Farrah Tan-Savva Project Manager Rm. P022C Phone: 281-654-1801 Fax: 281-654-8487 E-mail: farrah.sl.tan@exxonmobil.com



February 13, 2012

Mr. Geoffrey Leking State of New Mexico Oil Conservation Division 1625 North French Drive Hobbs, NM 88240

Regarding: Limited Site Assessment Report Former State Site K Tank Battery No. 3 Vacuum Oil Field Lea County, New Mexico

Dear Mr. Leking,

Please find attached the Limited Site Assessment Report for the above referenced site. Should you have any questions, please feel free to contact Kleinfelder (John Meyer, 425-636-7900), or myself (281-654-1801).

Sincerely,

Farrah Tan-Savva Project Manager

CC: John Meyer, Kleinfelder



February 13, 2012 Project 124121

Ms. Farrah Tan-Savva ExxonMobil Environmental Services Company 14950 Heathrow Forest Parkway GSC-MI-PO14C-1 Houston, Texas 77032

# Regarding: Limited Site Assessment Former State Site K Tank Battery No. 3 Vacuum Oil Field Lea County, New Mexico NMOCD 1RP# 09-7-2239

Dear Ms. Tan-Savva,

Kleinfelder Inc. (Kleinfelder), prepared this Site Assessment report for the State K Tank Battery No. 3 (the Site or Property) located near Buckeye, New Mexico (Figure 1) on behalf of ExxonMobil Environmental Services (EMES). This report follows up on the Phase I Abatement Report submitted to the New Mexico Oil Conservation Division (NMOCD) to assess previously identified chloride and petroleum hydrocarbon concentrations in soil by conducting a geophysical survey and drilling/sampling site soils.

# REGULATORY FRAMEWORK AND SITE CLASSIFICATION

The NMOCD has regulatory jurisdiction over oil and gas production operations including closure activities in the State of New Mexico. The NMOCD requires that soil impacted by a crude oil release be remediated in such a manner that the potential for future impacts to groundwater or the environment are minimized. The NMOCD hydrocarbon soil remediation levels are determined by ranking criteria on a site-by-site basis as outlined in the NMOCD *Guidelines for Remediation of Spills, Leaks, and Releases,* dated August 13, 1993. The ranking criteria are based on three site characteristics: depth to groundwater; wellhead protection; and distance to surface water.



Kleinfelder conducted a sensitive receptor survey of the area during June 2009. Based on well data collected from the New Mexico Office of the State Engineer Water Administration Technical Engineering Resource System database (NM State Engineer database) in the general area of the Site, the depth to groundwater varies within the range of 50 and 99 feet below ground surface (bgs). According to the NM State Engineer database, no water wells are located within 1,000 feet of the Site. Based on observations in the general vicinity of the Site and review of aerial photographs there are no surface bodies of water within 1,000 feet of the Site. These data provide a ranking score of 10 for this Site as follows:

# RANKING CRITERIA AND SCORING NEW MEXICO STATE K TANK BATTERY NO. 3

CHARACTERISTIC	SELECTION	SCORE
Depth to Groundwater	50-99 feet	10
Wellhead Protection Area	>1,000 feet	0
Distance to Surface Water	>1,000 feet	0
		•

Total Score = 10

Based on a score of 10, the following soil hydrocarbon Recommended Remediation Action Levels (RRALs) apply to this Site:

# SOIL REMEDIATION LEVELS NEW MEXICO STATE K TANK BATTERY NO. 3

CONSTITUENT OF CONCERN	RRALs (mg/kg)
Benzene	10
Total BTEX	50
ТРН	1,000

mg/kg = milligrams per kilogram

BTEX = benzene, toluene, ethylbenzene, xylenes

TPH = total petroleum hydrocarbons

Kleinfelder contacted Geoffrey Leking of the NMOCD on January 25, 2012 regarding chloride regulatory action levels. Mr. Leking indicated that although there is no currently established chloride RRAL, chloride limits are generally applied based on the distance between the depths of the chloride impacted soil and the depth of the groundwater, according to the following guidelines:



DISTANCE BETWEEN THE DEPTH OF THE CHLORIDE IMPACTED SOIL AND THE DEPTH OF THE GROUNDWATER	CHLORIDE LIMIT (mg/kg)
<50 feet	250
50-100 feet	500
>100 feet	1,000

# BACKGROUND AND SITE DESCRIPTION

The former State K Tank Battery No. 3 is located in the Vacuum Oil Field, Lea County, New Mexico. The property is located in the northwest quarter of the northeast quarter of the southeast quarter of Section 32, Township 17 South, Range 35 East of the New Mexico Meridian and Baseline. The Property is owned by the New Mexico State Land Office (NMSLO). An ExxonMobil Oil Corporation affiliate was the former oil and gas lease holder and operator of the tank battery. Prior to the divestment of the lease, the tank battery was decommissioned and removed from the property. Chesapeake Energy Corporation currently holds an oil and gas lease for the Site. The Property is currently unoccupied.

During 2005, Conestoga-Rovers and Associates (CRA) performed an assessment and remediation of naturally occurring radioactive materials (NORM) at the Site. The NORM assessment and remediation has been completed. In addition to the NORM efforts, CRA conducted a soil assessment for petroleum hydrocarbons and chlorides by drilling 11 borings. According to CRA's report entitled *New Mexico State K Tank Battery No. 3, Site Assessment,* dated December 9, 2005, one soil sample collected from soil boring SB2 at a depth of 1 to 2 feet bgs, was reported to contain a concentration of TPH greater than the RRAL of 1,000 mg/kg. No BTEX concentrations were reported in the soil samples greater than the laboratory reporting limit.

Chloride concentrations above the laboratory reporting limit were reported in samples collected from each of the 11 soil borings. Chloride concentrations in the soil samples collected from the 11 soil borings ranged from below the laboratory detection limits to 4,590 mg/kg. CRA reported a soil background chloride concentration for the Site as being below the laboratory reporting limit of 12.6 mg/kg. Excerpts from CRA's report



pertaining to the petroleum hydrocarbon and chloride assessment are attached to this limited assessment report (Attachment A).

# **RECENT ACTIVITIES**

Based on the results of prior soil investigation activities conducted by CRA, Kleinfelder performed additional soil investigation activities to assess the extent of chlorides in the subsurface. Prior to beginning field work, Kleinfelder obtained a Right of Entry Permit ROE-1878 (Remediation) with NMSLO and notified Chesapeake Energy Corporation of our intent to conduct this investigation. Before conducting intrusive field work (drilling), Kleinfelder performed ExxonMobil's *Subsurface Clearance Procedure* which included notifying the New Mexico One Call system for subsurface utility clearance. Kleinfelder also prepared and reviewed a site specific health and safety plan, job safety analyses, and reviewed subcontractor safety documentation. These items were reviewed with our subcontractors during a tail gate safety meeting that was held prior to beginning site work.

