

**GW - 361**

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**REPORTS**

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April 17, 2007

VIA CERTIFIED MAIL No.:  
7004 0750 0003 2947 8781  
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 2003 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 quantification 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.



TE Products Pipeline Company, Limited Partnership  
TEPPCO GP, Inc., General Partner

*Mr. Glenn Von Gonten*  
*Re: TEPPCO Hobbs Station*  
*April 16, 2007*

TEPPCO recommends continued groundwater monitoring at the station during 2007 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

cc: w/ Attachment  
Johnny Lackey  
Safety/Environmental Supervisor  
Navajo Pipeline  
311 West Quay  
Artesia, NM 88210

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

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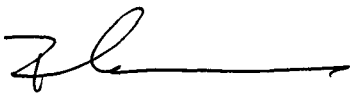
ANNUAL GROUNDWATER MONITORING REPORT  
TEPPCO Hobbs Station  
Off County Road 61  
Hobbs, Lea County, New Mexico

SWG Project No. 0105013  
March 31, 2007

Prepared for:  
TEPPCO Crude Pipeline, LP  
2929 Allen Parkway  
Houston, Texas 77019

PREPARED BY:

  
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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.

**Annual Groundwater Monitoring Report**

TEPPCO Hobbs Station, Off County Road 61, Hobbs, New Mexico

SWG Project No. 0105013

March 31, 2007

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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 February 3, 2006 and August 19, 2006 by B. Chris Mitchell and Jason T. Minter, 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 0.0008 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 quantitation limits (SQLs).
- The laboratory analyses of the groundwater samples collected from monitoring well MW-3R did not indicate PAH concentrations above the SQLs.

- The laboratory analyses of the groundwater samples collected from monitoring well MW-1, did not indicate benzene concentrations above the SQLs.
- 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 SQLs.
- 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 SQLs.
- The laboratory analyses of the groundwater samples collected from monitoring well MW-3R did exhibit TPH GRO and TPH DRO concentrations above the SQL.
- The laboratory analyses of the groundwater samples collected from monitoring wells MW-2, MW-3R and MW-4 did exhibit benzene, toluene and/or ethylbenzene concentrations above the SQLs; however, the identified benzene, toluene and/or ethylbenzene concentrations are below the New Mexico Water Quality Commission *Ground Water Standards*.
- 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.

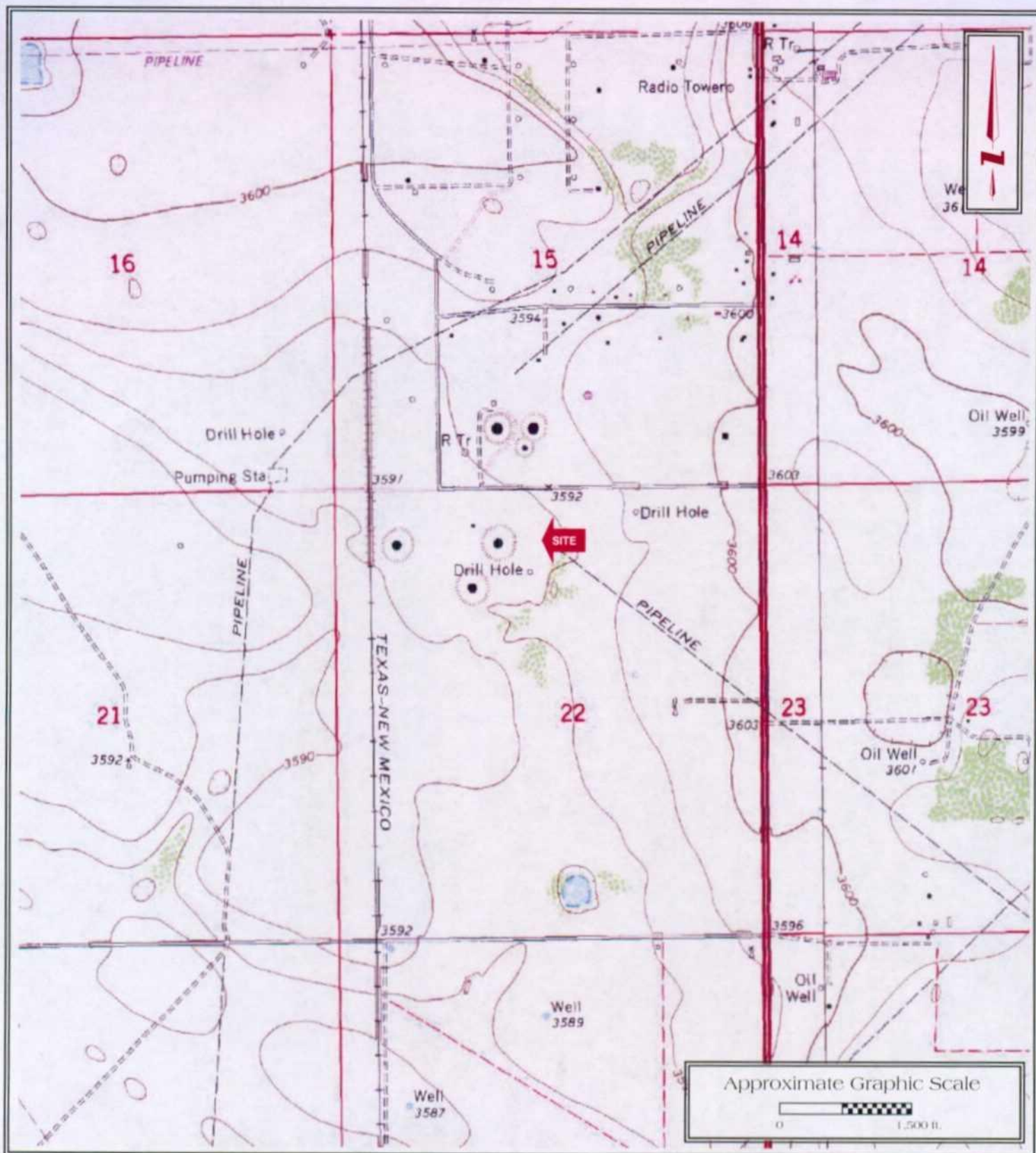
SWG recommends TEPPCO continue to monitor the existing network of groundwater monitoring wells on a semiannual basis in 2007. Provided the results of the proposed semiannual groundwater monitoring are consistent with the historic data, SWG recommends TEPPCO request regulatory closure from the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division for the historic petroleum hydrocarbon impact to soil and groundwater.



APPENDIX A

Figures

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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





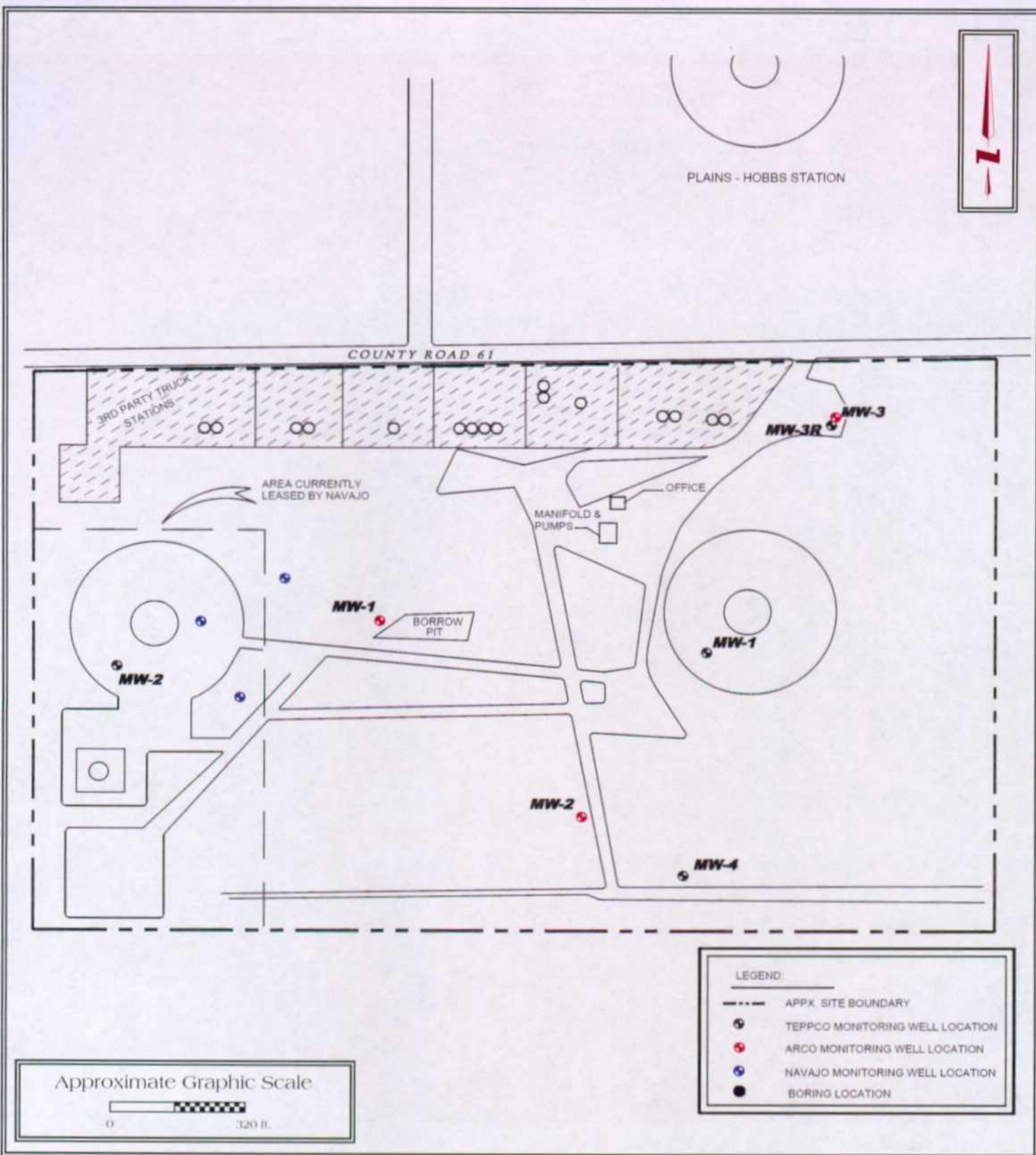
Groundwater Monitoring  
TEPPCO Hobbs Station  
Off County Road 61  
N 32° 39.135'; W 103° 8.373'  
Hobbs, Lea County, New Mexico

SWG Project No. 0105013

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FIGURE 2  
Site Vicinity Map  
2002 Aerial Photograph  
Source: USGS





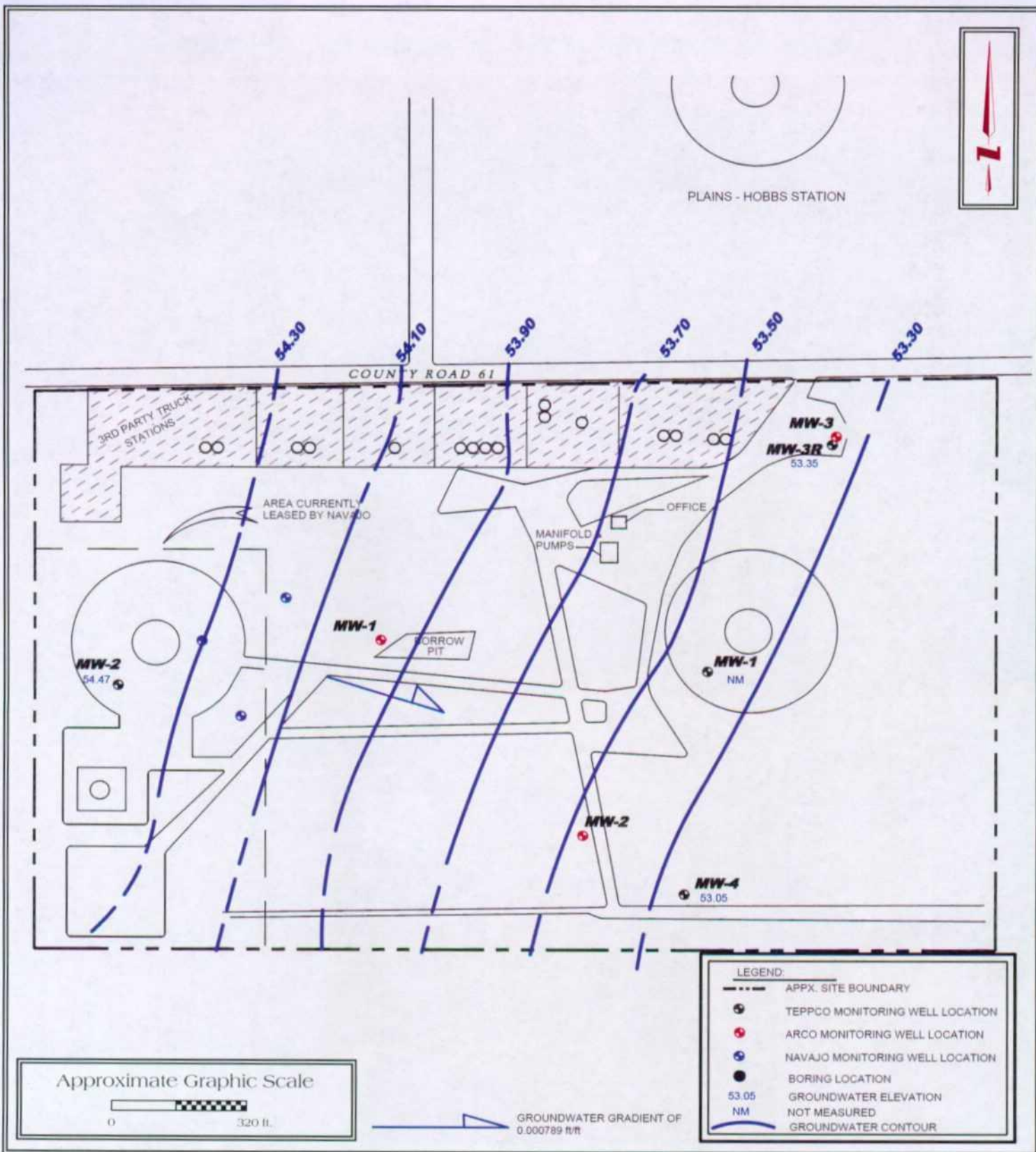
Groundwater Monitoring  
 TEPPCO Hobbs Station  
 Off County Road 61  
 N 32° 39.135'; W 103° 8.373'  
 Hobbs, Lea County, New Mexico

SWG Project No. 0105013

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**FIGURE 3**  
 Site Plan





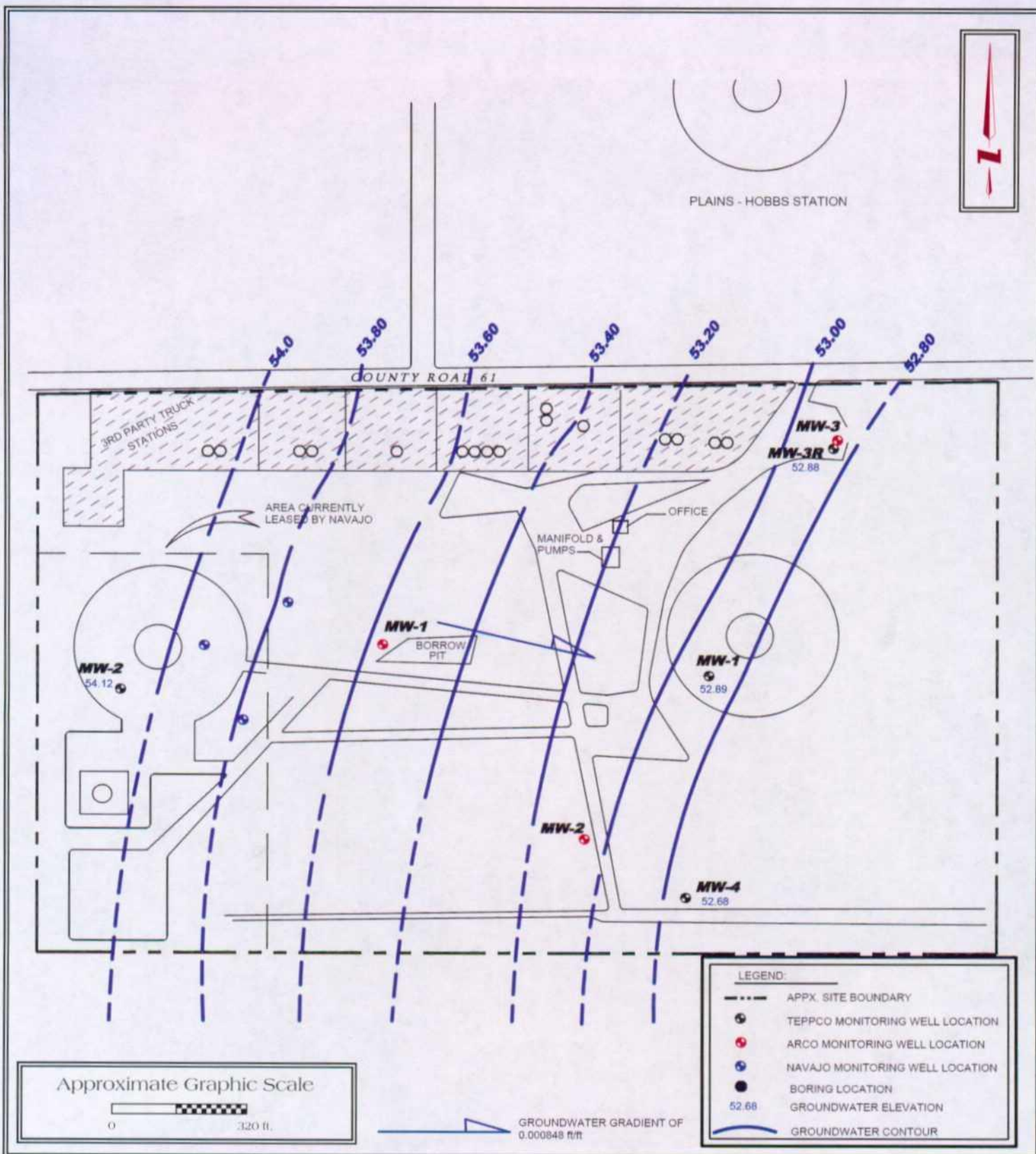
Groundwater Monitoring  
TEPPCO Hobbs Station  
Off County Road 61  
N 32° 39.135'; W 103° 8.373'  
Hobbs, Lea County, New Mexico

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FIGURE 4A  
Groundwater Gradient Map

Gauging Date: February 3, 2006



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 19, 2006

APPENDIX B

Tables

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**TABLE 1**  
**GROUNDWATER ANALYTICAL RESULTS**

| Sample I.D.                                                           | Date    | Benzene<br>(µg/L)                               | Toluene<br>(µg/L) | Ethylbenzene<br>(µg/L) | Xylenes<br>(µg/L) | TPH<br>GRO<br>(mg/L) | TPH<br>DRO<br>(mg/L) |
|-----------------------------------------------------------------------|---------|-------------------------------------------------|-------------------|------------------------|-------------------|----------------------|----------------------|
| New Mexico Water Quality Commission (NMWQC)<br>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 | Insufficient 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                 |
| 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                 |
| 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                 |
| 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                 |

NE = Not Established



**TABLE 2**  
GROUNDWATER ANALYTICAL RESULTS  
POLYNUCLEAR AROMATIC HYDROCARBONS

| Sample I.D. | Date    | Constituent            | Observed Concentration<br>(µg/L) | New Mexico Energy, Minerals &<br>Natural Resources Department,<br>Oil Conservation Division,<br>Remediation Action Level | New Mexico Water Quality Control<br>Commission Ground Water<br>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                                                                                                                       | -                                                                        |

NE = Not Established

**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 |
|--------------------------------|------------------|---------------------------------|--------------------------------|---------------------|-----------------------|----------------------|---------------------------------|
| <b>TEPPCO Monitoring Wells</b> |                  |                                 |                                |                     |                       |                      |                                 |
| 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                    | 52.80                           |
| 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                           |
| 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                           |
| 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                           |

APPENDIX C

Laboratory Data Reports  
& Chain-of-Custody Documentation

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## ANALYTICAL REPORT

JOB NUMBER: 233741

Prepared For:

Southwest Geoscience  
3030 LBJ Freeway  
Suite 700  
Dallas, TX 75234

Attention: Chris Mitchell

Date: 02/22/2006

  
Signature

Name: Chip Meador

Title: Laboratory Director

E-Mail: cmeador@stl-inc.com

2/23/06  
Date

Severn Trent Laboratories  
1733 N. Padre Island Drive  
Corpus Christi, TX 78408

PHONE: 361/289-2673

FAX...: 361/289-2471

TOTAL # OF PAGES 25



STL

## CASE NARRATIVE

Job Number 233741

February 22, 2006

### Semivolatile Organic Analysis

Sample 233741-3 was analyzed for semivolatile organics using EPA Method 8270C. Due to limited sample volume, no matrix spike and matrix spike duplicate were analyzed with this sample. However, a spiked blank and spiked blank duplicate were analyzed.

