GW-361

Annual GW Report

DATE:
2007

GW361

TEPPCO

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December 6, 2007

CERTIFIED MAIL NO.:
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RETURN RECEIPT REQUESTED

Mr. Glenn Von Gonten
Senior Hydrologist
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: TEPPCO Hobbs Station, Hobbs, New Mexico

Dear Mr. Von Gonten:

TEPPCO Crude Oil, L.P. (TEPPCO) is submitting the enclosed annual groundwater monitoring report for the TEPPCO Hobbs Station. Current site conditions at Hobbs Station are documented in the October 11, 2005 report entitled: Supplemental Environmental Site Investigation Report. This report describes the soil and groundwater monitoring results obtained during investigation of the station during 2007 following acquisition of the station from ARCO. TEPPCO is currently monitoring four monitor wells at the station. Groundwater conditions at these locations appear to be stable and constituents are below either laboratory reporting levels or New Mexico Water Quality Commission Ground Water Standards. Light non-aqueous phase liquids were not observed in any of the monitor wells.

Please note that a crude oil recovery system is currently in operation at the station. This recovery system is operated by Navajo Pipeline (Navajo) to recover crude oil occurring on July 22, 2004 at Tank 5201 which is leased by TEPPCO to Navajo. Navajo reported this release to the New Mexico Oil Conservation Division (OCD) on October 10, 2004.

TEPPCO recommends continued groundwater monitoring at the station during 2008 and will evaluate requesting closure for the site if groundwater conditions remain stable. Please do not hesitate to contact me at (713) 803-2286 if you have any questions.

Sincerely,

David R. Smith, P.G.
Sr. Environmental Scientist

Attachment

xc: w/attachment - Dickie Townley; Safety/Environmental Supervisor; Navajo Pipeline; 311 West Quay; Artesia, NM 88210

w/o Attachment - Chris Mitchell – Southwest Geoscience, Dallas, TX

P.O. Box 2521
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ANNUAL GROUNDWATER MONITORING REPORT
TEPPCO Hobbs Station
Off County Road 61
Hobbs, Lea County, New Mexico

SWG Project No. 0105013
November 15, 2007

Prepared for:

TEPPCO Crude Pipeline, LP
c/o EPCO, Inc.
2727 North Loop West
Houston, TX 77008
Attention: Mr. David Smith, P.G.

PREPARED BY:

for Russell D. Howard
Project Scientist

B. Chris Mitchell, P.G.
Senior Technical Review

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ANNUAL GROUNDWATER MONITORING REPORT
TEPPCO Hobbs Station
Off County Road 61
Hobbs, Lea County, New Mexico

1.0 INTRODUCTION

1.1 Site Description & History

Southwest Geoscience (SWG) has conducted two (2) semi-annual groundwater monitoring events at the TEPPCO Crude Pipeline, L.P. (TEPPCO) Hobbs Station, referred to hereinafter as the "site" located at off County Road 61, Hobbs, Lea County, New Mexico. The site consists of approximately 35 acres developed as a crude oil storage facility associated with crude oil pipeline operations located to the south of Hobbs, New Mexico.

A topographic map is included as Figure 1, a site vicinity map is included as Figure 2, and a site plan is included as Figure 3 of Appendix A.

During the completion of due diligence activities during the acquisition of select ARCO assets by TEPPCO, soil borings MW-1, MW-2, MW-4 and B-5 were advanced at the station by ALPHA TESTING, INC. (ALPHA) in March, 2003. Soil borings MW-1, MW-2 and MW-4 were subsequently converted to permanent groundwater monitoring wells. The objective of the due diligence activities was to evaluate the presence of petroleum hydrocarbons in the on-site soil and groundwater as a result of the operations historically associated with the site.

In addition, an existing monitoring well previously installed under the direction of ARCO, labeled MW-3, was identified on the north-northeast portion of the site during the completion of the due diligence activities. No other existing monitoring wells were observed during the 2003 investigation activities.

A groundwater monitoring event was subsequently conducted by ALPHA in May, 2004 to further evaluate the magnitude of petroleum hydrocarbon constituents in the on-site groundwater. During the completion of sampling activities, on-site personnel indicated the location of two (2) additional groundwater monitoring wells previously installed under the direction of ARCO, labeled MW-1 and MW-2. ALPHA sampled monitoring wells MW-1(ARCO), MW-2(ARCO), MW-1, MW-2 and MW-4. However, the groundwater table appeared to have dropped below the total depth of monitoring well MW-3(ARCO); therefore, no groundwater sample was collected.

Due to the absence of chemicals of concern (COCs) above the laboratory method detection limits (MDLs) in groundwater samples collected from MW-1(ARCO) and MW-2(ARCO), these monitoring wells were removed from the quarterly groundwater monitoring sample program.

Due to the elevation of the groundwater table below the total depth of monitoring well MW-3(ARCO), monitoring well MW-3R was installed adjacent to monitoring well MW-3(ARCO) on July 25, 2005 by SWG.

Analytical tables which include the historical groundwater analytical data are provided in Appendix B.

In addition, according to the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division *Release Notification and Correction Action Form* (Form C-141) prepared by Navajo Pipeline (Navajo) and dated October 11, 2004, an unknown volume of crude oil was released on July 22, 2004 as a result of an external corrosion hole in the pipeline which extends from the Navajo truck unloading rack to storage tank no. 5201, which is owned by TEPPCO and leased to Navajo.

Subsequent to the discovery of the leak, the pipeline was isolated, depressurized and clamped to repair the leak. An area approximately 4 feet wide, 20 feet long and 18 feet deep was subsequently excavated, and the excavated soil were disposed off-site.

Based on SWG's review of the Navajo file information, seven (7) soil borings were advanced at the Site in the vicinity of the Navajo pipeline release. Three (3) of the soil borings were subsequently converted to monitoring wells. The soil and groundwater samples collected on behalf of Navajo from the borings/monitoring wells were analyzed for total petroleum hydrocarbons (TPH) Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) using EPA method SW-846 #8015, benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA SW-846 #8021, chlorides utilizing EPA method 300 and/or total dissolved solids (TDS) utilizing EPA method 160.1.

Based on SWG's observations in the field, Navajo is currently utilizing a pneumatic recovery system to recover the phase-separated hydrocarbons (PSH) from the initial groundwater-bearing unit.

1.2 Scope of Work

The objective of the semi-annual groundwater monitoring events was to evaluate the current concentrations of COCs in the on-site groundwater in the vicinity of monitoring wells MW-1, MW-2, MW-3R and MW-4 over time.

1.3 Standard of Care

SWG's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. SWG makes no warranties, express or implied, as to the services performed hereunder. Additionally, SWG does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client, as detailed in our proposal.

1.4 Additional Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and SWG cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this Groundwater

Monitoring Event. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. SWG's findings, and recommendations are based solely upon data available to SWG at the time of these services.

1.5 Reliance

This report has been prepared for the exclusive use of TEPPCO, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of TEPPCO and SWG. Any unauthorized distribution or reuse is at the client's sole risk.

2.0 SAMPLING PROGRAM

The groundwater sampling events were conducted on January 31, 2007 and August 1, 2007 by B. Chris Mitchell and Russell D. Howard, SWG environmental professionals. SWG's groundwater sampling program consisted of the following:

Monitoring Wells MW-1, MW-2, MW-3R and MW-4

- Collection of one groundwater sample from each monitoring well utilizing low-flow sampling techniques.

Prior to sample collection, SWG gauged the depth to fluids in each monitoring well. Light non-aqueous phase liquid (LNAPL) were not observed in monitoring wells MW-1, MW-2, MW-3R or MW-4 during sampling activities.

Groundwater samples were collected utilizing low-flow minimal drawdown techniques. Samples were collected utilizing dedicated sampling materials subsequent to the stabilization of Dissolved Oxygen, Conductivity, pH and Temperature.

Low-flow refers to the velocity with which water enters the peristaltic pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system to the extent practical taking into account established site sampling objectives. Flow rates on the order of 0.1 -0.5 L/min were maintained during the sampling activities using dedicated sampling equipment.

The utilization of low-flow minimal drawdown techniques enables the isolation of the screened interval groundwater from the overlying stagnant casing water. The pump intake is placed within the screened interval such that the groundwater pumped is drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone.

Due to the absence of COCs above the laboratory method detection limits (MDLs) in groundwater samples historically collected from MW-1(ARCO) and MW-2(ARCO), these monitoring wells were removed from the quarterly groundwater monitoring sample program.

Due to the elevation of the groundwater table below the total depth of monitoring well MW-3(ARCO), monitoring well MW-3R was removed from the quarterly groundwater monitoring sample program.

Since the monitoring wells installed at the site on behalf of Navajo are strictly related to the Navajo release of crude oil and associated on-going corrective action, the Navajo monitoring wells were not included in the quarterly groundwater monitoring sample program.

Groundwater samples were collected in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to Severn-Trent Laboratories (STL) in Corpus Christi, Texas.