# **GEOPHYSICAL INVESTIGATION SURVEY**

Earth Measurement Corporation (EMC) conducted a geophysical survey at the site on March 24 and 25, 2010. The survey was performed to estimate the extent of the chloride plume and to select boring locations for physical sampling. The survey was conducted using:

- A Geonics Electromagnetic Meter, Model EM-31 for conductivity measurements at depths ranging from ground surface to approximately 18 feet bgs;
- A Geonics Electromagnetic Meter, Model EM-34 for conductivity measurements at depths ranging from approximately 18 to 49 feet bgs;
- A Geonics Electromagnetic Meter, Model EM-61 for locating buried ferrous metal objects; and
- A Pathfinder ProXH Receiver and Zephr Antenna global positioning system (GPS) to accurately locate the measurements and site features on the Property.

The results of the geophysical survey indicated:



- Three potential areas of increased conductivity (which equates to elevated chloride concentrations) between surface and 18 feet bgs; and
- Three additional potential areas of increased conductivity between the depths of 18 and 49 feet bgs.

Numerous buried and surface ferrous objects were also located on the Site. Based on this data, four soil boring locations were selected for additional assessment investigation. The EMC report dated April 16, 2010 is presented in Attachment B.

# SOIL BORINGS

On April 14, 2010, White Drilling Company, Inc., a New Mexico-licensed driller, conducted the soil boring activities. An air rotary drilling rig was used to advance and sample four soil borings (KSB-01, KSB-02, KSB-04, and KSB-07) to a depth of 30 feet bgs. Additionally, surface samples were collected at two additional locations (KSB-05 and KSB-06). These two sample locations were selected based on stressed or lack of vegetation. These locations are presented on Figure 2. Boring logs are provided in Attachment C.

Prior to drilling, each soil boring location was hand-cleared to an approximate depth of four feet bgs or refusal. Also prior to advancing the first soil boring and between subsequent soil borings, the pertinent areas of the drilling rig and sampling tools were cleaned to minimize the potential for cross-contamination.

Soil samples were retrieved at five-foot intervals by collecting one-foot long split spoon samples. Kleinfelder's field geologist described the lithology and collected samples for heated headspace field screening using a photo-ionization (PID) meter for the field evaluation of volatile organic compounds (VOCs). A portion of each soil sample was retained for chloride analysis. In addition, soil samples collected at ground surface and 5 feet bgs were retained from each boring for agricultural analysis. Lastly, two samples from each soil boring were retained for petroleum hydrocarbon analysis. The petroleum hydrocarbon samples were selected based on physical observations, heated headspace field screening readings, and the professional judgment of the Kleinfelder field geologist. The chloride and petroleum hydrocarbon soil samples were placed into laboratory-supplied, four-ounce soil jars sealed with Teflon-lined lids. The agricultural samples were placed in clean bags and boxed for shipment.



The chloride and petroleum hydrocarbon soil samples were placed on ice in insulated coolers. The coolers were sealed with proper chain-of-custody documentation for shipment. These samples were submitted to TestAmerica Analytical Laboratory (TestAmerica) in Nashville, Tennessee by overnight courier. The agricultural soil samples were packaged and shipped to *Agri*LIFE Extension (Texas A&M System) in College Station, Texas.

# FIELD AND LABORATORY RESULTS

Soil encountered during drilling consisted of hard, dense dry silt, clay and limestone. Groundwater was not encountered to the maximum depth explored of 30 feet bgs. Heated headspace field screening indicated no elevated concentrations of VOCs.

The soil samples shipped to TestAmerica were analyzed for BTEX by United States Environmental Protection Agency (EPA) Method 8021B, TPH by EPA 8015B, and chloride by EPA Method 9056. Concentrations of BTEX or TPH were reported below the RRALs for the submitted samples. Chloride concentrations ranged from 43.2 mg/kg to 4,800 mg/kg in the soil samples submitted to TestAmerica. These analytical results are summarized in Table 1. The TestAmerica laboratory report and chain-of-custody documentation can be found in Attachment D.

Ten soil samples shipped to *Agri*LIFE Extension were analyzed for a suite of tests to characterize soil conditions including pH, conductivity, nitrate-nitrogen, phosphorous, potassium, calcium, magnesium, sulfur, sodium and chloride. These chloride results, with a couple of exceptions, are relatively consistent with the results obtained from TestAmerica. The chloride concentrations, which were analyzed by the saturated paste method, ranged from 159 mg/kg to 5,223 mg/kg. The *Agri*LIFE Extension chloride analytical results are summarized in Table 1. The *Agri*LIFE Extension report can be found in Attachment D.



# SUMMARY OF LIMITED SITE ASSESSMENT

Based on the results of the subsurface assessment conducted during March and April 2010, Kleinfelder presents the following summary:

- Results of the geophysical survey indicated three areas of elevated electrical conductivity between the surface and 18 feet bgs and three additional areas of elevated electrical conductivity between the depths of 18 and 49 feet bgs.
- Soil encountered during drilling consisted of hard, dense dry silt, clay and limestone. Groundwater was not encountered to the maximum depth explored of 30 feet bgs.
- Laboratory results indicate soil samples collected during the April 2010 drilling event did not contain TPH or BTEX concentrations greater than the RRALs. Chloride concentrations in the soil samples collected during the April 2010 drilling event ranged from 43.2 mg/kg to 4,800 mg/kg in the soils samples submitted to TestAmerica and from 159 mg/kg to 5,223 mg/kg in the soil samples submitted to *Agri*LIFE Extension.

# CONCLUSIONS AND RECOMMENDATIONS

- Laboratory results indicate TPH and BTEX concentrations in soil are below the applicable RRALs for the site and no further action is required.
- Based on chloride-impacted soil identified at the Site, Kleinfelder recommends a meeting with the NMOCD to identify any additional tasks required for closure.

# LIMITATIONS

Kleinfelder performed the services for this project under the Standard Procurement Agreement with Procurement, a division of ExxonMobil Global Services Company (signed on June 21, 2007). Kleinfelder states that the services performed are consistent with professional standard of care defined as that level of services provided by similar professionals under like circumstances. This report is based on the regulatory standards in effect on the date of the report. It has been produced for the primary benefit of Exxon Mobil Global Services Company and its affiliates.



# <u>CLOSING</u>

If you require additional information, please contact John K. Meyer at (425)636-7900 or by email at JKMeyer@kleinfelder.com.