### Total Extractable Petroleum Hydrocarbons (TEPH)-Diesel Range Organics

Sample 233741-3 was analyzed for total extractable petroleum hydrocarbons (TEPH)-diesel range organics using EPA Method 8015B Mod.. Due to limited sample volume, no matrix spike and matrix spike duplicate were analyzed with this sample. However, a laboratory control standard (LCS) and laboratory control duplicate (LCS) were analyzed.

Please call if you have any questions regarding this report or if we can be of further assistance.

A handwritten signature in cursive script, appearing to read "Julie Darrow".

Julie Darrow  
QA Assistant

## SAMPLE INFORMATION

Date: 02/22/2006

Job Number.: 233741

Customer.... Southwest Geoscience

Attn..... Chris Mitchell

Project Number.....: 98000082

Customer Project ID.....: 0105013

Project Description.....: PROJECT-TLK

| Laboratory<br>Sample ID | Customer<br>Sample ID | Sample<br>Matrix | Date<br>Sampled | Time<br>Sampled | Date<br>Received | Time<br>Received |
|-------------------------|-----------------------|------------------|-----------------|-----------------|------------------|------------------|
| 233741-1                | MW-1                  | Water            | 02/03/2006      | 09:45           | 02/04/2006       | 09:21            |
| 233741-2                | MW-2                  | Water            | 02/03/2006      | 11:45           | 02/04/2006       | 09:21            |
| 233741-3                | MW-3R                 | Water            | 02/03/2006      | 10:35           | 02/04/2006       | 09:21            |
| 233741-4                | MW-4                  | Water            | 02/03/2006      | 08:25           | 02/04/2006       | 09:21            |

**LABORATORY TEST RESULTS**

Job Number: 233741

Date: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-1  
Date Sampled.....: 02/03/2006  
Time Sampled.....: 09:45  
Sample Matrix.....: Water

Laboratory Sample ID: 233741-1  
Date Received.....: 02/04/2006  
Time Received.....: 09:21

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                                  | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|-----------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
| SW846 8015BMod | Total Volatile Petroleum Hydrocarbons<br>TVPH - Gasoline Range Organics     | ND            | 50              | ug/L  | 02/09/06 | rh   |
| SW-846 8021B   | Volatile Organics - Aromatics                                               | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Benzene                                                                     | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Ethylbenzene                                                                | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Toluene                                                                     | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Xylenes (total)                                                             | ND            | 6               | ug/L  | 02/07/06 | rh   |
| SW-846 3520C   | Extraction (Continuous Liq/Liq) DROs<br>Continuous Liquid-Liquid Extraction | Complete      |                 |       | 02/06/06 | lpm  |
| SW846 8015BMod | Total Extractable Petroleum Hydrocarbons<br>TEPH - Diesel Range Organics    | ND            | 0.50            | mg/L  | 02/07/06 | rsu  |

## LABORATORY TEST RESULTS

Job Number: 233741

Date: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-2  
 Date Sampled.....: 02/03/2006  
 Time Sampled.....: 11:45  
 Sample Matrix.....: Water

Laboratory Sample ID: 233741-2  
 Date Received.....: 02/04/2006  
 Time Received.....: 09:21

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                                  | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|-----------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
| SW846 8015BMod | Total Volatile Petroleum Hydrocarbons<br>TVPH - Gasoline Range Organics     | ND            | 50              | ug/L  | 02/09/06 | rh   |
| SW-846 8021B   | Volatile Organics - Aromatics                                               | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Benzene                                                                     | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Ethylbenzene                                                                | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Toluene                                                                     | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Xylenes (total)                                                             | ND            | 6               | ug/L  | 02/07/06 | rh   |
| SW-846 3520C   | Extraction (Continuous Liq/Liq) DROs<br>Continuous Liquid-Liquid Extraction | Complete      |                 |       | 02/06/06 | lpm  |
| SW846 8015BMod | Total Extractable Petroleum Hydrocarbons<br>TEPH - Diesel Range Organics    | ND            | 0.50            | mg/L  | 02/07/06 | rsw  |

## LABORATORY TEST RESULTS

Job Number: 233741

Date: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-3R  
 Date Sampled.....: 02/03/2006  
 Time Sampled.....: 10:35  
 Sample Matrix.....: Water

Laboratory Sample ID: 233741-3  
 Date Received.....: 02/04/2006  
 Time Received.....: 09:21

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                                     | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|--------------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
| SW846 8015BMod | Total Volatile Petroleum Hydrocarbons<br>TVPH - Gasoline Range Organics        | 175           | 50              | ug/L  | 02/09/06 | rh   |
| SW-846 8021B   | Volatile Organics - Aromatics                                                  |               |                 |       |          |      |
|                | Benzene                                                                        | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Ethylbenzene                                                                   | 4             | 2               | ug/L  | 02/07/06 | rh   |
|                | Toluene                                                                        | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Xylenes (total)                                                                | ND            | 6               | ug/L  | 02/07/06 | rh   |
| SW-846 3520C   | Extraction (Continuous Liq/Liq for B/N)<br>Continuous Liquid-Liquid Extraction | Complete      |                 |       | 02/07/06 | imc  |
| SW-846 3520C   | Extraction (Continuous Liq/Liq) DROs<br>Continuous Liquid-Liquid Extraction    | Complete      |                 |       | 02/06/06 | lpm  |
| TCEQ TX1006    | Petroleum Hydrocarbon Fractionation<br>Fractionation - Waters                  | Complete      |                 |       | 02/17/06 | lpm  |
| SW-846 8270C   | Semivolatile Organics                                                          |               |                 |       |          |      |
|                | Acenaphthene                                                                   | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Acenaphthylene                                                                 | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Anthracene                                                                     | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Benzo(a)anthracene (1,2-Benzanthracene)                                        | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Benzo(b)fluoranthene                                                           | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Benzo(k)fluoranthene                                                           | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Benzo(ghi)perylene                                                             | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Benzo(a)pyrene                                                                 | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Chrysene                                                                       | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Dibenzo(ah)anthracene                                                          | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Fluoranthene                                                                   | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Fluorene                                                                       | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Indeno(123cd)pyrene                                                            | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | 2-Methylnaphthalene                                                            | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Naphthalene                                                                    | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Phenanthrene                                                                   | ND            | 10              | ug/L  | 02/08/06 | bec  |
|                | Pyrene                                                                         | ND            | 10              | ug/L  | 02/08/06 | bec  |
| TCEQ TX1006    | Characterization of C6 to C35 TPH                                              |               |                 |       |          |      |
|                | nC6 Aliphatic                                                                  | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C6 to C8 Aliphatics                                                           | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C8 to C10 Aliphatics                                                          | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C10 to C12 Aliphatics                                                         | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C12 to C16 Aliphatics                                                         | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C16 to C21 Aliphatics                                                         | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C21 to C35 Aliphatics                                                         | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C7 to C8 Aromatics                                                            | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C8 to C10 Aromatics                                                           | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C10 to C12 Aromatics                                                          | ND            | 5               | mg/L  | 02/20/06 | rsW  |
|                | >C12 to C16 Aromatics                                                          | ND            | 5               | mg/L  | 02/20/06 | rsW  |

LABORATORY TEST RESULTS

Job Number: 233741

Date: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-3R  
Date Sampled.....: 02/03/2006  
Time Sampled.....: 10:35  
Sample Matrix.....: Water

Laboratory Sample ID: 233741-3  
Date Received.....: 02/04/2006  
Time Received.....: 09:21

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                               | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|--------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
|                | >C16 to C21 Aromatics                                                    | ND            | 5               | mg/L  | 02/20/06 | rsw  |
|                | >C21 to C35 Aromatics                                                    | ND            | 5               | mg/L  | 02/20/06 | rsw  |
| TCEQ TX1005    | Petroleum Hydrocarbons Extraction<br>n-Pentane Extraction - Waters       | Complete      |                 |       | 02/14/06 | art  |
| SW846 8015BMod | Total Extractable Petroleum Hydrocarbons<br>TEPH - Diesel Range Organics | 1.94          | 0.50            | mg/L  | 02/07/06 | rsw  |
| TCEQ TX1005    | Total Petroleum Hydrocarbons                                             |               |                 |       |          |      |
|                | Petroleum Hydrocarbons (C6 to C12)                                       | ND            | 5               | mg/L  | 02/14/06 | rsw  |
|                | Petroleum Hydrocarbons (>C12 to C28)                                     | ND            | 5               | mg/L  | 02/14/06 | rsw  |
|                | Petroleum Hydrocarbons (>C28 to C35)                                     | ND            | 5               | mg/L  | 02/14/06 | rsw  |
|                | TPH (C6 to C35)                                                          | ND            | 5               | mg/L  | 02/14/06 | rsw  |



**LABORATORY TEST RESULTS**

Job Number: 233741

Date: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-4  
Date Sampled.....: 02/03/2006  
Time Sampled.....: 08:25  
Sample Matrix.....: Water

Laboratory Sample ID: 233741-4  
Date Received.....: 02/04/2006  
Time Received.....: 09:21

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                                  | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|-----------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
| SW846 8015BMod | Total Volatile Petroleum Hydrocarbons<br>TVPH - Gasoline Range Organics     | ND            | 50              | ug/L  | 02/09/06 | rh   |
| SW-846 8021B   | Volatile Organics - Aromatics                                               | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Benzene                                                                     | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Ethylbenzene                                                                | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Toluene                                                                     | ND            | 2               | ug/L  | 02/07/06 | rh   |
|                | Xylenes (total)                                                             | ND            | 6               | ug/L  | 02/07/06 | rh   |
| SW-846 3520C   | Extraction (Continuous Liq/Liq) DROs<br>Continuous Liquid-Liquid Extraction | Complete      |                 |       | 02/06/06 | lpm  |
| SW846 8015BMod | Total Extractable Petroleum Hydrocarbons<br>TEPH - Diesel Range Organics    | ND            | 0.50            | mg/L  | 02/07/06 | rsu  |

## QUALITY CONTROL RESULTS

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

Test Method.....: SW846 8015BMod

Units.....: ug/L

Analyst....: rh

Method Description.: Total Volatile Petroleum Hydrocarbons

Batch.....: 115317

|     |                                     |           |  |  |            |      |
|-----|-------------------------------------|-----------|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060201GA |  |  | 02/09/2006 | 0850 |
|-----|-------------------------------------|-----------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 519.916   |           | 500        |             | 104.0        | % 75-125 |

|     |                                     |           |  |  |            |      |
|-----|-------------------------------------|-----------|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060201GA |  |  | 02/09/2006 | 1323 |
|-----|-------------------------------------|-----------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 504.307   |           | 500        |             | 100.9        | % 75-125 |

|    |              |  |  |  |            |      |
|----|--------------|--|--|--|------------|------|
| MB | Method Blank |  |  |  | 02/09/2006 | 0951 |
|----|--------------|--|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | ND        |           |            |             |              |          |

|    |              |           |          |  |            |      |
|----|--------------|-----------|----------|--|------------|------|
| MS | Matrix Spike | B060201GB | 233741-4 |  | 02/09/2006 | 1222 |
|----|--------------|-----------|----------|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 626.474   |           | 500        | 4.194       | 124.5        | % 60-137 |

|     |                        |           |          |  |            |      |
|-----|------------------------|-----------|----------|--|------------|------|
| MSD | Matrix Spike Duplicate | B060201GB | 233741-4 |  | 02/09/2006 | 1253 |
|-----|------------------------|-----------|----------|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits         |
|--------------------------------|-----------|-----------|------------|-------------|--------------|------------------|
| TVPH - Gasoline Range Organics | 571.297   | 626.474   | 500        | 4.194       | 113.4<br>9.2 | % 60-137<br>R 30 |

|    |              |           |  |  |            |      |
|----|--------------|-----------|--|--|------------|------|
| SB | Spiked Blank | B060201GB |  |  | 02/09/2006 | 0920 |
|----|--------------|-----------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 558.410   |           | 500        |             | 111.7        | % 41-135 |

Test Method.....: SW-846 8021B

Units.....: ug/L

Analyst....: rh

Method Description.: Volatile Organics - Aromatics

Batch.....: 115231

|     |                                     |            |  |  |            |      |
|-----|-------------------------------------|------------|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060201CCC |  |  | 02/07/2006 | 0834 |
|-----|-------------------------------------|------------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Benzene                        | 99.557    |           | 100.000000 |             | 99.6         | % 80-120 |
| Ethylbenzene                   | 99.686    |           | 100.000000 |             | 99.7         | % 80-120 |
| tert-Butyl Methyl Ether (MTBE) | 114.920   |           | 100.000000 |             | 114.9        | % 80-120 |

## QUALITY CONTROL RESULTS

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description                         | Reag. Code | Lab ID | Dilution Factor | Date       | Time |
|---------|-------------------------------------|------------|--------|-----------------|------------|------|
| CCV     | Continuing Calibration Verification | B060201CCC |        |                 | 02/07/2006 | 0834 |

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|----------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Toluene                    | 101.560   |           | 100.000000 |             | 101.6        | % | 80-120 |
| Xylenes (total)            | 294.513   |           | 300.000000 |             | 98.2         | % | 80-120 |
| m&p-Xylenes                | 193.564   |           | 200.000000 |             | 96.8         | % | 80-120 |
| o-Xylene                   | 100.949   |           | 100.000000 |             | 100.9        | % | 80-120 |

|     |                                     |            |  |  |            |      |
|-----|-------------------------------------|------------|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060201CCC |  |  | 02/07/2006 | 1433 |
|-----|-------------------------------------|------------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Benzene                        | 96.778    |           | 100.000000 |             | 96.8         | % | 80-120 |
| Ethylbenzene                   | 95.518    |           | 100.000000 |             | 95.5         | % | 80-120 |
| tert-Butyl Methyl Ether (MTBE) | 109.188   |           | 100.000000 |             | 109.2        | % | 80-120 |
| Toluene                        | 98.268    |           | 100.000000 |             | 98.3         | % | 80-120 |
| Xylenes (total)                | 278.85    |           | 300.000000 |             | 93.0         | % | 80-120 |
| m&p-Xylenes                    | 185.634   |           | 200.000000 |             | 92.8         | % | 80-120 |
| o-Xylene                       | 93.216    |           | 100.000000 |             | 93.2         | % | 80-120 |

|     |                                     |            |  |  |            |      |
|-----|-------------------------------------|------------|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060201CCC |  |  | 02/07/2006 | 2100 |
|-----|-------------------------------------|------------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Benzene                        | 98.083    |           | 100.000000 |             | 98.1         | % | 80-120 |
| Ethylbenzene                   | 96.949    |           | 100.000000 |             | 96.9         | % | 80-120 |
| tert-Butyl Methyl Ether (MTBE) | 113.206   |           | 100.000000 |             | 113.2        | % | 80-120 |
| Toluene                        | 99.422    |           | 100.000000 |             | 99.4         | % | 80-120 |
| Xylenes (total)                | 287.695   |           | 300.000000 |             | 95.9         | % | 80-120 |
| m&p-Xylenes                    | 187.347   |           | 200.000000 |             | 93.7         | % | 80-120 |
| o-Xylene                       | 100.348   |           | 100.000000 |             | 100.3        | % | 80-120 |

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 020706 |  |  | 02/07/2006 | 0929 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Benzene                        | 0.044     |           |            |             |              |   |        |
| Ethylbenzene                   | 0.000     |           |            |             |              |   |        |
| tert-Butyl Methyl Ether (MTBE) | 0.127     |           |            |             |              |   |        |
| Toluene                        | 0.000     |           |            |             |              |   |        |
| Xylenes (total)                | 0.000     |           |            |             |              |   |        |
| m&p-Xylenes                    | 0.000     |           |            |             |              |   |        |
| o-Xylene                       | 0.000     |           |            |             |              |   |        |