3.0 LABORATORY ANALYTICAL PROGRAM AND RESULTS

The groundwater samples collected from the monitoring wells were analyzed for total petroleum hydrocarbons (TPH) Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) using EPA method SW-846 #8015, and benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA SW-846 #8021. In addition, the groundwater sample during each sampling event which exhibited the highest TPH concentrations was resubmitted for polynuclear aromatic hydrocarbons (PAHs) using EPA method SW-846 #8270.

Laboratory results are summarized in Table 1, Appendix B. The executed chain-of-custody documentation and laboratory data sheets are provided in Appendix C.

4.0 GROUNDWATER FLOW DIRECTION

The monitoring wells were surveyed for top-of-casing (TOC) elevations relative to an arbitrary on-site benchmark of 100.0 feet. Groundwater measurements collected during each gauging event are presented with TOC elevations in Table 3, Appendix B.

Prior to sample collection, SWG gauged the depth to fluids in each monitoring well. During gauging activities, phase-separated hydrocarbons (PSH) was not observed in monitoring well MW-1 through MW-4.

Based on the groundwater elevations associated with each of the monitoring wells installed on behalf of TEPPCO, groundwater generally flows to the east-southeast at an average hydraulic gradient of 0.00121 ft./ft.

5.0 FINDINGS

The findings of this investigation are presented as follows:

- The laboratory analyses of the groundwater samples collected from monitoring wells MW-1, MW-2 and MW-4 did not indicate TPH concentrations above the sample reporting limits (SRLs).
- The laboratory analyses of the groundwater samples collected from monitoring well MW-3R did not indicate PAH concentrations above the SRLs.

- The laboratory analyses of the groundwater samples collected from monitoring well MW-1, did not indicate benzene concentrations above the SRLs.

- The laboratory analyses of the groundwater samples collected from monitoring wells MW-1, MW-2 and MW-3R did not indicate toluene concentrations above the SRLs.

- The laboratory analyses of the groundwater samples collected from monitoring wells MW-1, MW-2, MW-3R and MW-4 did not indicate xylenes concentrations above the SRLs.

- The laboratory analyses of the groundwater samples collected from monitoring wells MW-1, MW-2, MW-3R, and MW-4 did exhibit TPH DRO concentrations above the SRL.

- The laboratory analyses of the groundwater samples collected from monitoring well MW-3R exhibited TPH GRO concentrations above the SRL.

- The laboratory analyses of the groundwater samples collected from monitoring wells MW-2, MW-3R and MW-4 did not exhibit benzene, toluene and/or ethylbenzene concentrations above the SQLs.

- Prior to sample collection, SWG gauged the depth to fluids in each monitoring well. LNAPL were not observed in monitoring wells MW-1, MW-2, MW-3R or MW-4 during sampling activities.

- Based on SWG's evaluation of the historic trends in groundwater analytical data, the COC concentrations identified in the groundwater samples collected from monitoring wells MW-1, MW-2, MW-3R and MW-4 appear to be stable.

6.0 RECOMMENDATIONS

Based on the geochemistry and subsurface conditions identified at the site, the COC concentrations which have been identified in the on-site groundwater will likely naturally attenuate over time.

SWG recommends TEPPCO continue to monitor the existing network of groundwater monitoring wells on a semiannual basis in 2008. Provided the results of the proposed semiannual groundwater monitoring are consistent with the historic data, SWG recommends TEPPCO request regulatory closure from the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division for the historic petroleum hydrocarbon impact to soil and groundwater.

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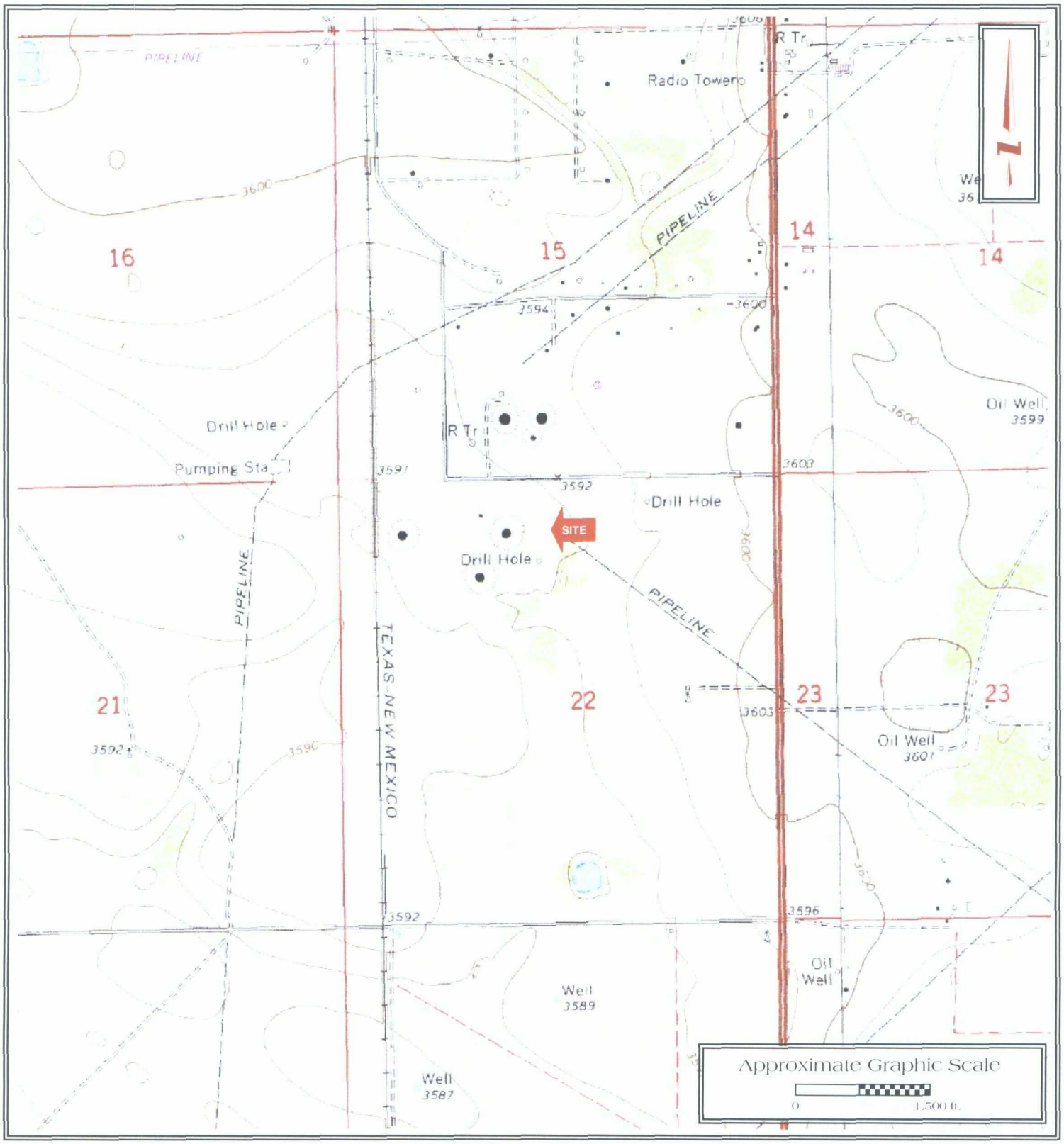
APPENDIX A

Figures



Groundwater Monitoring
TEPPCO Hobbs Station
Off County Road 61
N 32° 39.135'; W 103° 8.373'
Hobbs, Lea County, New Mexico

SWG Project No. 0105013

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FIGURE 1
Topographic Map
Hobbs, NM Quadrangle
Contour Interval - 10 Feet
1979

Groundwater Monitoring

TEPPCO Hobbs Station

Off County Road 61

N 32° 39.135'; W 103° 8.373'

