AP - 46

STAGE 1 ABATEMENT PLAN

DATE: 3-7-7

AP-46
Stage I Abatement Plan
3-7-07

March 7, 2007

STAGE 1 FINAL INVESTIGATION REPORT AND CORRECTIVE ACTION PLAN

EME JCT. K-6 SITE (AP-46)

T20S, R37E, SECTION 6, UNIT LETTER K
LEA COUNTY, NEW MEXICO

Prepared for:

RICE *Operating Company*
122 West Taylor
Hobbs, New Mexico 88240

Prepared by:

TRIDENT ENVIRONMENTAL
P. O. Box 7624
Midland, Texas 79708

CERTIFIED MAIL
RETURN RECIEPT NO. 7099 3400 0017 1737 2183

TRIDENT ENVIRONMENTAL

March 7, 2007

RECEIVED

MAR 12 2007

Environmental Bureau
Oil Conservation Division

Mr. Edward Hansen
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

RE: Stage 1 Final Investigation Report and Corrective Action Plan
EME Jct. K-6 Site (AP-46)
T20S-R37E-Section 6, Unit Letter K
Lea County, New Mexico

Dear Mr. Hansen

On behalf of Rice Operating Company (ROC), enclosed are the Stage 1 Final Investigation Report and Corrective Action Plan for the above-referenced site.

This Stage 1 Final Investigation Report includes the findings from recent investigation activities in accordance with the NMOCD-approved Stage 1 Abatement Plan. In addition, corrective actions are proposed in Section 7.0.

Review of previous investigations and the results of the Stage 1 investigation uphold our conclusion that operation of the K-6 junction box has not caused, contributed to, or could contribute to the degradation of groundwater quality. Chloride concentrations in the vadose zone of all borings and trenches were less than 1,000 ppm and averaged 351 ppm which is representative of background levels.

Each monitoring well indicates chloride and total dissolved solids (TDS) concentrations above Water Quality Control Commission (WQCC) standards, however after two consecutive quarterly sampling events it is clear that the upgradient monitoring well (MW-3) has higher concentrations of chlorides and TDS than those observed near the junction box (MW-1), which indicates an upgradient source (north and/or northwest) for these constituents.

Evidence from potential upgradient offsite sources, onsite groundwater monitoring, and vadose zone characterization support the conclusion that conditions at the site do not meet the criteria that would mandate corrective action under NMOCD Rule 116 or Rule 19. However, ROC proposes to continue sampling each monitor well for an additional four quarters (2007 calendar year). If quarterly sampling results continue to support this conclusion, a request for final closure will be submitted in the first quarter of 2008.

The surface soils surrounding K-6 junction box are supportive of vegetation. The surrounding area will be re-seeded with a mixture of native grasses and plants that will re-vegetate the area at a natural rate. ROC will monitor the site for continued healthy growth of native vegetation and add amendments if necessary.

If you have any questions please call me at 432-638-8740 or Kristin Pope at 505-393-9174.

Sincerely,

Gilbert Van Deventer
Trident Environmental

cc: CDH, JSC, KFP

Gilbert Van Deventer

From: "Gilbert Van Deventer" <gilbertvandeventer@cox.net>
To: "Hansen, Edward J., EMNRD" <edwardj.hansen@state.nm.us>
Cc: "Carolyn Haynes" <chaynes@riceswd.com>; "Wayne Price" <wayne.price@state.nm.us>; "Kristin Pope" <kpope@riceswd.com>
Sent: Wednesday, March 07, 2007 11:46 PM
Attach: K6_FIR_CAP_text_tables.pdf
Subject: EME Jct K-6 Site (AP-46) - Stage 1 Final Investigation Report & Corrective Action Plan

Attention: Edward Hansen, New Mexico Oil Conservation Division - Environmental Bureau

Subject: Stage 1 Final Investigation Report and Corrective Action Plan

Site Name: EME Jct K-6 Site

NMOCD Case No.: AP-46

Site Location: T20S-R37E-Section 6, Unit Letter K

Site Agent: RICE *Operating Company*

Hello Edward:

Trident Environmental is pleased to submit the attached Stage *1 Final Investigation Report and Corrective Action Plan* (CAP) for the above-referenced site. Only the text portion is attached herein due to file size limitations. One complete hard copy and one copy on compact disk is being sent via USPS Certified Mail (# 7099 3400 0017 1737 2183).

If you have any questions, please contact me at 432-638-8740, or Kristin Pope at ROC, 505-393-9174.

Sincerely,
Gilbert J. Van Deventer, PG, REM
Trident Environmental
P. O. Box 7624
Midland TX 79708

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APPENDICES

1.0 EXECUTIVE SUMMARY

The K-6 junction box (Jct. K-6) site is part of the Eunice Monument Eumont (EME) Salt Water Disposal (SWD) system which is operated by Rice Operating Company (ROC). The site is located in township 20 south, range 37 east, section 6, unit letter K approximately 4 miles west-southwest of Monument, NM as shown on the attached topographic map (Figure 1) and aerial photographic map (Figure 2).

Identification of soil and ground water impacts occurred during line replacement being performed as part of the approved Junction Box Upgrade Program. In January 2002, the subsurface soils at the Jct. K-6 site were investigated by trenching with a backhoe and field-tested for chloride and hydrocarbon levels and a monitoring well (MW-1) was installed within a few feet of the former junction box. On July 18 and 19, 2006, two additional monitoring wells (MW-2 and MW-3) and seven soil borings were installed in accordance with the Stage 1 Abatement Plan. A site map showing soil sample results for the on site borings at the Jct. K-6 site is depicted in Figure 3.

This Stage 1 Final Investigation Report includes the findings from recent investigation activities in accordance with the NMOCD-approved Stage 1 Abatement Plan. In addition, corrective actions are proposed in Section 7.0.

Review of previous investigations and the results of the Stage 1 investigation uphold our conclusion that operation of the K-6 junction box has not caused, contributed to, or could contribute to the degradation of groundwater quality. Chloride concentrations in the vadose zone of all borings and trenches were less than 1,000 ppm and averaged 351 ppm which is representative of background levels.

Each monitoring well indicates chloride and total dissolved solids (TDS) concentrations above Water Quality Control Commission (WQCC) standards, however after two consecutive quarterly sampling events it is clear that the upgradient monitoring well (MW-3) has higher concentrations of chlorides TDS and than those observed near the junction box (MW-1), which indicates an upgradient source (north and/or northwest) for these constituents.

Evidence from potential upgradient offsite sources, onsite groundwater monitoring, and vadose zone characterization support the conclusion that conditions at the site do not meet the criteria that would mandate corrective action under NMOCD Rule 116 or Rule 19. However, ROC proposes to continue sampling each monitor well for an additional four quarters (2007 calendar year). If quarterly sampling results continue to support this conclusion, a request for final closure will be submitted in the first quarter of 2008.

The surface soils surrounding K-6 junction box are supportive of vegetation. The surrounding area will be re-seeded with a mixture of native grasses and plants that will re-vegetate the area at a natural rate. ROC will monitor the site for continued healthy growth of native vegetation and add amendments if necessary.

2.0 CHRONOLOGY OF EVENTS

- The upgrade of Jct. K-6 was initiated in January 2002, and resulted in the replacement of the existing vent junction box with a lined watertight plastic junction box and replacement of the 10-inch diameter transite pipeline with 6-inch diameter PVC pipeline;
- The subsurface soils at the Jct. K-6 site were investigated as part of the approved Junction Box Upgrade Program on January 22, 2002, by trenching with a backhoe and field-tested for chloride and hydrocarbon levels. This investigation indicated chloride and hydrocarbon impact to the vadose zone;
- A monitoring well (MW-1) was installed within a few feet of the former vent junction box on January 23, 2002, and has been sampled and analyzed for major ions (including chloride), total dissolved solids (TDS), and benzene, toluene, ethylbenzene, and xylenes (BTEX), on a quarterly basis since that date;
- On February 4, 2002, ROC submitted notification of ground water impact to the NMOCD;
- An Investigation & Characterization Plan was prepared by Trident Environmental and submitted to the NMOCD on March 11, 2005;
- On May 5, 2005, Mr. Daniel Sanchez of the NMOCD requested that ROC submit an abatement plan to the NMOCD pursuant to Rule 19;
- A Stage 1 Abatement Plan was prepared by R. T. Hicks Consultants Ltd. and submitted to the NMOCD on October 17, 2005,
- On November 18, 2005, the NMOCD approved the Stage 1 Abatement Plan as administratively complete and assigned it case number AP-46;
- ROC submitted proof of public notifications to the NMOCD on January 13, 2006;
- On May 30, 2006, the NMOCD gave verbal approval of the Stage 1 Abatement Plan Proposal;
- The BLM approved an amendment to the right-of-way (ROW) agreement (NM-057346) to increase the total acreage to 17.33 acres to allow the installation of additional monitoring wells and soil borings;
- Stage 1 Abatement Plan activities were performed on July 18 and 19, 2006. Two additional monitoring wells (MW-2 and MW-3) and seven soil borings (B-1 through B-7) were installed at the Jct. K-6 site. Soil and groundwater samples were collected for analysis of the constituents of concern. Site activity was witnessed by Stephen Smith of Boone Archaeological Services in accordance with BLM conditions for the ROW amendment;
- The 2006 Annual Groundwater Monitoring Report for the Jct. K-6 site was prepared by Trident Environmental and submitted to the NMOCD as a separate document along with this report.

3.0 BACKGROUND

3.1 Site Location and Land Use

The EME Jct. K-6 site is located on Bureau of Land Management (BLM) Land in township 20 south, range 37 east, section 6, unit letter K approximately 4 miles west-southwest of Monument, NM as shown on the attached Site Location Map (Figure 1). ROC has had a right-of-way agreement with the BLM (NM-057346) since June 18, 1964. The junction box at this site is used to direct produced water from oil and gas leases to the M-5 SWD, approximately ¾ mile east, where it is injected into a non-oil producing formation. ROC is the service provider (agent) for the EME SWD System and has no ownership of any portion of the pipeline, well, or facility. The System is owned by a consortium of oil producers, System Partners, who provide all operating capital on a percentage ownership/usage basis.

Land in the site area is primarily utilized for crude oil production and cattle grazing. Several oil and gas production facilities are located within and around the Jct. K-6 site including those listed below:

- A former tank battery and landfarmed area of hydrocarbon-impacted soil is located immediately adjacent to the south and southeast of Jct. K-6 (Figure 3). Soon after the plugging and abandonment of the Britt A #003 well on October 19, 2004, three 210-barrel tanks were removed in 2005, however the area with hydrocarbon-impacted soil is still present.
- A NNW-SSE trending gas pipeline marked as being owned by Southern Union is located about 100 feet west of Jct. K-6 (Figure 3).
- A NW-SE trending gas pipeline marked as being owned by Targa Resources is located about 160 feet west of Jct. K-6 (Figure 3).
- A north-south trending gas pipeline marked as being owned by Duke Energy Field Services is located about 240 feet east of Jct. K-6 (Figure 3).
- The J. R. Phillips No. 2 Tank Battery site (NMOCD Case No. 1R0255) operated by Chevron is located less than ½ mile NNW of Jct. K-6 (Figures 2 and 5). Groundwater conditions are being monitored by Chevron on an annual frequency. Average chloride and TDS concentrations at the 8 monitoring wells are about 10,000 mg/L and 19,000 mg/L, respectively.
- The Monument Gas Plant operated by Targa Midstream Services, L.P. (Targa) is located approximately 1 mile northwest of the Jct. K-6 site (Figures 2 and 5). According to the Ground Water Discharge Plan (GW-025) this facility has two brine ponds and a network of 18 groundwater monitoring wells associated with it.
- An abandoned hydrochloric acid manufacturing plant (DLD Resources, formerly Climax Chemical Company) is located about 1 ½ miles northwest of the Jct. K-6 site. There are several groundwater monitoring wells associated with this facility however no active regulatory directives towards further investigation and remediation of this facility are known to be in progress.

- A high concentration of oil & gas wells (active and plugged) and associated structures (tank batteries, pits, pipelines, etc.) are located in this area of Monument. Many of these are obviously visible in Figure 2 (aerial photograph) including two plugged and abandoned oil wells located just north of the site (Figure 1).
- Review of a historical aerial photograph from the Lea County Soil Survey (published in 1974) indicates the presence of several contiguous pits covering an approximate area of 40,000 sq. ft. located less than 200 ft. southwest of Jct. K-6 and adjacent to the west side of the former tank battery. The former presence of these pits is also evident in recent aerial photographs as shown in the attached photodocumentaion in the appendices and Figure 2.

3.2 Summary of Previous Work and Investigations

The upgrade of the EME K-6 vent junction box was initiated in January 2002, which included the replacement of the existing vent junction box with a lined watertight plastic junction box and replacement of the 10-inch diameter transite pipeline with 6-inch diameter PVC pipeline. In addition, 36 cubic yards of impacted soils were transported to an OCD-approved disposal facility.

A monitoring well (MW-1) was installed within a few feet of the former vent junction box on January 23, 2002, and has been sampled and analyzed for BTEX, major ions, and total dissolved solids (TDS) on a quarterly basis since that date.

On July 18 and 19, 2006, two additional monitoring wells (MW-2 and MW-3) and seven soil borings (B-1 through B-7) were installed at the Jct. K-6 site. Soil and groundwater samples were collected for analysis of the constituents of concern. Site activity was witnessed by Stephen Smith of Boone Archaeological Services in accordance with BLM conditions for the ROW amendment.

4.0 GEOLOGY AND HYDROGEOLOGY

4.1 Regional and Local Geology

According to published information (Nicholson and Clebsch, 1961, Barnes, 1976, and Anderson, Jones, and Green, 1997) the site is underlain by Quaternary eolian and piedmont deposits composed of sand, silt, and gravel deposited by slopewash, and talus from the Ogallala Formation. The eolian and piedmont deposits are often calichified (indurated with cemented calcium carbonate) with caliche layers from 1 to 20 feet thick. The lithology of the eolian and piedmont deposits is very similar to that of the Ogallala since the Ogallala is the source of these re-deposited colluvial sediments. The nearest outcropping of the Ogallala Formation occurs approximately four miles north of Jct. K-6 along what is known as the Llano Estacado (caprock). The thickness of the colluvium deposits and Ogallala Formation at the Jct. K-6 site is estimated at 75 feet, however it varies locally as a result of significant paleo-topography at the top of the underlying Triassic Dockum Group. Since Cretaceous Age rocks in the region have been removed by pre-Tertiary erosion, the colluvial deposits and Ogallala Formation rest unconformably on the Triassic Dockum Group. The uppermost unit of the Dockum Group is the Chinle Formation, which primarily consists of micaceous red clay and shale but also contains thin interbeds of fine-grained sandstone and siltstone. The red clays and shale of the Chinle Formation act as an aquitard beneath the water bearing colluvial deposits and therefore limit the amount of recharge to the underlying Dockum Group. The thickness of the Dockum Group is estimated at approximately 300 feet in the site area although its thickness in southern Lea County varies from 0 to 1,270 feet thick (Nicholson and Clebsch, 1961). Figure 4 shows the surface geology of the site.

The first few feet from ground surface are dominated by fine to medium-grained dune sand. Based on the descriptions provided in lithologic logs the subsurface soils are composed of caliche, sand, sandstone stringers, and some clay. More detailed descriptions of the subsurface lithology are provided in the soil boring and monitoring well logs (Appendix A).

4.2 Regional and Local Hydrogeology

Potable ground water used in southern Lea County is derived primarily from the Ogallala Formation and the Quaternary alluvium. Water from the Ogallala and alluvium aquifers in southern Lea County is used for irrigation, stock, domestic, industrial, and public supply purposes. Water well records from the Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) websites were reviewed to determine if there are any active water supply wells in use for domestic, irrigation, livestock, municipal, or industrial purposes in the Jct. K-6 area. As a result of this review and several field reconnaissance efforts there currently are no known potential water supply receptors within ½ mile of the Jct. K-6 site. However, one abandoned water well (NMSEO File No. L-3810) which is out of service (no submersible pump or windmill) is being used as a groundwater monitoring point for Chevron's J. R. Phillips No. 2 Tank Battery Site (NMOCD File No. 1R0255).

Recent data from the three monitoring wells at Jct. K-6 shows that the water table slopes towards the southeast at a magnitude of approximately 0.003 ft/ft. The groundwater gradient at Jct. K-6 is consistent with those of several other groundwater monitoring sites in the Monument area and the regional gradient as cited in published reports (Nicholsen and Clebsch, 1961). A groundwater gradient map for the southwest portion of Monument is depicted in Figure 5. This more regionalized gradient map is based on measurements obtained during the third quarter of 2006 from several groundwater monitoring sites that are under the direction of ROC, Plains Petroleum, and Targa Midstream Services. The most recent groundwater gradient at the Jct. K-6 site is shown in Figure 6. Depth to ground water beneath the site area is approximately 34 feet bgs. There are no surface water bodies located within a mile of the site.

5.0 VADOSE ZONE CHARACTERISTICS

Results of previous soil and groundwater investigations were thoroughly described in the Stage 1 Abatement Plan. Based on those findings and in accordance with the Stage 1 Abatement Plan, seven additional soil borings (B-1 through B-7) were installed on July 18 and 19, 2006, to further delineate the horizontal and vertical extent to the vadose zone. Each boring was advanced to a depth of 30 feet bgs and samples were collected at 5-foot intervals. Soil samples were analyzed in the field for chlorides using field-adapted Method 9253 (QP-03). In addition, headspace readings were obtained using a calibrated Thermal Instruments Model 580B Organic Vapor Meter (OVM) in accordance with procedures described in QP-07. Select samples with OVM readings exceeding 100 ppm were analyzed for BTEX and total petroleum hydrocarbons (TPH) at a laboratory. Results of the soil sampling activities are shown on Figure 3 and summarized in Table 1. Photodocumentation of field activities are included in Appendix B. Laboratory analytical reports and chain of custody documentation are included in Appendix C.