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 020706 |  |  | 02/07/2006 | 1501 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Benzene                        | 0.155     |           |            |             |              |   |        |
| Ethylbenzene                   | 0.234     |           |            |             |              |   |        |
| tert-Butyl Methyl Ether (MTBE) | 0.121     |           |            |             |              |   |        |
| Toluene                        | 0.267     |           |            |             |              |   |        |
| Xylenes (total)                | 0.810     |           |            |             |              |   |        |

## QUALITY CONTROL RESULTS

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 020706 |  |  | 02/07/2006 | 1501 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|----------------------------|-----------|-----------|------------|-------------|--------------|----------|
| m&p-Xylenes                | 0.576     |           |            |             |              |          |
| o-Xylene                   | 0.234     |           |            |             |              |          |

|    |              |            |           |  |            |      |
|----|--------------|------------|-----------|--|------------|------|
| MS | Matrix Spike | B060201SBW | 233730-16 |  | 02/07/2006 | 2005 |
|----|--------------|------------|-----------|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Benzene                        | 19.754    |           | 20.000000  | 0.070       | 98.4         | % 50-147 |
| Ethylbenzene                   | 19.381    |           | 20.000000  | 0.021       | 96.8         | % 35-147 |
| tert-Butyl Methyl Ether (MTBE) | 102.641   |           | 100.000000 | 0.068       | 102.6        | % 48-150 |
| Toluene                        | 18.829    |           | 20.000000  | 0.037       | 94.0         | % 40-143 |
| Xylenes (total)                | 38.596    |           | 40.000000  | 0.207       | 96.0         | % 43-149 |
| m&p-Xylenes                    | 19.531    |           | 20.000000  | 0.188       | 96.7         | % 25-150 |
| o-Xylene                       | 19.065    |           | 20.000000  | 0.019       | 95.2         | % 57-138 |

|     |                        |            |           |  |            |      |
|-----|------------------------|------------|-----------|--|------------|------|
| MSD | Matrix Spike Duplicate | B060201SBW | 233730-16 |  | 02/07/2006 | 2032 |
|-----|------------------------|------------|-----------|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Benzene                        | 19.432    | 19.754    | 20.000000  | 0.070       | 96.8         | % 50-147 |
|                                |           |           |            |             | 1.6          | R 20     |
| Ethylbenzene                   | 20.233    | 19.381    | 20.000000  | 0.021       | 101.1        | % 35-147 |
|                                |           |           |            |             | 4.3          | R 20     |
| tert-Butyl Methyl Ether (MTBE) | 99.652    | 102.641   | 100.000000 | 0.068       | 99.6         | % 48-150 |
|                                |           |           |            |             | 3.0          | R 20     |
| Toluene                        | 18.963    | 18.829    | 20.000000  | 0.037       | 94.6         | % 40-143 |
|                                |           |           |            |             | 0.7          | R 20     |
| Xylenes (total)                | 38.051    | 38.596    | 40.000000  | 0.207       | 94.6         | % 43-149 |
|                                |           |           |            |             | 1.4          | R 20     |
| m&p-Xylenes                    | 19.300    | 19.531    | 20.000000  | 0.188       | 95.6         | % 25-150 |
|                                |           |           |            |             | 1.2          | R 20     |
| o-Xylene                       | 18.751    | 19.065    | 20.000000  | 0.019       | 93.7         | % 57-138 |
|                                |           |           |            |             | 1.7          | R 20     |

|    |              |            |  |  |            |      |
|----|--------------|------------|--|--|------------|------|
| SB | Spiked Blank | B060201SBW |  |  | 02/07/2006 | 0902 |
|----|--------------|------------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Benzene                        | 19.634    |           | 20.000000  |             | 98.2         | % 78-121 |
| Ethylbenzene                   | 19.181    |           | 20.000000  |             | 95.9         | % 72-120 |
| tert-Butyl Methyl Ether (MTBE) | 110.565   |           | 100.000000 |             | 110.6        | % 79-132 |
| Toluene                        | 19.585    |           | 20.000000  |             | 97.9         | % 72-120 |
| Xylenes (total)                | 40.331    |           | 40.000000  |             | 100.8        | % 81-127 |
| m&p-Xylenes                    | 20.146    |           | 20.000000  |             | 100.7        | % 80-129 |
| o-Xylene                       | 20.185    |           | 20.000000  |             | 100.9        | % 80-127 |

## QUALITY CONTROL RESULTS

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

Test Method.....: SW-846 8270C

Units.....: ug/L

Analyst....: bec

Method Description.: Semivolatile Organics

Batch.....: 115276

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 020706 |  |  | 02/08/2006 | 1320 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description              | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|-----------------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Acenaphthene                            | ND        |           |            |             |              |          |
| Acenaphthylene                          | ND        |           |            |             |              |          |
| Anthracene                              | ND        |           |            |             |              |          |
| Benzo(a)anthracene (1,2-Benzanthracene) | ND        |           |            |             |              |          |
| Benzo(b)fluoranthene                    | ND        |           |            |             |              |          |
| Benzo(k)fluoranthene                    | ND        |           |            |             |              |          |
| Benzo(ghi)perylene                      | ND        |           |            |             |              |          |
| Benzo(a)pyrene                          | ND        |           |            |             |              |          |
| Chrysene                                | ND        |           |            |             |              |          |
| Dibenzo(ah)anthracene                   | ND        |           |            |             |              |          |
| Fluoranthene                            | ND        |           |            |             |              |          |
| Fluorene                                | ND        |           |            |             |              |          |
| Indeno(123cd)pyrene                     | ND        |           |            |             |              |          |
| 2-Methylnaphthalene                     | ND        |           |            |             |              |          |
| Naphthalene                             | ND        |           |            |             |              |          |
| Phenanthrene                            | ND        |           |            |             |              |          |
| Pyrene                                  | ND        |           |            |             |              |          |

|    |              |           |  |  |            |      |
|----|--------------|-----------|--|--|------------|------|
| SB | Spiked Blank | EX060203X |  |  | 02/08/2006 | 1350 |
|----|--------------|-----------|--|--|------------|------|

| Parameter/Test Description              | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|-----------------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Acenaphthene                            | 77.70     |           | 100        |             | 77.7         | % 45-124 |
| Acenaphthylene                          | 76.59     |           | 100        |             | 76.6         | % 46-120 |
| Anthracene                              | 90.38     |           | 100        |             | 90.4         | % 57-122 |
| Benzo(a)anthracene (1,2-Benzanthracene) | 93.08     |           | 100        |             | 93.1         | % 66-124 |
| Benzo(b)fluoranthene                    | 101.54    |           | 100        |             | 101.5        | % 66-134 |
| Benzo(k)fluoranthene                    | 87.05     |           | 100        |             | 87.0         | % 60-120 |
| Benzo(ghi)perylene                      | 80.28     |           | 100        |             | 80.3         | % 71-120 |
| Benzo(a)pyrene                          | 92.42     |           | 100        |             | 92.4         | % 68-120 |
| Chrysene                                | 92.79     |           | 100        |             | 92.8         | % 68-129 |
| Dibenzo(ah)anthracene                   | 85.42     |           | 100        |             | 85.4         | % 71-121 |
| Fluoranthene                            | 102.87    |           | 100        |             | 102.9        | % 70-124 |
| Fluorene                                | 84.20     |           | 100        |             | 84.2         | % 54-120 |
| Indeno(123cd)pyrene                     | 85.05     |           | 100        |             | 85.0         | % 71-120 |
| 2-Methylnaphthalene                     | 74.43     |           | 100        |             | 74.4         | % 40-120 |
| Naphthalene                             | 73.28     |           | 100        |             | 73.3         | % 38-120 |
| Phenanthrene                            | 89.25     |           | 100        |             | 89.2         | % 66-120 |
| Pyrene                                  | 87.62     |           | 100        |             | 87.6         | % 68-127 |

|     |                        |           |  |  |            |      |
|-----|------------------------|-----------|--|--|------------|------|
| SBD | Spiked Blank Duplicate | EX060203X |  |  | 02/08/2006 | 1421 |
|-----|------------------------|-----------|--|--|------------|------|

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|----------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Acenaphthene               | 78.63     | 77.70     | 100        |             | 78.6         | % 45-124 |
|                            |           |           |            |             | 1.2          | R 28     |
| Acenaphthylene             | 77.68     | 76.59     | 100        |             | 77.7         | % 46-120 |
|                            |           |           |            |             | 1.4          | R 30     |

## QUALITY CONTROL RESULTS

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description            | Reag. Code | Lab ID | Dilution Factor | Date       | Time |
|---------|------------------------|------------|--------|-----------------|------------|------|
| SBD     | Spiked Blank Duplicate | EX060203X  |        |                 | 02/08/2006 | 1421 |

| Parameter/Test Description              | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits         |
|-----------------------------------------|-----------|-----------|------------|-------------|--------------|------------------|
| Anthracene                              | 91.11     | 90.38     | 100        |             | 91.1<br>0.8  | % 57-122<br>R 30 |
| Benzo(a)anthracene (1,2-Benzanthracene) | 96.26     | 93.08     | 100        |             | 96.3<br>3.4  | % 66-124<br>R 30 |
| Benzo(b)fluoranthene                    | 107.50    | 101.54    | 100        |             | 107.5<br>5.7 | % 66-134<br>R 30 |
| Benzo(k)fluoranthene                    | 91.26     | 87.05     | 100        |             | 91.3<br>4.7  | % 60-120<br>R 30 |
| Benzo(ghi)perylene                      | 87.26     | 80.28     | 100        |             | 87.3<br>8.3  | % 71-120<br>R 30 |
| Benzo(a)pyrene                          | 95.53     | 92.42     | 100        |             | 95.5<br>3.3  | % 68-120<br>R 30 |
| Chrysene                                | 94.63     | 92.79     | 100        |             | 94.6<br>2.0  | % 68-129<br>R 30 |
| Dibenzo(ah)anthracene                   | 92.19     | 85.42     | 100        |             | 92.2<br>7.6  | % 71-121<br>R 30 |
| Fluoranthene                            | 102.98    | 102.87    | 100        |             | 103.0<br>0.1 | % 70-124<br>R 30 |
| Fluorene                                | 84.49     | 84.20     | 100        |             | 84.5<br>0.3  | % 54-120<br>R 30 |
| Indeno(123cd)pyrene                     | 91.68     | 85.05     | 100        |             | 91.7<br>7.5  | % 71-120<br>R 30 |
| 2-Methylnaphthalene                     | 74.39     | 74.43     | 100        |             | 74.4<br>0.1  | % 40-120<br>R 30 |
| Naphthalene                             | 73.24     | 73.28     | 100        |             | 73.2<br>0.1  | % 38-120<br>R 30 |
| Phenanthrene                            | 90.65     | 89.25     | 100        |             | 90.7<br>1.6  | % 66-120<br>R 30 |
| Pyrene                                  | 90.23     | 87.62     | 100        |             | 90.2<br>2.9  | % 68-127<br>R 25 |

Test Method.....: TCEQ TX1006

Units.....: mg/L

Analyst....: rsw

Method Description.: Characterization of C6 to C35 TPH

Batch.....: 115668

|     |                                     |           |  |  |            |      |
|-----|-------------------------------------|-----------|--|--|------------|------|
| LCD | Laboratory Control Sample Duplicate | SG0602208 |  |  | 02/20/2006 | 1047 |
|-----|-------------------------------------|-----------|--|--|------------|------|

| Parameter/Test Description               | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits         |
|------------------------------------------|-----------|-----------|------------|-------------|--------------|------------------|
| >C6-C35 Aliphatic and Aromatic Fractions | 248.12    | 231.41    | 269.12     |             | 92.2<br>7.0  | % 60-140<br>R 30 |

|     |                           |           |  |  |            |      |
|-----|---------------------------|-----------|--|--|------------|------|
| LCS | Laboratory Control Sample | SG060220A |  |  | 02/20/2006 | 1024 |
|-----|---------------------------|-----------|--|--|------------|------|

| Parameter/Test Description               | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|------------------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| >C6-C35 Aliphatic and Aromatic Fractions | 231.41    |           | 277.11     |             | 83.5         | % 60-140 |

## QUALITY CONTROL RESULTS

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN:

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 021706 |  |  | 02/20/2006 | 1000 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description               | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|------------------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| nC6 Aliphatic, Solid                     | ND        |           |            |             |              |          |
| >C6 to C8 Aliphatics, Solid              | ND        |           |            |             |              |          |
| >C8 to C10 Aliphatics, Solid             | ND        |           |            |             |              |          |
| >C10 to C12 Aliphatics, Solid            | ND        |           |            |             |              |          |
| >C12 to C16 Aliphatics, Solid            | ND        |           |            |             |              |          |
| >C16 to C21 Aliphatics, Solid            | ND        |           |            |             |              |          |
| >C21 to C35 Aliphatics, Solid            | ND        |           |            |             |              |          |
| >C6-C35 Aliphatic and Aromatic Fractions | ND        |           |            |             |              |          |
| >C7 to C8 Aromatics, Solid               | ND        |           |            |             |              |          |
| >C8 to C10 Aromatics, Solid              | ND        |           |            |             |              |          |
| >C10 to C12 Aromatics, Solid             | ND        |           |            |             |              |          |
| >C12 to C16 Aromatics, Solid             | ND        |           |            |             |              |          |
| >C16 to C21 Aromatics, Solid             | ND        |           |            |             |              |          |
| >C21 to C35 Aromatics, Solid             | ND        |           |            |             |              |          |

|    |              |           |          |  |            |      |
|----|--------------|-----------|----------|--|------------|------|
| MS | Matrix Spike | SG060220C | 233726-2 |  | 02/20/2006 | 1158 |
|----|--------------|-----------|----------|--|------------|------|

| Parameter/Test Description               | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|------------------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| >C6-C35 Aliphatic and Aromatic Fractions | 233.49    |           | 264.56     | ND          | 88.3         | % 60-140 |

|     |                        |           |          |  |            |      |
|-----|------------------------|-----------|----------|--|------------|------|
| MSD | Matrix Spike Duplicate | SG060220D | 233726-2 |  | 02/20/2006 | 1221 |
|-----|------------------------|-----------|----------|--|------------|------|

| Parameter/Test Description               | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits         |
|------------------------------------------|-----------|-----------|------------|-------------|--------------|------------------|
| >C6-C35 Aliphatic and Aromatic Fractions | 244.59    | 233.49    | 283.44     | ND          | 86.3<br>4.6  | % 60-140<br>R 30 |

Test Method.....: SW846 8015BMod.

Units.....: mg/L

Analyst....: rsw

Method Description.: Total Extractable Petroleum Hydrocarbons Batch.....: 115199

|     |                                     |            |  |  |            |      |
|-----|-------------------------------------|------------|--|--|------------|------|
| CCV | Continuing Calibration Verification | SG060127DR |  |  | 02/07/2006 | 1214 |
|-----|-------------------------------------|------------|--|--|------------|------|

| Parameter/Test Description   | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TEPH - Diesel Range Organics | 1926      |           | 2000.0     |             | 96.3         | % 80-120 |

|     |                                     |            |  |  |            |      |
|-----|-------------------------------------|------------|--|--|------------|------|
| CCV | Continuing Calibration Verification | SG060127DR |  |  | 02/07/2006 | 1259 |
|-----|-------------------------------------|------------|--|--|------------|------|

| Parameter/Test Description   | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TEPH - Diesel Range Organics | 1943      |           | 2000.0     |             | 97.2         | % 80-120 |

Job Number.: 233741

**QUALITY CONTROL RESULTS**

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN:

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

|     |                                     |           |  |  |            |      |
|-----|-------------------------------------|-----------|--|--|------------|------|
| LCD | Laboratory Control Sample Duplicate | DR112805X |  |  | 02/07/2006 | 1228 |
|-----|-------------------------------------|-----------|--|--|------------|------|

| Parameter/Test Description   | QC Result | QC Result | True Value  | Orig. Value | Calc. Result | * Limits         |
|------------------------------|-----------|-----------|-------------|-------------|--------------|------------------|
| TEPH - Diesel Range Organics | 835.18    | 829.07    | 1000.000000 |             | 83.5<br>0.7  | % 29-120<br>R 30 |

|     |                           |           |  |  |            |      |
|-----|---------------------------|-----------|--|--|------------|------|
| LCS | Laboratory Control Sample | DR112805X |  |  | 02/07/2006 | 1224 |
|-----|---------------------------|-----------|--|--|------------|------|

| Parameter/Test Description   | QC Result | QC Result | True Value  | Orig. Value | Calc. Result | * Limits |
|------------------------------|-----------|-----------|-------------|-------------|--------------|----------|
| TEPH - Diesel Range Organics | 829.07    |           | 1000.000000 |             | 82.9         | % 29-120 |

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 020606 |  |  | 02/07/2006 | 1221 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description   | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TEPH - Diesel Range Organics | ND        |           |            |             |              |          |

Test Method.....: TCEQ TX1005

Units.....: mg/L

Analyst....: rsw

Method Description.: Total Petroleum Hydrocarbons

Batch.....: 115486

|     |                                     |            |  |  |            |      |
|-----|-------------------------------------|------------|--|--|------------|------|
| LCD | Laboratory Control Sample Duplicate | SG0602031E |  |  | 02/14/2006 | 1948 |
|-----|-------------------------------------|------------|--|--|------------|------|

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits         |
|----------------------------|-----------|-----------|------------|-------------|--------------|------------------|
| TPH (C6 to C35)            | 363.82    | 347.73    | 333.333333 |             | 109.1<br>4.5 | % 62-136<br>R 20 |

|     |                           |            |  |  |            |      |
|-----|---------------------------|------------|--|--|------------|------|
| LCS | Laboratory Control Sample | SG0602031E |  |  | 02/14/2006 | 1938 |
|-----|---------------------------|------------|--|--|------------|------|

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|----------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TPH (C6 to C35)            | 347.73    |           | 333.333333 |             | 104.3        | % 62-136 |

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 021406 |  |  | 02/14/2006 | 1929 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description           | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Petroleum Hydrocarbons (C6 to C12)   | ND        |           |            |             |              |          |
| Petroleum Hydrocarbons (>C12 to C28) | 20.109    |           |            |             |              |          |
| Petroleum Hydrocarbons (>C28 to C35) | ND        |           |            |             |              |          |
| TPH (C6 to C35)                      | 0.00      |           |            |             |              |          |



## QUALITY CONTROL RESULTS

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN:

| QC Type | Description  | Reag. Code | Lab ID   | Dilution Factor | Date       | Time |
|---------|--------------|------------|----------|-----------------|------------|------|
| MS      | Matrix Spike | SG060203TE | 233842-2 | 0.98            | 02/14/2006 | 2222 |