Hobbs, Lea County, New Mexico

SWG Project No. 0105013

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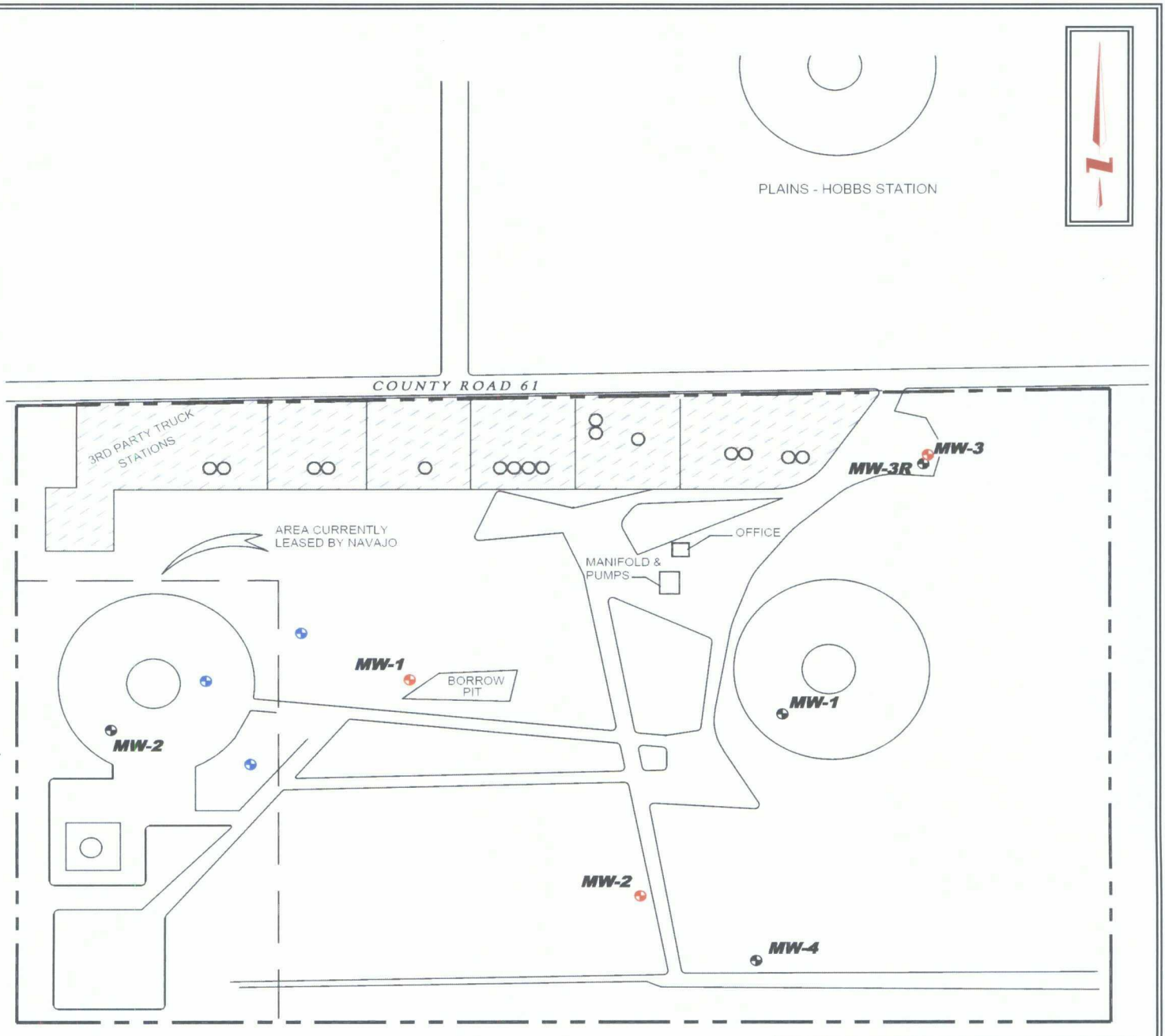
FIGURE 2

Site Vicinity Map

2002 Aerial Photograph

Source: USGS



Groundwater Monitoring

TEPPCO Hobbs Station

Off County Road 61

N 32° 39.135'; W 103° 8.373'

Hobbs, Lea County, New Mexico

SWG Project No. 0105013

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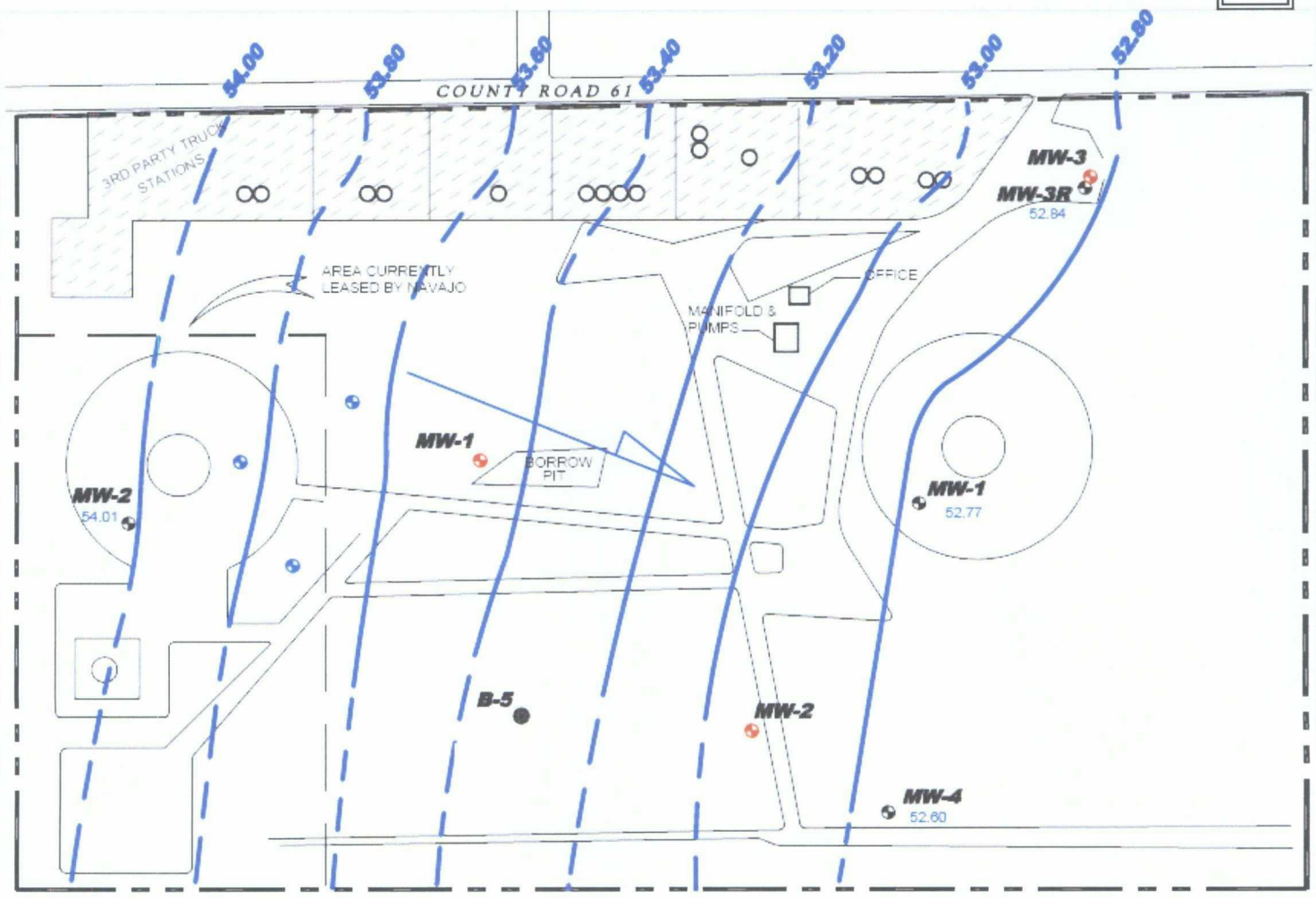
FIGURE 3

Site Plan



LEGEND:

- APPX. SITE BOUNDARY
- TEPPCO MONITORING WELL LOCATION
- ARCO MONITORING WELL LOCATION
- NAVAJO MONITORING WELL LOCATION
- BORING LOCATION
- 52.60 GROUNDWATER ELEVATION
- GROUNDWATER CONTOUR

Approximate Graphic Scale

0 320 ft.

GROUNDWATER GRADIENT OF 0.000820 ft/ft

Groundwater Monitoring

TEPPCO Hobbs Station

Off County Road 61

N 32° 39.135'; W 103° 8.373'