Sincerely,

**KLEINFELDER, INC.** 

David E. Mazzanti Project Professional

John K. Meyer Senior Professional

Attachments: Figures Table

Attachment A

Attachment B Attachment C

Attachment D

State K Tank Battery No. 3, Site Assessment Geophysical Report – Earth Measurement Corporation Boring Logs Laboratory Report and Chain of Custody Documentation – TestAmerica Analytical Laboratory and AgriLIFE Extension

Report Excerpts - Conestoga-Rovers & Associates, New Mexico



FIGURES



OKLAHOM/

TEXAS





MAGES: XREFS: ROUE. NM

ATTACHED II ATTACHED > AI BLIOLIFPC



YOUT

	KSB-02					
EPTH (feet)	В	TOTAL BTEX	TOTAL GRO/DRO	CI <sup>-(1)</sup>	CI <sup>-(2)</sup>	
0-1				1,070 B1	1,146	
4-5				807 B1	821	
9-10				705 B1		
4-15	-		-	283 B1		
9-20				292 B1		
24-25	<0.000947	<0.00284	<4.88	64.3 B1		
29-30	<0.000943	<0.00283	10.9	289 B1		



	KSB-04						
DEPTH (feet)	В	TOTAL BTEX	TOTAL GRO/DRO	CI <sup>-(1)</sup>	CI <sup>-(2)</sup>		
0-1				494 B1	643		
4-5				43.2 B1	880		
9-10	<0.000873	<0.00262	5.69	732 B1			
14-15				958 B1			
19-20				163 B1			
24-25				552 B1			
29-30	<0.000926	<0.00278	12.0	520 B1			

SE	3-05		
ľ	TOTAL GRO/DRO	CI <sup>-(1)</sup>	CI <sup>-(2)</sup>
			5,223

1		SITE DETAIL	S MAP	FIGURE	
2					
D	NEW MEXICO STATE K BATTERY TANK #3 LEA COUNTY, NEW MEXICO				
М					
	ORIGINATOR:	D. MAZZANTI	DRAWING CATEGORY:		
	APPROVED BY:	JKM	2		



TABLE

#### DATA TABLE 1

#### SOIL ANALYTICAL SUMMARY - BTEX/TPH/CHLORIDES NEW MEXICO STATE K TANK BATTERY NO. 3 LEA COUNTY, NEW MEXICO APRIL 2010

Boring Number	Sample ID	Date	Depth (feet)	Benzene (mg/kg)	Ethyl- Benzene (mg/kg)	Toluene (mg/kg)	Xylenes, Total (mg/kg)	Total BTEX (mg/kg)	TPH DRO (mg/kg)	TPH GRO (mg/kg)	Total TPH DRO/GRO (mg/kg)	Chloride (1) (mg/kg)	Chloride (2) (mg/kg)
N	MOCD Site RR	ALS (in mg/	(g)	10				50			1,000		
KSB-01	SB1 0-1	4/14/2010	0 - 1									1,200 B1	1,207
	SB1 4-5	4/14/2010	4 - 5									895 B1	1,793
	SB1 9-10	4/14/2010	9 - 10	< 0.000929	< 0.000929	< 0.000929	<0.00279	< 0.00279	<4.84	<0.0929	<4.84	866 B1	
	SB1 14-15	4/14/2010	14 - 15									962 B1	
	SB1 19-20	4/14/2010	19 - 20									4,800 B1	
	SB1 24-25	4/14/2010	24 - 25									4,420 B1	
	SB1 29-30	4/14/2010	29 - 30	< 0.000931	< 0.000931	< 0.000931	<0.00279	< 0.00279	<4.84	<0.0931	<4.84	2,220 B1	
KSB-02	SB2 0-1	4/14/2010	0 - 1									1,070 B1	1,146
	SB2 4-5	4/14/2010	4 - 5									807 B1	821
	SB2 9-10	4/14/2010	9 - 10									705 B1	
	SB2 14-15	4/14/2010	14 - 15									283 B1	
	SB2 19-20	4/14/2010	19 - 20									292 B1	
	SB2 24-25	4/14/2010	24 - 25	< 0.000947	< 0.000947	< 0.000947	<0.00284	<0.00284	<4.88	<0.0947	<4.88	64.3 B1	
	SB2 29-30	4/14/2010	29 - 30	< 0.000943	< 0.000943	< 0.000943	<0.00283	<0.00283	10.9	<0.0943	10.9	289 B1	
KSB-04	SB4 0-1	4/14/2010	0 - 1									494 B	643
	SB4 4-5	4/14/2010	4 - 5									43.2 B1	880
	SB4 9-10	4/14/2010	9 - 10	< 0.000873	< 0.000873	< 0.000873	<0.00262	< 0.00262	5.69	<0.0873	5.69	732 B1	
	SB4 14-15	4/14/2010	14 - 15									958 B1	
	SB4 19-20	4/14/2010	19 - 20									163 B1	
	SB4 24-25	4/14/2010	24 - 25									552 B1	
	SB4 29-30	4/14/2010	29 - 30	< 0.000926	< 0.000926	< 0.000926	<0.00278	<0.00278	12.0	<0.0926	12.0	520 B1	
KSB-05	SB5 0-1	4/14/2010	0 - 1										5,223
KSB-06	SB6 0-1	4/14/2010	0 - 1										1,632
KSB-07	SB7 0-1	4/14/2010	0 - 1									521 B	555
	SB7 4-5	4/14/2010	4 - 5									349 B1	159
	SB7 9-10	4/14/2010	9 - 10	< 0.000990	< 0.000990	< 0.000990	<0.00297	< 0.00297	<4.86	< 0.0990	<4.86	94.6 B1	
	SB7 14-15	4/14/2010	14 - 15									1,150 B1	
	SB7 19-20	4/14/2010	19 - 20									1,450 B1	
	SB7 24-25	4/14/2010	24 - 25									155 B1	İ
	SB7 29-30	4/14/2010	29 - 30	< 0.000904	< 0.000904	< 0.000904	<0.00271	<0.00271	<4.86	<0.0904	<4.86	110 B1	

#### Notes:

mg/kg = milligrams per kilogram

NMOCD RRAL = New Mexico Oil Conservation Division Recommended Remediation Action Levels for Sites with Total Ranking Score <19

Benzene, toluene, ethylbenzene, xylenes (BTEX) analyzed by TestAmerica Analytical Laboratory using EPA Method 8021B.

Total petroleum hydrocarbons (TPH) diesel range organics (DRO) and gasoline range organics (GRO) analyzed by TestAmerica Analytical Laboratory using EPA Method 8015B.

Chloride (1) analyzed by TestAmerica Analytical Laboratory using EPA Method 9056.

Chloride (2) analyzed by AgriLIFE Extension using saturated paste method.