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|----------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TPH (C6 to C35)            | 418.31    |           | 333.333333 | 0.00        | 125.5        | % 53-148 |

|     |                        |            |          |      |            |      |
|-----|------------------------|------------|----------|------|------------|------|
| MSD | Matrix Spike Duplicate | SG060203TE | 233842-2 | 0.97 | 02/14/2006 | 2231 |
|-----|------------------------|------------|----------|------|------------|------|

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits         |
|----------------------------|-----------|-----------|------------|-------------|--------------|------------------|
| TPH (C6 to C35)            | 411.17    | 418.31    | 333.333333 | 0.00        | 123.4<br>1.7 | % 53-148<br>R 20 |

## SURROGATE RECOVERIES REPORT

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Method.....: Total Extractable Petroleum Hydrocarbons Method Code.....: 8015DR

Batch.....: 115199

Analyst.....: rsw

Equipment Code: TPH #1

| Surrogate               | Units |
|-------------------------|-------|
| o-Terphenyl (Surrogate) | mg/L  |

| Lab ID   | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
|          |        | CCV     |          | 51.24  | 50.000     | 102              | 26-141 |      | 02/07/2006 | 1214 |
|          |        | MB      |          | 26.14  | 50.000     | 52               | 26-141 |      | 02/07/2006 | 1221 |
|          |        | LCS     |          | 33.40  | 50.000     | 67               | 26-141 |      | 02/07/2006 | 1224 |
|          |        | LCD     |          | 33.89  | 50.000     | 68               | 26-141 |      | 02/07/2006 | 1228 |
| 233620-5 |        |         |          | 22.76  | 50.000     | 46               | 26-141 |      | 02/07/2006 | 1231 |
| 233627-3 |        |         |          | 21.96  | 50.000     | 44               | 26-141 |      | 02/07/2006 | 1235 |
| 233741-1 |        |         |          | 26.44  | 50.000     | 53               | 26-141 |      | 02/07/2006 | 1238 |
| 233741-2 |        |         |          | 20.29  | 50.000     | 41               | 26-141 |      | 02/07/2006 | 1242 |
| 233741-3 |        |         |          | 27.92  | 50.000     | 56               | 26-141 |      | 02/07/2006 | 1245 |
| 233741-4 |        |         |          | 25.92  | 50.000     | 52               | 26-141 |      | 02/07/2006 | 1249 |
|          |        | CCV     |          | 54.08  | 50.000     | 108              | 26-141 |      | 02/07/2006 | 1259 |

Method.....: Volatile Organics - Aromatics

Method Code.....: 8020

Batch.....: 115231

Analyst.....: rh

Equipment Code: BTEX#2GC

| Surrogate       | Units |
|-----------------|-------|
| BFB (Surrogate) | ug/L  |

| Lab ID    | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|-----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
|           |        | CCV     | 1.00     | 23.256 | 20.00000   | 116.3            | 66-120 |      | 02/07/2006 | 0834 |
|           |        | SB      | 1.00     | 20.910 | 20.00000   | 104.5            | 66-120 |      | 02/07/2006 | 0902 |
|           |        | MB      | 1.00     | 20.597 | 20.00000   | 103.0            | 66-120 |      | 02/07/2006 | 0929 |
| 233757-1  |        |         | 400.00   | 32.201 | 20.00000   | 161.0            | 66-120 | X    | 02/07/2006 | 0957 |
| 233656-1  |        |         | 1.00     | 18.175 | 20.00000   | 90.9             | 66-120 |      | 02/07/2006 | 1025 |
| 233707-6  |        |         | 1.00     | 17.712 | 20.00000   | 88.6             | 66-120 |      | 02/07/2006 | 1052 |
| 233724-1  |        |         | 1.00     | 19.385 | 20.00000   | 96.9             | 66-120 |      | 02/07/2006 | 1120 |
| 233724-2  |        |         | 1.00     | 19.372 | 20.00000   | 96.9             | 66-120 |      | 02/07/2006 | 1147 |
| 233724-3  |        |         | 1.00     | 19.891 | 20.00000   | 99.5             | 66-120 |      | 02/07/2006 | 1215 |
| 233730-16 |        |         | 1.00     | 22.170 | 20.00000   | 110.8            | 66-120 |      | 02/07/2006 | 1243 |
| 233730-18 |        |         | 1.00     | 20.216 | 20.00000   | 101.1            | 66-120 |      | 02/07/2006 | 1310 |
| 233737-1  |        |         | 20.00    | 22.112 | 20.00000   | 110.6            | 66-120 |      | 02/07/2006 | 1338 |
| 233737-2  |        |         | 1.00     | 21.789 | 20.00000   | 108.9            | 66-120 |      | 02/07/2006 | 1406 |
|           |        | CCV     | 1.00     | 19.702 | 20.00000   | 98.5             | 66-120 |      | 02/07/2006 | 1433 |
|           |        | MB      | 1.00     | 19.550 | 20.00000   | 97.8             | 66-120 |      | 02/07/2006 | 1501 |
| 233741-1  |        |         | 1.00     | 20.092 | 20.00000   | 100.5            | 66-120 |      | 02/07/2006 | 1528 |
| 233741-2  |        |         | 1.00     | 19.617 | 20.00000   | 98.1             | 66-120 |      | 02/07/2006 | 1556 |
| 233741-3  |        |         | 1.00     | 23.619 | 20.00000   | 118.1            | 66-120 |      | 02/07/2006 | 1624 |
| 233741-4  |        |         | 1.00     | 19.919 | 20.00000   | 99.6             | 66-120 |      | 02/07/2006 | 1651 |
| 233756-1  |        |         | 1.00     | 18.771 | 20.00000   | 93.9             | 66-120 |      | 02/07/2006 | 1719 |
| 233756-2  |        |         | 1.00     | 19.866 | 20.00000   | 99.3             | 66-120 |      | 02/07/2006 | 1747 |
| 233756-3  |        |         | 100.00   | 21.138 | 20.00000   | 105.7            | 66-120 |      | 02/07/2006 | 1814 |
| 233756-4  |        |         | 1.00     | 19.896 | 20.00000   | 99.5             | 66-120 |      | 02/07/2006 | 1842 |
| 233756-5  |        |         | 1.00     | 20.071 | 20.00000   | 100.4            | 66-120 |      | 02/07/2006 | 1909 |

## SURROGATE RECOVERIES REPORT

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| Surrogate       | Units |
|-----------------|-------|
| BFB (Surrogate) | ug/L  |

| Lab ID    | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|-----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 233756-6  |        |         | 1.00     | 20.276 | 20.00000   | 101.4            | 66-120 |      | 02/07/2006 | 1937 |
| 233730-16 |        | MS      | 1.00     | 22.993 | 20.00000   | 115.0            | 66-120 |      | 02/07/2006 | 2005 |
| 233730-16 |        | MSD     | 1.00     | 23.173 | 20.00000   | 115.9            | 66-120 |      | 02/07/2006 | 2032 |
|           |        | CCV     | 1.00     | 21.138 | 20.00000   | 105.7            | 66-120 |      | 02/07/2006 | 2100 |

| Surrogate        | Units |
|------------------|-------|
| Trifluorotoluene | ug/L  |

| Lab ID    | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|-----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
|           |        | CCV     | 1.00     | 18.550 | 20.00000   | 92.8             | 71-120 |      | 02/07/2006 | 0834 |
|           |        | SB      | 1.00     | 17.795 | 20.00000   | 89.0             | 71-120 |      | 02/07/2006 | 0902 |
|           |        | MB      | 1.00     | 17.687 | 20.00000   | 88.4             | 71-120 |      | 02/07/2006 | 0929 |
| 233757-1  |        |         | 400.00   | 26.134 | 20.00000   | 130.7            | 71-120 | x    | 02/07/2006 | 0957 |
| 233656-1  |        |         | 1.00     | 14.726 | 20.00000   | 73.6             | 71-120 |      | 02/07/2006 | 1025 |
| 233707-6  |        |         | 1.00     | 14.635 | 20.00000   | 73.2             | 71-120 |      | 02/07/2006 | 1052 |
| 233724-1  |        |         | 1.00     | 15.421 | 20.00000   | 77.1             | 71-120 |      | 02/07/2006 | 1120 |
| 233724-2  |        |         | 1.00     | 16.068 | 20.00000   | 80.3             | 71-120 |      | 02/07/2006 | 1147 |
| 233724-3  |        |         | 1.00     | 16.518 | 20.00000   | 82.6             | 71-120 |      | 02/07/2006 | 1215 |
| 233730-16 |        |         | 1.00     | 18.213 | 20.00000   | 91.1             | 71-120 |      | 02/07/2006 | 1243 |
| 233730-18 |        |         | 1.00     | 16.965 | 20.00000   | 84.8             | 71-120 |      | 02/07/2006 | 1310 |
| 233737-1  |        |         | 20.00    | 21.951 | 20.00000   | 109.8            | 71-120 |      | 02/07/2006 | 1338 |
| 233737-2  |        |         | 1.00     | 20.979 | 20.00000   | 104.9            | 71-120 |      | 02/07/2006 | 1406 |
|           |        | CCV     | 1.00     | 16.554 | 20.00000   | 82.8             | 71-120 |      | 02/07/2006 | 1433 |
|           |        | MB      | 1.00     | 16.078 | 20.00000   | 80.4             | 71-120 |      | 02/07/2006 | 1501 |
| 233741-1  |        |         | 1.00     | 16.649 | 20.00000   | 83.2             | 71-120 |      | 02/07/2006 | 1528 |
| 233741-2  |        |         | 1.00     | 16.621 | 20.00000   | 83.1             | 71-120 |      | 02/07/2006 | 1556 |
| 233741-3  |        |         | 1.00     | 18.916 | 20.00000   | 94.6             | 71-120 |      | 02/07/2006 | 1624 |
| 233741-4  |        |         | 1.00     | 16.676 | 20.00000   | 83.4             | 71-120 |      | 02/07/2006 | 1651 |
| 233756-1  |        |         | 1.00     | 15.872 | 20.00000   | 79.4             | 71-120 |      | 02/07/2006 | 1719 |
| 233756-2  |        |         | 1.00     | 17.597 | 20.00000   | 88.0             | 71-120 |      | 02/07/2006 | 1747 |
| 233756-3  |        |         | 100.00   | 18.209 | 20.00000   | 91.0             | 71-120 |      | 02/07/2006 | 1814 |
| 233756-4  |        |         | 1.00     | 16.191 | 20.00000   | 81.0             | 71-120 |      | 02/07/2006 | 1842 |
| 233756-5  |        |         | 1.00     | 16.886 | 20.00000   | 84.4             | 71-120 |      | 02/07/2006 | 1909 |
| 233756-6  |        |         | 1.00     | 17.203 | 20.00000   | 86.0             | 71-120 |      | 02/07/2006 | 1937 |
| 233730-16 |        | MS      | 1.00     | 19.214 | 20.00000   | 96.1             | 71-120 |      | 02/07/2006 | 2005 |
| 233730-16 |        | MSD     | 1.00     | 19.002 | 20.00000   | 95.0             | 71-120 |      | 02/07/2006 | 2032 |
|           |        | CCV     | 1.00     | 17.650 | 20.00000   | 88.2             | 71-120 |      | 02/07/2006 | 2100 |

**SURROGATE RECOVERIES REPORT**

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Method.....: Semivolatile Organics  
Batch.....: 115276

Method Code.....: 8270CC  
Analyst.....: bec

Equipment Code: SVOC GC/MS #3

| Surrogate        | Units |
|------------------|-------|
| 2-Fluorobiphenyl | ug/L  |

| Lab ID   | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 233741-3 |        | MB      | 1.00     | 54.90  | 100        | 55               | 28-120 |      | 02/08/2006 | 1320 |
|          |        | SB      | 1.00     | 69.55  | 100        | 70               | 28-120 |      | 02/08/2006 | 1350 |
|          |        | SBD     | 1.00     | 68.83  | 100        | 69               | 28-120 |      | 02/08/2006 | 1421 |
|          |        |         | 1.00     | 39.99  | 100        | 40               | 28-120 |      | 02/08/2006 | 1526 |

| Surrogate       | Units |
|-----------------|-------|
| Nitrobenzene-d5 | ug/L  |

| Lab ID   | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 233741-3 |        | MB      | 1.00     | 56.90  | 100        | 57               | 31-120 |      | 02/08/2006 | 1320 |
|          |        | SB      | 1.00     | 71.53  | 100        | 72               | 31-120 |      | 02/08/2006 | 1350 |
|          |        | SBD     | 1.00     | 69.26  | 100        | 69               | 31-120 |      | 02/08/2006 | 1421 |
|          |        |         | 1.00     | 42.75  | 100        | 43               | 31-120 |      | 02/08/2006 | 1526 |

| Surrogate     | Units |
|---------------|-------|
| Terphenyl-d14 | ug/L  |

| Lab ID   | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 233741-3 |        | MB      | 1.00     | 99.52  | 100        | 100              | 30-142 |      | 02/08/2006 | 1320 |
|          |        | SB      | 1.00     | 91.14  | 100        | 91               | 30-142 |      | 02/08/2006 | 1350 |
|          |        | SBD     | 1.00     | 92.47  | 100        | 92               | 30-142 |      | 02/08/2006 | 1421 |
|          |        |         | 1.00     | 71.94  | 100        | 72               | 30-142 |      | 02/08/2006 | 1526 |

Method.....: Total Volatile Petroleum Hydrocarbons  
Batch.....: 115317

Method Code.....: 8015G  
Analyst.....: rh

Equipment Code: BTEX#4GC

| Surrogate       | Units |
|-----------------|-------|
| BFB (Surrogate) | ug/L  |

| Lab ID               | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------------------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 233741-1<br>233741-2 |        | CCV     |          | 17.793 | 20.00      | 89.0             | 41-135 |      | 02/09/2006 | 0850 |
|                      |        | SB      |          | 17.357 | 20.00      | 86.8             | 41-135 |      | 02/09/2006 | 0920 |
|                      |        | MB      |          | 16.339 | 20.00      | 81.7             | 41-135 |      | 02/09/2006 | 0951 |
|                      |        |         |          | 16.485 | 20.00      | 82.4             | 41-135 |      | 02/09/2006 | 1021 |
|                      |        |         |          | 16.218 | 20.00      | 81.1             | 41-135 |      | 02/09/2006 | 1051 |

## SURROGATE RECOVERIES REPORT

Job Number.: 233741

Report Date.: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| Surrogate       | Units |
|-----------------|-------|
| BFB (Surrogate) | ug/L  |

| Lab ID   | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 233741-3 |        |         |          | 22.938 | 20.00      | 114.7            | 41-135 |      | 02/09/2006 | 1122 |
| 233741-4 |        |         |          | 16.270 | 20.00      | 81.3             | 41-135 |      | 02/09/2006 | 1152 |
| 233741-4 |        | MS      |          | 17.069 | 20.00      | 85.3             | 41-135 |      | 02/09/2006 | 1222 |
| 233741-4 |        | MSD     |          | 17.270 | 20.00      | 86.3             | 41-135 |      | 02/09/2006 | 1253 |
|          |        | CCV     |          | 17.087 | 20.00      | 85.4             | 41-135 |      | 02/09/2006 | 1323 |

Method.....: Total Petroleum Hydrocarbons  
 Batch.....: 115486

Method Code.....: TX1005  
 Analyst.....: rsw

Equipment Code: TPH #4

| Surrogate               | Units |
|-------------------------|-------|
| o-Terphenyl (Surrogate) | mg/L  |

| Lab ID    | Matrix | QC Type | Dilution | Result  | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|-----------|--------|---------|----------|---------|------------|------------------|--------|------|------------|------|
|           |        | MB      | 1        | 107.440 | 100.00     | 107              | 64-129 |      | 02/14/2006 | 1929 |
|           |        | LCS     | 1        | 105.721 | 100.00     | 106              | 64-129 |      | 02/14/2006 | 1938 |
|           |        | LCD     | 1        | 108.638 | 100.00     | 109              | 64-129 |      | 02/14/2006 | 1948 |
| 233741-3  |        |         | 0.93     | 99.328  | 93.458     | 99               | 64-129 |      | 02/14/2006 | 1957 |
| 233837-1  |        |         | 0.96     | 102.433 | 96.154     | 102              | 64-129 |      | 02/14/2006 | 2007 |
| 233837-2  |        |         | 0.93     | 120.771 | 93.458     | 120              | 64-129 |      | 02/14/2006 | 2017 |
| 233837-3  |        |         | 0.94     | 115.179 | 93.458     | 116              | 64-129 |      | 02/14/2006 | 2026 |
| 233837-4  |        |         | 0.93     | 108.728 | 92.593     | 109              | 64-129 |      | 02/14/2006 | 2036 |
| 233837-5  |        |         | 0.97     | 111.308 | 97.087     | 111              | 64-129 |      | 02/14/2006 | 2045 |
| 233837-6  |        |         | 0.96     | 122.056 | 96.154     | 122              | 64-129 |      | 02/14/2006 | 2055 |
| 233837-7  |        |         | 0.96     | 126.471 | 96.154     | 126              | 64-129 |      | 02/14/2006 | 2105 |
| 233837-8  |        |         | 0.97     | 116.179 | 96.154     | 117              | 64-129 |      | 02/14/2006 | 2114 |
| 233837-9  |        |         | 0.94     | 108.878 | 93.458     | 109              | 64-129 |      | 02/14/2006 | 2124 |
| 233837-10 |        |         | 0.93     | 116.619 | 93.458     | 116              | 64-129 |      | 02/14/2006 | 2153 |
| 233842-1  |        |         | 0.96     | 116.504 | 96.154     | 116              | 64-129 |      | 02/14/2006 | 2202 |
| 233842-2  |        |         | 0.98     | 105.276 | 98.039     | 105              | 64-129 |      | 02/14/2006 | 2212 |
| 233842-2  |        | MS      | 0.98     | 120.408 | 98.039     | 120              | 64-129 |      | 02/14/2006 | 2222 |
| 233842-2  |        | MSD     | 0.97     | 116.542 | 97.087     | 116              | 64-129 |      | 02/14/2006 | 2231 |
| 233842-3  |        |         | 0.96     | 110.969 | 95.238     | 112              | 64-129 |      | 02/14/2006 | 2241 |
| 233842-4  |        |         | 0.97     | 121.679 | 96.154     | 123              | 64-129 |      | 02/14/2006 | 2251 |