Hobbs, Lea County, New Mexico

SWG Project No. 0105013

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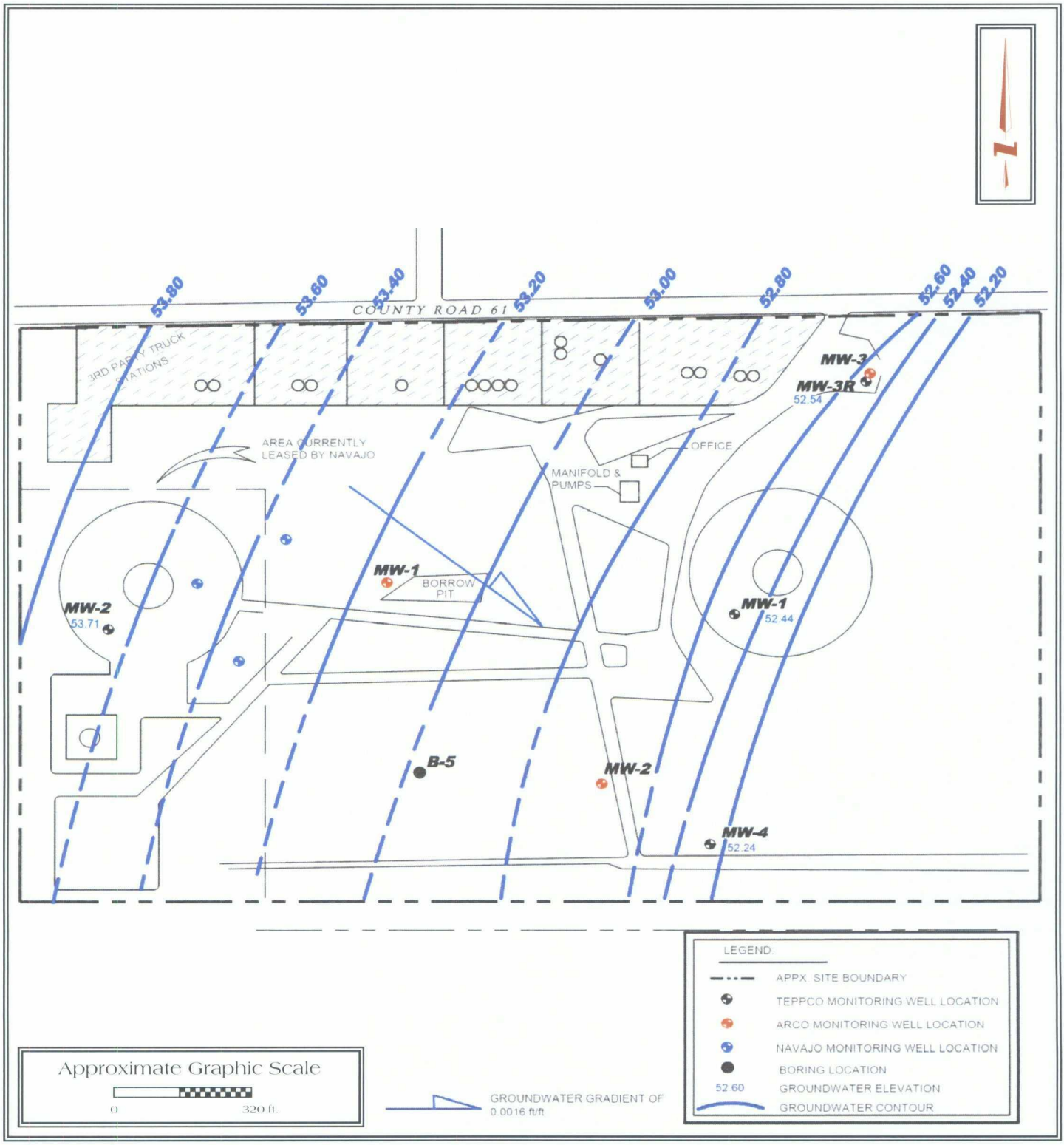
FIGURE 4A

Groundwater Gradient Map

Gauging Date: January 31, 2007



Groundwater Monitoring
TEPPCO Hobbs Station
Off County Road 61
N 32° 39.135'; W 103° 8.373'
Hobbs, Lea County, New Mexico

SWG Project No. 0105013

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FIGURE 4B
Groundwater Gradient Map

Gauging Date: August 1, 2007

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APPENDIX B

Tables

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TABLE 1
GROUNDWATER ANALYTICAL RESULTS

Sample I.D.	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)
New Mexico Water Quality Commission (NMWQC) Ground Water Standards		10	750	750	620	NE	NE
Monitoring Wells Installed by ARCO							
MW-1	5.11.04	<1.0	<1.0	<1.0	<3.0	NA	0.124
MW-2	5.11.04	<1.0	<1.0	<1.0	<3.0	NA	<0.10
MW-3	3.20.03	**63.7**	2.49	197	6.23	1.95	18
	5.11.04	Insufficent Water Volume for Sample Collection					
Monitoring Wells Installed by TEPPCO							
MW-1	3.20.03	<1.0	<1.0	<1.0	<3.0	<0.05	2.44
	5.11.04	<1.0	<1.0	<1.0	<3.0	<0.05	1.31
	2.03.06	<2.0	<2.0	<2.0	<6.0	<0.05	<0.5
	8.19.06	<2.0	<2.0	<2.0	<6.0	<0.05	<0.5
	1.31.07	<2.0	<2.0	<2.0	<6.0	<0.15	<0.5
	8.01.07	<1.0	<1.0	<1.0	<3.0	<0.05	0.262
MW-2	3.20.03	<1.0	<1.0	<1.0	<3.0	<0.05	0.493
	5.11.04	<1.0	<1.0	<1.0	<3.0	<0.05	<0.10
	2.03.06	<2.0	<2.0	<2.0	<6.0	<0.05	<0.5
	8.19.06	2.0	<2.0	<2.0	<6.0	<0.05	<0.5
	1.31.07	<2.0	<2.0	<2.0	<6.0	<0.15	<0.5
	8.01.07	<1.0	<1.0	<1.0	<3.0	<0.05	0.393
MW-3R	7.25.05	<2.0	<2.0	<2.0	<6.0	0.074	2.4
	2.03.06	<2.0	<2.0	4.0	<6.0	0.175	1.94
	8.19.06	2.0	<2.0	<2.0	<6.0	0.323	1.97
	1.31.07	<2.0	<2.0	3.1	<6.0	0.209	2.5
	8.01.07	<1.0	<1.0	<1.0	<3.0	0.101	4.06
MW-4	3.20.03	<1.0	<1.0	<1.0	<3.0	<0.05	0.829
	5.11.04	<1.0	<1.0	<1.0	<3.0	<0.05	<0.10
	2.03.06	<2.0	<2.0	<2.0	<6.0	<0.05	<0.5
	8.19.06	4.0	5.0	<2.0	<6.0	<0.05	<0.5
	1.31.07	<2.0	<2.0	<2.0	<6.0	<0.15	<0.5
	8.01.07	<10	<1.0	<1.0	<3.0	<0.05	0.129

NE = Not Established

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TABLE 2
GROUNDWATER ANALYTICAL RESULTS
POLYNUCLEAR AROMATIC HYDROCARBONS

Sample I.D.	Date	Constituent	Observed Concentration (µg/L)	New Mexico Energy, Minerals & Natural Resources Department, Oil Conservation Division, Remediation Action Level	New Mexico Water Quality Control Commission Ground Water Standards
MW-3	3.20.03	Acenaphthene	<2.5	NE	-
		Acenaphthylene	4.85	NE	-
		Anthracene	15	NE	-
		Benzo(a)anthracene	0.29	NE	-
		Benzo(a)pyrene	0.394	NE	0.7
		Benzo(b)fluoranthene	<0.01	NE	-
		Benzo(g,h,i)perylene	0.545	NE	-
		Benzo(k)fluoranthene	1.32	NE	-
		Chrysene	1.7	NE	-
		Dibenzo(a,h)anthracene	0.623	NE	-
		Fluoranthene	16.1	NE	-
		Fluorene	9.18	NE	-
		Indeno(1,2,3-cd)pyrene	2.1	NE	-
		Naphthalene	29	NE	30
		Phenanthrene	7.67	NE	-
		Pyrene	0.506	NE	-
MW-3R	2.03.06	Acenaphthene	<10	NE	-
		Acenaphthylene	<10	NE	-
		Anthracene	<10	NE	-
		Benzo(a)anthracene	<10	NE	-
		Benzo(a)pyrene	<10	NE	0.7
		Benzo(b)fluoranthene	<10	NE	-
		Benzo(g,h,i)perylene	<10	NE	-
		Benzo(k)fluoranthene	<10	NE	-
		Chrysene	<10	NE	-
		Dibenzo(a,h)anthracene	<10	NE	-
		Fluoranthene	<10	NE	-
		Fluorene	<10	NE	-
		Indeno(1,2,3-cd)pyrene	<10	NE	-
		Naphthalene	<10	NE	30
		Phenanthrene	<10	NE	-
		Pyrene	<10	NE	-
MW-3R	8.19.06	Acenaphthene	<10	NE	-
		Acenaphthylene	<10	NE	-
		Anthracene	<10	NE	-
		Benzo(a)anthracene	<10	NE	-
		Benzo(a)pyrene	<10	NE	0.7
		Benzo(b)fluoranthene	<10	NE	-
		Benzo(g,h,i)perylene	<10	NE	-
		Benzo(k)fluoranthene	<10	NE	-
		Chrysene	<10	NE	-
		Dibenzo(a,h)anthracene	<10	NE	-
		Fluoranthene	<10	NE	-
		Fluorene	<10	NE	-
		Indeno(1,2,3-cd)pyrene	<10	NE	-
		Naphthalene	<10	NE	30
		Phenanthrene	<10	NE	-
		Pyrene	<10	NE	-
MW-3R	1.31.07	Acenaphthene	<10	NE	-
		Acenaphthylene	<10	NE	-
		Anthracene	<10	NE	-
		Benzo(a)anthracene	<10	NE	-
		Benzo(a)pyrene	<10	NE	0.7
		Benzo(b)fluoranthene	<10	NE	-
		Benzo(g,h,i)perylene	<10	NE	-
		Benzo(k)fluoranthene	<10	NE	-
		Chrysene	<10	NE	-
		Dibenzo(a,h)anthracene	<10	NE	-
		Fluoranthene	<10	NE	-
		Fluorene	<10	NE	-
		Indeno(1,2,3-cd)pyrene	<10	NE	-
		Naphthalene	<10	NE	30
		Phenanthrene	<10	NE	-
		Pyrene	<10	NE	-

NE = Not Established

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TABLE 3
FLUID LEVEL GAUGING DATA