Bold = concentrations within detection limits

B = Analyte was detected in the associated Method Blank.

B1 = Analyte was detected in the associated Method Blank. Analyte concentration in the sample is greater than 10 times the concentration found in the Method Blank.



ATTACHMENT A REPORT EXCERPTS



. .

# NEW MEXICO STATE K TANK BATTERY No. 3 SITE ASSESSMENT

VACUUM OIL FIELD LEA COUNTY, NEW MEXICO

Prepared For: Mr. CHRIS CLOVER EXXONMOBIL GLOBAL REMEDIATION 16825 NORTHCHASE DRIVE, SUITE 917 HOUSTON, TEXAS 77060

> Prepared by: Conestoga-Rovers & Associates Formerly BNC Environmental Services Inc.

2135 S. Loop 250 West Midland, Texas 79703

Office: (432) 686-0086 Fax: (432) 686-0186

web: http://www.CRAworld.com

DECEMBER 9, 2005 REF. NO. 041836

#### **TABLE OF CONTENTS**

1.0	INT	RODUCTION	1
2.0	NO	<b>RM ACTIVITIES</b>	2
	2.1	NORM Survey	2
	2.2	NORM Remediation	3
	2.3	NORM Disposal	3
3.0	SUB	SURFACE INVESTIGATION	4
	3.1	Remediation Action Levels	4
	3.2	Soil Sampling Procedures	5
	3.3	Soil Analytical Results	5

#### **FIGURES**

FIGURE 1 –	Site Location Map
FIGURE 2 –	Aerial Photograph
FIGURE 3 –	NORM Survey Grid and Exposure Readings
FIGURE 4 –	NORM Survey Analytical Results

.

FIGURE 5 - NORM Remediation Confirmation Analytical Results

FIGURE 6 – Soil Boring Location Map

#### **TABLES**

TABLE 1 –	NORM Analy	tical Summary Table	
-----------	------------	---------------------	--

- TABLE 2 Soil Analytical Summary Table
- TABLE 3 Investigation Derived Waste (Soil) Characterization Results

#### **APPENDICES**

APPENDIX A - LOTUS, LLC NORM Licenses

- APPENDIX B NORM Survey Field Notes
- APPENDIX C Photographic Documentation
- APPENDIX D NORM Laboratory Reports
- APPENDIX E NORM Transportation and Disposal Permits
- APPENDIX F New Mexico Office of the State Engineer Depth to Water Reports
- APPENDIX G Soil Assessment Laboratory Reports
- APPENDIX H Driller's Reports

)

APPENDIX I - Soil Boring Log

#### 1.0 INTRODUCTION

a) 15

)

)

ì

Conestoga-Rovers & Associates (CRA) was contracted by ExxonMobil Global Remediation (EMGR) to perform a Naturally Occurring Radioactive Material (NORM) survey, NORM removal, and a subsurface soil assessment at the New Mexico State K Tank Battery No. 3, Vacuum Oil Field, Lea County, Texas. A site locality map and an aerial site photo are shown on FIGURES 1 and 2, respectively. This report describes the field activities and presents a summary of the assessment results. The activities were performed over the period of May 3, 2005 through August 22, 2005.

#### 3.0 SUBSURFACE INVESTIGATION

#### 3.1 Remediation Action Levels

)

The New Mexico Oil Conservation Division (NMOCD) remediation action levels are developed using the site-specific ranking criteria described in the NMOCD guidance document "Guidelines for Remediation of Spills, Leaks, and Releases" (August 13, 1993). The ranking criteria are 1) vertical distance from the lowermost contaminants to the seasonal high elevation of the ground water, 2) wellhead protection area, and 3) distance to nearest surface water body.

No monitor or water wells are located onsite from which to determine depth to groundwater. When depth to groundwater is unknown, the depth can be estimated using data on file with the New Mexico Office of the State Engineer. On February 15, 2005, CRA retrieved Depth to Water reports for the site location (Township 17S, Range 35E, Section 32) and for adjacent Sections 5, 29, 31, and 33. No Depth to Water reports were available for Sections 5, 29, and 32. Average depth to water in Section 31 (adjoining the west Section line of Section 32) was reported to be 106-feet, and average depth to water in Section 33 (adjoining the east Section line of Section 32) was 63-feet. Extrapolation between these data provides an estimated average depth to groundwater of 84.5-feet in Section 32. A copy of the Depth to Water report is provided in APPENDIX F.

The site is located in the Vacuum Oil Field. According to the topographic map shown in APPENDIX F, the perimeter of the nearest surface water body is located 1,320-feet northeast of the site. However, no surface water was observed in the mapped surface water body during the time frame of the field activities. Site reconnaissance and review of satellite imagery suggests that the apparent water body is a topographic low that may receive surface runoff during heavy precipitation events. No other water bodies were observed in the vicinity of the site.

The water well search of the New Mexico Office of the State Engineer revealed that no documented water wells are present in Section 32. The nearest documented water wells are located in Section 33, whose west section line is located 2,000-feet east of the site. The water well search records are provided in APPENDIX E. Based on these data, the well head protection area is greater than 1,000-feet.

Criteria	Site Characteristics	Ranking Score
Depth to Ground Water	50-99 feet	10
Wellhead Protection Area	>1,000 feet	0
Distance to Surface Water	>1,000 feet	0
	Total Ranking Score	10

The NMOCD ranking score is illustrated in the following table:

The NMOCD Recommended Remediation Action Levels (RRALs) for soils at the site are 10 mg/Kg benzene, 50 mg/Kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 mg/Kg total petroleum hydrocarbons (TPH).

# 3.2 Soil Sampling Procedures

Subsurface soil samples were collected from eleven borings advanced by the White Drilling Company under the supervision of CRA personnel. The soil boring locations are illustrated on FIGURE 6. The borings were advanced with a Failing 1500 air rotary drilling rig. Soil samples for field screening were collected from the borings over the 1 to 2-foot depth interval with a shovel during the pre-drill protocol activities. Beneath the 2-foot depth interval, samples were collected from the soil cuttings on 5-foot intervals. Additionally, soil cuttings were visually screened and described on 2.5-foot intervals. Each field screened sample was placed into a new sealable plastic bag. After a residence time of approximately 30 minutes at ambient temperature, instantaneous head space readings of the samples were recorded with a calibrated photo-ionization detector (PID).

The CRA field geologist recorded the headspace readings and described the samples using the Unified Soil Classification System. Soil samples from each location that met the following criteria were selected for chemical analysis:

- The sample collected from the 0-5-foot depth interval with the highest headspace reading;
- The sample collected between the 5-foot and total depth interval with the highest headspace reading; and
- The sample collected from the total depth of the boring.