## LABORATORY CHRONICLE

Job Number: 233741

Date: 02/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| Lab ID: 233741-1 | Client ID: MW-1                          | Date Recvd: 02/04/2006 | Sample Date: 02/03/2006 |         |      |                      |
|------------------|------------------------------------------|------------------------|-------------------------|---------|------|----------------------|
| METHOD           | DESCRIPTION                              | RUN#                   | BATCH#                  | PREP BT | #(S) | DATE/TIME ANALYZED   |
| SW-846 3520C     | Extraction (Continuous Liq/Liq) DROs     | 1                      | 115152                  |         |      | 02/06/2006 1400      |
| SW846 8015BMod   | Total Extractable Petroleum Hydrocarbons | 1                      | 115199                  |         |      | 02/07/2006 1238      |
| SW846 8015BMod   | Total Volatile Petroleum Hydrocarbons    | 1                      | 115317                  |         |      | 02/09/2006 1021      |
| SW-846 8021B     | Volatile Organics - Aromatics            | 1                      | 115231                  |         |      | 02/07/2006 1528 1.00 |
| Lab ID: 233741-2 | Client ID: MW-2                          | Date Recvd: 02/04/2006 | Sample Date: 02/03/2006 |         |      |                      |
| METHOD           | DESCRIPTION                              | RUN#                   | BATCH#                  | PREP BT | #(S) | DATE/TIME ANALYZED   |
| SW-846 3520C     | Extraction (Continuous Liq/Liq) DROs     | 1                      | 115152                  |         |      | 02/06/2006 1420      |
| SW846 8015BMod   | Total Extractable Petroleum Hydrocarbons | 1                      | 115199                  |         |      | 02/07/2006 1242      |
| SW846 8015BMod   | Total Volatile Petroleum Hydrocarbons    | 1                      | 115317                  |         |      | 02/09/2006 1051      |
| SW-846 8021B     | Volatile Organics - Aromatics            | 1                      | 115231                  |         |      | 02/07/2006 1556 1.00 |
| Lab ID: 233741-3 | Client ID: MW-3R                         | Date Recvd: 02/04/2006 | Sample Date: 02/03/2006 |         |      |                      |
| METHOD           | DESCRIPTION                              | RUN#                   | BATCH#                  | PREP BT | #(S) | DATE/TIME ANALYZED   |
| TCEQ TX1006      | Characterization of C6 to C35 TPH        | 1                      | 115668                  |         |      | 02/20/2006 1308      |
| SW-846 3520C     | Extraction (Continuous Liq/Liq for B/N)  | 1                      | 115180                  |         |      | 02/07/2006 0945      |
| SW-846 3520C     | Extraction (Continuous Liq/Liq) DROs     | 1                      | 115152                  |         |      | 02/06/2006 1440      |
| TCEQ TX1006      | Petroleum Hydrocarbon Fractionation      | 1                      | 115654                  |         |      | 02/17/2006 1612      |
| TCEQ TX1005      | Petroleum Hydrocarbons Extraction        | 1                      | 115468                  |         |      | 02/14/2006 1519      |
| SW-846 8270C     | Semivolatile Organics                    | 1                      | 115276                  |         |      | 02/08/2006 1526 1.00 |
| SW846 8015BMod   | Total Extractable Petroleum Hydrocarbons | 1                      | 115199                  |         |      | 02/07/2006 1245      |
| TCEQ TX1005      | Total Petroleum Hydrocarbons             | 1                      | 115486                  |         |      | 02/14/2006 1957 0.93 |
| SW846 8015BMod   | Total Volatile Petroleum Hydrocarbons    | 1                      | 115317                  |         |      | 02/09/2006 1122      |
| SW-846 8021B     | Volatile Organics - Aromatics            | 1                      | 115231                  |         |      | 02/07/2006 1624 1.00 |
| Lab ID: 233741-4 | Client ID: MW-4                          | Date Recvd: 02/04/2006 | Sample Date: 02/03/2006 |         |      |                      |
| METHOD           | DESCRIPTION                              | RUN#                   | BATCH#                  | PREP BT | #(S) | DATE/TIME ANALYZED   |
| SW-846 3520C     | Extraction (Continuous Liq/Liq) DROs     | 1                      | 115152                  |         |      | 02/06/2006 1500      |
| SW846 8015BMod   | Total Extractable Petroleum Hydrocarbons | 1                      | 115199                  |         |      | 02/07/2006 1249      |
| SW846 8015BMod   | Total Volatile Petroleum Hydrocarbons    | 1                      | 115317                  |         |      | 02/09/2006 1152      |
| SW-846 8021B     | Volatile Organics - Aromatics            | 1                      | 115231                  |         |      | 02/07/2006 1651 1.00 |

## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 02/22/2006

- (1) EPA 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, March 1983
- (2) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III
- (3) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
- (4) Methods of Organic Chemical Analysis of Municipal and Industrial Wastewater, Federal Register, Vol. 49, No. 209, October 1984 and 40 CFR Part 136 amendments
- (5) EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils
- (6) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
- (7) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
- (8) American Society for Testing and Materials, Petroleum Products, Lubricants, and Fossil Fuels, Section 5, Volumes 05.01 - 05.05
- (9) Hach Handbook of Water Analysis, 1979

## Comments:

The test results in this report meet all NELAP requirements for parameters for which accreditation is held. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

According to 40CFR Part 136.3, pH, total residual chlorine, dissolved oxygen, sulfite, and temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH, Client Provided), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Data in the QC report may differ from final results due to digestion and/or dilution of sample into analytical ranges. The "Time Analyzed" may not be the actual time of analysis. The "Date Analyzed" is the actual date of analysis. Sludge samples are reported on a wet weight basis (i.e., not corrected for percent moisture) unless otherwise indicated.

Quality Control acceptance criteria are based either on limits specified in the referenced method or on actual laboratory performance.

All data is reported on sample "as received" unless noted.

Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

## SAMPLE RESULT IDENTIFICATION

ND = Not detected at a value greater than the reporting limit  
TNTC = Too numerous to count

## BLANK QC SAMPLE IDENTIFICATION

MB Method Blank  
ICB Initial Calibration Blank  
CCB Continuing Calibration Blank

## SPIKE QC SAMPLE IDENTIFICATION

MS Method (Matrix) Spike  
MSD Method (Matrix) Spike Duplicate  
PDS Post Digestion/Distillation Spike  
SB Spiked Blank  
SBD Spiked Blank Duplicate

## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 02/22/2006

## REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS Laboratory Control Standard  
 RS Reference Standard  
 ICV Initial Calibration Verification Standard  
 CCV Continuing Calibration Verification Standard  
 ISA/ISB ICP Interference Check Sample  
 DSC Distilled Standard Check

## DUPLICATE QC SAMPLE IDENTIFICATION

MD Method (Matrix) Duplicate  
 ED Extraction Duplicate  
 DD Digestion Duplicate  
 PDD Post Digestion Duplicate  
 PSD Post Digestion/Distillation Spike Duplicate

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "technician" using the following codes:

## SUBCONTRACT LABORATORIES

## Severn Trent Laboratories:

|                 |     |                  |     |                  |     |
|-----------------|-----|------------------|-----|------------------|-----|
| Los Angeles, CA | *la | Houston, TX      | *he | Lake Charles, LA | *lc |
| Aurora, CO      | *au | North Canton, OH | *nc |                  |     |
| Tampa, FL       | *ta | Valparaiso, IN   | *vp |                  |     |
| Sacramento, CA  | *sa | Chicago, IL      | *ch |                  |     |
| Pensacola, FL   | *pe | Tallahassee, FL  | *tl |                  |     |

## Other:

Client provided data \*cp Non-STL Subcontract Lab \*xx

## EXPLANATION OF QC FLAGS

- B - This flag is used to indicate that an analyte is present in the method blank as well as in the sample. It indicates that the client should consider this when evaluating the results.
- D - This flag indicates that surrogates were diluted out of calibration range and cannot be quantified.
- E - Indicates that a sample result is an estimate because the concentration exceeded the calibration range of the instrument.
- F - Indicates that a initial calibration verification or continuing calibration verification recovery is outside the specified quality control limits.
- I - Used to indicate matrix interference.
- X - Indicates that a surrogate recovery is outside the specified quality control limits.
- Y - Used to identify a spike or spike duplicate recovery is outside the specified quality control limits.
- Z - Used to indicate a relative percent difference (RPD) for a duplicate analysis is outside the specified quality control limits.
- \* - Indicates a relative percent difference for a duplicate analysis is outside the specified quality control limits.
- - Used to indicate that a standard is outside specified quality control limits.

## EXPLANATION OF DATA QUALIFIERS

- B - Indicates that a value for an inorganic analysis is an estimate. It is used when a compound is determined to be present but at a concentration less than the quantitation limit of the method.
- J - Indicates that a value for an organic analysis is an estimate. It is used when a compound is determined to be present based on chromatographic pattern or mass spectral data, but at a concentration less than the quantitation limit of the method. This flag is also used when estimating the concentration of a tentatively identified compound.
- U - Indicates that a value is less than the MDL or was not detected.



**SEVERN  
TRENT**

**STL**

5.26 Sealed

No. 019219

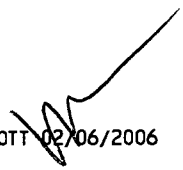
**CHAIN OF CUSTODY RECORD**

| <b>CUSTOMER INFORMATION</b>                                                                                                                                                                                                                                                                              |                    |                  | <b>PROJECT INFORMATION</b>          |                  |                  |                       | <b>NUMBER OF CONTAINERS</b> | <b>ANALYSIS/METHOD REQUEST</b><br>TPH-GRO (SW-846 #0015)<br>TPH-DRO (SW-846 #0015)<br>BTEX (SW-846 #0015)<br>PAHs (SW-846 #0015)<br>BTEX (SW-846 #0015) |   |   |  |  |  |  |  |  |                     | <b>LAB JOB NO.</b><br>233741 |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|-------------------------------------|------------------|------------------|-----------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|--|--|--|--|--|--|---------------------|------------------------------|--|
| COMPANY: <b>SOUTHWEST GEOSCIENCE</b>                                                                                                                                                                                                                                                                     |                    |                  | PROJECT NAME/NUMBER: <b>0105013</b> |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| SEND REPORT TO: <b>CHRIS MITCHELL</b>                                                                                                                                                                                                                                                                    |                    |                  | <b>BILLING INFORMATION</b>          |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| ADDRESS: <b>3030 LBJ FREEWAY</b>                                                                                                                                                                                                                                                                         |                    |                  | BILL TO:                            |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| <b>SUITE 700</b>                                                                                                                                                                                                                                                                                         |                    |                  | ADDRESS:                            |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| <b>DALLAS TX 75234</b>                                                                                                                                                                                                                                                                                   |                    |                  |                                     |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| PHONE: <b>(214) 722-7531</b>                                                                                                                                                                                                                                                                             |                    |                  | PHONE:                              |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| FAX: <b>(214) 722-7632</b>                                                                                                                                                                                                                                                                               |                    |                  | PO NO:                              |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| SAMPLE NO.                                                                                                                                                                                                                                                                                               | SAMPLE DESCRIPTION | SAMPLE DATE      | SAMPLE TIME                         | SAMPLE MATRIX    | CONTAINER        | PRESERV.              |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  | REMARKS/PRECAUTIONS |                              |  |
|                                                                                                                                                                                                                                                                                                          | MW-1               | 2.3.06           | 945                                 | H <sub>2</sub> O | 7                | 4°C/ACU               | x                           | x                                                                                                                                                       | x |   |  |  |  |  |  |  |                     |                              |  |
|                                                                                                                                                                                                                                                                                                          | MW-2               | 2.3.06           | 1145                                | H <sub>2</sub> O | 7                | 4°C/ACU               | x                           | x                                                                                                                                                       | x |   |  |  |  |  |  |  |                     |                              |  |
|                                                                                                                                                                                                                                                                                                          | MW-3R              | 2.3.06           | 1035                                | H <sub>2</sub> O | 9                | 4°C/ACU               | x                           | x                                                                                                                                                       | x | x |  |  |  |  |  |  |                     |                              |  |
|                                                                                                                                                                                                                                                                                                          | MW-4               | 2.3.06           | 825                                 | H <sub>2</sub> O | 7                | 4°C/ACU               | x                           | x                                                                                                                                                       | x |   |  |  |  |  |  |  |                     |                              |  |
| <i>No Further Entries</i>                                                                                                                                                                                                                                                                                |                    |                  |                                     |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| SAMPLER: <b>B. CHRIS MITCHELL</b>                                                                                                                                                                                                                                                                        |                    |                  | SHIPMENT METHOD: <b>FedEx</b>       |                  |                  |                       | AIRBILL NO.:                |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| REQUIRED TURNAROUND* <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS <input checked="" type="checkbox"/> ROUTINE <input type="checkbox"/> OTHER |                    |                  |                                     |                  |                  |                       |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| 1. RELINQUISHED BY:                                                                                                                                                                                                                                                                                      |                    | DATE             | 2. RELINQUISHED BY:                 |                  | DATE             | 3. RELINQUISHED BY:   |                             | DATE                                                                                                                                                    |   |   |  |  |  |  |  |  |                     |                              |  |
| SIGNATURE: <i>[Signature]</i>                                                                                                                                                                                                                                                                            |                    | 2.3.06           | SIGNATURE: <i>[Signature]</i>       |                  | 02/04/06         | SIGNATURE:            |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| PRINTED NAME/COMPANY: <b>SOUTHWEST GEOSCIENCE</b>                                                                                                                                                                                                                                                        |                    | TIME <b>1:00</b> | PRINTED NAME/COMPANY: <b>FedEx</b>  |                  | TIME <b>4:21</b> | PRINTED NAME/COMPANY: |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| 1. RECEIVED BY:                                                                                                                                                                                                                                                                                          |                    | DATE             | 2. RECEIVED BY:                     |                  | DATE             | 3. RECEIVED BY:       |                             | DATE                                                                                                                                                    |   |   |  |  |  |  |  |  |                     |                              |  |
| SIGNATURE:                                                                                                                                                                                                                                                                                               |                    |                  | SIGNATURE: <i>M. McCowen</i>        |                  | 02/04/06         | SIGNATURE:            |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |
| PRINTED NAME/COMPANY:                                                                                                                                                                                                                                                                                    |                    | TIME             | PRINTED NAME/COMPANY: <b>STL</b>    |                  | TIME <b>4:21</b> | PRINTED NAME/COMPANY: |                             |                                                                                                                                                         |   |   |  |  |  |  |  |  |                     |                              |  |

\*RUSH TURNAROUND MAY REQUIRE SURCHARGE

**STL Houston**  
6310 Rothway Drive  
Houston, TX 77040

STL8222H-600 (0803)

|                                                  |                                                                                                                 |                       |                                   |    |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------|----|
| rpjsckl                                          | Job Sample Receipt Checklist Report                                                                             |                       |                                   | V2 |
| Job Number.: 233741                              | Location.: 57203                                                                                                | Check List Number.: 1 | Description.:                     |    |
| Customer Job ID.....                             | Job Check List Date.:                                                                                           |                       | Date of the Report...: 02/06/2006 |    |
| Project Number.: 98000082                        | Project Description.: PROJECT-TLK                                                                               |                       | Project Manager.....: tlk         |    |
| Customer.....: Southwest Geoscience              | Contact.: Chris Mitchell                                                                                        |                       |                                   |    |
| Questions ?                                      | (Y/N) Comments                                                                                                  |                       |                                   |    |
| How did samples arrive?.....                     | FED EX                                                                                                          |                       |                                   |    |
| Chain-of-Custody Present?.....                   | Y                                                                                                               |                       |                                   |    |
| Custody seal on shipping container?.....         | Y                                                                                                               |                       |                                   |    |
| ...If "yes", custody seal intact?.....           | Y                                                                                                               |                       |                                   |    |
| Custody seals on sample containers?.....         | N                                                                                                               |                       |                                   |    |
| ...If "yes", custody seal intact?.....           |                                                                                                                 |                       |                                   |    |
| Samples chilled?.....                            | Y                                                                                                               |                       |                                   |    |
| Temperature blank in cooler?.....                | Y                                                                                                               |                       |                                   |    |
| Temp of cooler acceptable? (0.05 to 6.00 deg C)  | Y                                                                                                               | 5.2C                  |                                   |    |
| Samples received intact (good condition)?.....   | Y                                                                                                               |                       |                                   |    |
| Volatile samples acceptable? (no headspace)..... | Y                                                                                                               |                       |                                   |    |
| Correct containers used?.....                    | Y                                                                                                               |                       |                                   |    |
| Adequate sample volume provided?.....            | Y                                                                                                               |                       |                                   |    |
| Samples preserved correctly?.....                | Y                                                                                                               |                       |                                   |    |
| Samples received within holding-time?.....       | Y                                                                                                               |                       |                                   |    |
| Agreement between COC and sample labels?.....    | Y                                                                                                               |                       |                                   |    |
| Additional.....                                  |                                                                                                                 |                       |                                   |    |
| Comments.....                                    |                                                                                                                 |                       |                                   |    |
| Sample Custodian Signature.....                  | <br>V. MCDERMOTT 02/06/2006 |                       |                                   |    |

## ANALYTICAL REPORT

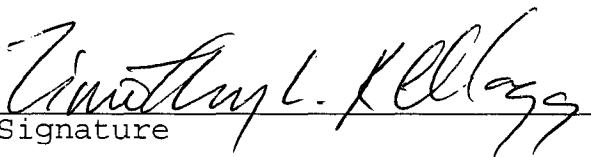
JOB NUMBER: 234778

Prepared For:

Southwest Geoscience  
2351 W. Northwest Highway  
Suite 3321  
Dallas, TX 75220

Attention: Chris Mitchell

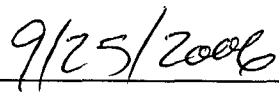
Date: 09/22/2006

  
Signature

Name: Timothy L. Kellogg

Title: Customer Service Manager

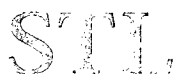
E-Mail: tkellogg@stl-inc.com

  
Date

Severn Trent Laboratories  
1733 N. Padre Island Drive  
Corpus Christi, TX 78408

PHONE: 361/289-2673  
FAX...: 361/289-2471

TOTAL # OF PAGES 21



## CASE NARRATIVE

Job Number 234778

September 25, 2006

### Gasoline Range Organics (GRO) Analysis (EPA 8015 mod.)

It was noted that the surrogate recovery for STL Corpus Christi sample 234778-004 was above the normal laboratory acceptance criteria (QC batch #118347). This was due to suspected matrix interference inherent in the sample. Other surrogate recoveries were acceptable as well as all of the other related quality control.