Well ID	Measurement Date	Ground Surface Elevation (feet)	Top-of-Casing Elevation (feet)	Depth to PSH (feet)	Depth to Water (feet)	PSH Thickness (feet)	Corrected Groundwater Elevation
TEPPCO Monitoring Wells							
MW-1	2.3.06	93.5	97.08	None Detected	Not Recorded	0	Not Determined
	8.19.06		97.08	None Detected	44.19	0	52.89
	1.31.07		97.08	None Detected	44.31	0	52.77
	8.01.07		97.08	None Detected	44.64	0	52.44
MW-2	2.3.06	95.58	99.36	None Detected	44.89	0	54.47
	8.19.06		99.36	None Detected	45.24	0	54.12
	1.31.07		99.36	None Detected	44.89	0	54.47
	8.01.07		99.36	None Detected	45.65	0	53.71
MW-3R	2.3.06	95.26	98.66	None Detected	45.31	0	53.35
	8.19.06		98.66	None Detected	45.78	0	52.88
	1.31.07		98.66	None Detected	45.82	0	52.84
	8.01.07		98.66	None Detected	46.07	0	52.59
MW-4	2.3.06	93.63	97.15	None Detected	44.1	0	53.05
	8.19.06		97.15	None Detected	44.52	0	52.63
	1.31.07		97.15	None Detected	44.55	0	52.60
	8.01.07		97.15	None Detected	44.91	0	52.24

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APPENDIX C

Laboratory Data Reports & Chain-of-Custody Documentation

Environmental Laboratories
Bethany Tech Center • Suite 190
400 W. Bethany Rd. • Allen, Texas 75013

State Certifications
Arkansas: 88-0647
Oklahoma: 8727

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Highway, Suite 3321
Dallas, TX 75220
ATTN: Chris Mitchell

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Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

The analytical data and results contained in this report, as well as their supporting data, conform with Texas Risk Reduction Program (TRRP), 30 TAC, Section 350, requirements and are of sufficient and documented quality to meet both TRRP objectives, TCEQ regulatory guidance No. RG-366/TRRP-13 and the project-based objective of achieving the lowest method detection limit (i.e., the TRRP Critical PCL where reasonably achievable or, if not reasonably achievable, the MQL). All information concerning analytical parameters, methods and protocols that might bear upon or otherwise affect the accuracy of the analytical data in this report have been provided or otherwise disclosed herein. The data were obtained using applicable and appropriate EPA SW-846 or Texas Commission on Environmental Quality approved analytical protocols, methodologies and quality assurance/quality control standards. **ERMI Environmental Laboratories** certifies that its quality control program is substantially and materially consistent with the International Organization for Standardization "Guide 25: General Requirements the Competence of Calibration and Testing Laboratories (ISO 25 3rd Edition, 1990)," as amended or the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. The entire analytical data package for this report, including the supporting quality control data, will be retained and maintained for at least five (5) years (or such longer period of time as may be required by TRRP) from the report date at the offices of **ERMI Environmental Laboratories, 400 W. Bethany, Suite 190, Allen, Texas 75013.**

I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Thank you for the opportunity to serve your environmental chemistry analysis needs. If you have any questions or concerns regarding this report please contact our Customer Service Department at the phone number below.

Respectfully submitted,

Kendall K. Brown

Kendall K. Brown
President

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400 W. Bethany Rd. • Allen, Texas 75013

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Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Highway, Suite 3321
Dallas, TX 75220
ATTN: Chris Mitchell

Page: Page 3 of 16
Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Laboratory ID #: 0708073-01
Sample Type: Grab
Matrix: Aqueous
Sample Collected By: Russell Howard
Customer
Sample Description: MW 4
Sample Date/Time: 08/01/07 0840

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Separatory Funnel Liquid-Liquid Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3510C	7H07006	08/07/07 0930	MR	
TPH Diesel	**0.129**	0.100	0.100	mg/l	1.00	EPA 8015B mod	7H07006	08/09/07 1649	PMS	
Surrogate: a-Pinene		*52 %*	*23-104*			EPA 8015B mod	7H07006	08/09/07 1649	PMS	
Surrogate: Triacontane		*91 %*	*61-131*			EPA 8015B mod	7H07006	08/09/07 1649	PMS	
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**ND**	0.0500	0.0500	mg/l	1.00	EPA 8015B mod	7H03032	08/06/07 2111	TA	
Surrogate: 4-Bromofluorobenzene		*104 %*	*38-145*			EPA 8015B mod	7H03032	08/06/07 2111	TA	
BTEX										
Benzene	**ND**	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2111	TA	
Ethyl Benzene	**ND**	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2111	TA	
Toluene	**ND**	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2111	TA	
Xylenes (total)	**ND**	3.00	3.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2111	TA	
Surrogate: 4-Bromofluorobenzene		*105 %*	*44-140*			EPA 8021B	7H03032	08/06/07 2111	TA	

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Report of Sample Analysis

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Page: Page 4 of 16
Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Laboratory ID #: 0708073-02
Sample Type: Grab
Matrix: Aqueous
Sample Collected By: Russell Howard
Customer
Sample Description: MW 1
Sample Date/Time: 08/01/07 0945

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Separatory Funnel Liquid-Liquid Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3510C	7H07006	08/07/07 0930	MR	
TPH Diesel	**0.262**	0.100	0.100	mg/l	1.00	EPA 8015B mod	7H07006	08/09/07 1655	PMS	
Surrogate: a-Pinene		*50 %*	*23-104*			EPA 8015B mod	7H07006	08/09/07 1655	PMS	
Surrogate: Triacontane		*93 %*	*61-131*			EPA 8015B mod	7H07006	08/09/07 1655	PMS	
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**ND**	0.0500	0.0500	mg/l	1.00	EPA 8015B mod	7H03032	08/06/07 2223	TA	
Surrogate: 4-Bromofluorobenzene		*116 %*	*38-145*			EPA 8015B mod	7H03032	08/06/07 2223	TA	
BTEX										
Benzene	**ND**	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2223	TA	
Ethyl Benzene	**ND**	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2223	TA	
Toluene	**ND**	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2223	TA	
Xylenes (total)	**ND**	3.00	3.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2223	TA	
Surrogate: 4-Bromofluorobenzene		*105 %*	*44-140*			EPA 8021B	7H03032	08/06/07 2223	TA	

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Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Laboratory ID #:	Sample Type	Matrix	Sample Collected By	
0708073-03	Grab	Aqueous	Russell Howard	Customer

Sample Description: MW 2
Sample Date/Time: 08/01/07 1055

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Separatory Funnel Liquid-Liquid Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3510C	7H07006	08/07/07 0930	MR	
TPH Diesel	0.393	0.100	0.100	mg/l	1.00	EPA 8015B mod	7H07006	08/09/07 1700	PMS	
Surrogate: a-Pinene		*52 %*	*23-104*			EPA 8015B mod	7H07006	08/09/07 1700	PMS	
Surrogate: Triacontane		*106 %*	*61-131*			EPA 8015B mod	7H07006	08/09/07 1700	PMS	
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	ND	0.0500	0.0500	mg/l	1.00	EPA 8015B mod	7H03032	08/06/07 2147	TA	
Surrogate: 4-Bromofluorobenzene		*105 %*	*38-145*			EPA 8015B mod	7H03032	08/06/07 2147	TA	
BTEX										
Benzene	ND	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2147	TA	
Ethyl Benzene	ND	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2147	TA	
Toluene	ND	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2147	TA	
Xylenes (total)	ND	3.00	3.00	ug/l	1.00	EPA 8021B	7H03032	08/06/07 2147	TA	
Surrogate: 4-Bromofluorobenzene		*104 %*	*44-140*			EPA 8021B	7H03032	08/06/07 2147	TA	

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Page: Page 6 of 16
Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Laboratory ID #: 0708073-04
Sample Type: Grab
Matrix: Aqueous
Sample Collected By: Russell Howard
Customer
Sample Description: MW 3R
Sample Date/Time: 08/01/07 1210

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Separatory Funnel Liquid-Liquid Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3510C	7H07006	08/07/07 0930	MR	
TPH Diesel	4.06	0.100	0.100	mg/l	1.00	EPA 8015B mod	7H07006	08/09/07 1712	PMS	
Surrogate: a-Pinene		*57 %*	*23-104*			EPA 8015B mod	7H07006	08/09/07 1712	PMS	
Surrogate: Triacontane		*109 %*	*61-131*			EPA 8015B mod	7H07006	08/09/07 1712	PMS	
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	0.101	0.0500	0.0500	mg/l	1.00	EPA 8015B mod	7H03032	08/07/07 1005	TA	
Surrogate: 4-Bromofluorobenzene		*110 %*	*38-145*			EPA 8015B mod	7H03032	08/07/07 1005	TA	
BTEX										
Benzene	ND	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/07/07 1005	TA	
Ethyl Benzene	ND	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/07/07 1005	TA	
Toluene	ND	1.00	1.00	ug/l	1.00	EPA 8021B	7H03032	08/07/07 1005	TA	
Xylenes (total)	ND	3.00	3.00	ug/l	1.00	EPA 8021B	7H03032	08/07/07 1005	TA	
Surrogate: 4-Bromofluorobenzene		*114 %*	*44-140*			EPA 8021B	7H03032	08/07/07 1005	TA	
Semivolatile Polynuclear Aromatic Hydrocarbons										
Separatory Funnel Liquid-Liquid Extraction	Completed	N/A	N/A	ug/l	1.00	EPA 3510C	7H07021	08/07/07 1230	MR	
Acenaphthene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Acenaphthylene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Anthracene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Benzo(a)anthracene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Benzo(a)pyrene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Benzo(b)fluoranthene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Benzo(g,h,i)perylene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Benzo(k)fluoranthene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Chrysene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Dibenz(a,h)anthracene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Fluoranthene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Fluorene	ND	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	

