAG026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
5360409	99	119*	98
5360410	99	114	98
5360411	48	57*	52
5360412	108	117*	101
Blank	98	111	105
LCS	90	96	98
MS	89	100	99
MSD	89	100	98
Limits:	44-127	63-114	44-127

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron Generic Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

010036

Acct. #: 11842 For Lancaster Laboratories use only Sample #: 5360409-12 SCR#: Grp# 1091187

Facility #: Gallegos Sand Pit
Site Address: Farmington, New Mexico
Chevron PM: S. Huddleson Lead Consultant: R. Kallus
Consultant/Office: SECOR - Houston, TX
Consultant Prj. Mgr.: Chad Vowell
Consultant Phone #: 713-937-7973 Cell Fax #: 713-501-8790
Sampler: SB
Service Order #: ☐ Non SAR:

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Water (Potable ☐ NPDES ☑)	Oil ☐ Air ☐	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates	TPH G	TPH D ☐ Extended Rng. ☐ Silica Gel Cleanup	Lead Total ☐ Diss. ☐ Method	VPH/EPH	NWTPH H HCID ☐ quantification	PAH's 8270					
MW-10	5-13-08	0920	✓			✓		2									✓					
MW-9	5-13-08	0930	✓			✓		2									✓					
MW-8	5-13-08	0940	✓			✓		2									✓					
MW-7	5-13-08	0950	✓			✓		2									✓					

Analyses Requested — Preservation Codes

Preservative Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

All Times are MDT

Turnaround Time Requested (TAT) (please circle)
STD. TAT | 72 hour | 48 hour | 24 hour | 4 day | 5 day

Data Package Options (please circle if required)
QC Summary | Type I - Full
Type VI (Raw Data) | Disk / EDD
WIP (RWQCB) | Standard Format
Disk | ____ Other.

Relinquished by:	Date	Time	Received by:	Date	Time
Steve Bell	5/17/08	1050			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by Commercial Carrier: UPS FedEx Other ____			Received by:	Date	Time
Temperature Upon Receipt 1.3 C°			Custody Seals Intact? Yes No	5/14/08	0940

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

3566 Rev. 1/31/02

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm *parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams.* For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY – In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions of Lancaster Laboratories and we hereby object to any conflicting terms contained in any acceptance or order submitted by client.

ANALYTICAL RESULTS

Prepared for:

SECOR International, Inc.
3300 N. A St.
Bldg. 8, Suite 220
Midland TX 79705
432-685-0627

Prepared by:
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 1053679. Samples arrived at the laboratory on Wednesday, Aug 29 2007.
The project for this group is Gallegos Sand Pits.
The PO# for this sample group is 89CH.49401.71.
The release number for this sample group is GALLEGOS.

Sample No.	Collected	Client Description
5140847	8/28/2007 9:49	MW-9 Grab Water Sample Gallegos Sand Pits
5140848	8/28/2007 9:41	MW-10 Grab Water Sample Gallegos Sand Pits
5140846	8/28/2007 9:56	MW-8 Grab Water Sample Gallegos Sand Pits
5140845	8/28/2007 9:34	MW-7 Grab Water Sample Gallegos Sand Pits

ELECTRONIC COPY TO SECOR International, Inc. Attn: Bo Vizcaino

Questions? Contact your Client Services Representative
Gwen A Birchall at (717)656-2300

Respectfully Submitted,

Rachel R. Cochis

Rachel R. Cochis
Group Leader

ANALYTICAL RESULTS

Prepared for:

SECOR International, Inc.
3300 N. A St.
Bldg. 8, Suite 220
Midland TX 79705
432-685-0627

Prepared by:
Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SECOR International, Inc.
Project: Gallegos Sand Pits
SDG:

Report Date: 9/10/2007 15:00
Submit Date: 8/29/2007 9:30

Analysis Name	Units	5140845 MW-7 Gra Result	MDL	5140846 MW-8 Gra Result	MDL	5140847 MW-9 Gra Result	MDL
1-Methylnaphthalene	ug/l	10.	1.	N.D.	1.	N.D.	1.
2-Methylnaphthalene	ug/l	19.	1.	N.D.	1.	N.D.	1.
Naphthalene	ug/l	19.	1.	N.D.	1.	N.D.	1.

Analysis Name	Units	5140848 MW-10 Gr Result	MDL
1-Methylnaphthalene	ug/l	N.D.	1.
2-Methylnaphthalene	ug/l	N.D.	1.
Naphthalene	ug/l	N.D.	1.

CAT No.	Analysis Name	Method	Trial ID	Analysis Date/Time	Analyst	Dilution
5140845	**MW-7 Grab Water Sample**					
07805	PAHs in Water by GC/MS	SW-846 8270C	1	9/4/07 1053	Brian K Graham	1
07807	BNA Water Extraction	SW-846 3510C	1	8/30/07 1100	Mariam G Attalla	1
5140846	**MW-8 Grab Water Sample**					
07805	PAHs in Water by GC/MS	SW-846 8270C	1	9/4/07 1148	Brian K Graham	1
07807	BNA Water Extraction	SW-846 3510C	1	8/30/07 1100	Mariam G Attalla	1
5140847	**MW-9 Grab Water Sample**					
07805	PAHs in Water by GC/MS	SW-846 8270C	1	9/4/07 1244	Brian K Graham	1
07807	BNA Water Extraction	SW-846 3510C	1	8/30/07 1100	Mariam G Attalla	1
5140848	**MW-10 Grab Water Sample**					
07805	PAHs in Water by GC/MS	SW-846 8270C	1	9/5/07 0424	Brian K Graham	1
07807	BNA Water Extraction	SW-846 3510C	1	8/30/07 1100	Mariam G Attalla	1

Client Name: SECOR International, Inc. Group Number: 1053679

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	Max RPD
Batch number: 07241WAM026	Sample number(s): 5140845-5140848							
1-Methylnaphthalene	N.D.	1.	ug/l	93	94	65-107	1	30
2-Methylnaphthalene	N.D.	1.	ug/l	93	94	64-105	1	30
Naphthalene	N.D.	1.	ug/l	93	93	68-108	0	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PAHs in Water by GC/MS
Batch number: 07241WAM026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
5140845	99	92	88
5140846	95	94	75
5140847	93	95	82
5140848	95	92	78
Blank	88	91	92
LCS	95	98	98
LCSD	93	95	95
Limits:	51-123	63-118	52-151

* - Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

QC Comment

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

5140845 MW-7 Grab Water Sample

5140846 MW-8 Grab Water Sample

5140847 MW-9 Grab Water Sample

5140848 MW-10 Grab Water Sample