Chloride concentrations at all borings were less than 1,000 ppm and averaged 351 ppm which is representative of background levels. Duplicates of soil samples (the two highest field tested concentrations for the borings) were submitted to the lab for confirmation of field testing activities. Each duplicate sample resulted in a lab chloride concentration less than that measured in the field as shown in Table 1. This suggests that the field measured chloride values may be conservatively higher than actual concentrations. It has been concluded that the chloride load in all vadose zone samples taken at the Jct K-6 site indicate levels much too low to suggest that any release from the junction box contributed to the chloride concentrations observed in the groundwater at the Jct. K-6 site. Therefore, there is no need to employ HYDRUS-1D or ground water mixing model to evaluate the potential of chlorides to impair ground water quality at the site.

OVM readings within the vadose zone in all borings were minimal, with the exception of borings B-5 and B-7. However, BTEX concentrations in the intervals with the greatest OVM readings in these two borings indicate levels well below the OCD recommended guidelines for benzene (10 mg/kg) and BTEX (50 mg/kg). Therefore, there is no need to employ a ground water fate and transport model such as VLEACH to evaluate the potential of regulated hydrocarbon constituents (benzene and BTEX) to impair ground water quality at the site since no threat exists from the junction box.

6.0 GROUNDWATER QUALITY

6.1 Monitoring Program

Monitoring well (MW-1) has been sampled on a quarterly basis for major ions, TDS, and BTEX, since January 2002. On July 18 and 19, 2006, two additional monitoring wells (MW-2 and MW-3) were installed at the Jct. K-6 site to evaluate upgradient (northwest) and downgradient (southeast) groundwater quality conditions. A summary of historical analytical results and ground water elevations for monitoring wells MW-1, MW-2, and MW-3 is shown in Table 2. A map of the most current groundwater quality conditions for the Jct. K-6 site is depicted in Figure 6. A copy of the laboratory analytical report and chain of custody form for the most recent ground water sampling event is included in Appendix C.

6.2 Hydrocarbons in Ground Water

BTEX concentrations in monitoring wells MW-1, MW-2, and MW-3 have been below the laboratory detection limit of 0.001 mg/L for each constituent and for every sampling event taken place.

6.3 Other Constituents of Concern

- Chloride concentrations in monitoring wells MW-1 (9,520 mg/L), MW-2 (10,600 mg/L), and MW-3 (10,200 mg/L) exceed the WQCC standard of 250 mg/L.
- The TDS concentrations in monitoring wells MW-1 (19,100 mg/L), MW-2 (22,500 mg/L), and MW-3 (20,700 mg/L) exceed the WQCC standard of 1,000 mg/L.

Each monitoring well indicates chloride and TDS concentrations above WQCC standards, however after two consecutive quarterly sampling events it is clear that the upgradient monitoring well (MW-3) has higher concentrations of chlorides and total dissolved solids (TDS) than those observed near the junction box (MW-1), which indicates an upgradient source (north and/or northwest) for these constituents.

The 2006 Annual Groundwater Monitoring Report includes the complete historical groundwater data for the Jct. K-6 site and has been submitted to the NMOCD as a separate document with this Final Investigation Report.

7.0 PROPOSED CORRECTIVE ACTIONS

7.1 Corrective Action to the Vadose Zone

Chloride concentrations in the vadose zone of all borings and trenches were less than 1,000 ppm and averaged 351 ppm which is representative of background levels. It is also important to note that during the initial investigation in January 2002, field chloride tests in monitoring well MW-1, which is located adjacent to the junction box, did not exceed 450 ppm (capillary fringe). Soil samples collected at the capillary fringe of monitoring wells MW-2 and MW-3 indicated chloride concentrations slightly above 1,000 mg/kg, however these slightly elevated levels are due to the transfer of chlorides from the groundwater to the capillary fringe and not from the vadose zone above. It has been concluded that the chloride load in all vadose zone samples taken at the Jct K-6 site indicate levels much too low to suggest that any release from the junction box contributed to the chloride concentrations observed in the groundwater at the Jct. K-6 site. Therefore, there is no need to employ HYDRUS-1D or ground water mixing model to evaluate the potential of chlorides to impair ground water quality at the site.

OVM readings within the vadose zone in all borings were minimal, with the exception of borings B-5 and B-7. However, BTEX concentrations in the intervals with the greatest OVM readings in these two borings indicate levels well below the OCD recommended guidelines for benzene (10 mg/kg) and BTEX (50 mg/kg). Therefore, there is no need to employ a ground water fate and transport model such as VLEACH to evaluate the potential of regulated hydrocarbon constituents (benzene and BTEX) to impair ground water quality at the site since no threat exists from the junction box.

The surface soils surrounding K-6 junction box are supportive of vegetation. The surrounding area will be re-seeded with a mixture of native grasses and plants that will re-vegetate the area at a natural rate. ROC will monitor the site for continued healthy growth of native vegetation and add amendments if necessary.

7.2 Corrective Action to the Groundwater

Water well records from the NMOSE and the USGS websites were reviewed to determine if there are any active water supply wells in use for domestic, irrigation, livestock, municipal, or industrial purposes in the Jct. K-6 area. As a result of this review and several field reconnaissance efforts there currently are no known potential water supply receptors within ½ mile of the Jct. K-6 site.

The new construction of a watertight junction box and removal of 36 cubic yards of impacted soils by ROC at the EME Jct. K-6 site has effectively mitigated any potential threat of chlorides, TDS, benzene, or BTEX from the junction box area.

It appears that the cause for the chloride and TDS impacted groundwater at the Jct. K-6 site is from an upgradient offsite source. Groundwater in this area of Monument, New Mexico, has

been reported as regionally impacted with chlorides and unusable as early as 1952 (Nicholson and Clebsch, Groundwater Report 6). A portion of this reference is reproduced in Figure 7. The exact source of groundwater impact at the Jct. K-6 site is unknown because of the numerous potential facilities, past and present, located upgradient as partially listed in section 3.1 of this Stage 1 Final Investigation Report. Chloride and TDS concentrations at the monitoring wells are above WQCC standards however they are below background concentrations as established by samples from an upgradient site (production battery) which has indicated chloride and TDS concentrations as high as 23,300 mg/L and 26,750 mg/L, respectively.

Numerous groundwater investigation sites have been identified near the site area. These sites have shown a potential as source for chlorides and TDS as observed at the Jct. K-6 site. Sites of concern include:

- The J. R. Phillips No. 2 Tank Battery site (NMOCD Case No. 1R0255) operated by Chevron is located less than ½ mile NNW of Jct. K-6 (Figures 2 and 5). Groundwater conditions are being monitored by Chevron on an annual frequency. Average chloride and TDS concentrations at the 8 monitoring wells are about 10,000 mg/L and 19,000 mg/L, respectively.
- The Monument Gas Plant operated by Targa Midstream Services, L.P. (Targa) is located approximately 1 mile northwest of the Jct. K-6 site (Figures 2 and 5). According to the Ground Water Discharge Plan (GW-025) this facility has two brine ponds and a network of 18 groundwater monitoring wells associated with it.
- An abandoned hydrochloric acid manufacturing plant (DLD Resources, formerly Climax Chemical Company) is located about 1 ½ miles northwest of the Jct. K-6 site. There are several groundwater monitoring wells associated with this facility however no active regulatory directives towards further investigation and remediation of this facility are known to be in progress.
- The former drilling pits associated with two plugged and abandoned oil wells (Britt A #002 and Britt A #003) located north of Jct. K-6.
- A former tank battery (Britt A) and landfarmed area of hydrocarbon-impacted soil is located immediately adjacent to the south and southeast of Jct. K-6. Three 210-barrel tanks were removed from this former facility in early 2005, however the area with hydrocarbon-impacted soil is still present.
- Several contiguous pits covering an approximate area of 40,000 sq. ft. located less than 200 ft. southwest of Jct. K-6 and adjacent to the west side of the former tank battery are evident in the Lea County Soil Survey (based on 1955 and 1966 aerial photography). The former presence of these pits is also evident in recent aerial photographs as shown in the attached photodocumentaion in the appendices and Figure 2.

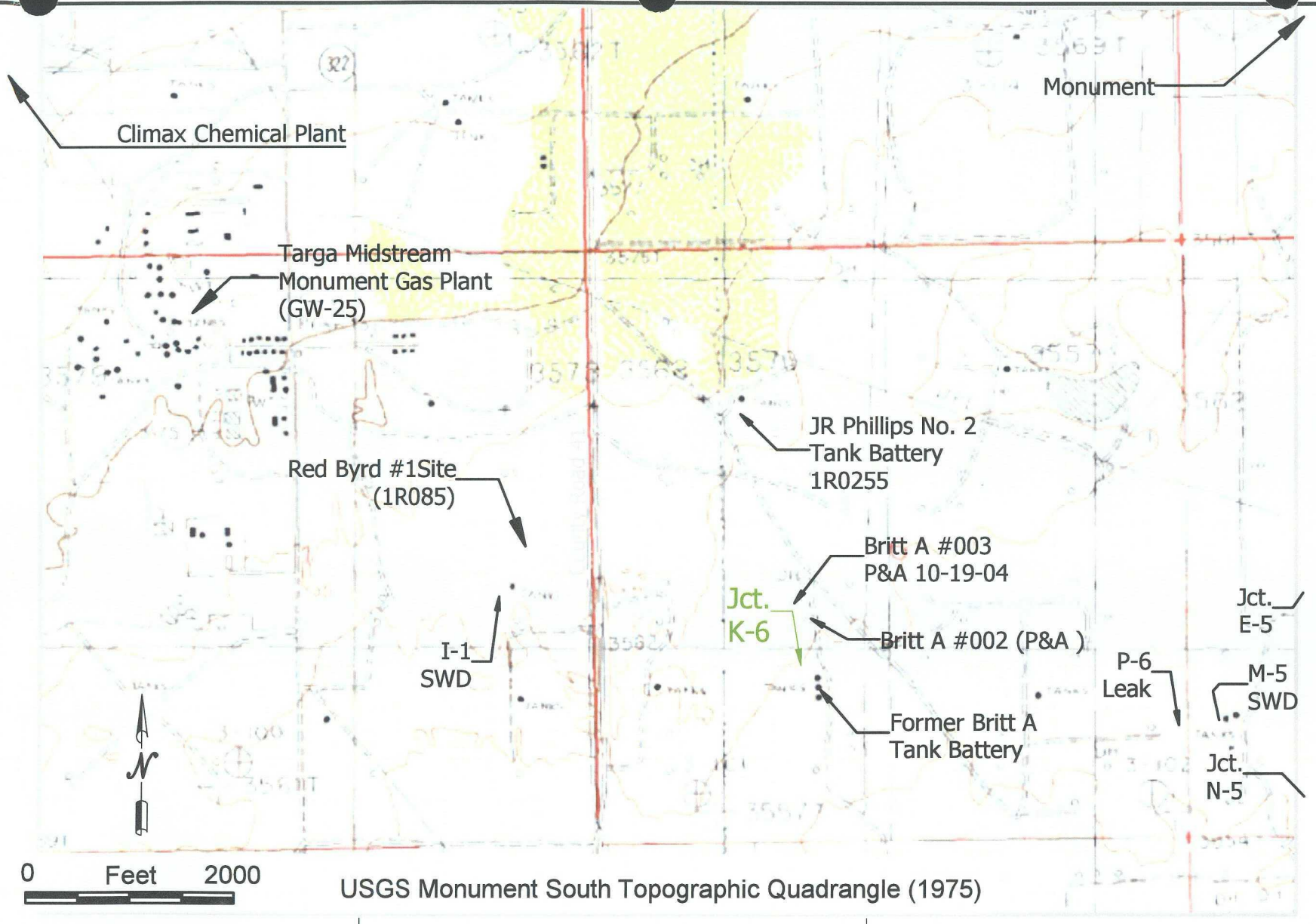
It has become clear that the upgradient monitoring well (MW-3) has higher concentrations of chlorides and total dissolved solids (TDS) than those observed near the junction box (MW-1), which indicates an upgradient source (north and/or northwest) for these constituents.

One or more of the offsite sources listed above may be the cause, or other potential release sites that have yet to be assessed including the former tank battery and pits adjacent to the south side of the Jct. K-6 site.

7.3 Closure and Proposed Schedule of Activities

Vadose zone delineation activities have revealed that operation of the K-6 junction box has not caused, contributed to, or could contribute to the degradation of groundwater quality. Evidence from potential upgradient offsite sources, onsite groundwater monitoring, and vadose zone characterization support the conclusion that conditions at the site do not meet the criteria that would mandate corrective action under NMOCD Rule 116 or Rule 19. We propose to continue sampling each monitor well for an additional four quarters (2007 calendar year). If quarterly sampling results continue to support this conclusion, a final report will be submitted with a request for final closure in the first quarter of 2008.

FIGURES



TRIDENT ENVIRONMENTAL

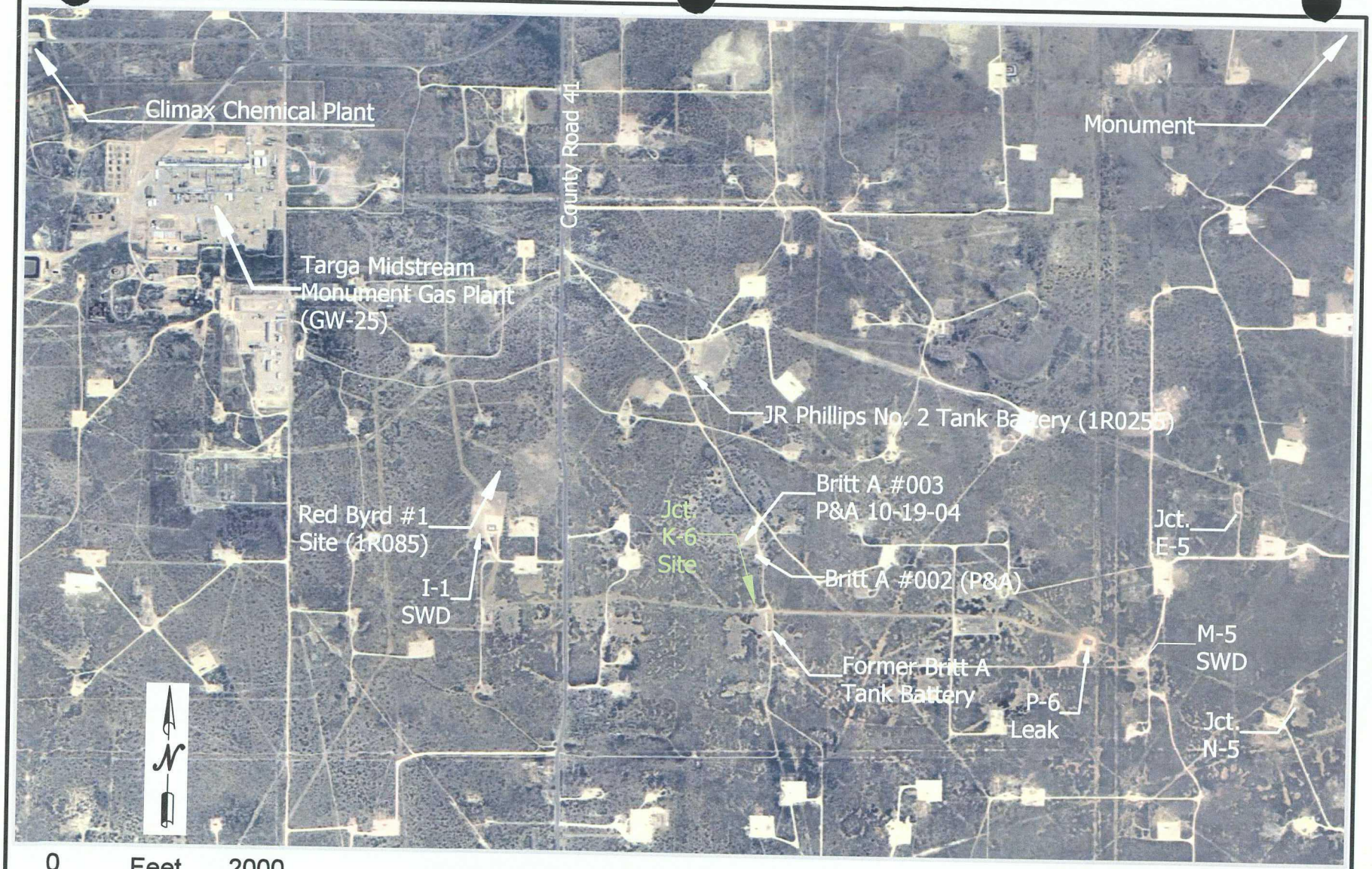
EME Jct K-6 Site (AP-46)