The samples selected for chemical analysis were transferred to laboratory-supplied sample containers, labeled and placed into iced coolers. The samples were shipped via overnight courier to Southern Petroleum Laboratories, Inc. (SPL) in Houston, Texas. Copies of the laboratory reports are provided in APPENDIX G.

The soil borings were advanced to 20-feet below ground surface (bgs) because field screening results were unremarkable at this depth. Upon completion, the soil borings were plugged with hydrated bentonite to the ground surface.

A background soil sample was collected from the 6-inch to 10-inch depth interval from one offsite location immediately south of the south lease road that abuts the south perimeter of the site. The background sample was submitted to the laboratory for chloride analysis.

Copies of the driller's reports are provided in APPENDIX G. Soil boring logs that illustrate subsurface soil profiles, soil sample depths, head-space readings, and are provided in APPENDIX I. Photographic documentation is presented in APPENDIX C.

# 3.3 Soil Analytical Results

Soil samples selected for chemical analyses were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations by EPA Method 8021B, for total petroleum hydrocarbons (TPH) by EPA Method 8015B, and for chloride by EPA Method E325.2. The analytical results are summarized in TABLE 2 and illustrated in FIGURE 6.

The analytical results were compared to the Remediation Action Levels. No samples contained benzene or BTEX concentrations in excess of the Remediation Action Levels. One sample, collected from the SB-2 location over the 1 to 2-foot interval, exceeded the exceeded the TPH Remediation Action Level.

The chloride background concentration was below the laboratory detection level of 12.6 mg/Kg. Chloride concentrations in samples collected from the eleven boring locations exceeded the background concentration.

Soil cuttings were stockpiled on and covered with plastic sheeting. A composite sample of the cuttings was analyzed for BTEX, TPH, reactivity, corrosivity, and ignitability. The analytical results are summarized in TABLE 3. The data indicate that the soil cuttings were non-hazardous; additionally, concentrations of BTEX and TPH constituents were below the OCD recommended Remediation Action Levels.

All of Which is Respectfully Submitted, Conestoga-Rovers & Associates

James R. Buice Project Manager

ĵ

1

Thomas Clark Thomas C. Larson

Operations Manager





120705 SLR J41836

1

1

(



# TABLE 2New Mexico State K Tank Battery #3

# **BTEX/TPH/Chloride Analytical Summary Table**

						1	1	1			
ID Sample	Sample Date	Depth (feet bgs)	Benzene	Toluene	Ethyl- Benzene	Xylenes	BTEX	GRO	DRO	Total	Chloride
NMOCD Remediation Action Level (Ranking Score: 10)			10				50			1,000	
SB1-0-2'	8/22/05	0 - 2	<0.0012	<0.0012	<0.0012	<0.0012	BDL	<0.12	870	870	<12
SB1-14-15'	8/22/05	14 - 15	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<5.3	BDL	132
SB1-19-20'	8/22/05	19 - 20	<0.001	<0.001	<0.001	<0.001	BDL	<0.1	<5.2	BDL	955
SB2-1-2'	8/22/05	1 - 2	< 0.001	0.0075	<0.001	0.002	0.0095	<0.1	4,200	4,200	91.9
SB2-15-16'	8/22/05	15 - 16	<0.001	<0.001	<0.001	<0.001	BDL	<0.1	32	32	25.6
SB2-20-21'	8/22/05	20 - 21	<0.001	<0.001	<0.001	<0.001	BDL	<0.1	19	19	91.3
SB3-1-2'	8/22/05	1 - 2	<0.0012	0.0073	<0.0012	<0.0012	0.0073	<0.12	160	160	4,590
SB3-15-16'	8/22/05	14 - 15	<0.0011	<0.0011	<0.0011	<0.0011	BDL.	<0.11	<0.54	BDL	1,050
SB3-20-21'	8/22/05	20 - 21	<0,0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<0.53	BDL.	1,470
SB4-1-2'	8/22/05	1 - 2	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	250	250	1,930
SB4-15-16'	8/22/05	14 - 15	<0.001	<0.001	<0.001	<0.001	BDL	<0.1	11	11	877
SB4-20-21'	8/22/05	20 - 21	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	14	14	1,220
SB5-1-2'	8/22/05	1-2	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<11	BDL	<10.6
SB5-15-16'	8/22/05	15 - 16	<0.001	<0.001	<0.001	<0.001	BDL	<0.1	<5.2	BDL	104
SB5-20-21'	8/22/05	20 - 21	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<5.3	BDL.	138
SB6-1-2'	8/22/05	1-2	<0.0012	0.039	0.0018	0.0055	0.0463	<0.12	410	410	49.4
SB6-15-16'	8/22/05	15 - 16	<0.001	<0.001	<0.001	<0.001	BDL	<0.1	<5.1	BDL	35
SB6-20-21'	8/22/05	20 - 21	<0.001	<0.001	<0.001	<0.001	BDL.	<0.1	<5.1	BDL	31.9
SB7-1-2'	8/23/05	1-2	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<5.6	BDL	46.5
SB7-15-16'	8/23/05	15 - 16	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<5.6	BDL	117
SB7-20-21'	8/23/05	20 - 21	<0.0012	<0.0012	<0.0012	<0.0012	BDL	<0.12	<5.8	BDL	128
SB8-1-2'	8/23/05	1 - 2	<0.0013	<0.0013	<0.0013	<0.0013	BDL	<0.13	530	530	940
SB8-15-16'	8/23/05	15 - 16	<0.001	<0.001	<0.001	<0.001	BDL	<0.1	17	17	84
SB8-20-21'	8/23/05	20 - 21	<0.001	<0.001	<0.001	<0.001	BDL	<0.1	<5.2	BDL	41.7
SB9-1-2'	8/23/05	1 - 2	<0.0012	<0.0012	<0.0012	<0.0012	BDL	<0.12	<6.2	BDL.	<12.4
SB9-15-16'	8/23/05	15 - 16	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<5.3	BDL	19.5
Duplicate			<0.001	<0.001	<0.001	<0.001	BDL	<0.1	<5.2	BDL	15.9
SB9-20-21'	8/23/05	21 - 21	<0.0012	<0.0012	<0.0012	<0.0012	BDL	<0.12	<6.2	BDL	<11.5
SB10-1-2'	8/23/05	1 - 2	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	50	50	2,080
SB10-15-16'	8/23/05	15 - 16	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<5.3	BDL	887
SB10-20-21'	8/23/05	20 - 21	<0.0011	<0.0011	<0.0011	<0.0011	BDL	<0.11	<5.6	BDL	62
SB11-1-2'	8/23/05	1 - 2	<0.0012	<0.0012	<0.0012	<0.0012	BDL	<0.12	<61	BDL	203
SB11-15-16'	8/23/05	15 - 16	<0.001	<0.001	<0.001	0.0014	0.0014	<0.1	<5.2	BDL	300
SB11-20-21'	8/23/05	20 - 21	<0.0011	<0.0011	<0.0011	0.0016	0.0016	<0.11	<0.53	BDL	269
Background	8/23/05	1 - 2								***	<12.6
Trip Blank #1	8/23/05		<0.001	<0.001	<0.001	<0.001	BDL.				
Trip Blank #2	8/23/05		<0.001	<0.001	<0.001	<0.001	BDL				