Please contact me at 361-289-2673 or [tkellogg@stl-inc.com](mailto:tkellogg@stl-inc.com) if you have further questions or if I can be of further assistance.

A handwritten signature in black ink that reads "Timothy L. Kellogg".

Timothy L. Kellogg  
Customer Service Manager  
STL Corpus Christi

## SAMPLE INFORMATION

Date: 09/22/2006

Job Number.: 234778

Customer.... Southwest Geoscience

Attn..... Chris Mitchell

Project Number.....: 98000082

Customer Project ID....: 0105013

Project Description....: PROJECT-TLK

| Laboratory<br>Sample ID | Customer<br>Sample ID | Sample<br>Matrix | Date<br>Sampled | Time<br>Sampled | Date<br>Received | Time<br>Received |
|-------------------------|-----------------------|------------------|-----------------|-----------------|------------------|------------------|
| 234778-1                | MW-1                  | Water            | 08/19/2006      | 16:45           | 08/22/2006       | 10:00            |
| 234778-2                | MW-4                  | Water            | 08/19/2006      | 17:20           | 08/22/2006       | 10:00            |
| 234778-3                | MW-2                  | Water            | 08/19/2006      | 17:55           | 08/22/2006       | 10:00            |
| 234778-4                | MW-3R                 | Water            | 08/19/2006      | 18:30           | 08/22/2006       | 10:00            |

## LABORATORY TEST RESULTS

Job Number: 234778

Date: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-1

Date Sampled.....: 08/19/2006

Time Sampled.....: 16:45

Sample Matrix.....: Water

Laboratory Sample ID: 234778-1

Date Received.....: 08/22/2006

Time Received.....: 10:00

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                                  | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|-----------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
| SW846 8015BMod | Total Volatile Petroleum Hydrocarbons<br>TVPH - Gasoline Range Organics     | ND            | 150             | ug/L  | 08/24/06 | rh   |
| SW-846 8021B   | Volatile Organics - Aromatics                                               | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Benzene                                                                     | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Ethylbenzene                                                                | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Toluene                                                                     | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Xylenes (total)                                                             | ND            | 6               | ug/L  | 08/28/06 | rh   |
| SW-846 3520C   | Extraction (Continuous Liq/Liq) DROs<br>Continuous Liquid-Liquid Extraction | Complete      |                 |       | 08/23/06 | lpm  |
| SW846 8015BMod | Total Extractable Petroleum Hydrocarbons<br>TEPH - Diesel Range Organics    | ND            | 0.50            | mg/L  | 08/24/06 | imc  |

LABORATORY TEST RESULTS

Job Number: 234778

Date: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-4  
Date Sampled.....: 08/19/2006  
Time Sampled.....: 17:20  
Sample Matrix.....: Water

Laboratory Sample ID: 234778-2  
Date Received.....: 08/22/2006  
Time Received.....: 10:00

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                                  | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|-----------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
| SW846 8015BMod | Total Volatile Petroleum Hydrocarbons<br>TVPH - Gasoline Range Organics     | ND            | 150             | ug/L  | 08/24/06 | rh   |
| SW-846 8021B   | Volatile Organics - Aromatics                                               |               |                 |       |          |      |
|                | Benzene                                                                     | 4             | 2               | ug/L  | 08/28/06 | rh   |
|                | Ethylbenzene                                                                | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Toluene                                                                     | 5             | 2               | ug/L  | 08/28/06 | rh   |
|                | Xylenes (total)                                                             | ND            | 6               | ug/L  | 08/28/06 | rh   |
| SW-846 3520C   | Extraction (Continuous Liq/Liq) DROs<br>Continuous Liquid-Liquid Extraction | Complete      |                 |       | 08/24/06 | lpm  |
| SW846 8015BMod | Total Extractable Petroleum Hydrocarbons<br>TEPH - Diesel Range Organics    | ND            | 0.50            | mg/L  | 08/24/06 | imc  |

## LABORATORY TEST RESULTS

Job Number: 234778

Date: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-2  
 Date Sampled.....: 08/19/2006  
 Time Sampled.....: 17:55  
 Sample Matrix.....: Water

Laboratory Sample ID: 234778-3  
 Date Received.....: 08/22/2006  
 Time Received.....: 10:00

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                                  | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|-----------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
| SW846 8015BMod | Total Volatile Petroleum Hydrocarbons<br>TVPH - Gasoline Range Organics     | ND            | 150             | ug/L  | 08/24/06 | rh   |
| SW-846 8021B   | Volatile Organics - Aromatics                                               | 2             | 2               | ug/L  | 08/28/06 | rh   |
|                | Benzene                                                                     | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Ethylbenzene                                                                | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Toluene                                                                     | ND            | 6               | ug/L  | 08/28/06 | rh   |
|                | Xylenes (total)                                                             | ND            |                 |       |          |      |
| SW-846 3520C   | Extraction (Continuous Liq/Liq) DROs<br>Continuous Liquid-Liquid Extraction | Complete      |                 |       | 08/24/06 | lpm  |
| SW846 8015BMod | Total Extractable Petroleum Hydrocarbons<br>TEPH - Diesel Range Organics    | ND            | 0.50            | mg/L  | 08/24/06 | imc  |



## LABORATORY TEST RESULTS

Job Number: 234778

Date: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Customer Sample ID: MW-3R  
 Date Sampled.....: 08/19/2006  
 Time Sampled.....: 18:30  
 Sample Matrix.....: Water

Laboratory Sample ID: 234778-4  
 Date Received.....: 08/22/2006  
 Time Received.....: 10:00

| TEST METHOD    | PARAMETER/TEST DESCRIPTION                                                     | SAMPLE RESULT | REPORTING LIMIT | UNITS | DATE     | TECH |
|----------------|--------------------------------------------------------------------------------|---------------|-----------------|-------|----------|------|
| SW846 8015BMod | Total Volatile Petroleum Hydrocarbons<br>TVPH - Gasoline Range Organics        | 323           | 150             | ug/L  | 08/24/06 | rh   |
| SW-846 8021B   | Volatile Organics - Aromatics                                                  | 2             | 2               | ug/L  | 08/28/06 | rh   |
|                | Benzene                                                                        | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Ethylbenzene                                                                   | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Toluene                                                                        | ND            | 2               | ug/L  | 08/28/06 | rh   |
|                | Xylenes (total)                                                                | ND            | 6               | ug/L  | 08/28/06 | rh   |
| SW-846 3520C   | Extraction (Continuous Liq/Liq for B/N)<br>Continuous Liquid-Liquid Extraction | Complete      |                 |       | 08/24/06 | lpm  |
| SW-846 3520C   | Extraction (Continuous Liq/Liq) DROs<br>Continuous Liquid-Liquid Extraction    | Complete      |                 |       | 08/24/06 | lpm  |
| SW-846 8270C   | Semivolatile Organics                                                          |               |                 |       |          |      |
|                | Acenaphthene                                                                   | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Acenaphthylene                                                                 | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Anthracene                                                                     | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Benzo(a)anthracene (1,2-Benzanthracene)                                        | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Benzo(b)fluoranthene                                                           | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Benzo(k)fluoranthene                                                           | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Benzo(ghi)perylene                                                             | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Benzo(a)pyrene                                                                 | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Chrysene                                                                       | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Dibenzo(ah)anthracene                                                          | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Fluoranthene                                                                   | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Fluorene                                                                       | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Indeno(123cd)pyrene                                                            | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | 2-Methylnaphthalene                                                            | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Naphthalene                                                                    | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Phenanthrene                                                                   | ND            | 10              | ug/L  | 08/25/06 | gef  |
|                | Pyrene                                                                         | ND            | 10              | ug/L  | 08/25/06 | gef  |
| SW846 8015BMod | Total Extractable Petroleum Hydrocarbons<br>TEPH - Diesel Range Organics       | 1.97          | 0.50            | mg/L  | 08/24/06 | imc  |

## QUALITY CONTROL RESULTS

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

Test Method.....: SW846 8015BMod

Units.....: ug/L

Analyst....: rh

Method Description.: Total Volatile Petroleum Hydrocarbons

Batch.....: 118347

|     |                                     |           |  |  |            |      |
|-----|-------------------------------------|-----------|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060801GA |  |  | 08/24/2006 | 0947 |
|-----|-------------------------------------|-----------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 468.913   |           | 500.000000 |             | 93.8         | % 75-125 |

|     |                                     |           |  |  |            |      |
|-----|-------------------------------------|-----------|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060801GA |  |  | 08/24/2006 | 1513 |
|-----|-------------------------------------|-----------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 442.630   |           | 500.000000 |             | 88.5         | % 75-125 |

|     |                           |           |  |  |            |      |
|-----|---------------------------|-----------|--|--|------------|------|
| LCS | Laboratory Control Sample | B060801GB |  |  | 08/24/2006 | 1023 |
|-----|---------------------------|-----------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 460.431   |           | 500.000000 |             | 92.1         | % 76-138 |

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 082406 |  |  | 08/24/2006 | 1059 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 30.402    |           |            |             |              |          |

|    |              |            |          |  |            |      |
|----|--------------|------------|----------|--|------------|------|
| MS | Matrix Spike | B060801BFB | 234778-3 |  | 08/24/2006 | 1400 |
|----|--------------|------------|----------|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TVPH - Gasoline Range Organics | 466.278   |           | 500.000000 | 29.076      | 87.4         | % 60-137 |

|     |                        |            |          |  |            |      |
|-----|------------------------|------------|----------|--|------------|------|
| MSD | Matrix Spike Duplicate | B060801BFB | 234778-3 |  | 08/24/2006 | 1437 |
|-----|------------------------|------------|----------|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits         |
|--------------------------------|-----------|-----------|------------|-------------|--------------|------------------|
| TVPH - Gasoline Range Organics | 431.079   | 466.278   | 500.000000 | 29.076      | 80.4<br>7.8  | % 60-137<br>R 30 |

Test Method.....: SW-846 8021B

Units.....: ug/L

Analyst....: rh

Method Description.: Volatile Organics - Aromatics

Batch.....: 118412

|     |                                     |            |  |  |            |      |
|-----|-------------------------------------|------------|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060801CCC |  |  | 08/28/2006 | 0300 |
|-----|-------------------------------------|------------|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Benzene                        | 89.20     |           | 100.000000 |             | 89.2         | % 80-120 |
| Ethylbenzene                   | 86.47     |           | 100.000000 |             | 86.5         | % 80-120 |
| tert-Butyl Methyl Ether (MTBE) | 83.65     |           | 100.000000 |             | 83.7         | % 80-120 |

## QUALITY CONTROL RESULTS

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description                         | Reag. Code | Lab ID | Dilution Factor | Date       | Time |
|---------|-------------------------------------|------------|--------|-----------------|------------|------|
| CCV     | Continuing Calibration Verification | B060801CCC |        |                 | 08/28/2006 | 0300 |

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|----------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Toluene                    | 87.51     |           | 100.000000 |             | 87.5         | % | 80-120 |
| Xylenes (total)            | 258.76    |           | 300.000000 |             | 86.3         | % | 80-120 |
| m&p-Xylenes                | 171.36    |           | 200.000000 |             | 85.7         | % | 80-120 |
| o-Xylene                   | 87.40     |           | 100.000000 |             | 87.4         | % | 80-120 |

|     |                                     |            |  |  |  |            |      |
|-----|-------------------------------------|------------|--|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060801CCC |  |  |  | 08/28/2006 | 0810 |
|-----|-------------------------------------|------------|--|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Benzene                        | 89.07     |           | 100.000000 |             | 89.1         | % | 80-120 |
| Ethylbenzene                   | 85.97     |           | 100.000000 |             | 86.0         | % | 80-120 |
| tert-Butyl Methyl Ether (MTBE) | 86.65     |           | 100.000000 |             | 86.7         | % | 80-120 |
| Toluene                        | 87.23     |           | 100.000000 |             | 87.2         | % | 80-120 |
| Xylenes (total)                | 258.01    |           | 300.000000 |             | 86.0         | % | 80-120 |
| m&p-Xylenes                    | 170.16    |           | 200.000000 |             | 85.1         | % | 80-120 |
| o-Xylene                       | 87.85     |           | 100.000000 |             | 87.8         | % | 80-120 |

|     |                                     |            |  |  |  |            |      |
|-----|-------------------------------------|------------|--|--|--|------------|------|
| CCV | Continuing Calibration Verification | B060801CCC |  |  |  | 08/28/2006 | 0900 |
|-----|-------------------------------------|------------|--|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Benzene                        | 87.60     |           | 100.000000 |             | 87.6         | % | 80-120 |
| Ethylbenzene                   | 84.94     |           | 100.000000 |             | 84.9         | % | 80-120 |
| tert-Butyl Methyl Ether (MTBE) | 81.91     |           | 100.000000 |             | 81.9         | % | 80-120 |
| Toluene                        | 86.06     |           | 100.000000 |             | 86.1         | % | 80-120 |
| Xylenes (total)                | 257.68    |           | 300.000000 |             | 85.9         | % | 80-120 |
| m&p-Xylenes                    | 169.22    |           | 200.000000 |             | 84.6         | % | 80-120 |
| o-Xylene                       | 88.46     |           | 100.000000 |             | 88.5         | % | 80-120 |

|     |                           |            |  |  |  |            |      |
|-----|---------------------------|------------|--|--|--|------------|------|
| LCS | Laboratory Control Sample | B060801SBV |  |  |  | 08/28/2006 | 0930 |
|-----|---------------------------|------------|--|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Benzene                        | 16.62     |           | 20.000000  |             |              |   |        |
| Ethylbenzene                   | 16.35     |           | 20.000000  |             |              |   |        |
| tert-Butyl Methyl Ether (MTBE) | 74.89     |           | 100.000000 |             |              |   |        |
| Toluene                        | 16.51     |           | 20.000000  |             |              |   |        |
| Xylenes (total)                | 34.55     |           | 40.000000  |             |              |   |        |
| m&p-Xylenes                    | 17.32     |           | 20.000000  |             |              |   |        |
| o-Xylene                       | 17.23     |           | 20.000000  |             |              |   |        |

|    |              |        |  |  |  |            |      |
|----|--------------|--------|--|--|--|------------|------|
| MB | Method Blank | 082806 |  |  |  | 08/28/2006 | 0330 |
|----|--------------|--------|--|--|--|------------|------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * | Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|---|--------|
| Benzene                        | ND        |           |            |             |              |   |        |
| Ethylbenzene                   | ND        |           |            |             |              |   |        |
| tert-Butyl Methyl Ether (MTBE) | ND        |           |            |             |              |   |        |
| Toluene                        | ND        |           |            |             |              |   |        |
| Xylenes (total)                | ND        |           |            |             |              |   |        |

## QUALITY CONTROL RESULTS

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description  | Reag. Code | Lab ID | Dilution Factor | Date       | Time |
|---------|--------------|------------|--------|-----------------|------------|------|
| MB      | Method Blank | 082806     |        |                 | 08/28/2006 | 0330 |

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|----------------------------|-----------|-----------|------------|-------------|--------------|----------|
| m&p-Xylenes                | ND        |           |            |             |              |          |
| o-Xylene                   | ND        |           |            |             |              |          |

|    |              |        |  |  |  |                 |
|----|--------------|--------|--|--|--|-----------------|
| MB | Method Blank | 082806 |  |  |  | 08/28/2006 1010 |
|----|--------------|--------|--|--|--|-----------------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Benzene                        | ND        |           |            |             |              |          |
| Ethylbenzene                   | ND        |           |            |             |              |          |
| tert-Butyl Methyl Ether (MTBE) | ND        |           |            |             |              |          |
| Toluene                        | ND        |           |            |             |              |          |
| Xylenes (total)                | ND        |           |            |             |              |          |
| m&p-Xylenes                    | ND        |           |            |             |              |          |
| o-Xylene                       | ND        |           |            |             |              |          |

|    |              |            |        |       |  |                 |
|----|--------------|------------|--------|-------|--|-----------------|
| MS | Matrix Spike | B060801SBV | 1593-3 | 10.00 |  | 08/28/2006 0720 |
|----|--------------|------------|--------|-------|--|-----------------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Benzene                        | 114.69    |           | 20.000000  | 99.95       | 73.7         | % 46-148 |
| Ethylbenzene                   | 20.67     |           | 20.000000  | 4.01        | 83.3         | % 70-120 |
| tert-Butyl Methyl Ether (MTBE) | 78.96     |           | 100.000000 | 1.01        | 78.0         | % 66-126 |
| Toluene                        | 69.47     |           | 20.000000  | 54.75       | 73.6         | % 62-124 |
| Xylenes (total)                | 56.24     |           | 40.000000  | 21.46       | 87.0         | % 71-127 |
| m&p-Xylenes                    | 24.91     |           | 20.000000  | 7.84        | 85.3         | % 73-129 |
| o-Xylene                       | 31.33     |           | 20.000000  | 13.62       | 88.5         | % 72-122 |

|     |                        |            |        |       |  |                 |
|-----|------------------------|------------|--------|-------|--|-----------------|
| MSD | Matrix Spike Duplicate | B060801SBV | 1593-3 | 10.00 |  | 08/28/2006 0750 |
|-----|------------------------|------------|--------|-------|--|-----------------|

| Parameter/Test Description     | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|--------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Benzene                        | 109.68    | 114.69    | 20.000000  | 99.95       | 48.6         | % 46-148 |
|                                |           |           |            |             | 4.5          | R 20     |
| Ethylbenzene                   | 19.98     | 20.67     | 20.000000  | 4.01        | 79.8         | % 70-120 |
|                                |           |           |            |             | 3.4          | R 20     |
| tert-Butyl Methyl Ether (MTBE) | 76.77     | 78.96     | 100.000000 | 1.01        | 75.8         | % 66-126 |
|                                |           |           |            |             | 2.8          | R 20     |
| Toluene                        | 66.35     | 69.47     | 20.000000  | 54.75       | 58.0         | % 62-124 |
|                                |           |           |            |             | 4.6          | R 20     |
| Xylenes (total)                | 54.16     | 56.24     | 40.000000  | 21.46       | 81.8         | % 71-127 |
|                                |           |           |            |             | 3.8          | R 20     |
| m&p-Xylenes                    | 24.03     | 24.91     | 20.000000  | 7.84        | 81.0         | % 73-129 |
|                                |           |           |            |             | 3.6          | R 20     |
| o-Xylene                       | 30.13     | 31.33     | 20.000000  | 13.62       | 82.5         | % 72-122 |
|                                |           |           |            |             | 3.9          | R 20     |