T20S - R37E - Section 6 - Unit K

RICE *Operating Company*

FIGURE 1

SITE LOCATION MAP



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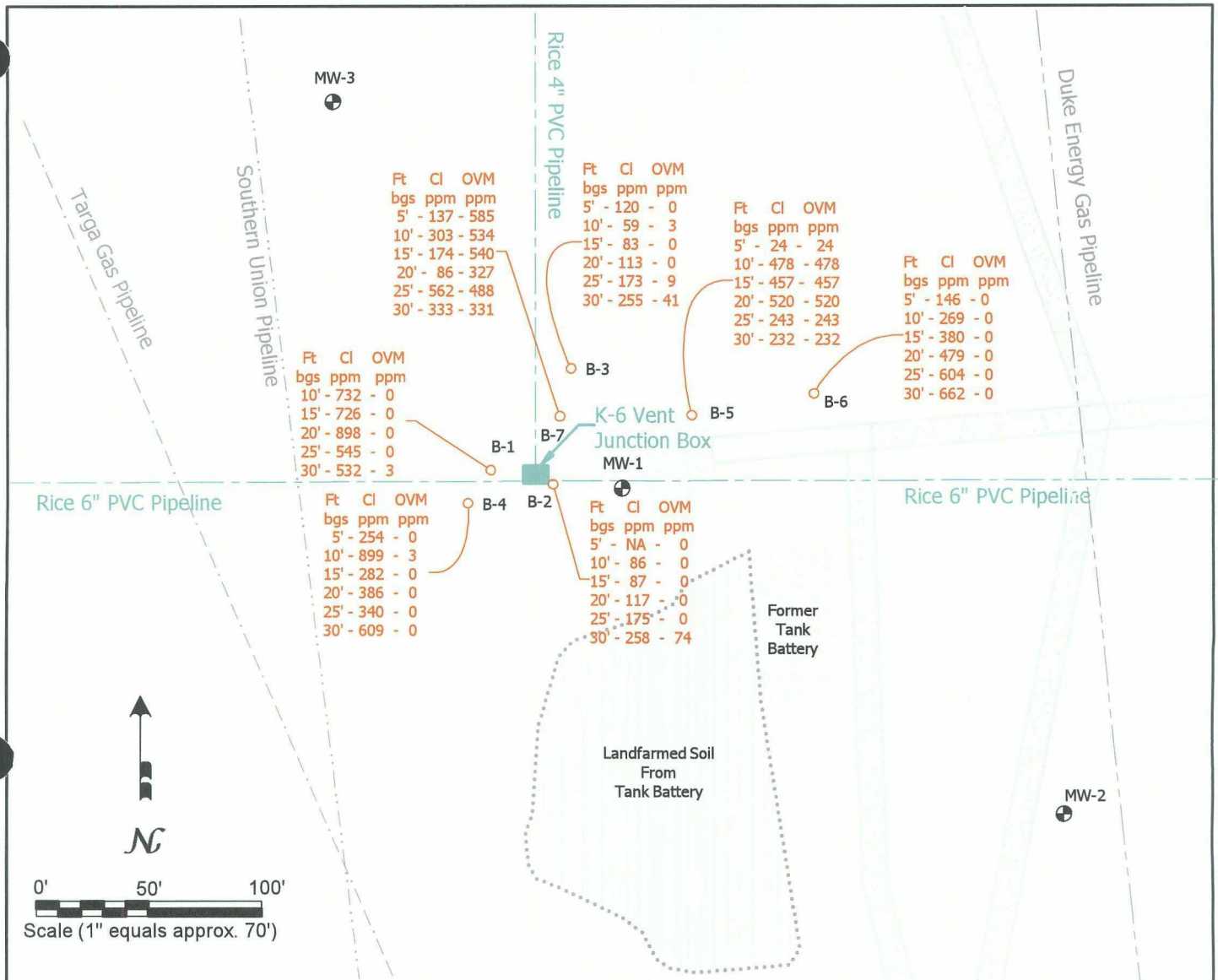
EME Jct K-6 Site (AP-46)

T20S - R37E - Section 6 - Unit K

RICE *Operating Company*

FIGURE 2

AERIAL PHOTO (2005)



MAP LEGEND

MW-1 Monitoring Well

B-2 Boring Location

Ft bgs	Cl ppm	OVM ppm
5'	NA	0
10'	86	0
15'	87	0
20'	117	0
25'	175	0
30'	258	74

Chloride concentrations (ppm) and organic vapor meter (OVM) readings at specified depths (ft) below ground surface

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EME Jct. K-6 Site (AP-46)

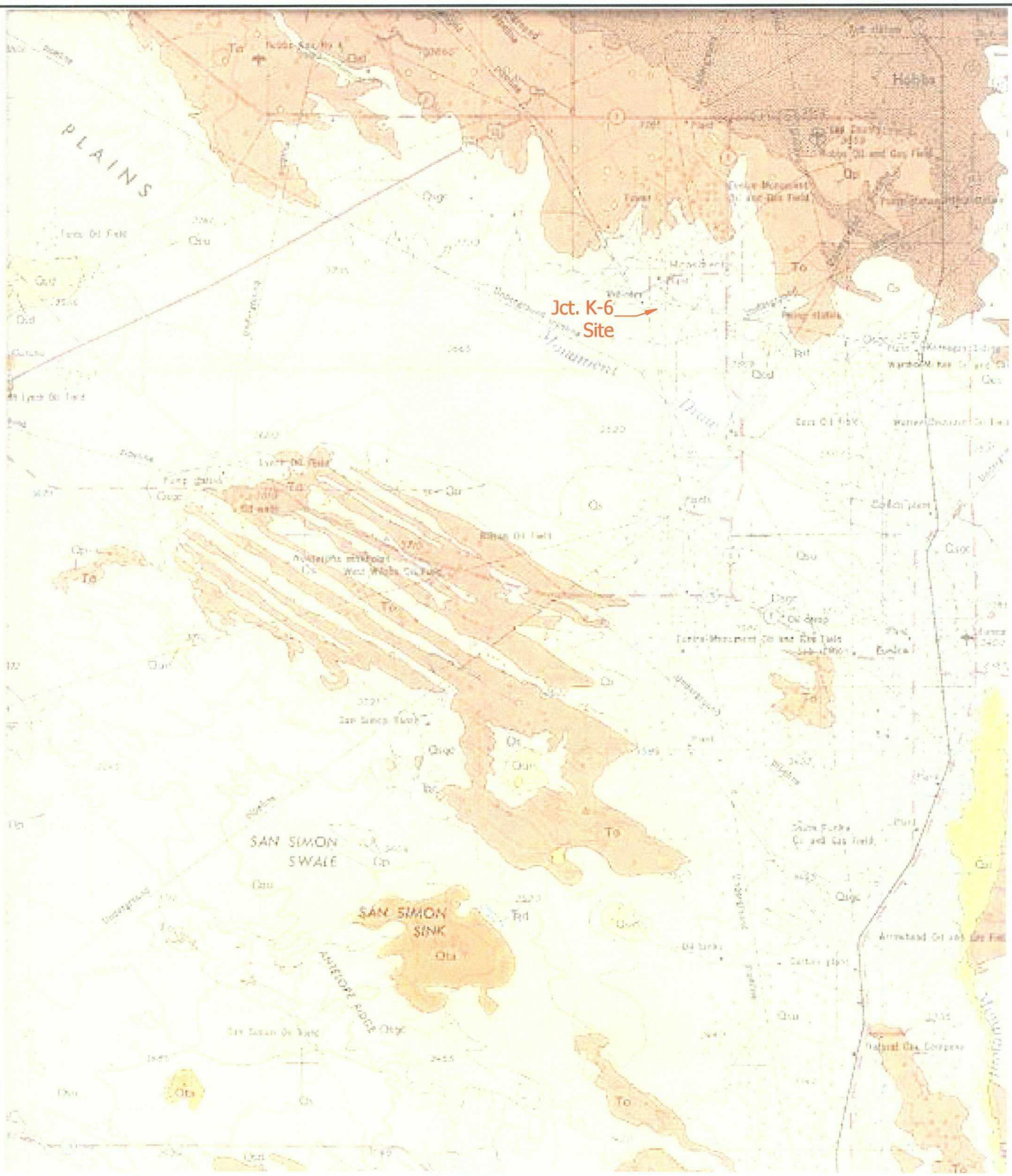
T20S - R37E - Section 6 - Unit K

RICE Operating Company

FIGURE 3

SOIL SAMPLE RESULTS

JULY 18 and 19, 2006



University of Texas
Bureau of Economic Geology
Hobbs Sheet (1976)

0 10
Approximate Scale (Miles)

NORTH

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EME Jct. K-6 Site (AP-46)

T20S - R37E - Section 6 - Unit K

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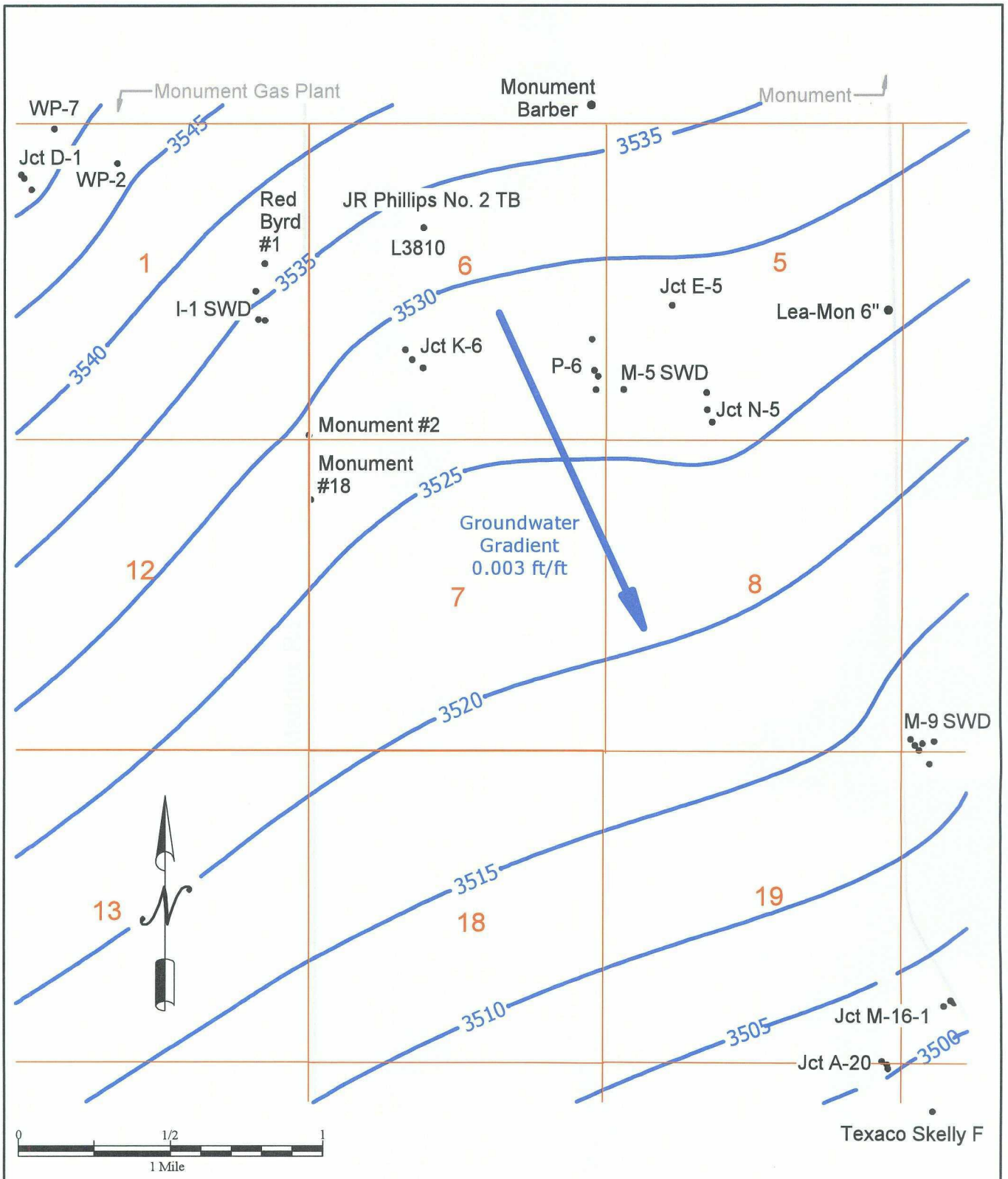
FIGURE 4

GEOLOGIC MAP



TRIDENT ENVIRONMENTAL

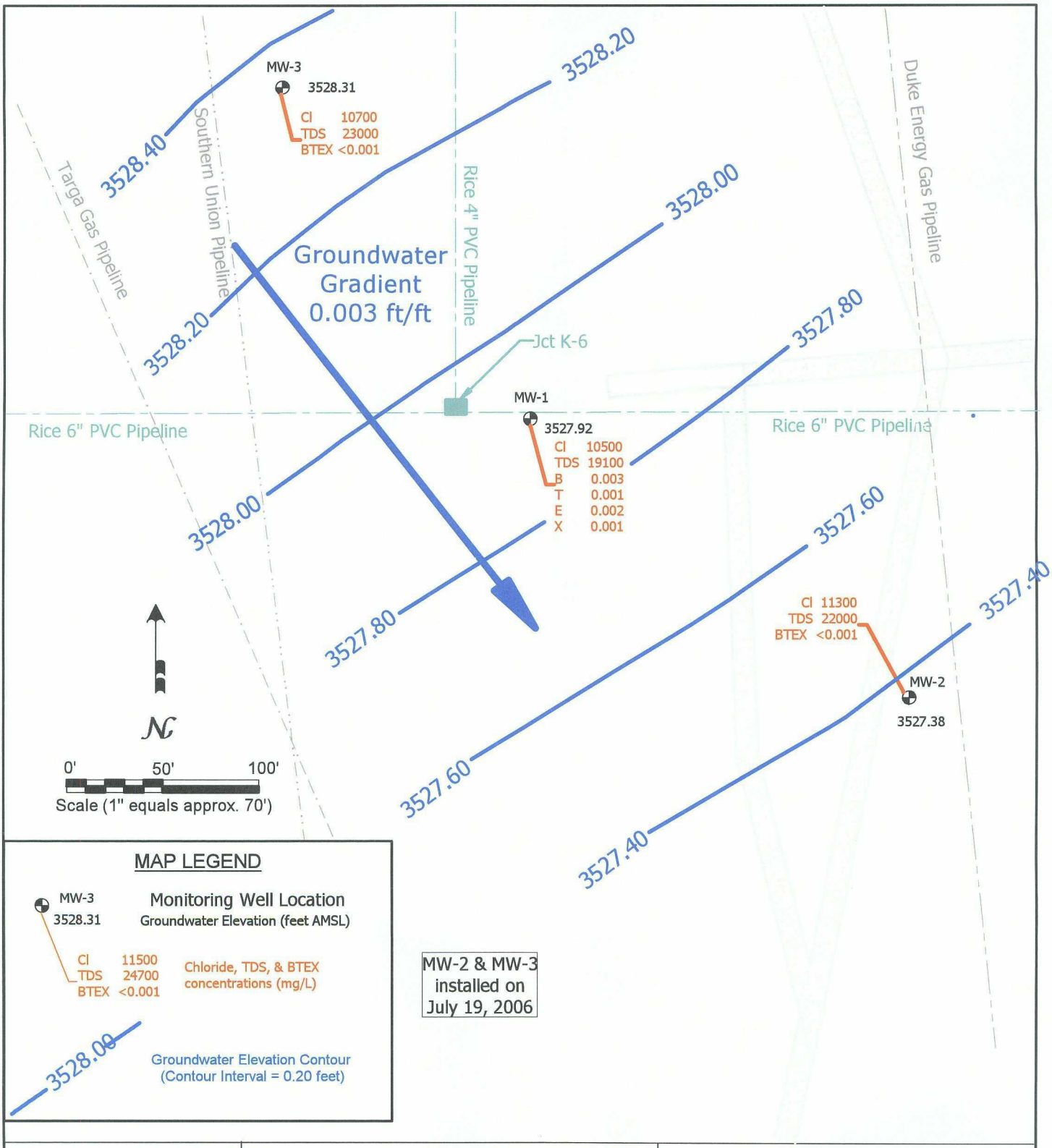
EME Jct. K-6 Site (AP-46)

T20S - R37E - Section 6 - Unit K

RICE Operating Company

FIGURE 5

REGIONAL GROUNDWATER GRADIENT MAP



TRIDENT ENVIRONMENTAL

EME Jct. K-6 Site (AP-46)

T20S - R37E - Section 6 - Unit K

RICE Operating Company

FIGURE 6

GROUNDWATER GRADIENT AND CHLORIDE, TDS, & BTEX CONCENTRATION MAP
AUGUST 22, 2006

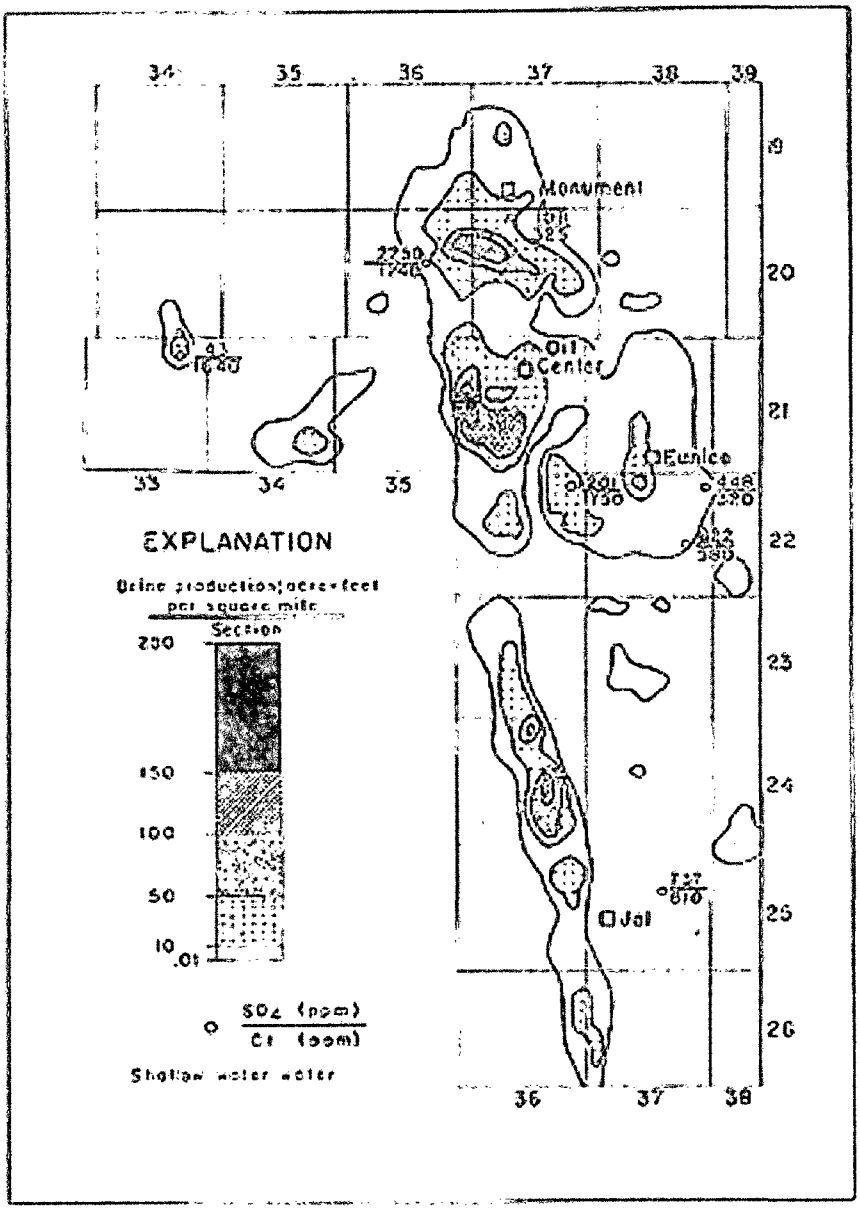


Figure 25

OIL-FIELD BRINE PRODUCTION IN SOUTHERN LEA COUNTY, N. MEX., 1952

Showing locations of selected water wells that have been contaminated by brine. Upper figure adjacent to well symbol is sulfate concentration; lower figure is chloride concentration.