NOTES:

1. Values reported in mg/Kg. Values for trip blanks (water) reported in mg/L.

2. BDL: below laboratory detection limits.

3. Shaded cells indicate NMOCD Remediation Action Level exceedance.

4. BTEX analyses by EPA Method SW 8021B.

5. TPH analyses by EPA Method SW 8015B.

6. Chloride analyses by Method E325.2.

	L TYPE	
	Siliy Sand (SM) — Moist, loose, 0—1' depth interval contains organic plant malter.	
	Calcareous Silly Sand (SM) — White, friable (caliche).	
	Limestone interbedded with Calcareous Silt (LS/ML) — (Caliche), cemented, friable, dry.	
	Clay (CL) — Minor sand, medium plasticity, minor calcareous nodules, wet.	
C	; Indicates sample selected for laboratory analysis.	
þ	Indicates sample Interval. Sample was obtained by shovel.	
d	Indicates sample interval. Sample was obtained by drilt cultings.	
٨	Indicates Slight to Medium Staining	
ŀ	Indicates Heavy Staining	
t BTE)	Benzene Concentration (mg/kg) Benzene, Toluene, Ethylbenzene and Xylenes Concentration (mg/kg)	
TPI	Total Petroleum Hydrocarbons Concentralion (mg/kg)	
C	Chloride Concentration (mg/kg)	
BD	Below Method Detection Limits	
PI	Head—space readings in ppm obtained with a photo—lonization detector.	
	IOTES	
ی ۲۰	The soll borings were drillied on August 22-23, 2005.	
2. 2.	The lines between soll types indicated on the logs represent approximale boundaries. Actual transitions may be gradual.	
ສັງ 3.	The depths indicated are referenced from the ground surface.	
4. 6007 83 928170	Soll borings were plugged with hydrated bentonlte.	
	SOIL BORING LEGEND AND NOTES	JOB No. 041836
(OBIA)	NEW MEXICO STATE "K" TANK BATTERY No. 3	APPENDIX

1.1.1.1.1.1.1.1

NEW MEXICO STATE "K" TANK BATTERY No. 3 LEA COUNTY, NEW MEXICO









ATTACHMENT B GEOPHYSICAL REPORT





Mr. Dave Mazzanti *Kleinfelder* 1335 West Auto Drive Tempe, Arizona 85284 Tel: 480.763.1200 Fax: 480.763.1212

# GEOPHYSICAL SUBSURFACE INVESTIGATION SURVEY New Mexico State "K" - Chloride Delineation Tank Battery No. 3, Lea County, New Mexico

**EMC** Project # K090925.2 (rev1)

Dear Mr. Mazzanti,

The following report describes the acquisition, processing, mapping and interpretation phases of a geophysical investigation survey conducted at your site at the New Mexico State "K", Tank Battery No. 3 in Lea County, New Mexico.

# SCOPE

The scope of this project was to collect conductivity readings, at set depths intervals, over the site in an attempt to track a chloride plume. The depth intervals collected were at 0 to 18' and 18' to 49', respectfully. Through this data it was determined where conductive values were elevated above the background readings. These results indicate the presence and location of the chloride plume.

# ACQUISITION

**EMC** fielded a three-person crew for the acquisition phase of this project: Joe Austin, Geophysical Specialist; Harold Fulton, Field Supervisor and John Steele, Cartographer.

# EQUIPMENT

Three electromagnetic (EM) instruments were used on this project. The first instrument used was a Geonics Electromagnetic Meter, Model EM-31. The EM-31 provides a means of measuring the electrical conductivity of subsurface soil, rock and ground water. Electrical conductivity is a function of the soil and rock, its porosity, its permeability and the fluids that fill the pore spaces. The EM-31 has two modes of operation: In-phase and quadrature.

Quadrature mode measures the general conductivity of the ground while the in-phase mode detects the conductivity changes associated with buried objects in the subsurface to a depth of approximately eighteen (18') feet.

The second EM instrument was the Geonics Electromagnetic Meter, Model EM-34. This model is another type of device for measuring the electrical conductivity of the subsurface soil, rock and ground water. It operates on the same basic principles as the EM-31, but has the ability to measure conductivity changes to much greater depths. The instrument's variable range-of-depth can be as much as 200' in certain conditions. For this survey we collected EM-34 data at two estimated depths. The first (Horizontal) is approximately twenty-five (25') in depth and the second (Vertical) is approximately forty nine-feet in depth (49').

The third electromagnetic instrument used for this project was the Geonics Electromagnetic Meter, Model EM-61. The EM-61 uses induced-pulse electric fields to find buried ferrous objects while minimizing the response of host material. Stated another way, the EM-61 is a metal detector capable of measuring the amplitude response of buried metals as well as the lack of amplitude associated with non-metallic objects. The depth of penetration for this instrument is approximately ten feet (10').

One complimentary piece of equipment was used to pinpoint locations on the site. The Pathfinder ProXH Receiver and Zephyr Antenna GPS systems were used. The ProXH receiver is a GPS receiver, antenna, and battery all in one, and when combined with the Zephyr Antenna provides advanced technology for low multipath, low elevation tracking, and sub-millimeter phase center accuracy. The ProXH receiver can achieve 8 inch accuracy for precision mapping and GIS data collection.

More information on any of these technologies can be found in the Equipment Descriptions section of this report.

# PROCESSING

After all the data were acquired, proprietary geotechnical software was used to process the EM data for the Earth's normal field of adjustments, terrain corrections, and filtering to discriminate against extraneous interference. **EMC**'s data reduction program was used to filter the EM data for interpretation. The EM data were then contoured and plotted using Golden Software's Surfer8 contouring program. Final maps were created in ArcGIS.

The maps developed from the survey include several Electromagnetic Maps created using the EM-31, EM-34 and EM-61 data. The EM-31 Quadrature Map presented conductivity changes over the site to a depth of approximately 18 feet below surface. The EM-31 Inphase Map and the EM-61 Differential Map shows areas that have metals, such as pipelines in this case. The EM-34 Quadrature Map in the Vertical Mode shows conductive changes over the site to a depth between 18 feet and 49 feet below the surface. This was accomplished by removing the EM-31 Quadrature information from the EM-34 Quadrature data.