## QUALITY CONTROL RESULTS

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description | Reag. Code | Lab ID | Dilution Factor | Date | Time |
|---------|-------------|------------|--------|-----------------|------|------|
|---------|-------------|------------|--------|-----------------|------|------|

Test Method.....: SW-846 8270C  
 Method Description.: Semivolatile Organics

Units.....: ug/L  
 Batch.....: 118355

Analyst....: gef

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 082306 |  |  | 08/25/2006 | 1300 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description              | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|-----------------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Acenaphthene                            | ND        |           |            |             |              |          |
| Acenaphthylene                          | ND        |           |            |             |              |          |
| Anthracene                              | ND        |           |            |             |              |          |
| Benzo(a)anthracene (1,2-Benzanthracene) | ND        |           |            |             |              |          |
| Benzo(b)fluoranthene                    | ND        |           |            |             |              |          |
| Benzo(k)fluoranthene                    | ND        |           |            |             |              |          |
| Benzo(ghi)perylene                      | ND        |           |            |             |              |          |
| Benzo(a)pyrene                          | ND        |           |            |             |              |          |
| Chrysene                                | ND        |           |            |             |              |          |
| Dibenzo(ah)anthracene                   | ND        |           |            |             |              |          |
| Fluoranthene                            | ND        |           |            |             |              |          |
| Fluorene                                | ND        |           |            |             |              |          |
| Indeno(123cd)pyrene                     | ND        |           |            |             |              |          |
| 2-Methylnaphthalene                     | ND        |           |            |             |              |          |
| Naphthalene                             | ND        |           |            |             |              |          |
| Phenanthrene                            | ND        |           |            |             |              |          |
| Pyrene                                  | ND        |           |            |             |              |          |

|    |              |           |  |  |            |      |
|----|--------------|-----------|--|--|------------|------|
| SB | Spiked Blank | EX060823X |  |  | 08/25/2006 | 1428 |
|----|--------------|-----------|--|--|------------|------|

| Parameter/Test Description              | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|-----------------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Acenaphthene                            | 79.54     |           | 100        |             | 79.5         | % 45-124 |
| Acenaphthylene                          | 79.52     |           | 100        |             | 79.5         | % 46-120 |
| Anthracene                              | 81.70     |           | 100        |             | 81.7         | % 57-122 |
| Benzo(a)anthracene (1,2-Benzanthracene) | 87.16     |           | 100        |             | 87.2         | % 66-124 |
| Benzo(b)fluoranthene                    | 95.69     |           | 100        |             | 95.7         | % 66-134 |
| Benzo(k)fluoranthene                    | 81.21     |           | 100        |             | 81.2         | % 60-120 |
| Benzo(ghi)perylene                      | 82.51     |           | 100        |             | 82.5         | % 71-120 |
| Benzo(a)pyrene                          | 85.56     |           | 100        |             | 85.6         | % 68-120 |
| Chrysene                                | 81.42     |           | 100        |             | 81.4         | % 68-129 |
| Dibenzo(ah)anthracene                   | 84.32     |           | 100        |             | 84.3         | % 71-121 |
| Fluoranthene                            | 75.47     |           | 100        |             | 75.5         | % 70-124 |
| Fluorene                                | 79.63     |           | 100        |             | 79.6         | % 54-120 |
| Indeno(123cd)pyrene                     | 84.26     |           | 100        |             | 84.3         | % 71-120 |
| 2-Methylnaphthalene                     | 74.45     |           | 100        |             | 74.5         | % 40-120 |
| Naphthalene                             | 72.76     |           | 100        |             | 72.8         | % 38-120 |
| Phenanthrene                            | 79.65     |           | 100        |             | 79.7         | % 66-120 |
| Pyrene                                  | 91.52     |           | 100        |             | 91.5         | % 68-127 |

|     |                        |           |  |  |            |      |
|-----|------------------------|-----------|--|--|------------|------|
| SBD | Spiked Blank Duplicate | EX060823X |  |  | 08/25/2006 | 1457 |
|-----|------------------------|-----------|--|--|------------|------|

| Parameter/Test Description | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|----------------------------|-----------|-----------|------------|-------------|--------------|----------|
| Acenaphthene               | 78.45     | 79.54     | 100        |             | 78.5         | % 45-124 |
| Acenaphthylene             | 77.43     | 79.52     | 100        |             | 77.4         | % 46-120 |
|                            |           |           |            |             | 2.7          | R 30     |

## QUALITY CONTROL RESULTS

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description            | Reag. Code | Lab ID | Dilution Factor | Date       | Time |
|---------|------------------------|------------|--------|-----------------|------------|------|
| SBD     | Spiked Blank Duplicate | EX060823X  |        |                 | 08/25/2006 | 1457 |

| Parameter/Test Description              | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits         |
|-----------------------------------------|-----------|-----------|------------|-------------|--------------|------------------|
| Anthracene                              | 85.59     | 81.70     | 100        |             | 85.6<br>4.7  | % 57-122<br>R 30 |
| Benzo(a)anthracene (1,2-Benzanthracene) | 91.67     | 87.16     | 100        |             | 91.7<br>5.0  | % 66-124<br>R 30 |
| Benzo(b)fluoranthene                    | 99.81     | 95.69     | 100        |             | 99.8<br>4.2  | % 66-134<br>R 30 |
| Benzo(k)fluoranthene                    | 85.26     | 81.21     | 100        |             | 85.3<br>4.9  | % 60-120<br>R 30 |
| Benzo(ghi)perylene                      | 86.23     | 82.51     | 100        |             | 86.2<br>4.4  | % 71-120<br>R 30 |
| Benzo(a)pyrene                          | 89.89     | 85.56     | 100        |             | 89.9<br>4.9  | % 68-120<br>R 30 |
| Chrysene                                | 85.79     | 81.42     | 100        |             | 85.8<br>5.2  | % 68-129<br>R 30 |
| Dibenzo(ah)anthracene                   | 88.97     | 84.32     | 100        |             | 89.0<br>5.4  | % 71-121<br>R 30 |
| Fluoranthene                            | 79.68     | 75.47     | 100        |             | 79.7<br>5.4  | % 70-124<br>R 30 |
| Fluorene                                | 80.37     | 79.63     | 100        |             | 80.4<br>0.9  | % 54-120<br>R 30 |
| Indeno(123cd)pyrene                     | 87.89     | 84.26     | 100        |             | 87.9<br>4.2  | % 71-120<br>R 30 |
| 2-Methylnaphthalene                     | 71.62     | 74.45     | 100        |             | 71.6<br>3.9  | % 40-120<br>R 30 |
| Naphthalene                             | 70.07     | 72.76     | 100        |             | 70.1<br>3.8  | % 38-120<br>R 30 |
| Phenanthrene                            | 84.05     | 79.65     | 100        |             | 84.0<br>5.4  | % 66-120<br>R 30 |
| Pyrene                                  | 96.54     | 91.52     | 100        |             | 96.5<br>5.3  | % 68-127<br>R 25 |

Test Method.....: SW846 8015BMod.

Units.....: mg/L

Analyst....: imc

Method Description.: Total Extractable Petroleum Hydrocarbons Batch.....: 118338

|     |                                     |           |  |  |  |                 |
|-----|-------------------------------------|-----------|--|--|--|-----------------|
| CCV | Continuing Calibration Verification | SG060816A |  |  |  | 08/24/2006 0919 |
|-----|-------------------------------------|-----------|--|--|--|-----------------|

| Parameter/Test Description   | QC Result | QC Result | True Value  | Orig. Value | Calc. Result | * Limits |
|------------------------------|-----------|-----------|-------------|-------------|--------------|----------|
| TEPH - Diesel Range Organics | 1898      |           | 2000.000000 |             | 94.9         | % 80-120 |

|     |                                     |           |  |  |  |                 |
|-----|-------------------------------------|-----------|--|--|--|-----------------|
| CCV | Continuing Calibration Verification | SG060816A |  |  |  | 08/24/2006 1527 |
|-----|-------------------------------------|-----------|--|--|--|-----------------|

| Parameter/Test Description   | QC Result | QC Result | True Value  | Orig. Value | Calc. Result | * Limits |
|------------------------------|-----------|-----------|-------------|-------------|--------------|----------|
| TEPH - Diesel Range Organics | 1945.0    |           | 2000.000000 |             | 97.2         | % 80-120 |

## QUALITY CONTROL RESULTS

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| QC Type | Description                         | Reag. Code | Lab ID | Dilution Factor | Date       | Time |
|---------|-------------------------------------|------------|--------|-----------------|------------|------|
| LCD     | Laboratory Control Sample Duplicate | EX060731DR |        |                 | 08/24/2006 | 1137 |

| Parameter/Test Description   | QC Result | QC Result | True Value  | Orig. Value | Calc. Result | * Limits         |
|------------------------------|-----------|-----------|-------------|-------------|--------------|------------------|
| TEPH - Diesel Range Organics | 909.8     | 931.5     | 1000.000000 |             | 91.0<br>2.4  | % 29-120<br>R 30 |

|     |                           |            |  |  |            |      |
|-----|---------------------------|------------|--|--|------------|------|
| LCS | Laboratory Control Sample | EX060731DR |  |  | 08/24/2006 | 1051 |
|-----|---------------------------|------------|--|--|------------|------|

| Parameter/Test Description   | QC Result | QC Result | True Value  | Orig. Value | Calc. Result | * Limits |
|------------------------------|-----------|-----------|-------------|-------------|--------------|----------|
| TEPH - Diesel Range Organics | 931.5     |           | 1000.000000 |             | 93.2         | % 29-120 |

|    |              |        |  |  |            |      |
|----|--------------|--------|--|--|------------|------|
| MB | Method Blank | 082406 |  |  | 08/24/2006 | 1005 |
|----|--------------|--------|--|--|------------|------|

| Parameter/Test Description   | QC Result | QC Result | True Value | Orig. Value | Calc. Result | * Limits |
|------------------------------|-----------|-----------|------------|-------------|--------------|----------|
| TEPH - Diesel Range Organics | 0.0665    |           |            |             |              |          |

## SURROGATE RECOVERIES REPORT

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

Method.....: Total Extractable Petroleum Hydrocarbons Method Code.....: 8015DR

Batch.....: 118338

Analyst.....: imc

Equipment Code: TPH #4

| Surrogate               | Units |
|-------------------------|-------|
| o-Terphenyl (Surrogate) | mg/L  |

| Lab ID                                       | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------------------------------------------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 234778-1<br>234778-2<br>234778-3<br>234778-4 |        | CCV     |          | 46.53  | 50.000     | 93               | 26-141 |      | 08/24/2006 | 0919 |
|                                              |        | MB      |          | 33.20  | 50.000     | 66               | 26-141 |      | 08/24/2006 | 1005 |
|                                              |        | LCS     |          | 39.79  | 50.000     | 80               | 26-141 |      | 08/24/2006 | 1051 |
|                                              |        | LCD     |          | 40.39  | 50.000     | 81               | 26-141 |      | 08/24/2006 | 1137 |
|                                              |        |         |          | 32.62  | 50.000     | 65               | 26-141 |      | 08/24/2006 | 1223 |
|                                              |        |         |          | 32.26  | 50.000     | 65               | 26-141 |      | 08/24/2006 | 1309 |
|                                              |        |         |          | 31.38  | 50.000     | 63               | 26-141 |      | 08/24/2006 | 1355 |
|                                              |        |         |          | 31.32  | 50.000     | 63               | 26-141 |      | 08/24/2006 | 1441 |
|                                              |        | CCV     |          | 47.18  | 50.000     | 94               | 26-141 |      | 08/24/2006 | 1527 |

Method.....: Total Volatile Petroleum Hydrocarbons

Method Code.....: 8015G

Batch.....: 118347

Analyst.....: rh

Equipment Code:

| Surrogate       | Units |
|-----------------|-------|
| BFB (Surrogate) | ug/L  |

| Lab ID                                                               | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------------------------------------------------------------------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 234778-1<br>234778-2<br>234778-3<br>234778-4<br>234778-3<br>234778-3 |        | CCV     |          | 21.101 | 20.00      | 105.5            | 60-120 |      | 08/24/2006 | 0947 |
|                                                                      |        | LCS     |          | 20.618 | 20.00      | 103.1            | 60-120 |      | 08/24/2006 | 1023 |
|                                                                      |        | MB      |          | 19.717 | 20.00      | 98.6             | 60-120 |      | 08/24/2006 | 1059 |
|                                                                      |        |         |          | 19.615 | 20.00      | 98.1             | 60-120 |      | 08/24/2006 | 1136 |
|                                                                      |        |         |          | 19.538 | 20.00      | 97.7             | 60-120 |      | 08/24/2006 | 1212 |
|                                                                      |        |         |          | 19.631 | 20.00      | 98.2             | 60-120 |      | 08/24/2006 | 1248 |
|                                                                      |        |         |          | 29.994 | 20.00      | 150.0            | 60-120 | X    | 08/24/2006 | 1324 |
|                                                                      |        | MS      |          | 20.115 | 20.00      | 100.6            | 60-120 |      | 08/24/2006 | 1400 |
|                                                                      |        | MSD     |          | 20.260 | 20.00      | 101.3            | 60-120 |      | 08/24/2006 | 1437 |
|                                                                      |        | CCV     |          | 20.417 | 20.00      | 102.1            | 60-120 |      | 08/24/2006 | 1513 |

Method.....: Semivolatile Organics

Method Code.....: 8270CC

Batch.....: 118355

Analyst.....: gef

Equipment Code: SVOC GC/MS #2

| Surrogate        | Units |
|------------------|-------|
| 2-Fluorobiphenyl | ug/L  |

| Lab ID   | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 234778-4 |        | MB      | 1.00     | 71.91  | 100        | 72               | 28-120 |      | 08/25/2006 | 1300 |
|          |        |         | 1.00     | 71.73  | 100        | 72               | 28-120 |      | 08/25/2006 | 1359 |
|          |        | SB      | 1.00     | 74.92  | 100        | 75               | 28-120 |      | 08/25/2006 | 1428 |



## SURROGATE RECOVERIES REPORT

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| Surrogate        | Units |
|------------------|-------|
| 2-Fluorobiphenyl | ug/L  |

| Lab ID | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|--------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
|        |        | SBD     | 1.00     | 71.36  | 100        | 71               | 28-120 |      | 08/25/2006 | 1457 |

| Surrogate       | Units |
|-----------------|-------|
| Nitrobenzene-d5 | ug/L  |

| Lab ID   | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 234778-4 |        | MB      | 1.00     | 76.90  | 100        | 77               | 31-120 |      | 08/25/2006 | 1300 |
|          |        |         | 1.00     | 73.38  | 100        | 73               | 31-120 |      | 08/25/2006 | 1359 |
|          |        | SB      | 1.00     | 77.45  | 100        | 77               | 31-120 |      | 08/25/2006 | 1428 |
|          |        | SBD     | 1.00     | 73.19  | 100        | 73               | 31-120 |      | 08/25/2006 | 1457 |

| Surrogate     | Units |
|---------------|-------|
| Terphenyl-d14 | ug/L  |

| Lab ID   | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 234778-4 |        | MB      | 1.00     | 86.45  | 100        | 86               | 30-142 |      | 08/25/2006 | 1300 |
|          |        |         | 1.00     | 59.79  | 100        | 60               | 30-142 |      | 08/25/2006 | 1359 |
|          |        | SB      | 1.00     | 96.54  | 100        | 97               | 30-142 |      | 08/25/2006 | 1428 |
|          |        | SBD     | 1.00     | 97.88  | 100        | 98               | 30-142 |      | 08/25/2006 | 1457 |

Method.....: Volatile Organics - Aromatics  
 Batch.....: 118412

Method Code.....: 8020  
 Analyst.....: rh

Equipment Code: BTEX#1GC

| Surrogate       | Units |
|-----------------|-------|
| BFB (Surrogate) | ug/L  |

| Lab ID           | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|------------------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 1593-3<br>1593-3 |        | CCV     | 1.00     | 16.63  | 20.00000   | 83.2             | 64-120 |      | 08/28/2006 | 0300 |
|                  |        | MB      | 1.00     | 16.60  | 20.00000   | 83.0             | 64-120 |      | 08/28/2006 | 0330 |
|                  |        | MS      | 10.00    | 18.35  | 20.00000   | 91.8             | 64-120 |      | 08/28/2006 | 0720 |
|                  |        | MSD     | 10.00    | 18.22  | 20.00000   | 91.1             | 64-120 |      | 08/28/2006 | 0750 |
|                  |        | CCV     | 1.00     | 18.11  | 20.00000   | 90.5             | 64-120 |      | 08/28/2006 | 0810 |
|                  |        | CCV     | 1.00     | 17.14  | 20.00000   | 85.7             | 64-120 |      | 08/28/2006 | 0900 |
|                  |        | LCS     | 1.00     | 16.97  | 20.00000   | 84.8             | 64-120 |      | 08/28/2006 | 0930 |
|                  |        | MB      | 1.00     | 16.58  | 20.00000   | 82.9             | 64-120 |      | 08/28/2006 | 1010 |
| 234778-1         |        |         | 1.00     | 15.95  | 20.00000   | 79.8             | 64-120 |      | 08/28/2006 | 1040 |
| 234778-2         |        |         | 1.00     | 16.86  | 20.00000   | 84.3             | 64-120 |      | 08/28/2006 | 1100 |
| 234778-3         |        |         | 1.00     | 16.14  | 20.00000   | 80.7             | 64-120 |      | 08/28/2006 | 1130 |
| 234778-4         |        |         | 1.00     | 19.45  | 20.00000   | 97.2             | 64-120 |      | 08/28/2006 | 1150 |