The figure above "shows the distribution of and magnitude of brine production as of 1952. The data were taken from the New Mexico Oil Conservation Commission Annual Report for 1952." Areas with high brine production as "shown on the map constitute potential centers of ground water contamination."

TRIDENT ENVIRONMENTAL	EME Jct. K-6 Site (AP-46) T20S - R37E - Section 6 - Unit K RICE Operating Company	FIGURE 7 Source: Nicholson and Clebsch, Ground-Water Report 6, 1961 (pgs 88-89).

TABLES

Table 1
Field Testing and Laboratory Analytical Results for Soil Samples

Boring/ Monitoring Well	Depth (ft bgs)	Field Chloride (ppm)	Lab Chloride (mg/kg)	OVM (ppm)	Regulated Hydrocarbons (mg/kg)				
					B	T	E	X	BTEX
B-1	5' - 7'	---	---	0	---	---	---	---	---
	10' - 12'	732	---	0	---	---	---	---	---
	15' - 17'	726	---	0	---	---	---	---	---
	20' - 22'	898	588	0	---	---	---	---	---
	25' - 27'	545	---	0	---	---	---	---	---
	28' - 30'	532	---	3	---	---	---	---	---
B-2	5' - 7'	---	---	0	---	---	---	---	---
	10' - 12'	86	---	0	---	---	---	---	---
	15' - 17'	87	---	0	---	---	---	---	---
	20' - 22'	117	---	0	---	---	---	---	---
	25' - 27'	175	---	0	---	---	---	---	---
	28' - 30'	258	---	74	---	---	---	---	---
B-3	5' - 7'	120	---	0	---	---	---	---	---
	10' - 12'	59	---	3	---	---	---	---	---
	15' - 17'	83	---	0	---	---	---	---	---
	20' - 22'	113	---	0	---	---	---	---	---
	25' - 27'	173	---	9	---	---	---	---	---
	28' - 30'	255	---	41	---	---	---	---	---
B-4	5' - 7'	254	---	0	---	---	---	---	---
	10' - 12'	899	592	3	---	---	---	---	---
	15' - 17'	282	---	0	---	---	---	---	---
	20' - 22'	386	---	0	---	---	---	---	---
	25' - 27'	340	---	0	---	---	---	---	---
	28' - 30'	609	---	0	---	---	---	---	---
B-5	5' - 7'	181	---	24	---	---	---	---	---
	10' - 12'	365	---	478	0.006	0.009	2.16	6.48	8.66
	15' - 17'	168	---	457	---	---	---	---	---
	20' - 22'	165	---	520	0.003	0.009	1.74	5.68	7.42
	25' - 27'	121	---	243	---	---	---	---	---
	28' - 30'	145	---	232	---	---	---	---	---
B-6	5' - 7'	146	---	0	---	---	---	---	---
	10' - 12'	269	---	0	---	---	---	---	---
	15' - 17'	380	---	0	---	---	---	---	---
	20' - 22'	479	---	0	---	---	---	---	---
	25' - 27'	604	---	0	---	---	---	---	---
	28' - 30'	662	---	0	---	---	---	---	---
B-7	5' - 7'	137	---	585	<0.020	<0.020	0.786	2.04	2.83
	10' - 12'	303	---	534	---	---	---	---	---
	15' - 17'	174	---	540	0.179	0.985	2.84	8.56	12.6
	20' - 22'	86	---	327	---	---	---	---	---
	25' - 27'	562	---	488	<0.020	<0.020	0.035	0.074	0.109
	28' - 30'	333	---	331	---	---	---	---	---
MW-2	5' - 7'	60	---	0	---	---	---	---	---
	10' - 12'	56	---	0	---	---	---	---	---
	15' - 17'	115	---	0	---	---	---	---	---
	20' - 22'	143	---	0	---	---	---	---	---
	25' - 27'	431	---	0	---	---	---	---	---
	30' - 31'	1004	---	0	---	---	---	---	---
MW-3	5' - 7'	80	---	0	---	---	---	---	---
	10' - 12'	---	---	0	---	---	---	---	---
	15' - 17'	569	---	0	---	---	---	---	---
	20' - 22'	683	---	0	---	---	---	---	---
	25' - 27'	738	---	0	---	---	---	---	---
	30' - 32'	1014	---	0	---	---	---	---	---
Average Chloride		351							

Table 2

Summary of Groundwater Sampling Results

Monitoring Well	Sample Date	Depth to Groundwater (feet BTOC)	Groundwater Elevation (feet AMSL)	Chloride (mg/L)	TDS (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
MW-1	01/25/02	37.20	3525.16	**12,096**	**23,370**	<0.002	<0.002	0.002	0.006
	05/14/02	37.30	3525.06	**12,000**	**26,700**	0.001	0.003	<0.001	0.004
	08/28/02	37.52	3524.84	**13,796**	**29,180**	<0.002	<0.002	0.003	<0.006
	11/11/02	38.65	3523.71	**12,200**	**26,400**	0.001	0.001	0.001	0.003
	02/27/03	37.78	3524.58	**12,800**	**25,900**	0.001	0.001	0.001	0.003
	05/29/03	37.80	3524.56	**12,400**	**27,000**	0.002	0.001	0.001	0.001
	08/21/03	37.90	3524.46	**12,000**	**26,400**	0.003	<0.001	0.002	0.004
	11/19/03	38.17	3524.19	**11,500**	**26,500**	0.003	0.001	<0.001	0.001
	02/18/04	38.40	3523.96	**11,796**	**26,172**	0.003	<0.002	<0.002	<0.006
	05/27/04	37.60	3524.76	**13,800**	**25,700**	0.001	<0.001	<0.001	0.001
	09/07/04	37.96	3524.40	**11,500**	**24,600**	0.003	<0.001	0.001	0.003
	11/24/04	37.53	3524.83	**10,800**	**23,900**	0.005	0.004	0.005	0.015
	02/09/05	36.54	3525.82	**11,200**	**23,500**	0.003	<0.001	<0.001	0.002
	05/03/05	35.60	3526.76	**11,200**	**25,400**	0.003	0.001	0.002	0.001
	08/11/05	34.44	3527.92	**10,500**	**23,600**	0.004	<0.001	0.004	0.002
	11/28/05	34.89	3527.47	**9,480**	**25,600**	0.002	0.001	0.003	0.002
	02/21/06	34.26	3528.10	**10,400**	**23,700**	0.002	0.003	0.004	0.006
	05/17/06	34.18	3528.18	**11,500**	**22,400**	0.002	0.001	0.002	0.001
	08/22/06	34.44	3527.92	**10,500**	**19,100**	0.003	0.001	0.002	0.001
	11/08/06	34.14	3528.22	**9,520**	**19,100**	0.006	0.029	0.006	0.007
MW-2	08/22/06	31.92	3527.38	**11,300**	**22,000**	<0.001	<0.001	<0.001	<0.001
	11/08/06	31.62	3527.68	**10,600**	**22,500**	<0.001	<0.001	<0.001	<0.001
MW-3	08/22/06	34.85	3528.31	**10,700**	**23,000**	<0.001	<0.001	<0.001	<0.001
	11/08/06	34.55	3528.61	**10,200**	**20,700**	<0.001	<0.001	<0.001	<0.001
			WQCC Standards	250	1000	0.01	0.75	0.75	0.62

Total Dissolved Soilds (TDS), chloride, sulfate, and BTEX concentrations listed in milligrams per liter (mg/L)
Analyses performed by Environmental Lab of Texas (Odessa TX) or Cardinal Laboratories (Hobbs NM).
Values in boldface type indicate concentrations exceed New Mexico Water Quality Commission (WQCC) standards.

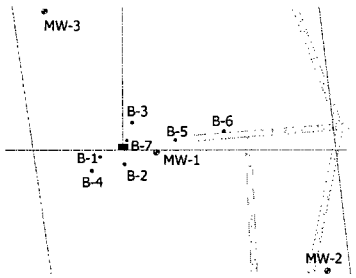
APPENDIX A

LITHOLOGIC LOGS

AND

MONITORING WELL CONSTRUCTION DIAGRAMS

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



BOREHOLE NO.: B-1
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/18/06
COMPLETION DATE: 07/18/06
COMMENTS: Boring located 26 feet southwest of junction box.

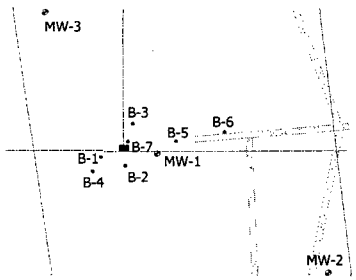
TOTAL DEPTH: 30 Feet
CLIENT: RICE *Operating Company*
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer

Depth	Time	Sample Type	Chloride (ppm)	PID (ppm)	USCS	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
		Surface			SW	Light brown (5 YR 6/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
5	1452	Split Spoon		0		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
10	1455	Split Spoon	732	0		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
15	1459	Split Spoon	726	0	SM/CAL	Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
20	1502	Split Spoon	898	0		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
25	1508	Split Spoon	545	0		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
30	1518	Split Spoon	532	3		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
35						Bottom of boring at 30 ft below ground surface.
40						
45						
50						

3/8 Bentonite Hole Plug

5"

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



BOREHOLE NO.: B-2
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/18/06
COMPLETION DATE: 07/18/06
COMMENTS: Boring located 18 feet south of junction box.

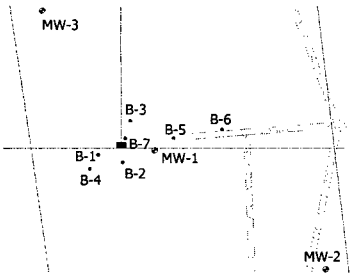
TOTAL DEPTH: 30 Feet
CLIENT: RICE *Operating Company*
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer

Depth	Time	Type	Chloride (ppm)	PID (ppm)	USCS	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
		Surface			SW	Light brown (5 YR 6/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
5	1536	Split Spoon		0		Light brown (5 YR 5/6), pale yellowish brown (10 YR 6/2) and dark yellowish brown (10YR 6/6) fine-grained sand, well-sorted, subrounded grains, unconsolidated, dry
10	1538	Cuttings	86	0		Hard caliche layer (too hard for split spoon)
15	1542	Split Spoon	87	0	SM/CAL	Grayish orange (10YR 7/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
20	1544	Split Spoon	117	0		Grayish orange (10YR 7/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
25	1555	Split Spoon	175	0	SW	Light brown (5 YR 6/4) fine-grained sand, moderately well-sorted, subrounded, unconsolidated, dry.
30	1610	Split Spoon	258	74		Light brown (5 YR 6/4) fine-grained sand, moderately well-sorted, subrounded, unconsolidated, dry.
35						Bottom of boring at 30 ft below ground surface.
40						
45						
50						

3/8 Bentonite Hole Plug

5"

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



BOREHOLE NO.: B-3
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/18/06
COMPLETION DATE: 07/18/06
COMMENTS: Boring located 25 feet north-northeast of junction box.

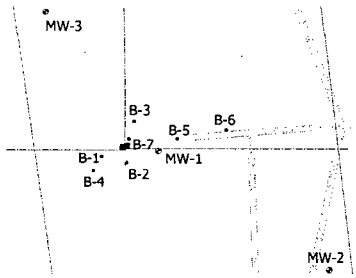
TOTAL DEPTH: 30 Feet
CLIENT: RICE *Operating Company*
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer

Sample Depth	Sample Time	Sample Type	Chloride (ppm)	PID (ppm)	USCS	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
		Surface			SW	Light brown (5 YR 6/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
5	1630	Split Spoon	120	0	SM/CAL	Pale olive (10Y 6/2) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
10	1632	Split Spoon	59	3		Pale olive (10Y 6/2) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
15	1635	Split Spoon	83	0		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
20	1640	Split Spoon	113	0		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
25	1650	Split Spoon	173	9		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
30	1655	Cuttings	255	41		Light brown (5 YR 6/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
35						Bottom of boring at 30 ft below ground surface.
40						
45						
50						

3/8 Bentonite Hole Plug

5"

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



BOREHOLE NO.: B-4
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/19/06
COMPLETION DATE: 07/19/06
COMMENTS: Boring located 52 feet southwest of junction box.

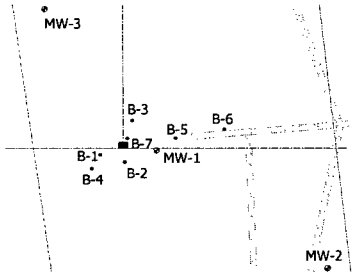
TOTAL DEPTH: 32 Feet
CLIENT: RICE *Operating Company*
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer

Depth	Sample Time	Sample Type	Chloride (ppm)	PID (ppm)	USCS	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
		Surface			SW	Light brown (5 YR 6/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
5	0815	Split Spoon	254	0	SM/CAL	Light brown (5 YR 6/4) and pale yellowish brown (10 YR 6/2) fine-grained sand, well-sorted, subrounded grains, unconsolidated, dry
10	0820	Split Spoon	899	3		Grayish orange (10YR 7/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
15	0825	Split Spoon	282	0		Grayish orange (10YR 7/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
20	0830	Split Spoon	386	0		Grayish orange (10YR 7/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
25	0835	Split Spoon	340	0	SM	Grayish orange (10YR 7/4) fine-grained sand with <5% calcium carbonate in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
30	0840	Split Spoon	609	0		Grayish orange (10YR 7/4) fine-grained sand with <5% calcium carbonate in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
35						Bottom of boring at 32 ft below ground surface.
40						
45						
50						

3/8 Bentonite Hole Plug

5"

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



BOREHOLE NO.: B-5
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/19/06
COMPLETION DATE: 07/19/06
COMMENTS: Boring located 54 feet east of junction box.

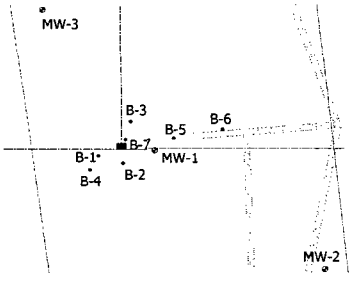
TOTAL DEPTH: 32 Feet
CLIENT: RICE *Operating Company*
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer

Depth	Time	Type	Chloride (ppm)	PID (ppm)	USCS	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
		Surface			SW	Moderate yellowish brown (10YR 5/4) fine-grained sand.
5	0900	Split Spoon	181	24	SM/CAL	Moderate yellowish brown (10YR 5/4) fine-grained sand.
10	0905	Split Spoon	365	478		Grayish olive (10Y 4/2) fine-grained sand. Strong hydrocarbon odor and dark staining.
15	0910	Split Spoon	168	457		Pale olive (10Y 6/2) fine-grained sand with some very pale orange calcium carbonate in matrix. Strong hydrocarbon odor and moderate staining.
20	0915	Split Spoon	165	520		Dusky yellow (5Y 6/4) fine-grained sand with some very pale orange calcium carbonate in matrix. Strong hydrocarbon odor and moderate staining.
25	0920	Split Spoon	121	243	SW	Moderate yellowish brown (10YR 5/4) fine-grained sand, moderately well-sorted, subrounded, unconsolidated, dry. Moderate hydrocarbon odor.
30	0925	Split Spoon	145	232		Moderate yellowish brown (10YR 5/4) fine-grained sand, moderately well-sorted, subrounded, unconsolidated, dry. Moderate hydrocarbon odor.
35						Bottom of boring at 32 ft below ground surface.
40						
45						
50						

3/8 Bentonite Hole Plug

5'

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

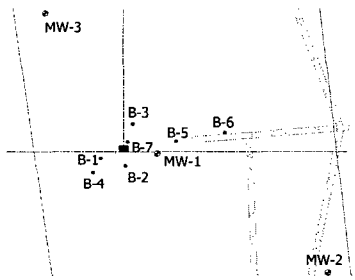


BOREHOLE NO.: B-6
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/19/06
COMPLETION DATE: 07/19/06
COMMENTS: Boring located 108 feet north-northeast of junction box.