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Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Laboratory ID #: 0708073-04
Sample Type: Grab
Matrix: Aqueous
Sample Collected By: Russell Howard
Customer
Sample Description: MW 3R
Sample Date/Time: 08/01/07 1210

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Semivolatile Polynuclear Aromatic Hydrocarbons, (continued)										
Indeno(1,2,3-cd)pyrene	**ND**	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Naphthalene	**ND**	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Phenanthrene	**ND**	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Pyrene	**ND**	6.00	3.00	ug/l	2.00	EPA 8270C	7H07021	08/08/07 2155	MZ	
Surrogate: Nitrobenzene-d5		*87 %*	*6-109*			EPA 8270C	7H07021	08/08/07 2155	MZ	
Surrogate: 2-Fluorobiphenyl		*77 %*	*13-120*			EPA 8270C	7H07021	08/08/07 2155	MZ	
Surrogate: Terphenyl-d14		*142 %*	*4-167*			EPA 8270C	7H07021	08/08/07 2155	MZ	

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Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Total Petroleum Hydrocarbons - DRO - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7H07006 - EPA 3510C Separatory Funnel Extraction										
Blank (7H07006-BLK1) Prepared & Analyzed: 08/07/07 09:30										
Separatory Funnel Liquid-Liquid Extraction	**Completed**	N/A	N/A							
TPH Diesel	**ND**	0.100	mg/l							
Surrogate: a-Pinene	**0.0497**		mg/l	0.103		48	23-104			
Surrogate: Triacontane	**0.0923**		mg/l	0.100		92	61-131			
Laboratory Control Sample (7H07006-BS1) Prepared & Analyzed: 08/07/07 09:30										
Separatory Funnel Liquid-Liquid Extraction	**Completed**	N/A	N/A				0-0			
TPH Diesel	**0.706**	0.100	mg/l	1.02		69	64-137			
Surrogate: a-Pinene	**0.0490**		mg/l	0.103		48	23-104			
Surrogate: Triacontane	**0.0987**		mg/l	0.100		99	61-131			
Laboratory Control Sample Duplicate (7H07006-BSD1) Prepared & Analyzed: 08/07/07 09:30										
Separatory Funnel Liquid-Liquid Extraction	**Completed**	N/A	N/A				0-0		0	
TPH Diesel	**0.872**	0.100	mg/l	1.02		85	64-137	21	17	C-01
Surrogate: a-Pinene	**0.0608**		mg/l	0.103		59	23-104			
Surrogate: Triacontane	**0.109**		mg/l	0.100		109	61-131			
Matrix Spike (7H07006-MS1) Prepared & Analyzed: 08/07/07 09:30					**Source: 0708099-01**					
Separatory Funnel Liquid-Liquid Extraction	**Completed**	N/A	N/A		ND		0-0			
TPH Diesel	**0.796**	0.100	mg/l	1.02	0.104	68	63-140			
Surrogate: a-Pinene	**0.0578**		mg/l	0.103		56	23-104			
Surrogate: Triacontane	**0.0954**		mg/l	0.100		95	61-131			
Matrix Spike Duplicate (7H07006-MSD1) Prepared & Analyzed: 08/07/07 09:30					**Source: 0708099-01**					
Separatory Funnel Liquid-Liquid Extraction	**Completed**	N/A	N/A		ND		0-0		0	
TPH Diesel	**0.946**	0.100	mg/l	1.02	0.104	83	63-140	17	21	
Surrogate: a-Pinene	**0.0702**		mg/l	0.103		68	23-104			
Surrogate: Triacontane	**0.116**		mg/l	0.100		116	61-131			

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Project: Hobbs Station
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Total Petroleum Hydrocarbons - GRO - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7H03032 - EPA 5030B Purge-and-Trap for Aqueous Samples										
Blank (7H03032-BLK1)										
Prepared: 08/03/07 18:30 Analyzed: 08/06/07 11:09										
TPH Gasoline	**ND**	0.0500	mg/l							
Surrogate: 4-Bromofluorobenzene	**0.0516**		mg/l	0.0500		103	38-145			
Laboratory Control Sample (7H03032-BS1)										
Prepared: 08/03/07 18:30 Analyzed: 08/06/07 11:45										
TPH Gasoline	**0.484**	0.0500	mg/l	0.500		97	75-127			
Surrogate: 4-Bromofluorobenzene	**0.0520**		mg/l	0.0500		104	38-145			
Laboratory Control Sample Duplicate (7H03032-BSD1)										
Prepared: 08/03/07 18:30 Analyzed: 08/06/07 12:20										
TPH Gasoline	**0.496**	0.0500	mg/l	0.500		99	75-127	2	15	
Surrogate: 4-Bromofluorobenzene	**0.0557**		mg/l	0.0500		111	38-145			
Matrix Spike (7H03032-MS1)					**Source: 0707580-01**					
Prepared: 08/03/07 18:30 Analyzed: 08/06/07 12:56										
TPH Gasoline	**0.432**	0.0500	mg/l	0.500	ND	86	34-151			
Surrogate: 4-Bromofluorobenzene	**0.0543**		mg/l	0.0500		109	38-145			
Matrix Spike Duplicate (7H03032-MSD1)					**Source: 0707580-01**					
Prepared: 08/03/07 18:30 Analyzed: 08/06/07 13:32										
TPH Gasoline	**0.515**	0.0500	mg/l	0.500	ND	103	34-151	18	20	
Surrogate: 4-Bromofluorobenzene	**0.0566**		mg/l	0.0500		113	38-145			

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BTEX - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7H03032 - EPA 5030B Purge-and-Trap for Aqueous Samples										
Blank (7H03032-BLK1) Prepared: 08/03/07 18:30 Analyzed: 08/06/07 11:09										
Benzene	**ND**	1.00	ug/l							
Ethyl Benzene	**ND**	1.00	ug/l							
Toluene	**ND**	1.00	ug/l							
Xylenes (total)	**ND**	3.00	ug/l							
Surrogate: 4-Bromofluorobenzene	**53.3**		ug/l	50.0		107	44-140			
Laboratory Control Sample (7H03032-BS1) Prepared: 08/03/07 18:30 Analyzed: 08/06/07 11:45										
Benzene	**45.1**	1.00	ug/l	50.0		90	69-130			
Ethyl Benzene	**47.1**	1.00	ug/l	50.0		94	58-135			
Toluene	**47.0**	1.00	ug/l	50.0		94	66-131			
Xylenes (total)	**142**	3.00	ug/l	150		95	65-135			
Surrogate: 4-Bromofluorobenzene	**54.0**		ug/l	50.0		108	44-140			
Laboratory Control Sample Duplicate (7H03032-BSD1) Prepared: 08/03/07 18:30 Analyzed: 08/06/07 12:20										
Benzene	**45.8**	1.00	ug/l	50.0		92	69-130	2	20	
Ethyl Benzene	**48.0**	1.00	ug/l	50.0		96	58-135	2	21	
Toluene	**46.5**	1.00	ug/l	50.0		93	66-131	1	22	
Xylenes (total)	**144**	3.00	ug/l	150		96	65-135	1	19	
Surrogate: 4-Bromofluorobenzene	**54.0**		ug/l	50.0		108	44-140			
Matrix Spike (7H03032-MS1) Prepared: 08/03/07 18:30 Analyzed: 08/06/07 12:56					**Source: 0707580-01**					
Benzene	**42.2**	1.00	ug/l	50.0	ND	84	39-157			
Ethyl Benzene	**43.2**	1.00	ug/l	50.0	ND	86	28-157			
Toluene	**43.5**	1.00	ug/l	50.0	ND	87	42-151			
Xylenes (total)	**130**	3.00	ug/l	150	ND	87	39-156			
Surrogate: 4-Bromofluorobenzene	**54.4**		ug/l	50.0		109	44-140			

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BTEX - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7H03032 - EPA 5030B Purge-and-Trap for Aqueous Samples (continued)										
Matrix Spike Duplicate (7H03032-MSD1) Prepared: 08/03/07 18:30 Analyzed: 08/06/07 13:32					**Source: 0707580-01**					
Benzene	**45.0**	1.00	ug/l	50.0	ND	90	39-157	6	24	
Ethyl Benzene	**45.3**	1.00	ug/l	50.0	ND	91	28-157	5	35	
Toluene	**46.1**	1.00	ug/l	50.0	ND	92	42-151	6	28	
Xylenes (total)	**137**	3.00	ug/l	150	ND	91	39-156	5	32	
Surrogate: 4-Bromofluorobenzene	**51.0**		ug/l	50.0		102	44-140			