## SURROGATE RECOVERIES REPORT

Job Number.: 234778

Report Date.: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| Surrogate       | Units |
|-----------------|-------|
| BFB (Surrogate) | ug/L  |

| Lab ID    | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|-----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
| 234770-15 |        |         | 1.00     | 16.35  | 20.00000   | 81.8             | 64-120 |      | 08/28/2006 | 1220 |

| Surrogate        | Units |
|------------------|-------|
| Trifluorotoluene | ug/L  |

| Lab ID    | Matrix | QC Type | Dilution | Result | True Value | Percent Recovery | Limits | Flag | Date       | Time |
|-----------|--------|---------|----------|--------|------------|------------------|--------|------|------------|------|
|           |        | CCV     | 1.00     | 17.47  | 20.00000   | 87.3             | 68-120 |      | 08/28/2006 | 0300 |
|           |        | MB      | 1.00     | 16.99  | 20.00000   | 85.0             | 68-120 |      | 08/28/2006 | 0330 |
| 1593-3    |        | MS      | 10.00    | 17.21  | 20.00000   | 86.0             | 68-120 |      | 08/28/2006 | 0720 |
| 1593-3    |        | MSD     | 10.00    | 17.21  | 20.00000   | 86.0             | 68-120 |      | 08/28/2006 | 0750 |
|           |        | CCV     | 1.00     | 17.53  | 20.00000   | 87.7             | 68-120 |      | 08/28/2006 | 0810 |
|           |        | CCV     | 1.00     | 18.12  | 20.00000   | 90.6             | 68-120 |      | 08/28/2006 | 0900 |
|           |        | LCS     | 1.00     | 17.22  | 20.00000   | 86.1             | 68-120 |      | 08/28/2006 | 0930 |
|           |        | MB      | 1.00     | 17.14  | 20.00000   | 85.7             | 68-120 |      | 08/28/2006 | 1010 |
| 234778-1  |        |         | 1.00     | 16.72  | 20.00000   | 83.6             | 68-120 |      | 08/28/2006 | 1040 |
| 234778-2  |        |         | 1.00     | 16.94  | 20.00000   | 84.7             | 68-120 |      | 08/28/2006 | 1100 |
| 234778-3  |        |         | 1.00     | 16.46  | 20.00000   | 82.3             | 68-120 |      | 08/28/2006 | 1130 |
| 234778-4  |        |         | 1.00     | 16.84  | 20.00000   | 84.2             | 68-120 |      | 08/28/2006 | 1150 |
| 234770-15 |        |         | 1.00     | 17.08  | 20.00000   | 85.4             | 68-120 |      | 08/28/2006 | 1220 |

## LABORATORY CHRONICLE

Job Number: 234778

Date: 09/22/2006

CUSTOMER: Southwest Geoscience

PROJECT: 0105013

ATTN: Chris Mitchell

| Lab ID: 234778-1 | Client ID: MW-1                          | Date Recvd: 08/22/2006 | Sample Date: 08/19/2006 |         |      |                    |          |
|------------------|------------------------------------------|------------------------|-------------------------|---------|------|--------------------|----------|
| METHOD           | DESCRIPTION                              | RUN#                   | BATCH#                  | PREP BT | #(S) | DATE/TIME ANALYZED | DILUTION |
| SW-846 3520C     | Extraction (Continuous Liq/Liq) DROs     | 1                      | 118328                  |         |      | 08/23/2006 2237    |          |
| SW846 8015BMod   | Total Extractable Petroleum Hydrocarbons | 1                      | 118338                  |         |      | 08/24/2006 1223    |          |
| SW846 8015BMod   | Total Volatile Petroleum Hydrocarbons    | 1                      | 118347                  |         |      | 08/24/2006 1136    |          |
| SW-846 8021B     | Volatile Organics - Aromatics            | 1                      | 118412                  |         |      | 08/28/2006 1040    | 1.00     |
| Lab ID: 234778-2 | Client ID: MW-4                          | Date Recvd: 08/22/2006 | Sample Date: 08/19/2006 |         |      |                    |          |
| METHOD           | DESCRIPTION                              | RUN#                   | BATCH#                  | PREP BT | #(S) | DATE/TIME ANALYZED | DILUTION |
| SW-846 3520C     | Extraction (Continuous Liq/Liq) DROs     | 1                      | 118328                  |         |      | 08/24/2006 0225    |          |
| SW846 8015BMod   | Total Extractable Petroleum Hydrocarbons | 1                      | 118338                  |         |      | 08/24/2006 1309    |          |
| SW846 8015BMod   | Total Volatile Petroleum Hydrocarbons    | 1                      | 118347                  |         |      | 08/24/2006 1212    |          |
| SW-846 8021B     | Volatile Organics - Aromatics            | 1                      | 118412                  |         |      | 08/28/2006 1100    | 1.00     |
| Lab ID: 234778-3 | Client ID: MW-2                          | Date Recvd: 08/22/2006 | Sample Date: 08/19/2006 |         |      |                    |          |
| METHOD           | DESCRIPTION                              | RUN#                   | BATCH#                  | PREP BT | #(S) | DATE/TIME ANALYZED | DILUTION |
| SW-846 3520C     | Extraction (Continuous Liq/Liq) DROs     | 1                      | 118328                  |         |      | 08/24/2006 0612    |          |
| SW846 8015BMod   | Total Extractable Petroleum Hydrocarbons | 1                      | 118338                  |         |      | 08/24/2006 1355    |          |
| SW846 8015BMod   | Total Volatile Petroleum Hydrocarbons    | 1                      | 118347                  |         |      | 08/24/2006 1248    |          |
| SW-846 8021B     | Volatile Organics - Aromatics            | 1                      | 118412                  |         |      | 08/28/2006 1130    | 1.00     |
| Lab ID: 234778-4 | Client ID: MW-3R                         | Date Recvd: 08/22/2006 | Sample Date: 08/19/2006 |         |      |                    |          |
| METHOD           | DESCRIPTION                              | RUN#                   | BATCH#                  | PREP BT | #(S) | DATE/TIME ANALYZED | DILUTION |
| SW-846 3520C     | Extraction (Continuous Liq/Liq for B/N)  | 1                      | 118327                  |         |      | 08/24/2006 1000    |          |
| SW-846 3520C     | Extraction (Continuous Liq/Liq) DROs     | 1                      | 118328                  |         |      | 08/24/2006 1000    |          |
| SW-846 8270C     | Semivolatile Organics                    | 1                      | 118355                  |         |      | 08/25/2006 1359    | 1.00     |
| SW846 8015BMod   | Total Extractable Petroleum Hydrocarbons | 1                      | 118338                  |         |      | 08/24/2006 1441    |          |
| SW846 8015BMod   | Total Volatile Petroleum Hydrocarbons    | 1                      | 118347                  |         |      | 08/24/2006 1324    |          |
| SW-846 8021B     | Volatile Organics - Aromatics            | 1                      | 118412                  |         |      | 08/28/2006 1150    | 1.00     |

## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 09/22/2006

- (1) EPA 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, March 1983
- (2) EPA SW-846, Test Methods for Evaluating Solid Waste, Third Edition, September 1986, and Updates I, II, IIA, IIB, and III
- (3) Standard Methods for the Examination of Water and Wastewater, 18th Edition, 1992
- (4) Methods of Organic Chemical Analysis of Municipal and Industrial Wastewater, Federal Register, Vol. 49, No. 209, October 1984 and 40 CFR Part 136 amendments
- (5) EPA 600/2-78-054, Field and Laboratory Methods Applicable to Overburdens and Minesoils
- (6) Methods of Soil Analysis, American Society of Agronomy, Agronomy No. 9, 1965
- (7) ASTM, Section 11 Water and Environmental Technology, Volume 11.01 Water (1), 1991
- (8) American Society for Testing and Materials, Petroleum Products, Lubricants, and Fossil Fuels, Section 5, Volumes 05.01 - 05.05
- (9) Hach Handbook of Water Analysis, 1979

## Comments:

The test results in this report meet all NELAP requirements for parameters for which accreditation is held. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

According to 40CFR Part 136.3, pH, total residual chlorine, dissolved oxygen, sulfite, and temperature analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH, Client Provided), they were not analyzed immediately, but as soon as possible after laboratory receipt.

Data in the QC report may differ from final results due to digestion and/or dilution of sample into analytical ranges. The "Time Analyzed" may not be the actual time of analysis. The "Date Analyzed" is the actual date of analysis. Sludge samples are reported on a wet weight basis (i.e., not corrected for percent moisture) unless otherwise indicated.

Quality Control acceptance criteria are based either on limits specified in the referenced method or on actual laboratory performance.

All data is reported on sample "as received" unless noted.

Sample IDs with a "-00" at the end indicate a blank spike or blank spike duplicate associated with the numbered sample.

## SAMPLE RESULT IDENTIFICATION

ND = Not detected at a value greater than the reporting limit  
TNTC = Too numerous to count

## BLANK QC SAMPLE IDENTIFICATION

MB Method Blank  
ICB Initial Calibration Blank  
CCB Continuing Calibration Blank

## SPIKE QC SAMPLE IDENTIFICATION

MS Method (Matrix) Spike  
MSD Method (Matrix) Spike Duplicate  
PDS Post Digestion/Distillation Spike  
SB Spiked Blank  
SBD Spiked Blank Duplicate

## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 09/22/2006

## REFERENCE STANDARD QC SAMPLE IDENTIFICATION

LCS Laboratory Control Standard  
 RS Reference Standard  
 ICV Initial Calibration Verification Standard  
 CCV Continuing Calibration Verification Standard  
 ISA/ISB ICP Interference Check Sample  
 DSC Distilled Standard Check

## DUPLICATE QC SAMPLE IDENTIFICATION

MD Method (Matrix) Duplicate  
 ED Extraction Duplicate  
 DD Digestion Duplicate  
 PDD Post Digestion Duplicate  
 PSD Post Digestion/Distillation Spike Duplicate

Analyses performed by a subcontract laboratory are indicated on the analytical and/or quality control reports under "technician" using the following codes:

## SUBCONTRACT LABORATORIES

## Severn Trent Laboratories:

|                 |     |                  |     |                  |     |
|-----------------|-----|------------------|-----|------------------|-----|
| Los Angeles, CA | *la | Houston, TX      | *he | Lake Charles, LA | *lc |
| Aurora, CO      | *au | North Canton, OH | *nc |                  |     |
| Tampa, FL       | *ta | Valparaiso, IN   | *vp |                  |     |
| Sacramento, CA  | *sa | Chicago, IL      | *ch |                  |     |
| Pensacola, FL   | *pe | Tallahassee, FL  | *tl |                  |     |

## Other:

Client provided data \*cp Non-STL Subcontract Lab \*xx

## EXPLANATION OF QC FLAGS

- B - This flag is used to indicate that an analyte is present in the method blank as well as in the sample. It indicates that the client should consider this when evaluating the results.
- D - This flag indicates that surrogates were diluted out of calibration range and cannot be quantified.
- E - Indicates that a sample result is an estimate because the concentration exceeded the calibration range of the instrument.
- F - Indicated that a initial calibration verification or continuing calibration verification recovery is outside the specified quality control limits.
- I - Used to indicate matrix interference.
- X - Indicates that a surrogate recovery is outside the specified quality control limits.
- Y - Used to identify a spike or spike duplicate recovery is outside the specified quality control limits.
- Z - Used to indicate a relative percent difference (RPD) for a duplicate analysis is outside the specified quality control limits.
- \* - Indicates a relative percent difference for a duplicate analysis is outside the specified quality control limits.
- ^ - Used to indicate that a standard is outside specified quality control limits.

## EXPLANATION OF DATA QUALIFIERS

- B - Indicates that a value for an inorganic analysis is an estimate. It is used when a compound is determined to be present but at a concentration less than the quantitation limit of the method.
- J - Indicates that a value for an organic analysis is an estimate. It is used when a compound is determined to be present based on chromatographic pattern or mass spectral data, but at a concentration less than the quantitation limit of the method. This flag is also used when estimating the concentration of a tentatively identified compound.
- U - Indicates that a value is less than the MDL or was not detected.

SEVERN  
TRENT

STL

3.7C sealed

No. 019216

CHAIN OF CUSTODY RECORD

| CUSTOMER INFORMATION                                                                                                                                                                                                                                                                                     |                    |                    | PROJECT INFORMATION                 |               |                   | NUMBER OF CONTAINERS          | ANALYSIS/METHOD REQUEST | LAB JOB NO.                                             | REMARKS/PRECAUTIONS |   |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|-------------------------------------|---------------|-------------------|-------------------------------|-------------------------|---------------------------------------------------------|---------------------|---|--|
| COMPANY: <u>Southwest Geoscience</u>                                                                                                                                                                                                                                                                     |                    |                    | PROJECT NAME/NUMBER: <u>6105013</u> |               |                   |                               |                         |                                                         |                     |   |  |
| SEND REPORT TO: <u>Chris Mitchell</u>                                                                                                                                                                                                                                                                    |                    |                    | BILLING INFORMATION                 |               |                   |                               |                         |                                                         |                     |   |  |
| ADDRESS: <u>2351 W. Northwest Hwy</u><br><u>Suite 3321</u><br><u>Dallas, TX 75220</u>                                                                                                                                                                                                                    |                    |                    | BILL TO:                            |               |                   |                               |                         |                                                         |                     |   |  |
| PHONE: <u>214-350-5469</u>                                                                                                                                                                                                                                                                               |                    |                    | ADDRESS:                            |               |                   |                               |                         |                                                         |                     |   |  |
| FAX: <u>214-350-2914</u>                                                                                                                                                                                                                                                                                 |                    |                    | PHONE:                              |               |                   |                               |                         |                                                         |                     |   |  |
|                                                                                                                                                                                                                                                                                                          |                    |                    | FAX:                                |               |                   |                               |                         |                                                         |                     |   |  |
|                                                                                                                                                                                                                                                                                                          |                    |                    | PO NO:                              |               |                   |                               |                         |                                                         |                     |   |  |
| SAMPLE NO.                                                                                                                                                                                                                                                                                               | SAMPLE DESCRIPTION | SAMPLE DATE        | SAMPLE TIME                         | SAMPLE MATRIX | CONTAINER         | PRESERV.                      |                         |                                                         |                     |   |  |
|                                                                                                                                                                                                                                                                                                          | MW-1               | 8-19-04            | 16:45                               | W             | 6                 | Ice/HCl                       | X                       | X                                                       | X                   |   |  |
|                                                                                                                                                                                                                                                                                                          | MW-4               | 8-19-06            | 17:20                               | W             | 6                 | Ice/HCl                       | X                       | X                                                       | X                   |   |  |
|                                                                                                                                                                                                                                                                                                          | MW-2               | 8-19-06            | 17:55                               | W             | 6                 | Ice/HCl                       | X                       | X                                                       | X                   |   |  |
|                                                                                                                                                                                                                                                                                                          | MW-3i2             | 8-19-04            | 18:30                               | W             | 7                 | Ice/HCl                       | X                       | X                                                       | X                   | X |  |
| <div style="text-align: center;">NFE 8-19-04</div>                                                                                                                                                                                                                                                       |                    |                    |                                     |               |                   |                               |                         |                                                         |                     |   |  |
| SAMPLER: <u>J. Minter</u>                                                                                                                                                                                                                                                                                |                    |                    |                                     |               |                   | SHIPMENT METHOD: <u>FedEx</u> |                         | AIRBILL NO.: <u>856821841517</u><br><u>856821841566</u> |                     |   |  |
| REQUIRED TURNAROUND* <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HOURS <input type="checkbox"/> 48 HOURS <input type="checkbox"/> 72 HOURS <input type="checkbox"/> 5 DAYS <input type="checkbox"/> 10 DAYS <input checked="" type="checkbox"/> ROUTINE <input type="checkbox"/> OTHER |                    |                    |                                     |               |                   |                               |                         |                                                         |                     |   |  |
| 1. RELINQUISHED BY:                                                                                                                                                                                                                                                                                      |                    | DATE               | 2. RELINQUISHED BY:                 |               | DATE              | 3. RELINQUISHED BY:           |                         | DATE                                                    |                     |   |  |
| SIGNATURE: <u>[Signature]</u>                                                                                                                                                                                                                                                                            |                    | 8-21-04            | SIGNATURE: <u>FedEx</u>             |               | 8-22-04           | SIGNATURE:                    |                         |                                                         |                     |   |  |
| PRINTED NAME/COMPANY: <u>Southwest Geoscience</u>                                                                                                                                                                                                                                                        |                    | TIME: <u>17:30</u> | PRINTED NAME/COMPANY:               |               | TIME: <u>1800</u> | PRINTED NAME/COMPANY:         |                         | TIME                                                    |                     |   |  |
| 1. RECEIVED BY:                                                                                                                                                                                                                                                                                          |                    | DATE               | 2. RECEIVED BY:                     |               | DATE              | 3. RECEIVED BY:               |                         | DATE                                                    |                     |   |  |
| SIGNATURE: <u>FedEx</u>                                                                                                                                                                                                                                                                                  |                    |                    | SIGNATURE: <u>Mike Cowen</u>        |               | 8-22-04           | SIGNATURE:                    |                         |                                                         |                     |   |  |
| PRINTED NAME/COMPANY:                                                                                                                                                                                                                                                                                    |                    | TIME               | PRINTED NAME/COMPANY: <u>STL</u>    |               | TIME: <u>1800</u> | PRINTED NAME/COMPANY:         |                         | TIME                                                    |                     |   |  |

\*RUSH TURNAROUND MAY REQUIRE SURCHARGE

STL Houston  
6310 Rothway Drive  
Houston, TX 77040

STL8222H-600 (0803)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                     |    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----|
| rpjsckl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Job Sample Receipt Checklist Report | V2 |
| Job Number.: 234778    Location.: 57203    Check List Number.: 1    Description.:<br>Customer Job ID.....:    Job Check List Date.: 08/22/2006    Date of the Report...: 08/22/2006<br>Project Number.: 98000082    Project Description.: PROJECT-TLK    Project Manager.....: tlk<br>Customer.....: Southwest Geoscience    Contact.: Chris Mitchell                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |    |
| Questions ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | (Y/N) Comments                      |    |
| How did samples arrive?..... FED EX<br>Chain-of-Custody Present?..... Y<br>Custody seal on shipping container?..... Y<br>...If "yes", custody seal intact?..... Y<br>Custody seals on sample containers?..... N<br>...If "yes", custody seal intact?.....<br>Samples chilled?..... Y<br>Temperature blank in cooler?..... Y<br>Temp of cooler acceptable? (0.05 to 6.00 deg C)    Y    3.0C,3.7C<br>Samples received intact (good condition)?..... Y<br>Volatile samples acceptable? (no headspace)..... Y<br>Correct containers used?..... Y<br>Adequate sample volume provided?..... Y<br>Samples preserved correctly?..... Y<br>Samples received within holding-time?..... Y<br>Agreement between COC and sample labels?..... N    SX ON COC STATES MW-312 ON CONTAINER ITS MW-6 NOTIFIED PM<br>Additional..... N<br>Comments.....<br>Sample Custodian Signature..... M.MCCOWEN 08/22/2006 |                                     |    |