TOTAL DEPTH: 32 Feet
CLIENT: RICE *Operating Company*
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer

	Sample			Chloride	PID	USCS	LITHOLOGIC DESCRIPTION:
	Depth	Time	Type	(ppm)	(ppm)		LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
3/8 Bentonite Hole Plug; 5"			Surface			SW	Light brown (5 YR 6/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
	5	0945	Split Spoon	146	0		Grayish orange (10YR 7/4) fine-grained sand, moderately well-sorted, subrounded, unconsolidated, dry.
	10	0950	Split Spoon	269	0	SM	Light brown (5Y 6/4) fine-grained sand with some pale yellowish brown (10YR 6/2) calcium carbonate in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
	15	0955	Split Spoon	380	0	SM/CAL	Grayish orange (10YR 7/4) fine-grained sand with some very pale orange calcium carbonate (10 YR 8/2) in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
	20	1000	Split Spoon	479	0	SW	Light brown (5Y 6/4) and pale yellowish brown (10YR 6/2) fine-grained sand, moderately well-sorted, subrounded, unconsolidated, dry.
	25	1005	Split Spoon	604	0	SM	Grayish orange (10YR 7/4) and pale yellowish brown (10 YR 6/2) fine-grained sand with some calcium carbonate in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
	30	1010	Split Spoon	662	0		Grayish orange (10YR 7/4) and pale yellowish brown (10 YR 6/2) fine-grained sand with some calcium carbonate in matrix. Sand grains are moderately well-sorted, subrounded, unconsolidated, dry.
	35						Bottom of boring at 32 ft below ground surface.
	40						
	45						
	50						

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



BOREHOLE NO.: B-7
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/19/06
COMPLETION DATE: 07/19/06
COMMENTS: Boring located adjacent to northeast corner east of junction box.

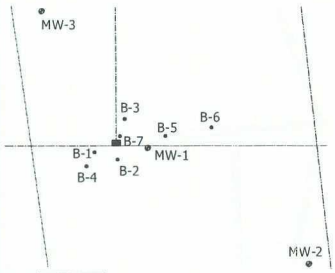
TOTAL DEPTH: 32 Feet
CLIENT: RICE *Operating Company*
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer

	Sample			Chloride	PID	USCS	LITHOLOGIC DESCRIPTION:
	Depth	Time	Type	(ppm)	(ppm)		LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
3/8 Bentonite Hole Plug			Surface			SW	Moderate yellowish brown (10YR 5/4) fine-grained sand.
	5	1025	Split Spoon	137	585		Pale olive (10Y 6/2) and dark yellowish orange (10YR 6/2) fine-grained sand with calcium carbonate in matrix. Strong hydrocarbon odor and dark staining.
	10	1030	Split Spoon	303	534		Greenish gray (5GY 6/1), medium dark gray, and black fine-grained sand with calcium carbonate in matrix. Strong hydrocarbon odor and dark staining.
	15	1035	Split Spoon	174	540	SM/CAL	Olive gray (5Y 4/1)and yellowish gray (5Y 8/1) fine-grained sand with some calcium carbonate in matrix. Strong hydrocarbon odor and moderate staining.
	20	1040	Split Spoon	86	327		Light olive gray (5Y 6/1) fine-grained sand with some very pale orange calcium carbonate in matrix. Strong hydrocarbon odor and moderate staining.
	25	1045	Split Spoon	562	488		Pale olive (10Y 6/2) fine-grained sand with calcium carbonate in matrix, moderately well-sorted, subrounded, unconsolidated, dry. Moderate hydrocarbon odor.
5'	30	1050	Split Spoon	333	331	SW	Pale yellowish brown (10YR 6/2) fine-grained sand, moderately well-sorted, subrounded, unconsolidated, dry. Moderate hydrocarbon odor.
	35						Bottom of boring at 32 ft below ground surface.
	40						
	45						
	50						

DRILLING LOG	Site Name/Location				Logged by: FDR
RICE Operarting Company 122 West Taylor Hobbs, New Mexico 88240 Phone: (505) 393-9174 Fax (505) 397-1471	Jct. Box K-6 6-T20S-R37E EME SWD System Lea County, NM	Well No.: MW 1	Date Drilled: 1/23/02	Driller: Eades	Construction: Installed 2" PVC monitor well, sand & grout.
		Well Depth: 40'	Boring Depth: 40'	Well Material:PVC	
		Casing Length: 43'	Boring Diameter: 6"	Casing Size: 2"	
		Screen Length: 15'	Drilling Method: Air Rotary	Slot Size:	

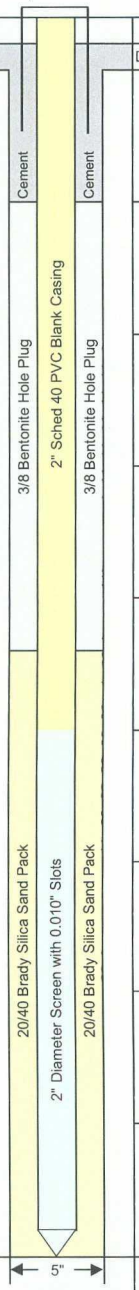
DEPTH	SUBSURFACE LITHOLOGY	SAMPLE TYPE	TEST (ppm)		REMARKS	Boring
			Cl	TPH		
0	Ground surface					
1	Top Soil					
2						
3	Caliche					
4						
5		Grab	250	odor	Field Test	
6						
7						
8						
9	Sand					
10		Grab	250	odor	Field Test	
11						
12			300	odor	Field Test	
13						
14		Grab	250	odor	Field Test	
15						
16		Grab	250	odor	Field Test	
17						
18		Grab	275	odor	Field Test	
19						
20		Grab	275	odor	Field Test	
21	Sand and sandstone stringers(moist)					
22		Grab	250	odor	Field Test	
23						
24		Grab	250	odor	Field Test	
25	Sand and clay (moist)					
26		Grab	250	odor	Field Test	
27						
28		Grab	250	odor	Field Test	
29						
30		Grab	450	odor	Field Test	
31						
32	Sand (moist)	Grab	450	odor	Field Test	
33						
34						
35						
36		Grab	600	odor	Field Test	
37			1104	161	Lab Test	
38		Grab	600	odor	Field Test	
39						
40		Water Sample	12,096	<0.002	Lab Test	

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



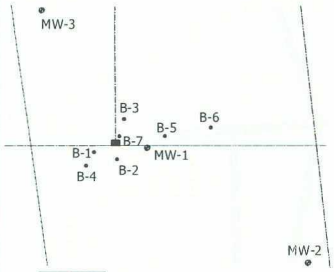
MONITOR WELL NO.: MW-2
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/18/06
COMPLETION DATE: 07/18/06
COMMENTS: Monitoring well located approximately 240 feet southeast of former junction box .

TOTAL DEPTH: 45 Feet
CLIENT: RICE Operating Company
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer



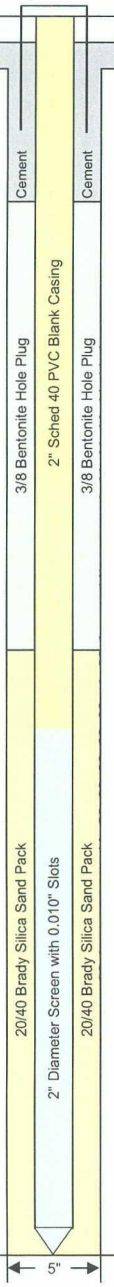
Depth	Time	Sample Type	Chloride (ppm)	PID (ppm)	USCS	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
		Surface			SW	Grayish-orange (10 YR 7/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
5						
	0935	Split Spoon	60	0	SM/CAL	Very pale orange (10 YR 8/2) fine-grained sand with some calcium carbonate in matrix, subrounded grains, unconsolidated, dry.
10						
	0940	Split Spoon	56	0		Very pale orange (10 YR 8/2) fine-grained sand with some calcium carbonate in matrix, subrounded grains, unconsolidated, dry.
15						
	0945	Split Spoon	115	0		Very pale orange (10 YR 8/2) fine-grained sand with some calcium carbonate in matrix, subrounded grains, unconsolidated, dry.
20						
	0950	Split Spoon	143	0	SW	Light brown (5YR 6/4) fine sand, subrounded grains, moderately well-sorted, dry.
25						
	0955	Split Spoon	431	0	SW/CAL	Light brown (5YR 6/4) fine-grained sand with some calcium carbonate (10 YR 8/2) in matrix, subrounded grains, dry.
30						
▼	1000	Split Spoon	1004	0		Light brown (5YR 6/4) fine-grained sand with some calcium carbonate (10 YR 8/2) in matrix, subrounded grains, dry.
35						
						Light brown (5YR 6/4) fine-grained sand, subrounded grains, dry.
40					SW	
						Light brown (5YR 6/4) fine-grained sand, subrounded grains, dry.
45						Bottom of boring at 45 ft below ground surface.
50						

LITHOLOGIC LOG AND MONITORING WELL CONSTRUCTION DIAGRAM



MONITOR WELL NO.: MW-3
SITE ID: EME Jct. K-6
CONTRACTOR: Harrison & Cooper, Inc.
DRILLING METHOD: Air Rotary
START DATE: 07/18/06
COMPLETION DATE: 07/18/06
COMMENTS: Monitoring well located approximately 210 feet northwest of former junction box .

TOTAL DEPTH: 45 Feet
CLIENT: RICE Operating Company
COUNTY: Lea
STATE: New Mexico
LOCATION: T20S-R37E-Sec 6-Unit K
FIELD REP.: G. Van Deventer

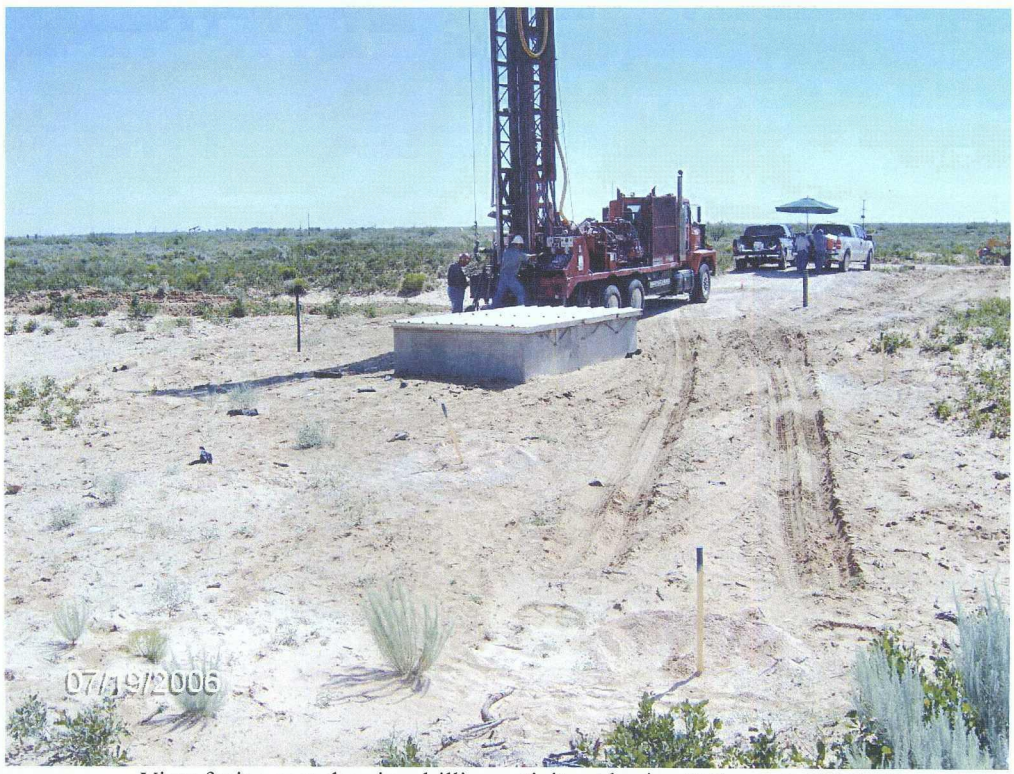


Sample Depth	Time	Type	Chloride (ppm)	PID (ppm)	USCS	LITHOLOGIC DESCRIPTION: LITHOLOGY, COLOR, GRAIN SIZE, SORTING, ROUNDING, CONSOLIDATION, DISTINGUISHING FEATURES
		Surface				Light brown (5Y 6/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
5	1110	Cuttings	80	0		
					SW	Light brown (5Y 6/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
10	1115	Cuttings		0		
						Light brown (5YR 6/4) sandy loam, dune sand, fine-grained, well-sorted, subrounded grains, unconsolidated, dry
15	1120	Cuttings	569	0		
					SM/CAL	Grayish-orange (10 YR 7/4) fine-grained sand with some very pale orange (10YR 8/2) calcium carbonate in matrix, subrounded grains, unconsolidated, dry.
20	1125	Cuttings	683	0		
						Light brown (5Y 6/4) fine sand with <5% calcium carbonate (10 YR 8/2) in matrix, subrounded grains, moderately well-sorted, dry.
25	1135	Cuttings	738	0		
					SW/CAL	Light brown (5Y 6/4) fine sand with <5% calcium carbonate (10 YR 8/2) in matrix, subrounded grains, moderately well-sorted, dry.
						(Calcium carbonate decreasg with depth)
30	1140	Cuttings	1014	0		
▼						Light brown (5Y 6/4) fine-grained sand with some calcium carbonate in matrix, subrounded grains, dry.
35						Light brown (5YR 6/4) fine-grained sand, subrounded grains, dry.
40					SW	Light brown (5YR 6/4) fine-grained sand, subrounded grains, dry.
45						Bottom of boring at 45 ft below ground surface.

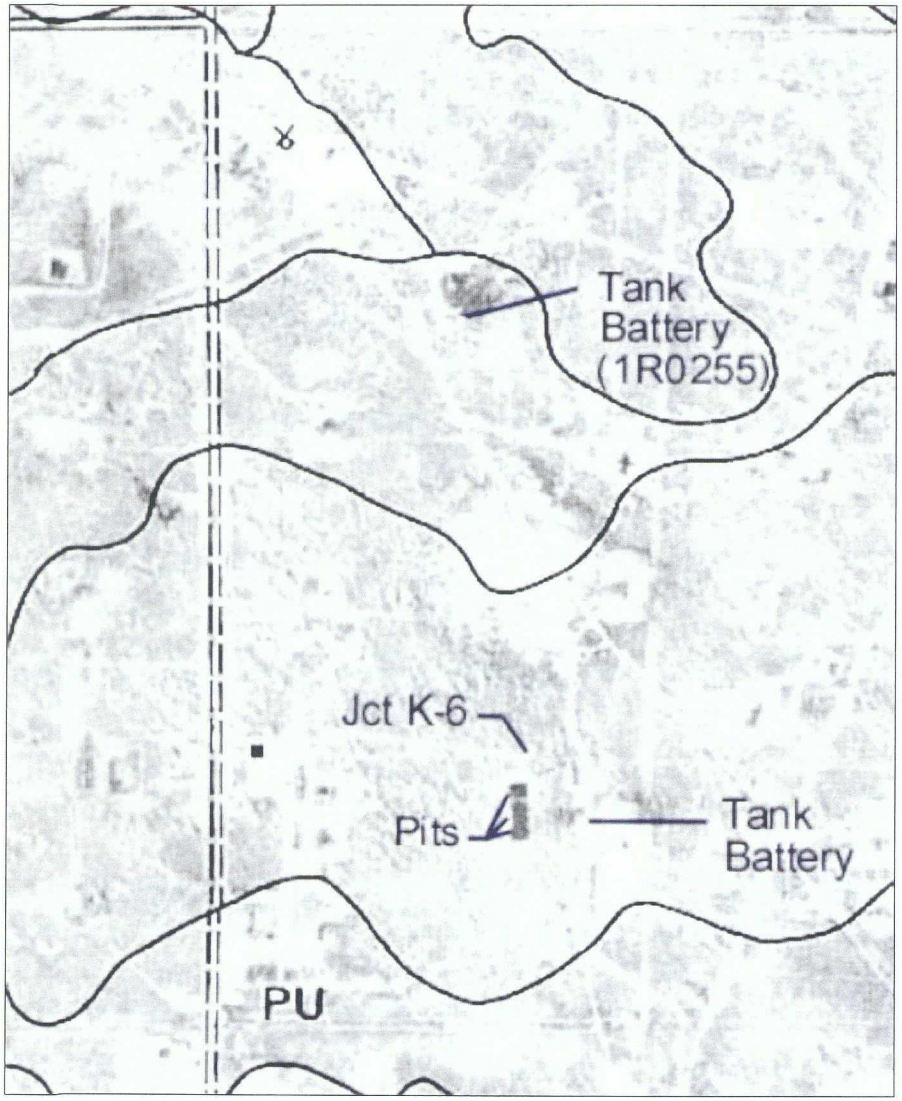
APPENDIX B

PHOTODOCUMENTATION

View facing northwest showing completed MW-2 (foreground) and drilling activities at boring B-3 (background) near Jct. K-6.