Environmental Laboratories
Bethany Tech Center • Suite 190
400 W. Bethany Rd. • Allen, Texas 75013

State Certifications
Arkansas: 88-0647
Oklahoma: 8727

Report of Sample Analysis

Southwest Geoscience
2351 W. Northwest Highway, Suite 3321
Dallas, TX 75220
ATTN: Chris Mitchell

Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Semivolatile Polynuclear Aromatic Hydrocarbons - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7H07021 - EPA 3510C Separatory Funnel Extraction										
Blank (7H07021-BLK1) Prepared & Analyzed: 08/07/07 12:30										
Separatory Funnel Liquid-Liquid Extraction	**Completed**	N/A	ug/l							
Acenaphthene	**ND**	6.00	ug/l							
Acenaphthylene	**ND**	6.00	ug/l							
Anthracene	**ND**	6.00	ug/l							
Benzo(a)anthracene	**ND**	6.00	ug/l							
Benzo(a)pyrene	**ND**	6.00	ug/l							
Benzo(b)fluoranthene	**ND**	6.00	ug/l							
Benzo(g,h,i)perylene	**ND**	6.00	ug/l							
Benzo(k)fluoranthene	**ND**	6.00	ug/l							
Chrysene	**ND**	6.00	ug/l							
Dibenz(a,h)anthracene	**ND**	6.00	ug/l							
Fluoranthene	**ND**	6.00	ug/l							
Fluorene	**ND**	6.00	ug/l							
Indeno(1,2,3-cd)pyrene	**ND**	6.00	ug/l							
Naphthalene	**ND**	6.00	ug/l							
Phenanthrene	**ND**	6.00	ug/l							
Pyrene	**ND**	6.00	ug/l							
Surrogate: Nitrobenzene-d5	**73.3**		ug/l	103		71	6-109			
Surrogate: 2-Fluorobiphenyl	**71.9**		ug/l	103		70	13-120			
Surrogate: Terphenyl-d14	**110**		ug/l	101		109	4-167			
Laboratory Control Sample (7H07021-BS1) Prepared & Analyzed: 08/07/07 12:30										
Separatory Funnel Liquid-Liquid Extraction	**Completed**	N/A	ug/l				0-0			
Acenaphthene	**41.6**	6.00	ug/l	50.0		83	31-127			
Acenaphthylene	**42.4**	6.00	ug/l	50.0		85	10-140			
Anthracene	**45.5**	6.00	ug/l	50.0		91	10-140			
Benzo(a)anthracene	**48.3**	6.00	ug/l	50.0		97	10-140			
Benzo(a)pyrene	**47.8**	6.00	ug/l	50.0		96	10-140			
Benzo(b)fluoranthene	**46.6**	6.00	ug/l	50.0		93	10-140			
Benzo(g,h,i)perylene	**34.8**	6.00	ug/l	50.0		70	10-140			
Benzo(k)fluoranthene	**52.9**	6.00	ug/l	50.0		106	10-140			
Chrysene	**49.9**	6.00	ug/l	50.0		100	10-140			

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Semivolatile Polynuclear Aromatic Hydrocarbons - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7H07021 - EPA 3510C Separatory Funnel Extraction (continued)										
Laboratory Control Sample (7H07021-BS1) Prepared: 08/07/07 12:30 Analyzed: 08/08/07 17:24										
Dibenz(a,h)anthracene	**40.5**	6.00	ug/l	50.0		81	10-140			
Fluoranthene	**46.2**	6.00	ug/l	50.0		92	10-140			
Fluorene	**42.0**	6.00	ug/l	50.0		84	10-140			
Indeno(1,2,3-cd)pyrene	**41.6**	6.00	ug/l	50.0		83	10-140			
Naphthalene	**39.0**	6.00	ug/l	50.0		78	10-140			
Phenanthrene	**46.5**	6.00	ug/l	50.0		93	10-140			
Pyrene	**45.3**	6.00	ug/l	50.0		91	43-128			
Surrogate: Nitrobenzene-d5	**84.0**		ug/l	103		82	6-109			
Surrogate: 2-Fluorobiphenyl	**79.5**		ug/l	103		77	13-120			
Surrogate: Terphenyl-d14	**135**		ug/l	101		134	4-167			
Laboratory Control Sample Duplicate (7H07021-BSD1) Prepared & Analyzed: 08/07/07 12:30										
Separatory Funnel Liquid-Liquid Extraction	**Completed**	N/A	ug/l				0-0		0	
Acenaphthene	**37.8**	6.00	ug/l	50.0		76	31-127	10	18	
Acenaphthylene	**38.6**	6.00	ug/l	50.0		77	10-140	9	40	
Anthracene	**43.7**	6.00	ug/l	50.0		87	10-140	4	40	
Benzo(a)anthracene	**47.2**	6.00	ug/l	50.0		94	10-140	2	40	
Benzo(a)pyrene	**47.6**	6.00	ug/l	50.0		95	10-140	0.4	40	
Benzo(b)fluoranthene	**42.4**	6.00	ug/l	50.0		85	10-140	9	40	
Benzo(g,h,i)perylene	**35.3**	6.00	ug/l	50.0		71	10-140	1	40	
Benzo(k)fluoranthene	**55.2**	6.00	ug/l	50.0		110	10-140	4	40	
Chrysene	**48.9**	6.00	ug/l	50.0		98	10-140	2	40	
Dibenz(a,h)anthracene	**43.7**	6.00	ug/l	50.0		87	10-140	8	40	
Fluoranthene	**43.3**	6.00	ug/l	50.0		87	10-140	6	40	
Fluorene	**39.1**	6.00	ug/l	50.0		78	10-140	7	40	
Indeno(1,2,3-cd)pyrene	**44.5**	6.00	ug/l	50.0		89	10-140	7	40	
Naphthalene	**34.0**	6.00	ug/l	50.0		68	10-140	14	40	
Phenanthrene	**44.3**	6.00	ug/l	50.0		89	10-140	5	40	
Pyrene	**42.2**	6.00	ug/l	50.0		84	43-128	7	20	
Surrogate: Nitrobenzene-d5	**75.2**		ug/l	103		73	6-109			
Surrogate: 2-Fluorobiphenyl	**73.0**		ug/l	103		71	13-120			
Surrogate: Terphenyl-d14	**131**		ug/l	101		130	4-167			

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Report of Sample Analysis

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2351 W. Northwest Highway, Suite 3321
Dallas, TX 75220
ATTN: Chris Mitchell

Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Semivolatile Polynuclear Aromatic Hydrocarbons - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7H07021 - EPA 3510C Separatory Funnel Extraction (continued)										
Laboratory Control Sample Duplicate (7H07021-BSD1) Prepared: 08/07/07 12:30 Analyzed: 08/08/07 18:22										
Matrix Spike (7H07021-MS1) Prepared & Analyzed: 08/07/07 12:30					Source: 0708099-01					
Separatory Funnel Liquid-Liquid Extraction	Completed	N/A	ug/l		ND		0-0			
Acenaphthene	**40.8**	6.00	ug/l	50.0	ND	82	36-120			
Acenaphthylene	**41.8**	6.00	ug/l	50.0	ND	84	10-140			
Anthracene	**43.8**	6.00	ug/l	50.0	ND	88	10-140			
Benzo(a)anthracene	**44.1**	6.00	ug/l	50.0	ND	88	10-140			
Benzo(a)pyrene	**40.8**	6.00	ug/l	50.0	ND	82	10-140			
Benzo(b)fluoranthene	**36.4**	6.00	ug/l	50.0	ND	73	10-140			
Benzo(g,h,i)perylene	**24.3**	6.00	ug/l	50.0	ND	49	10-140			
Benzo(k)fluoranthene	**49.1**	6.00	ug/l	50.0	ND	98	10-140			
Chrysene	**46.5**	6.00	ug/l	50.0	ND	93	10-140			
Dibenz(a,h)anthracene	**31.6**	6.00	ug/l	50.0	ND	63	10-140			
Fluoranthene	**46.0**	6.00	ug/l	50.0	ND	92	10-140			
Fluorene	**41.6**	6.00	ug/l	50.0	ND	83	10-140			
Indeno(1,2,3-cd)pyrene	**32.3**	6.00	ug/l	50.0	ND	65	10-140			
Naphthalene	**39.5**	6.00	ug/l	50.0	ND	79	10-140			
Phenanthrene	**45.0**	6.00	ug/l	50.0	ND	90	10-140			
Pyrene	**44.7**	6.00	ug/l	50.0	ND	89	42-128			
Surrogate: Nitrobenzene-d5	**91.0**		ug/l	103		88	6-109			
Surrogate: 2-Fluorobiphenyl	**77.7**		ug/l	103		75	13-120			
Surrogate: Terphenyl-d14	**123**		ug/l	101		122	4-167			
Matrix Spike Duplicate (7H07021-MSD1) Prepared & Analyzed: 08/07/07 12:30					Source: 0708099-01					
Separatory Funnel Liquid-Liquid Extraction	Completed	N/A	ug/l		ND		0-0		0	
Acenaphthene	**46.0**	6.00	ug/l	50.0	ND	92	36-120	12	11	Q-04
Acenaphthylene	**46.8**	6.00	ug/l	50.0	ND	94	10-140	11	40	
Anthracene	**48.5**	6.00	ug/l	50.0	ND	97	10-140	10	40	
Benzo(a)anthracene	**48.5**	6.00	ug/l	50.0	ND	97	10-140	10	40	
Benzo(a)pyrene	**44.6**	6.00	ug/l	50.0	ND	89	10-140	9	40	
Benzo(b)fluoranthene	**39.6**	6.00	ug/l	50.0	ND	79	10-140	8	40	
Benzo(g,h,i)perylene	**24.3**	6.00	ug/l	50.0	ND	49	10-140	0	40	

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Project: Hobbs Station
Project #: 0105013
Print Date/Time: 08/10/07 15:29

Semivolatile Polynuclear Aromatic Hydrocarbons - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7H07021 - EPA 3510C Separatory Funnel Extraction (continued)										
Matrix Spike Duplicate (7H07021-MSD1) Prepared: 08/07/07 12:30 Analyzed: 08/08/07 20:08					**Source: 0708099-01**					
Benzo(k)fluoranthene	**52.3**	6.00	ug/l	50.0	ND	105	10-140	6	40	
Chrysene	**50.4**	6.00	ug/l	50.0	ND	101	10-140	8	40	
Dibenz(a,h)anthracene	**33.8**	6.00	ug/l	50.0	ND	68	10-140	7	40	
Fluoranthene	**49.9**	6.00	ug/l	50.0	ND	100	10-140	8	40	
Fluorene	**46.8**	6.00	ug/l	50.0	ND	94	10-140	12	40	
Indeno(1,2,3-cd)pyrene	**35.1**	6.00	ug/l	50.0	ND	70	10-140	8	40	
Naphthalene	**42.9**	6.00	ug/l	50.0	ND	86	10-140	8	40	
Phenanthrene	**50.2**	6.00	ug/l	50.0	ND	100	10-140	11	40	
Pyrene	**48.5**	6.00	ug/l	50.0	ND	97	42-128	8	19	
Surrogate: Nitrobenzene-d5	**99.1**		ug/l	103		96	6-109			
Surrogate: 2-Fluorobiphenyl	**88.0**		ug/l	103		85	13-120			
Surrogate: Terphenyl-d14	**137**		ug/l	101		136	4-167			

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Notes and Definitions

The results presented in this report were generated using those methods given in 40 CFR Part 136 for Water and Wastewater samples and in SW-846 for RCRA/Solid Waste samples.

C-01	The RPD is higher than expected.
Q-04	The RPD of the target analyte(s) in the MS/MSD is outside of established limits. The RPD of this same analyte(s) in the LCS/LCSD is within acceptable limits. Therefore, the data were reported and are acceptable.
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MS/MSD	Matrix Spike/Matrix Spike Duplicate
RPD	Relative Percent Difference
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
ug/kg	micrograms per kilogram
ug/l	micrograms per liter
F*	Calculated factor rounded to 3 significant figures. Concentration factor when <1.00 and dilution factor when >1.00.
Anlst	Analyst Initials
SRL	Sample Reporting Limit
MRL	Method Reporting Limit

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: West Northwest Hwy, Dallas, TX
Project Manager: Chris Mitchell

Laboratory: ERMI
Address: Allen, TX
Contact:
Phone:
PO/SO #:

Sampler's Name: Russell Howard
Sampler's Signature:

Proj. No.: 0105013
Project Name: Hobbs Station

Lab use only
Due Date:
Temp. of coolers when received (C°): 1 0.6 | 2 | 3 | 4 | 5
Page ____ of ____

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	P/O	BTEX (SW-846 #8021)	TPH GRO (SW-846 #8015)	TPH DRO (SW-846 #8015)	PAH (SW-846 #8270)	Lab Sample ID (Lab Use Only)
W	8/1/07	840		X	MW4	—	—	3	1			X	X	X		0708073-01
↓	↓	945		↓	MW1	↓	↓	↓	↓			↓	↓	↓		0708073-02
↓	↓	1055		↓	MW2	↓	↓	↓	↓			↓	↓	↓		0708073-03
W	8/1/07	1210		X	MW3R	—	—	3	2			X	X	X	X	0708073-04

MFA ROA
8/3/07

Turn around time [X] Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date	Time
	8/3/07	9:40	Israel Pliego	8-3-07	9:40
Israel Pliego	8-3-07	11:05	Kathy Luevanos	8-3-07	11:05

NOTES:

Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - sludge; O - Oil
Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other ____

IR-01-Temp
whitehead/10.6⁰⁰
white/10.4⁰⁰

Falcon Xpress
We Deliver

P.O. BOX 940303
PLANO, TX 75094-0303
(972) 881-7577

NOTARY SERVICE AVAILABLE

No.

SHIPPER	NAME	
	ADDRESS	FEO Services — SUITE
	CITY	
	REFERENCE NO.	
CONSIGNEE	NAME	
	ADDRESS	ERMI — SUITE
	CITY	
	ATTN:	

DATE: 8-3-07

Falcon Charges	Type of Delivery
☐ PREPAID	☒ XPress
☐ COLLECT	☐ 2 HOUR
☐ ROUND TRIP	☐ 4 HOUR
☐ NIGHT WEEKEND	☐ NEXT DAY

NO. PCS.	DESCRIPTION AND REMARKS	WEIGHT	CHARGES	
			WEIGHT CHARGE	
			WAITING TIME CHG	
			DELIVERY CHARGE	
WAITING TIME			TOTAL CHARGES	

NOT RESPONSIBLE FOR FREIGHT CLAIMS AFTER 72 HRS. NOT RESPONSIBLE FOR CONCEALED DAMAGE. DUE AND PAYABLE PLANO, COLLIN COUNTY, TEXAS.

$50 DECLARED VALUE UNLESS SPECIFIED HERE $

DRIVER NAME & NO.	DRIVER NAME & NO.	TIME OF DEL.	RECEIVED BY	RECEIVED BY
[illegible]		11:15	X [signature]	X [signature]

Lab Number(s): 0708073

ERMI

Sample Preservation Documentation*

On Ice (Circle One): YES OR NO (check if on Dry Ice_____)

Parameters	Containers #	Size	Required Preservation	Sample Container	Circle pH Note any discrepancy
Metals			pH < 2	Glass or Plastic	pH < 2
Dissolved Metals			Unpreserved prior to being filtered, Cool**	Glass or Plastic	
Hexavalent Chromium			CWA - pH 9.3-9.7, Cool; RCRA - Cool	Glass or Plastic	Checked At Analysis
Semivolatiles, Pesticides, ~~PCBs~~, Herbicides, PAH	1	1lt	Cool	~~Glass only~~ with Teflon lid	Chlorine □yes □no
VOA (BTEX), MTBE, 624, 8260, TPH-GRO	12	40 ~1	Cool, pH < 2 Zero Head Space	40 ml VOA vial	DO NOT OPEN
VOA (TPH-1005)			Cool, Zero Head Space Please check if collected in pre-weighed vials_____	40 ml VOA vial	DO NOT OPEN
Phos., NO_3/NO_2, NH_3N, COD, TKN,TOC			Cool, pH < 2	Glass or Plastic	pH < 2
TDS, BOD, CBOD, Cond, pH, TSS, F, SO_4, Cl, Alk, Sulfite			Cool	Glass or Plastic, Plastic only if F	
Phenols, ~~TPH-DRO~~	4	1lt	Cool, pH < 2	~~Glass only~~ Teflon lid ✓ Foil lid_____	pH < 2
Oil & Grease, TPH (by 1664a)			Cool, pH < 2	Glass only Teflon lid_____ Foil lid_____	DO NOT Check pH
Cyanide			Cool, pH >12	Glass or Plastic	pH > 12 Chlorine □yes □no Sulfide □yes □no □na
Sulfide			Cool, pH > 9	Glass or Plastic	pH > 9
Bacteria			Cool	Plastic Sterile Cup	
Soil, Sludge, Solid, Oil, Liquid			Cool Note: please check if collected in pre-weighed vials_____		

Metals Preserved By Login □yes □no

COMMENTS:_____

*This form is used to document sample preservation. Circle parameter requested. Fill in number and size of containers received. Check pH (adjust if needed) and note if different from what is required and make a notation of any samples not received on ice. Note any incorrect sample containers or preservation on chain-of-custody.

**Cool means cooled to ≤6°C but not frozen for CWA samples and 4°C ± 2°C for RCRA samples.

Preservation Checked By _____ 8-3-07 Date 1425 Time

kkb 4/18/071000.0-3

Q:\Form Masters\ Sample Preservation Form 1000.0-3