View facing east showing drilling activity at boring B-7 near Jct. K-6.



USDA-SCS soil survey (published 1974) showing Jct K-6 site relative to nearby pits, tank batteries, and other oil and gas facilities (photobase from 1955 and 1966 aerial photography).

USGS aerial photograph showing Jct K-6 site relative to nearby pits, tank batteries, and other oil and gas facilities (photo taken July 2005).

APPENDIX C

LABORATORY ANALYTICAL REPORTS

AND

CHAIN OF CUSTODY DOCUMENTATION

Summary Report

Kristen Farris-Pope
Rice Operating Company
122 W Taylor Street
Hobbs, NM, 88240

Report Date: August 8, 2006

Work Order: 6072113

Project Location: Sec 6K T205 R37E,Lea County,NM
Project Name: EME K-6 Vent Jet Box
Project Number: EME K-6 Vent Jet Box

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
96007	B-1 (20'-22')	soil	2006-07-18	15:02	2006-07-20
96008	B-4 (10'-12')	soil	2006-07-19	08:20	2006-07-20
96009	B-5 (10'-12')	soil	2006-07-19	09:05	2006-07-20
96010	B-5 (20'-22')	soil	2006-07-19	09:15	2006-07-20
96011	B-7 (5'-7')	soil	2006-07-19	10:25	2006-07-20
96012	B-7 (15'-17')	soil	2006-07-19	10:35	2006-07-20
96013	B-7 (25'-27')	soil	2006-07-19	10:45	2006-07-20

Sample - Field Code	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
96013 - B-7 (25'-27')	**2370**	**43.0**

Sample: 96007 - B-1 (20'-22')

Param	Flag	Result	Units	RL
Chloride		**588**	mg/Kg	1.00

Sample: 96008 - B-4 (10'-12')

Param	Flag	Result	Units	RL
Chloride		**592**	mg/Kg	1.00

Sample: 96009 - B-5 (10'-12')

Param	Flag	Result	Units	RL
C6-C35, Unfractionated		**16300**	mg/Kg	50.0
C6, Aliphatic		<1000	mg/Kg	50.0
C6-C8, Aliphatic		<1000	mg/Kg	50.0
C8-C10, Aliphatic		<1000	mg/Kg	50.0

continued ...

sample 96009 continued ...

Param	Flag	Result	Units	RL
C10-C12, Aliphatic		<1000	mg/Kg	50.0
C12-C16, Aliphatic		**2090**	mg/Kg	50.0
C16-C21, Aliphatic		**1980**	mg/Kg	50.0
C21-C35, Aliphatic		**2650**	mg/Kg	50.0
C6-C7, Aromatic		<1000	mg/Kg	50.0
C7-C8, Aromatic		<1000	mg/Kg	50.0
C8-C10, Aromatic		<1000	mg/Kg	50.0
C10-C12, Aromatic		<1000	mg/Kg	50.0
C12-C16, Aromatic		<1000	mg/Kg	50.0
C16-C21, Aromatic		<1000	mg/Kg	50.0
C21-C35, Aromatic		**1060**	mg/Kg	50.0
Percent Recovery		**66.7**	%	0.00
Benzene		**64.5**	µg/Kg	10.0
Toluene		**90.2**	µg/Kg	10.0
Ethylbenzene		**2160**	µg/Kg	10.0
m,p-Xylene		**5530**	µg/Kg	10.0
o-Xylene		**949**	µg/Kg	10.0
Naphthalene		**2650**	µg/Kg	50.0

Sample: 96010 - B-5 (20'-22')

Param	Flag	Result	Units	RL
C6-C35, Unfractionated		**5360**	mg/Kg	50.0
C6, Aliphatic		<500	mg/Kg	50.0
C6-C8, Aliphatic		<500	mg/Kg	50.0
C8-C10, Aliphatic		<500	mg/Kg	50.0
C10-C12, Aliphatic		<500	mg/Kg	50.0
C12-C16, Aliphatic		**911**	mg/Kg	50.0
C16-C21, Aliphatic		**756**	mg/Kg	50.0
C21-C35, Aliphatic		**545**	mg/Kg	50.0
C6-C7, Aromatic		<500	mg/Kg	50.0
C7-C8, Aromatic		<500	mg/Kg	50.0
C8-C10, Aromatic		<500	mg/Kg	50.0
C10-C12, Aromatic		<500	mg/Kg	50.0
C12-C16, Aromatic		<500	mg/Kg	50.0
C16-C21, Aromatic		<500	mg/Kg	50.0
C21-C35, Aromatic		<500	mg/Kg	50.0
Percent Recovery		**75.9**	%	0.00
Benzene		**26.1**	µg/Kg	10.0
Toluene		**88.3**	µg/Kg	10.0
Ethylbenzene		**1740**	µg/Kg	10.0
m,p-Xylene		**4700**	µg/Kg	10.0
o-Xylene		**977**	µg/Kg	10.0
Naphthalene		**2460**	µg/Kg	50.0

Sample: 96011 - B-7 (5'-7')

Param	Flag	Result	Units	RL
C6-C35, Unfractionated		**892**	mg/Kg	50.0
C6, Aliphatic		<250	mg/Kg	50.0

continued ...

sample 96011 continued ...

Param	Flag	Result	Units	RL
C6-C8, Aliphatic		<250	mg/Kg	50.0
C8-C10, Aliphatic		<250	mg/Kg	50.0
C10-C12, Aliphatic		<250	mg/Kg	50.0
C12-C16, Aliphatic		<250	mg/Kg	50.0
C16-C21, Aliphatic		<250	mg/Kg	50.0
C21-C35, Aliphatic		<250	mg/Kg	50.0
C6-C7, Aromatic		<250	mg/Kg	50.0
C7-C8, Aromatic		<250	mg/Kg	50.0
C8-C10, Aromatic		<250	mg/Kg	50.0
C10-C12, Aromatic		<250	mg/Kg	50.0
C12-C16, Aromatic		<250	mg/Kg	50.0
C16-C21, Aromatic		<250	mg/Kg	50.0
C21-C35, Aromatic		<250	mg/Kg	50.0
Percent Recovery		**69.0**	%	0.00
Benzene		<20.0	µg/Kg	10.0
Toluene		<20.0	µg/Kg	10.0
Ethylbenzene		**786**	µg/Kg	10.0
m,p-Xylene		**2010**	µg/Kg	10.0
o-Xylene		**26.3**	µg/Kg	10.0
Naphthalene		**996**	µg/Kg	50.0

Sample: 96012 - B-7 (15'-17')

Param	Flag	Result	Units	RL
C6-C35, Unfractionated		**5930**	mg/Kg	50.0
C6, Aliphatic		<500	mg/Kg	50.0
C6-C8, Aliphatic		<500	mg/Kg	50.0
C8-C10, Aliphatic		<500	mg/Kg	50.0
C10-C12, Aliphatic		<500	mg/Kg	50.0
C12-C16, Aliphatic		**969**	mg/Kg	50.0
C16-C21, Aliphatic		**926**	mg/Kg	50.0
C21-C35, Aliphatic		**939**	mg/Kg	50.0
C6-C7, Aromatic		<500	mg/Kg	50.0
C7-C8, Aromatic		<500	mg/Kg	50.0
C8-C10, Aromatic		<500	mg/Kg	50.0
C10-C12, Aromatic		<500	mg/Kg	50.0
C12-C16, Aromatic		<500	mg/Kg	50.0
C16-C21, Aromatic		<500	mg/Kg	50.0
C21-C35, Aromatic		<500	mg/Kg	50.0
Percent Recovery		**69.0**	%	0.00
Benzene		**179**	µg/Kg	10.0
Toluene		**985**	µg/Kg	10.0
Ethylbenzene		**2840**	µg/Kg	10.0
m,p-Xylene		**6620**	µg/Kg	10.0
o-Xylene		**1940**	µg/Kg	10.0
Naphthalene		**2480**	µg/Kg	50.0

Sample: 96013 - B-7 (25'-27')

continued ...

sample 96013 continued ...

Param	Flag	Result	Units	RL

Param	Flag	Result	Units	RL
Benzene		<20.0	µg/Kg	10.0
Toluene		<20.0	µg/Kg	10.0
Ethylbenzene		**35.0**	µg/Kg	10.0
m,p-Xylene		**51.6**	µg/Kg	10.0
o-Xylene		**22.0**	µg/Kg	10.0
Naphthalene		**579**	µg/Kg	50.0

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
155 McCutcheon, Suite H El Paso, Texas 79932 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

Analytical and Quality Control Report

Kristen Farris-Pope
Rice Operating Company
122 W Taylor Street
Hobbs, NM, 88240

Report Date: August 8, 2006

Work Order: 6072113

Project Location: Sec 6K T205 R37E,Lea County,NM
Project Name: EME K-6 Vent Jet Box
Project Number: EME K-6 Vent Jet Box

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
96007	B-1 (20'-22')	soil	2006-07-18	15:02	2006-07-20
96008	B-4 (10'-12')	soil	2006-07-19	08:20	2006-07-20
96009	B-5 (10'-12')	soil	2006-07-19	09:05	2006-07-20
96010	B-5 (20'-22')	soil	2006-07-19	09:15	2006-07-20
96011	B-7 (5'-7')	soil	2006-07-19	10:25	2006-07-20
96012	B-7 (15'-17')	soil	2006-07-19	10:35	2006-07-20
96013	B-7 (25'-27')	soil	2006-07-19	10:45	2006-07-20

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Michael Abel

Dr. Blair Leftwich, Director

Analytical Report

Sample: 96007 - B-1 (20'-22')

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	28529	Date Analyzed:	2006-07-30	Analyzed By:	WB
Prep Batch:	24946	Sample Preparation:	2006-07-29	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**588**	mg/Kg	100	1.00

Sample: 96008 - B-4 (10'-12')

Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	28773	Date Analyzed:	2006-08-04	Analyzed By:	WB
Prep Batch:	25148	Sample Preparation:	2006-08-04	Prepared By:	WB

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**592**	mg/Kg	50	1.00

Sample: 96009 - B-5 (10'-12')

Analysis:	TX1006	Analytical Method:	TX1006	Prep Method:	N/A
QC Batch:	28403	Date Analyzed:	2006-07-27	Analyzed By:	SP
Prep Batch:	24847	Sample Preparation:	2006-07-27	Prepared By:	SP

Parameter	Flag	Result	RL Units	Dilution	RL
C6-C35, Unfractionated		**16300**	mg/Kg	20	50.0
C6, Aliphatic		<1000	mg/Kg	20	50.0
C6-C8, Aliphatic		<1000	mg/Kg	20	50.0
C8-C10, Aliphatic		<1000	mg/Kg	20	50.0
C10-C12, Aliphatic		<1000	mg/Kg	20	50.0
C12-C16, Aliphatic		**2090**	mg/Kg	20	50.0
C16-C21, Aliphatic		**1980**	mg/Kg	20	50.0
C21-C35, Aliphatic		**2650**	mg/Kg	20	50.0
C6-C7, Aromatic		<1000	mg/Kg	20	50.0
C7-C8, Aromatic		<1000	mg/Kg	20	50.0
C8-C10, Aromatic		<1000	mg/Kg	20	50.0
C10-C12, Aromatic		<1000	mg/Kg	20	50.0
C12-C16, Aromatic		<1000	mg/Kg	20	50.0
C16-C21, Aromatic		<1000	mg/Kg	20	50.0
C21-C35, Aromatic		**1060**	mg/Kg	20	50.0
Percent Recovery		**66.7**	%	20	0.00

Sample: 96009 - B-5 (10'-12')

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	28464	Date Analyzed:	2006-07-28	Analyzed By:	JG
Prep Batch:	24903	Sample Preparation:	2006-07-28	Prepared By:	JG

Parameter	Flag	Result	RL	Units	Dilution	RL
Benzene		**64.5**		µg/Kg	2	10.0
Toluene		**90.2**		µg/Kg	2	10.0
Ethylbenzene		**2160**		µg/Kg	2	10.0
m,p-Xylene		**5530**		µg/Kg	2	10.0
o-Xylene		**949**		µg/Kg	2	10.0
Naphthalene		**2650**		µg/Kg	2	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		848	µg/Kg	2	500	85	42 - 129
Toluene-d8	[1]	1150	µg/Kg	2	500	115	93 - 107
4-Bromofluorobenzene (4-BFB)		988	µg/Kg	2	500	99	78 - 120

Sample: 96010 - B-5 (20'-22')

Analysis:	TX1006	Analytical Method:	TX1006	Prep Method:	N/A
QC Batch:	28403	Date Analyzed:	2006-07-27	Analyzed By:	SP
Prep Batch:	24847	Sample Preparation:	2006-07-27	Prepared By:	SP

Parameter	Flag	Result	RL	Units	Dilution	RL
C6-C35, Unfractionated		**5360**		mg/Kg	10	50.0
C6, Aliphatic		<500		mg/Kg	10	50.0
C6-C8, Aliphatic		<500		mg/Kg	10	50.0
C8-C10, Aliphatic		<500		mg/Kg	10	50.0
C10-C12, Aliphatic		<500		mg/Kg	10	50.0
C12-C16, Aliphatic		**911**		mg/Kg	10	50.0
C16-C21, Aliphatic		**756**		mg/Kg	10	50.0
C21-C35, Aliphatic		**545**		mg/Kg	10	50.0
C6-C7, Aromatic		<500		mg/Kg	10	50.0
C7-C8, Aromatic		<500		mg/Kg	10	50.0
C8-C10, Aromatic		<500		mg/Kg	10	50.0
C10-C12, Aromatic		<500		mg/Kg	10	50.0
C12-C16, Aromatic		<500		mg/Kg	10	50.0
C16-C21, Aromatic		<500		mg/Kg	10	50.0
C21-C35, Aromatic		<500		mg/Kg	10	50.0
Percent Recovery		**75.9**		%	10	0.00

Sample: 96010 - B-5 (20'-22')

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	28464	Date Analyzed:	2006-07-28	Analyzed By:	JG
Prep Batch:	24903	Sample Preparation:	2006-07-28	Prepared By:	JG

[1] High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**26.1**	µg/Kg	2	10.0
Toluene		**88.3**	µg/Kg	2	10.0
Ethylbenzene		**1740**	µg/Kg	2	10.0
m,p-Xylene		**4700**	µg/Kg	2	10.0
o-Xylene		**977**	µg/Kg	2	10.0
Naphthalene		**2460**	µg/Kg	2	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		856	µg/Kg	2	500	86	42 - 129
Toluene-d8		1030	µg/Kg	2	500	103	93 - 107
4-Bromofluorobenzene (4-BFB)		1010	µg/Kg	2	500	101	78 - 120

Sample: 96011 - B-7 (5'-7')

Analysis:	TX1006	Analytical Method:	TX1006	Prep Method:	N/A
QC Batch:	28403	Date Analyzed:	2006-07-27	Analyzed By:	SP
Prep Batch:	24847	Sample Preparation:	2006-07-27	Prepared By:	SP

Parameter	Flag	RL Result	Units	Dilution	RL
C6-C35, Unfractionated		**892**	mg/Kg	5	50.0
C6, Aliphatic		<250	mg/Kg	5	50.0
C6-C8, Aliphatic		<250	mg/Kg	5	50.0
C8-C10, Aliphatic		<250	mg/Kg	5	50.0
C10-C12, Aliphatic		<250	mg/Kg	5	50.0
C12-C16, Aliphatic		<250	mg/Kg	5	50.0
C16-C21, Aliphatic		<250	mg/Kg	5	50.0
C21-C35, Aliphatic		<250	mg/Kg	5	50.0
C6-C7, Aromatic		<250	mg/Kg	5	50.0
C7-C8, Aromatic		<250	mg/Kg	5	50.0
C8-C10, Aromatic		<250	mg/Kg	5	50.0
C10-C12, Aromatic		<250	mg/Kg	5	50.0
C12-C16, Aromatic		<250	mg/Kg	5	50.0
C16-C21, Aromatic		<250	mg/Kg	5	50.0
C21-C35, Aromatic		<250	mg/Kg	5	50.0
Percent Recovery		**69.0**	%	5	0.00

Sample: 96011 - B-7 (5'-7')

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	28464	Date Analyzed:	2006-07-28	Analyzed By:	JG
Prep Batch:	24903	Sample Preparation:	2006-07-28	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<20.0	µg/Kg	2	10.0
Toluene		<20.0	µg/Kg	2	10.0
Ethylbenzene		**786**	µg/Kg	2	10.0

continued ...

sample 96011 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
m,p-Xylene		**2010**	µg/Kg	2	10.0
o-Xylene		**26.3**	µg/Kg	2	10.0
Naphthalene		**996**	µg/Kg	2	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		860	µg/Kg	2	500	86	42 - 129
Toluene-d8		972	µg/Kg	2	500	97	93 - 107
4-Bromofluorobenzene (4-BFB)		1130	µg/Kg	2	500	113	78 - 120

Sample: 96012 - B-7 (15'-17')

Analysis:	TX1006	Analytical Method:	TX1006	Prep Method:	N/A
QC Batch:	28403	Date Analyzed:	2006-07-27	Analyzed By:	SP
Prep Batch:	24847	Sample Preparation:	2006-07-27	Prepared By:	SP

Parameter	Flag	RL Result	Units	Dilution	RL
C6-C35, Unfractionated		**5930**	mg/Kg	10	50.0
C6, Aliphatic		<500	mg/Kg	10	50.0
C6-C8, Aliphatic		<500	mg/Kg	10	50.0
C8-C10, Aliphatic		<500	mg/Kg	10	50.0
C10-C12, Aliphatic		<500	mg/Kg	10	50.0
C12-C16, Aliphatic		**969**	mg/Kg	10	50.0
C16-C21, Aliphatic		**926**	mg/Kg	10	50.0
C21-C35, Aliphatic		**939**	mg/Kg	10	50.0
C6-C7, Aromatic		<500	mg/Kg	10	50.0
C7-C8, Aromatic		<500	mg/Kg	10	50.0
C8-C10, Aromatic		<500	mg/Kg	10	50.0
C10-C12, Aromatic		<500	mg/Kg	10	50.0
C12-C16, Aromatic		<500	mg/Kg	10	50.0
C16-C21, Aromatic		<500	mg/Kg	10	50.0
C21-C35, Aromatic		<500	mg/Kg	10	50.0
Percent Recovery		**69.0**	%	10	0.00

Sample: 96012 - B-7 (15'-17')

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	28464	Date Analyzed:	2006-07-28	Analyzed By:	JG
Prep Batch:	24903	Sample Preparation:	2006-07-28	Prepared By:	JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**179**	µg/Kg	2	10.0
Toluene		**985**	µg/Kg	2	10.0
Ethylbenzene		**2840**	µg/Kg	2	10.0
m,p-Xylene		**6620**	µg/Kg	2	10.0

continued...

sample 96012 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
o-Xylene		**1940**	µg/Kg	2	10.0
Naphthalene		**2480**	µg/Kg	2	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		846	µg/Kg	2	500	85	42 - 129
Toluene-d8		1050	µg/Kg	2	500	105	93 - 107
4-Bromofluorobenzene (4-BFB)		997	µg/Kg	2	500	100	78 - 120

Sample: 96013 - B-7 (25'-27')

Analysis:	TPH DRO	Analytical Method:	Mod. 8015B	Prep Method:	N/A
QC Batch:	28236	Date Analyzed:	2006-07-24	Analyzed By:	SE
Prep Batch:	24717	Sample Preparation:		Prepared By:	SE

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**2370**	mg/Kg	20	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		212	mg/Kg	20	7.50	141	50 - 150

Sample: 96013 - B-7 (25'-27')

Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	28235	Date Analyzed:	2006-07-21	Analyzed By:	MT
Prep Batch:	24716	Sample Preparation:	2006-07-21	Prepared By:	MT

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**43.0**	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.877	mg/Kg	5	0.200	88	68 - 129.6
4-Bromofluorobenzene (4-BFB)		1.22	mg/Kg	5	0.200	122	71.9 - 123.7

Sample: 96013 - B-7 (25'-27')

Analysis:	Volatiles	Analytical Method:	S 8260B	Prep Method:	S 5030B
QC Batch:	28464	Date Analyzed:	2006-07-28	Analyzed By:	JG
Prep Batch:	24903	Sample Preparation:	2006-07-28	Prepared By:	JG

continued ...

sample 96013 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<20.0	µg/Kg	2	10.0
Toluene		<20.0	µg/Kg	2	10.0
Ethylbenzene		**35.0**	µg/Kg	2	10.0
m,p-Xylene		**51.6**	µg/Kg	2	10.0
o-Xylene		**22.0**	µg/Kg	2	10.0
Naphthalene		**579**	µg/Kg	2	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		862	µg/Kg	2	500	86	42 - 129
Toluene-d8		947	µg/Kg	2	500	95	93 - 107
4-Bromofluorobenzene (4-BFB)		1040	µg/Kg	2	500	104	78 - 120

Method Blank (1) QC Batch: 28235

QC Batch: 28235 | Date Analyzed: 2006-07-21 | Analyzed By: MT
Prep Batch: 24716 | QC Preparation: 2006-07-21 | Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
GRO		2.46	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.955	mg/Kg	1	1.00	96	81.7 - 119
4-Bromofluorobenzene (4-BFB)		0.821	mg/Kg	1	1.00	82	60.1 - 102

Method Blank (1) QC Batch: 28236

QC Batch: 28236 | Date Analyzed: 2006-07-24 | Analyzed By: SE
Prep Batch: 24717 | QC Preparation: 2006-07-21 | Prepared By: SE

Parameter	Flag	MDL Result	Units	RL
DRO		<10.7	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		178	mg/Kg	1	150	119	50 - 150

Method Blank (1) QC Batch: 28403

QC Batch: 28403 | Date Analyzed: 2006-07-27 | Analyzed By: SP
Prep Batch: 24847 | QC Preparation: 2006-07-27 | Prepared By: SP

Parameter	Flag	MDL Result	Units	RL
C6-C35, Unfractionated		5.83	mg/Kg	50
C6, Aliphatic		<5.00	mg/Kg	50
C6-C8, Aliphatic		<5.00	mg/Kg	50
C8-C10, Aliphatic		<5.00	mg/Kg	50
C10-C12, Aliphatic		<5.00	mg/Kg	50
C12-C16, Aliphatic		<5.00	mg/Kg	50
C16-C21, Aliphatic		<5.00	mg/Kg	50
C21-C35, Aliphatic		<5.00	mg/Kg	50
C6-C7, Aromatic		<5.00	mg/Kg	50
C7-C8, Aromatic		<5.00	mg/Kg	50
C8-C10, Aromatic		<5.00	mg/Kg	50
C10-C12, Aromatic		<5.00	mg/Kg	50
C12-C16, Aromatic		<5.00	mg/Kg	50
C16-C21, Aromatic		<5.00	mg/Kg	50
C21-C35, Aromatic		<5.00	mg/Kg	50
Percent Recovery		0.00	%	0

Method Blank (1) QC Batch: 28464

QC Batch: 28464 | Date Analyzed: 2006-07-28 | Analyzed By: JG
Prep Batch: 24903 | QC Preparation: 2006-07-28 | Prepared By: JG

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.825	µg/Kg	10
Dichlorodifluoromethane		<0.889	µg/Kg	10
Chloromethane (methyl chloride)		<0.929	µg/Kg	10
Vinyl Chloride		<0.463	µg/Kg	10
Bromomethane (methyl bromide)		<1.71	µg/Kg	50
Chloroethane		<3.68	µg/Kg	10
Trichlorofluoromethane		<0.306	µg/Kg	10
Acetone		47.8	µg/Kg	100
Iodomethane (methyl iodide)		<0.640	µg/Kg	50
Carbon Disulfide		<0.346	µg/Kg	10
Acrylonitrile		<1.51	µg/Kg	10
2-Butanone (MEK)		<3.78	µg/Kg	50
4-Methyl-2-pentanone (MIBK)		<7.86	µg/Kg	50
2-Hexanone		<5.70	µg/Kg	50
trans 1,4-Dichloro-2-butene		<1.33	µg/Kg	100
1,1-Dichloroethene		<0.639	µg/Kg	10
Methylene chloride		7.98	µg/Kg	50
MTBE		<0.362	µg/Kg	10
trans-1,2-Dichloroethene		<0.419	µg/Kg	10
1,1-Dichloroethane		<0.257	µg/Kg	10
cis-1,2-Dichloroethene		<0.627	µg/Kg	10

continued ...

method blank continued . . .

Parameter	Flag	MDL Result	Units	RL
2,2-Dichloropropane		<0.593	µg/Kg	10
1,2-Dichloroethane (EDC)		<0.524	µg/Kg	10
Chloroform		<0.440	µg/Kg	10
1,1,1-Trichloroethane		<0.750	µg/Kg	10
1,1-Dichloropropene		<0.622	µg/Kg	10
Benzene		<0.644	µg/Kg	10
Carbon Tetrachloride		<0.485	µg/Kg	10
1,2-Dichloropropane		<0.547	µg/Kg	10
Trichloroethene (TCE)		<0.836	µg/Kg	10
Dibromomethane (methylene bromide)		<0.435	µg/Kg	10
Bromodichloromethane		<0.457	µg/Kg	10
2-Chloroethyl vinyl ether		<0.547	µg/Kg	50
cis-1,3-Dichloropropene		<0.596	µg/Kg	10
trans-1,3-Dichloropropene		<0.561	µg/Kg	10
Toluene		4.34	µg/Kg	10
1,1,2-Trichloroethane		<3.25	µg/Kg	10
1,3-Dichloropropane		<0.505	µg/Kg	10
Dibromochloromethane		<0.552	µg/Kg	10
1,2-Dibromoethane (EDB)		<0.688	µg/Kg	10
Tetrachloroethene (PCE)		<0.826	µg/Kg	10
Chlorobenzene		<0.426	µg/Kg	10
1,1,1,2-Tetrachloroethane		<0.289	µg/Kg	10
Ethylbenzene		0.560	µg/Kg	10
m,p-Xylene		1.28	µg/Kg	10
Bromoform		<0.426	µg/Kg	10
Styrene		0.860	µg/Kg	10
o-Xylene		<0.679	µg/Kg	10
1,1,2,2-Tetrachloroethane		<0.703	µg/Kg	10
2-Chlorotoluene		<1.26	µg/Kg	10
1,2,3-Trichloropropane		<0.504	µg/Kg	10
Isopropylbenzene		<1.30	µg/Kg	10
Bromobenzene		<0.480	µg/Kg	10
n-Propylbenzene		0.740	µg/Kg	10
1,3,5-Trimethylbenzene		<2.10	µg/Kg	10
tert-Butylbenzene		0.470	µg/Kg	10
1,2,4-Trimethylbenzene		1.95	µg/Kg	10
1,4-Dichlorobenzene (para)		1.22	µg/Kg	10
sec-Butylbenzene		1.32	µg/Kg	10
1,3-Dichlorobenzene (meta)		<0.534	µg/Kg	10
p-Isopropyltoluene		1.25	µg/Kg	10
4-Chlorotoluene		<0.675	µg/Kg	10
1,2-Dichlorobenzene (ortho)		<0.475	µg/Kg	10
n-Butylbenzene		2.14	µg/Kg	10
1,2-Dibromo-3-chloropropane		<0.883	µg/Kg	50
1,2,3-Trichlorobenzene		<3.64	µg/Kg	50
1,2,4-Trichlorobenzene		<2.28	µg/Kg	50
Naphthalene		5.82	µg/Kg	50
Hexachlorobutadiene		<3.24	µg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		431	µg/Kg	1	500	86	42 - 129
Toluene-d8		483	µg/Kg	1	500	97	93 - 107
4-Bromofluorobenzene (4-BFB)		517	µg/Kg	1	500	103	78 - 120

Matrix Blank (1) QC Batch: 28529

QC Batch: 28529 Date Analyzed: 2006-07-30 Analyzed By: WB
Prep Batch: 24946 QC Preparation: 2006-07-29 Prepared By: WB

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0222	mg/Kg	1

Matrix Blank (1) QC Batch: 28773

QC Batch: 28773 Date Analyzed: 2006-08-04 Analyzed By: WB
Prep Batch: 25148 QC Preparation: 2006-08-04 Prepared By: WB

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.0222	mg/Kg	1

Laboratory Control Spike (LCS-1)

QC Batch: 28235 Date Analyzed: 2006-07-21 Analyzed By: MT
Prep Batch: 24716 QC Preparation: 2006-07-21 Prepared By: MT

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	8.90	8.59	mg/Kg	1	10.0	<0.121	89	4	80 - 120	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.978	0.931	mg/Kg	1	1.00	98	93	80 - 120
4-Bromofluorobenzene (4-BFB)	0.919	0.823	mg/Kg	1	1.00	92	82	80 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 28236 Date Analyzed: 2006-07-24 Analyzed By: SE
Prep Batch: 24717 QC Preparation: 2006-07-21 Prepared By: SE

continued ...

control spikes continued ...

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO [2]	265	312	mg/Kg	1	250	<10.7	106	16	62.4 - 111	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	162	176	mg/Kg	1	150	108	117	50 - 150

Laboratory Control Spike (LCS-1)

QC Batch: 28403 | Date Analyzed: 2006-07-27 | Analyzed By: SP
Prep Batch: 24847 | QC Preparation: 2006-07-27 | Prepared By: SP

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
C6-C35, Unfractionated [3]	411	340	mg/Kg	1	500	0	82	19	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 28464 | Date Analyzed: 2006-07-28 | Analyzed By: JG
Prep Batch: 24903 | QC Preparation: 2006-07-28 | Prepared By: JG

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	476	480	µg/Kg	1	500	<0.639	95	1	76.9 - 114	20
Benzene	486	489	µg/Kg	1	500	<0.644	97	1	79.7 - 113	20
Trichloroethene (TCE)	522	520	µg/Kg	1	500	<0.836	104	0	84.2 - 119	20
Toluene	425	426	µg/Kg	1	500	4.34	84	0	82 - 110	20
Chlorobenzene	494	492	µg/Kg	1	500	<0.426	99	0	85.9 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	447	450	µg/Kg	1	500	89	90	87 - 108
Toluene-d8	478	481	µg/Kg	1	500	96	96	92.3 - 106
4-Bromofluorobenzene (4-BFB)	482	490	µg/Kg	1	500	96	98	83.4 - 117

Laboratory Control Spike (LCS-1)

QC Batch: 28529 | Date Analyzed: 2006-07-30 | Analyzed By: WB
Prep Batch: 24946 | QC Preparation: 2006-07-29 | Prepared By: WB

[2]LCSD analyte out of range. LCS/LCSD has a RPD within limits. Therfore, LCS shows extraction occured properly.
[3]LCSD analyte out of range. LCS/LCSD has a RPD within limits. Therfore, LCS shows extraction occured properly.

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	13.3	13.2	mg/Kg	1	12.5	<0.0222	106	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 28773 | Date Analyzed: 2006-08-04 | Analyzed By: WB
Prep Batch: 25148 | QC Preparation: 2006-08-04 | Prepared By: WB

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	13.1	13.1	mg/Kg	1	12.5	<0.0222	104	0	90 - 110	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 96003

QC Batch: 28235 | Date Analyzed: 2006-07-21 | Analyzed By: MT
Prep Batch: 24716 | QC Preparation: 2006-07-21 | Prepared By: MT

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
GRO	7.98	8.83	mg/Kg	1	10.0	<0.121	80	10	51.6 - 137	19.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.785	0.864	mg/Kg	1	1	78	86	50 - 133
4-Bromofluorobenzene (4-BFB)	0.928	1.07	mg/Kg	1	1	93	107	62.4 - 157

Matrix Spike (MS-1) Spiked Sample: 96003

QC Batch: 28236 | Date Analyzed: 2006-07-24 | Analyzed By: SE
Prep Batch: 24717 | QC Preparation: 2006-07-21 | Prepared By: SE

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
DRO	265	266	mg/Kg	1	250	<10.7	106	0	60.1 - 107	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	155	158	mg/Kg	1	150	103	105	50 - 150

Matrix Spike (MS-1) Spiked Sample: 96011

QC Batch: 28403 | Date Analyzed: 2006-07-27 | Analyzed By: SP
Prep Batch: 24847 | QC Preparation: 2006-07-27 | Prepared By: SP

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
C6-C35, Unfractionated	[4,5]	1920	1730	mg/Kg	5	100	892	206	10	70 - 130	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 96011

QC Batch: 28464 | Date Analyzed: 2006-07-28 | Analyzed By: JG
Prep Batch: 24903 | QC Preparation: 2006-07-28 | Prepared By: JG

Param		MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	[6]	599	554	µg/Kg	2	250	<1.28	120	8	76.1 - 115	20
Benzene	[7,8]	596	565	µg/Kg	2	250	10.4	117	5	82.1 - 110	20
Trichloroethene (TCE)		633	595	µg/Kg	2	250	<1.67	127	6	75.5 - 129	20
Toluene		509	478	µg/Kg	2	250	13	99	6	82.3 - 108	20
Chlorobenzene	[9,10]	600	566	µg/Kg	2	250	<0.852	120	6	84.1 - 111	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Dibromofluoromethane	889	878	µg/Kg	2	500	89	88	87.9 - 105
Toluene-d8	968	973	µg/Kg	2	500	97	97	90.2 - 109
4-Bromofluorobenzene (4-BFB)	984	990	µg/Kg	2	500	98	99	82.9 - 116

Matrix Spike (MS-1) Spiked Sample: 96846

QC Batch: 28773 | Date Analyzed: 2006-08-04 | Analyzed By: WB
Prep Batch: 25148 | QC Preparation: 2006-08-04 | Prepared By: WB

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Chloride	66.4	66.1	mg/Kg	5	12.5	9.51	91	0	15.3 - 175	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 28235 | Date Analyzed: 2006-07-21 | Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/L	1.00	0.856	86	85 - 115	2006-07-21

[4]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[5]Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.
[6]Spike recovery out of control due to matrix effect. LCS/LCSD spike recoveries within limits showing analysis to be in control. •
[7]Spike recovery out of control due to matrix effect. LCS/LCSD spike recoveries within limits showing analysis to be in control. •
[8]Spike recovery out of control due to matrix effect. LCS/LCSD spike recoveries within limits showing analysis to be in control. •
[9]Spike recovery out of control due to matrix effect. LCS/LCSD spike recoveries within limits showing analysis to be in control. •
[10]Spike recovery out of control due to matrix effect. LCS/LCSD spike recoveries within limits showing analysis to be in control. •

Standard (CCV-1)

QC Batch: 28235 Date Analyzed: 2006-07-21 Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO	[11]	mg/L	1.00	0.833	83	85 - 115	2006-07-21

Standard (ICV-1)

QC Batch: 28236 Date Analyzed: 2006-07-24 Analyzed By: SE

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	273	109	75 - 125	2006-07-24

Standard (CCV-1)

QC Batch: 28236 Date Analyzed: 2006-07-24 Analyzed By: SE

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	243	97	75 - 125	2006-07-24

Standard (ICV-1)

QC Batch: 28403 Date Analyzed: 2006-07-27 Analyzed By: SP

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C35, Unfractionated		mg/Kg	500	405	81	70 - 130	2006-07-27

Standard (CCV-1)

QC Batch: 28403 Date Analyzed: 2006-07-27 Analyzed By: SP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C35, Unfractionated		mg/Kg	500	440	88	70 - 130	2006-07-27

Standard (CCV-2)

QC Batch: 28403 Date Analyzed: 2006-07-27 Analyzed By: SP

[11] GRO outside of control limits on CCV(ICV). CCV(ICV) component average is 86.8 which is within acceptable range. This is acceptable by Method 8000.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C35, Unfractionated		mg/Kg	500	436	87	70 - 130	2006-07-27

Standard (CCV-3)

QC Batch: 28403 Date Analyzed: 2006-07-27 Analyzed By: SP

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
C6-C35, Unfractionated		mg/Kg	500	414	83	70 - 130	2006-07-27

Standard (CCV-1)

QC Batch: 28464 Date Analyzed: 2006-07-28 Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/Kg	50.0	43.2	86	80 - 120	2006-07-28
1,1-Dichloroethene		µg/Kg	50.0	51.0	102	80 - 120	2006-07-28
Chloroform		µg/Kg	50.0	47.6	95	80 - 120	2006-07-28
1,2-Dichloropropane		µg/Kg	50.0	49.0	98	80 - 120	2006-07-28
Toluene		µg/Kg	50.0	43.8	88	80 - 120	2006-07-28
Ethylbenzene		µg/Kg	50.0	48.8	98	80 - 120	2006-07-28

Standard (ICV-1)

QC Batch: 28529 Date Analyzed: 2006-07-30 Analyzed By: WB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.0	96	90 - 110	2006-07-30

Standard (CCV-1)

QC Batch: 28529 Date Analyzed: 2006-07-30 Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	12.0	96	90 - 110	2006-07-30

Standard (ICV-1)

QC Batch: 28773 Date Analyzed: 2006-08-04 Analyzed By: WB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	13.5	108	90 - 110	2006-08-04

Standard (CCV-1)

QC Batch: 28773 Date Analyzed: 2006-08-04 Analyzed By: WB

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	12.5	11.9	95	90 - 110	2006-08-04

1 of 1

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID # 6072113

Company Name: Rice Operating Co.
Phone #: (505) 393-9174
Address: (Street, City, Zip) 122 West Taylor Hobbs NM 88240
Fax #: (505) 397-1471
Contact Person: Kristin Pope / Melanie Franks
E-mail: kpope@ricesw.com mfranks@ricesw.com
Invoice to: (If different from above) ↑
Project #: EME K-6 Vent Jet Box
Project Name: EME K-6 Vent Jet Box
Project Location (including state): Sec 6K T20S R37E Lea County NM
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
96007	B-1 (20'-22')	1	4oz		✓							✓		7/19/06	1502
08	B-4 (10'-12')	1	4oz		✓							✓		7/19/06	0820
09	B-5 (10'-12')	1	4oz		✓							✓		7/19/06	0905
10	B-5 (20'-22')	1	4oz		✓							✓		7/19/06	0915
11	B-7 (5'-7')	1	4oz		✓							✓		7/19/06	1025
12	B-7 (15'-17')	1	4oz		✓							✓		7/19/06	1035
13	B-7 (25'-27')	1	4oz		✓							✓		7/19/06	1045

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 602 / 8260B	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	Chloride TX 1006	Turn Around Time if different from standard	Hold
																	✓		
																	✓		
	✓																✓		
	✓																✓		
	✓																✓		
	✓																✓		
	✓	✓	✓																

Relinquished by: Date: 7/20/06 Time: 4:30 p — Received by: Date: Time:
Relinquished by: Helen Shelton Date: 7/20/06 Time: 1700 — Received by: Helen Shelton Date: 7/20/06 Time: 1630
Relinquished by: Date: Time: — Received at Laboratory by: Date: 7-21-06 Time: 10:40

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4 °
Log-in-Review MA

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Carrier # Courier / Lone Star 37147814

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C. 40 - HS

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ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Kristin Farris-Pope

Rice Operating Co.

122 W. Taylor

Hobbs, NM 88240

Project: EME Jct. K-6

Project Number: None Given

Location: T20S-R37E-Sec6K, Lea Co, NM

Lab Order Number: 6H25011

Report Date: 09/05/06

Rice Operating Co.	Project: EME Jct. K-6	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Monitor Well #1	6H25011-01	Water	08/22/06 12:45	08-25-2006 15:22
Monitor Well #2	6H25011-02	Water	08/22/06 11:05	08-25-2006 15:22
Monitor Well #3	6H25011-03	Water	08/22/06 09:45	08-25-2006 15:22

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Rice Operating Co.	Project: EME Jct. K-6	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6H25011-01) Water									
Benzene	**0.00269**	0.00100	mg/L	1	EH62520	08/25/06	08/28/06	EPA 8021B	
Toluene	**J [0.000990]**	0.00100	"	"	"	"	"	"	
Ethylbenzene	**0.00216**	0.00100	"	"	"	"	"	"	
Xylene (p/m)	**0.00134**	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*110 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*80-120*		"	"	"	"	
Monitor Well #2 (6H25011-02) Water									
Benzene	ND	0.00100	mg/L	1	EH62520	08/25/06	08/28/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*108 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*80-120*		"	"	"	"	
Monitor Well #3 (6H25011-03) Water									
Benzene	ND	0.00100	mg/L	1	EH62520	08/25/06	08/28/06	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*105 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.5 %*	*80-120*		"	"	"	"	

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Rice Operating Co.	Project: EME Jct. K-6	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6H25011-01) Water									
Total Alkalinity	**560**	4.00	mg/L	2	EH63106	08/31/06	08/31/06	EPA 310.1M	
Chloride	**10500**	250	"	500	EH63019	08/28/06	08/28/06	EPA 300.0	
Total Dissolved Solids	**19100**	10.0	"	1	EH62916	08/28/06	08/30/06	EPA 160.1	
Sulfate	**3710**	250	"	500	EH63019	08/28/06	08/28/06	EPA 300.0	
Monitor Well #2 (6H25011-02) Water									
Total Alkalinity	**472**	4.00	mg/L	2	EH63106	08/31/06	08/31/06	EPA 310.1M	
Chloride	**11300**	250	"	500	EH63019	08/28/06	08/28/06	EPA 300.0	
Total Dissolved Solids	**22000**	10.0	"	1	EH62916	08/28/06	08/30/06	EPA 160.1	
Sulfate	**4560**	250	"	500	EH63019	08/28/06	08/28/06	EPA 300.0	
Monitor Well #3 (6H25011-03) Water									
Total Alkalinity	**460**	4.00	mg/L	2	EH63106	08/31/06	08/31/06	EPA 310.1M	
Chloride	**10700**	250	"	500	EH63019	08/28/06	08/28/06	EPA 300.0	
Total Dissolved Solids	**23000**	10.0	"	1	EH62916	08/28/06	08/30/06	EPA 160.1	
Sulfate	**4160**	250	"	500	EH63019	08/28/06	08/28/06	EPA 300.0	

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Rice Operating Co.	Project: EME Jct. K-6	Fax: (505) 397-1471
122 W. Taylor	Project Number: None Given	
Hobbs NM, 88240	Project Manager: Kristin Farris-Pope	

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Monitor Well #1 (6H25011-01) Water									
Calcium	**832**	40.5	mg/L	500	EH62802	08/28/06	08/28/06	EPA 6010B	
Magnesium	**278**	1.80	"	50	"	"	"	"	
Potassium	**37.0**	3.00	"	"	"	"	"	"	
Sodium	**7690**	43.0	"	1000	"	"	"	"	
Monitor Well #2 (6H25011-02) Water									
Calcium	**999**	40.5	mg/L	500	EH62802	08/28/06	08/28/06	EPA 6010B	
Magnesium	**312**	1.80	"	50	"	"	"	"	
Potassium	**36.6**	3.00	"	"	"	"	"	"	
Sodium	**9220**	43.0	"	1000	"	"	"	"	
Monitor Well #3 (6H25011-03) Water									
Calcium	**775**	40.5	mg/L	500	EH62802	08/28/06	08/28/06	EPA 6010B	
Magnesium	**270**	1.80	"	50	"	"	"	"	
Potassium	**49.2**	3.00	"	"	"	"	"	"	
Sodium	**7500**	43.0	"	1000	"	"	"	"	

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Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. K-6
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62520 - EPA 5030C (GC)										
Blank (EH62520-BLK1)				Prepared: 08/25/06 Analyzed: 08/28/06						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*42.0*		*ug/l*	*40.0*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*43.1*		*"*	*40.0*		*108*	*80-120*			
LCS (EH62520-BS1)				Prepared: 08/25/06 Analyzed: 08/28/06						
Benzene	0.0508	0.00100	mg/L	0.0500		102	80-120			
Toluene	0.0533	0.00100	"	0.0500		107	80-120			
Ethylbenzene	0.0539	0.00100	"	0.0500		108	80-120			
Xylene (p/m)	0.120	0.00100	"	0.100		120	80-120			
Xylene (o)	0.0559	0.00100	"	0.0500		112	80-120			
Surrogate: a,a,a-Trifluorotoluene	*43.0*		*ug/l*	*40.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.7*		*"*	*40.0*		*117*	*80-120*			
Calibration Check (EH62520-CCV1)				Prepared & Analyzed: 08/25/06						
Benzene	45.2		ug/l	50.0		90.4	80-120			
Toluene	48.4		"	50.0		96.8	80-120			
Ethylbenzene	52.4		"	50.0		105	80-120			
Xylene (p/m)	109		"	100		109	80-120			
Xylene (o)	54.1		"	50.0		108	80-120			
Surrogate: a,a,a-Trifluorotoluene	*41.9*		*"*	*40.0*		*105*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*38.5*		*"*	*40.0*		*96.2*	*80-120*			
Matrix Spike (EH62520-MS1)	**Source: 6H23008-01**			Prepared & Analyzed: 08/25/06						
Benzene	0.0517	0.00100	mg/L	0.0500	ND	103	80-120			
Toluene	0.0561	0.00100	"	0.0500	ND	112	80-120			
Ethylbenzene	0.0509	0.00100	"	0.0500	ND	102	80-120			
Xylene (p/m)	0.118	0.00100	"	0.100	ND	118	80-120			
Xylene (o)	0.0546	0.00100	"	0.0500	ND	109	80-120			
Surrogate: a,a,a-Trifluorotoluene	*47.5*		*ug/l*	*40.0*		*119*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*47.0*		*"*	*40.0*		*118*	*80-120*			

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62520 - EPA 5030C (GC)										
Matrix Spike Dup (EH62520-MSD1)	**Source: 6H23008-01**			Prepared & Analyzed: 08/25/06						
Benzene	0.0542	0.00100	mg/L	0.0500	ND	108	80-120	4.74	20	
Toluene	0.0563	0.00100	"	0.0500	ND	113	80-120	0.889	20	
Ethylbenzene	0.0539	0.00100	"	0.0500	ND	108	80-120	5.71	20	
Xylene (p/m)	0.106	0.00100	"	0.100	ND	106	80-120	10.7	20	
Xylene (o)	0.0525	0.00100	"	0.0500	ND	105	80-120	3.74	20	
Surrogate: a,a,a-Trifluorotoluene	*45.9*		*ug/l*	*40.0*		*115*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.3*		*"*	*40.0*		*113*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62916 - Filtration Preparation										
Blank (EH62916-BLK1)				Prepared: 08/28/06 Analyzed: 08/29/06						
Total Dissolved Solids	ND	10.0	mg/L							
Duplicate (EH62916-DUP1)	**Source: 6H25010-01**			Prepared: 08/28/06 Analyzed: 08/29/06						
Total Dissolved Solids	2480	10.0	mg/L		2580			3.95	5	
Duplicate (EH62916-DUP2)	**Source: 6H25013-01**			Prepared: 08/28/06 Analyzed: 08/29/06						
Total Dissolved Solids	1350	10.0	mg/L		1400			3.64	5	
Batch EH63019 - General Preparation (WetChem)										
Blank (EH63019-BLK1)				Prepared & Analyzed: 08/28/06						
Sulfate	ND	0.500	mg/L							
Chloride	ND	0.500	"							
LCS (EH63019-BS1)				Prepared & Analyzed: 08/28/06						
Chloride	10.2	0.500	mg/L	10.0		102	80-120			
Sulfate	10.1	0.500	"	10.0		101	80-120			
Calibration Check (EH63019-CCV1)				Prepared & Analyzed: 08/28/06						
Chloride	9.87		mg/L	10.0		98.7	80-120			
Sulfate	12.0		"	10.0		120	80-120			
Duplicate (EH63019-DUP1)	**Source: 6H24003-01**			Prepared & Analyzed: 08/28/06						
Chloride	94.7	5.00	mg/L		102			7.42	20	
Sulfate	225	5.00	"		227			0.885	20	
Duplicate (EH63019-DUP2)	**Source: 6H25013-01**			Prepared & Analyzed: 08/28/06						
Chloride	420	10.0	mg/L		418			0.477	20	
Sulfate	40.5	10.0	"		40.9			0.983	20	

Rice Operating Co.
122 W. Taylor
Hobbs NM, 88240

Project: EME Jct. K-6
Project Number: None Given
Project Manager: Kristin Farris-Pope

Fax: (505) 397-1471

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH63019 - General Preparation (WetChem)										
Matrix Spike (EH63019-MS1)	**Source: 6H24003-01**			Prepared & Analyzed: 08/28/06						
Sulfate	338	5.00	mg/L	100	227	111	75-125			
Chloride	204	5.00	"	100	102	102	80-120			
Matrix Spike (EH63019-MS2)	**Source: 6H25013-01**			Prepared & Analyzed: 08/28/06						
Sulfate	239	10.0	mg/L	200	40.9	99.0	75-125			
Chloride	645	10.0	"	200	418	114	80-120			
Batch EH63106 - General Preparation (WetChem)										
Blank (EH63106-BLK1)				Prepared & Analyzed: 08/31/06						
Total Alkalinity	ND	2.00	mg/L							
LCS (EH63106-BS1)				Prepared & Analyzed: 08/31/06						
Bicarbonate Alkalinity	190	2.00	mg/L	200		95.0	85-115			
Duplicate (EH63106-DUP1)	**Source: 6H24003-01**			Prepared & Analyzed: 08/31/06						
Total Alkalinity	150	2.00	mg/L		156			3.92	20	
Reference (EH63106-SRM1)				Prepared & Analyzed: 08/31/06						
Total Alkalinity	254		mg/L	250		102	90-110			

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Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EH62802 - 6010B/No Digestion										
Blank (EH62802-BLK1)				Prepared & Analyzed: 08/28/06						
Calcium	ND	0.0810	mg/L							
Magnesium	ND	0.0360	"							
Potassium	ND	0.0600	"							
Sodium	ND	0.0430	"							
Calibration Check (EH62802-CCV1)				Prepared & Analyzed: 08/28/06						
Calcium	1.97		mg/L	2.00		98.5	85-115			
Magnesium	2.13		"	2.00		106	85-115			
Potassium	1.74		"	2.00		87.0	85-115			
Sodium	1.84		"	2.00		92.0	85-115			
Duplicate (EH62802-DUP1)	**Source: 6H25010-01**			Prepared & Analyzed: 08/28/06						
Calcium	267	4.05	mg/L		251			6.18	20	
Magnesium	81.9	1.80	"		77.6			5.39	20	
Potassium	7.20	0.600	"		7.76			7.49	20	
Sodium	396	2.15	"		409			3.23	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 9/5/2006

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
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CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Kristin Farris Pope kpope@riceswd.com
Project Name: EME Junction K-6
Company Name: RICE Operating Company
Project Number:
Company Address: 122 W. Taylor Street
Project Loc: T20S-R37E-Sec6K, Lea County NM
City/State/Zip: Hobbs, New Mexico 88240
PO Number:
Telephone No: (505) 393-9174
Fax No: (505) 397-1471
Sampler Signature: Rozanne Johnson (505) 631-9310
Email: rozanne@valornet.com

6H25011

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO_3	HCl (2) 40 ml glass vials	NaOH	H_2SO_4	None (1) 1 Liter HDPE	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify):	Analyze For: TCLP: TPH: 418.1 8015M 1005 1006	TOTAL: TPH: 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030	RCI	N.O.R.M.	Total Dissolved Solids				RUSH TAT (Pre-Schedule)	Standard TAT
-01	Monitor Well #1	8/22/2006	12:45	3	X		2			1		X						X	X					X			X					X
-02	Monitor Well #2	8/22/2006	11:05	3	X		2			1		X						X	X					X			X					X
-03	Monitor Well #3	8/22/2006	9:45	3	X		2			1		X						X	X					X			X					X

Special Instructions:

PLEASE Email RESULTS TO: kpope@riceswd.com; mfranks@riceswd.com
rozanne@valornet.com

Sample Containers Intact? Y N
Labels on container? Y N
Custody Seals: Containers / Cooler
Temperature Upon Receipt: 1.0°C
Laboratory Comments: not frozen

Relinquished by:	Date	Time	Received by:	Date	Time
Rozanne Johnson	8-25-06	13:10	James Johnson	8-25-06	13:11
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
	8-25-06	15:22		8-25-06	1522

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: Rice Operating

Date/ Time: 08-25-06 @ 1522

Lab ID #: 6H25011

Initials: JMM

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	1.0 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	VOC samples have zero headspace?	(Yes)	No	Not Applicable	

Variance Documentation

Contact: _____ Contacted by: _____ Date/ Time: _____

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event