# INTERPRETATION

A thorough review of all the geophysical data has revealed the following. We will examine the EM maps as depth zones. For this report we will describe the zones as Zone 1 (0' – 18'), Zone 2 (18' – 49'). The EM-31 Inphase Map and the EM-61 will provide the locations of the pipelines that cross the survey area. All of the found chloride plumes and pipelines are located on the Interpretive Map.

# <u>Zone 1 (0' – 18')</u>

The conductive values in milliSiemens per meter over the survey area show three areas that are of interest in determining the locations of a chloride plume. The three areas are located at grid coordinates 642870/3629100, 642825/3629115 and 642745/3629100. The last of the locations has a higher geophysical response in conductivity than the first two. These probable chloride plume anomalies are depicted on the Interpretive Map in a red-hatched pattern.

# <u>Zone 2 (18' – 49')</u>

Zone 2 shows a less intense conductive high in the middle of the survey area. There are also three anomalies in this zone. The grid locations for these conductive areas are at 642820/3629082, 642790/3629106 and 642765/3629085. These areas show little contrast in milliSiemens per meter, but could have increase conductive changes from the chlorides.

# <u>Pipelines</u>

There are eight pipelines identified within the survey area. These consist of three surface lines, one poly material and two steel. These surface lines are depicted on the Interpretive Map in a solid red line. Five buried pipelines were revealed in the geophysical data. They are depicted on the Interpretive Map as dashed red lines.

# DELIVERABLES

Included with this report are two copies of the following items:

- Equipment Descriptions
- Electromagnetic Maps
  - EM-31 Quadrature Map
  - EM-31 Inphase Map
  - EM-34 Quadrature Vertical Map
  - EM-61 Differential Map

# STATEMENT

Electromagnetics are not definitive measures in obstructed environments and should not be the only methods used to define the boundaries of sub-surface anomalies. The interpretation of the processed data describes the anomalies as closely as possible. The survey results described in this report and illustrated on the maps represent theories supported by the evidence of the data collected. Based on experience and expertise in the field, **EMC** has every confidence in the results.

Please be advised that original project data will be held in **EMC**'s offices for a period of six months. After that time, the data will be destroyed. **EMC** personnel are always ready to answer any questions about this project. Please do not hesitate to call.

Thank you for this opportunity.



Sincerely,

Joe M. Austin State of Texas Professional Geoscientist Geophysics License #5336














ATTACHMENT C BORING LOGS









ENV SOIL BOREHOLE \ LIBRARY KLEINFELDER ALB PLOG.GLB \ 108926 NM STATE K.GPJ





ENV SOIL BOREHOLE \ LIBRARY KLEINFELDER ALB PLOG.GLB \ 108926 NM STATE K.GPJ







## ATTACHMENT D LABORATORY REPORT AND CHAIN OF CUSTODY DOCUMENTATION



THE LEADER IN ENVIRONMENTAL TESTING

May 03, 2010 4:11:42PM

Client:	Kleinfelder Midland - Exxon
	8004 West Highway 80
	Midland, TX 79706
Attn:	Aaron Hale

#### SAMPLE IDENTIFICATION

SB1 4-5	
SB1 9-10	
SB1 14-15	
SB1 19-20	
SB1 24-25	
SB1 29-30	
SB2 4-5	
SB2 9-10	
SB2 14-15	
SB2 19-20	
SB2 24-25	
SB2 29-30	
SB4 4-5	
SB4 9-10	
SB4 14-15	
SB4 19-20	
SB4 24-25	
SB4 29-30	
SB7 4-5	
SB7 9-10	
SB7 14-15	
SB7 19-20	
SB7 24-25	
SB7 29-30	
SB 1 0-1	
SB 2 0-1	

Work Order:	
Project Name:	
Project Nbr:	
P/O Nbr:	
Date Received:	

LAB NUMBER

NTD1497-01 NTD1497-02 NTD1497-03 NTD1497-04 NTD1497-05 NTD1497-06 NTD1497-07 NTD1497-08 NTD1497-09 NTD1497-10 NTD1497-11 NTD1497-12 NTD1497-13 NTD1497-14 NTD1497-15 NTD1497-16 NTD1497-17 NTD1497-18 NTD1497-19 NTD1497-20 NTD1497-21 NTD1497-22 NTD1497-23 NTD1497-24 NTD1497-25 NTD1497-26 NTD1497 Exxon NM State K State K - NM MNK-TA-2010 04/16/10

#### COLLECTION DATE AND TIME

04/14/10 15:45
04/14/10 15:45
04/14/10 15:45
04/14/10 15:45
04/14/10 15:45
04/14/10 15:45
04/14/10 13:00
04/14/10 13:00
04/14/10 13:00
04/14/10 13:00
04/14/10 13:00
04/14/10 13:00
04/14/10 08:30
04/14/10 08:30
04/14/10 08:30
04/14/10 08:30
04/14/10 08:30
04/14/10 08:30
04/14/10 11:00
04/14/10 11:00
04/14/10 11:00
04/14/10 11:00
04/14/10 11:00
04/14/10 11:00
04/14/10 15:45
04/14/10 13:00

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client	Kleinfelder Midland - Exxon 8004 West Highway 80 Midland TX 79706	Work Order: Project Name: Project Number:	NTD1497 Exxon NM State K State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00
SE	3 4 0-1	NTD1497-27	04/14/10 08:30
SE	3 7 0-1	NTD1497-28	04/14/10 11:00

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

The Chain(s) of Custody, 4 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

All solids results are reported in wet weight unless specifically stated. Estimated uncertainty is available upon request. This report has been electronically signed. Report Approved By:

Andi R. Jones

Andi Jones Project Management

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

		A	NALYTICAL	REPORT				
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NTD1497-01 (SB1 4-5	- Soil) Sample	d: 04/14/10	) 15:45					
General Chemistry Parameters								
Chloride	895	B1	mg/kg	200	20	04/28/10 08:28	SW846 9056	10D4306
Sample ID: NTD1497-02 (SB1 9-1) General Chemistry Parameters	0 - Soil) Sampl	ed: 04/14/1	10 15:45					
Chloride	866	B1	mg/kg	100	10	04/28/10 08:47	SW846 9056	10D4306
Volatile Organic Compounds by EPA	Method 8021B							
Renzene	ND		mø/kø	0 000929	1	04/20/10 17:31	SW846 8021B	10D2997
Ethylbenzene	ND		mg/kg	0.000929	1	04/20/10 17:31	SW846 8021B	10D2997
Toluene	ND		mg/kg	0.000929	1	04/20/10 17:31	SW846 8021B	10D2997
Xylenes total	ND		mg/kg	0.00279	1	04/20/10 17:31	SW846 8021B	10D2997
Surr: a.a.a-Trifluorotoluene (50-150%)	88 %		00		-	04/20/10 17	7:31 SW846 8021B	10D2997
Extractable Detroloum Hydrocorbons						0,,20,101,		1022///
Extractable Petroleum Hydrocarbons				4.04	1	04/01/10 02 07	011046 00150	1002256
	ND		mg/kg	4.84	I	04/21/10 23:06	SW846 8015B	10D3356
Surr: 0-1erphenyl (29-141%)	<i>69 %</i>					04/21/10 23	3:06 SW846 8015B	10D3336
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		mg/kg	0.0929	1	04/20/10 17:31	SW846 8015B	10D2997
Surr: a,a,a-Trifluorotoluene (40-150%)	88 %					04/20/10 17	7:31 SW846 8015B	10D2997
Sample ID: NTD1497-03 (SR1 14-	15 - Soil) Samr	Jed• 04/14	/10 15.45					
General Chemistry Parameters	13 - 501) Samp	Jicu. 04/14	/10/13.43					
	0(2	DI		100	10	04/20/10 00 07	CW1046 0056	1004206
Chloride	962	BI	mg/kg	100	10	04/28/10 09:06	SW 846 9056	10D4306
Sample ID: NTD1497-04 (SB1 19-)	20 - Soil) Samr	oled: 04/14	/10 15:45					
General Chemistry Parameters								
Chloride	4800	<b>B</b> 1	mø/kø	500	50	04/28/10 00:25	SW846 0056	10D4306
Chionae	4000	DI	1115/115	500	50	04/28/10 09.23	3 W 840 9030	102 1500
Sample ID: NTD1497-05 (SB1 24-2	25 - Soil) Samp	oled: 04/14	/10 15:45					
General Chemistry Parameters								
Chloride	4420	B1	mg/kg	1000	100	04/28/10 09:43	SW846 9056	10D4306
			0.0					
Sample ID: NTD1497-06 (SB1 29-	30 - Soil) Samp	oled: 04/14	/10 15:45					
General Chemistry Parameters								
Chloride	2220	B1	mg/kg	500	50	04/28/10 10:02	SW846 9056	10D4306
Volatile Organic Compounds by FPA	Method 8021B							
Renzane	ND		ma/ka	0.000931	1	04/20/10 18:10	SW846 8021B	10D2997
Ethylbonzono	ND		mg/kg	0.000931	1	04/20/10 18:10	SW846 8021D	10D2997
Toluene			mg/kg	0.000931	1	04/20/10 18.10 04/20/10 18.10	SW846 8021D	10D2997
Yulenes total			mg/kg	0.000931	1	04/20/10 10.10 04/20/10 18.10	SW846 8021D	10D2997
Surr a a - Trifluorotoluone (50-150%)	£5 %		111 <u>8</u> / Kg	0.00279	1	04/20/10 10.10	2.10 SW846 2021D	1002337
	05 /0					04/20/10 10	5.10 5#040 0021D	100299/
Extractable Petroleum Hydrocarbons								
Diesel	ND		mg/kg	4.84	1	04/21/10 23:24	SW846 8015B	10D3356

THE LEADER IN ENVIRONMENTAL TESTING

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

		A	NALYTICAL	REPORT				
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NTD1497-06 (SB1 29-3	30 - Soil) - cont	t. Sampled:	04/14/10 15:	:45				
Extractable Petroleum Hydrocarbons -	cont.							
Surr: o-Terphenyl (29-141%)	71 %					04/21/10 23	3:24 SW846 8015B	10D3356
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		mg/kg	0.0931	1	04/20/10 18:10	SW846 8015B	10D2997
Surr: a,a,a-Trifluorotoluene (40-150%)	85 %					04/20/10 18	8:10 SW846 8015B	10D2997
Sample ID: NTD1497-07 (SB2 4-5	- Soil) Sample	d: 04/14/1(	) 13:00					
General Chemistry Parameters								
Chloride	807	B1	mg/kg	100	10	04/28/10 10:21	SW846 9056	10D4306
Sample ID: NTD1497-08 (SB2 9-10	) - Soil) Sampl	ed: 04/14/1	0 13:00					
General Chemistry Parameters								
Chloride	705	B1	mg/kg	100	10	04/28/10 10:40	SW846 9056	10D4306
Sample ID: NTD1497-09 (SB2 14-1	15 - Soil) Samr	oled: 04/14	/10 13:00					
General Chemistry Parameters								
Chloride	283	B1	mg/kg	50.0	5	04/28/10 10:58	SW846 9056	10D4306
Sample ID: NTD1497-10 (SB2 19-2	20 - Soil) Samp	oled: 04/14	/10 13:00					
General Chemistry Parameters								
Chloride	292	B1	mg/kg	50.0	5	04/28/10 11:17	SW846 9056	10D4306
Sample ID: NTD1497-11 (SB2 24-2	25 - Soil) Samr	oled: 04/14	/10 13:00					
General Chemistry Parameters	,							
Chloride	64.3	B1	mg/kg	10.0	1	04/26/10 03:19	SW846 9056	10D4306
Valatila Organia Compounda hy EDA	Mathed 9021D		0.0					
Pangana			mg/kg	0.000047	1	04/20/10 19:49	SW046 0021D	10D2007
Ethylbenzene	ND		mg/kg	0.000947	1	04/20/10 18:48	SW846 8021B	10D2997
Toluene	ND		mg/kg	0.000947	1	04/20/10 18:48	SW846 8021B	10D2997
Xvlenes, total	ND		mg/kg	0.00284	1	04/20/10 18:48	SW846 8021B	10D2997
Surr: a,a,a-Trifluorotoluene (50-150%)	89 %					04/20/10 18	3:48 SW846 8021B	10D2997
Extractable Petroleum Hydrocarbons								
Diesel	ND		mg/kg	4.88	1	04/21/10 23:42	SW846 8015B	10D3356
Surr: o-Terphenyl (29-141%)	72 %					04/21/10 23	3:42 SW846 8015B	10D3356
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		mg/kg	0.0947	1	04/20/10 18:48	SW846 8015B	10D2997
Surr: a,a,a-Trifluorotoluene (40-150%)	89 %					04/20/10 18	8:48 SW846 8015B	10D2997
Sample ID: NTD1497-12 (SB2 29-3	30 - Soil) Samr	oled: 04/14	/10 13:00					
General Chemistry Parameters	- , ~		*					
Chloride	289	B1	mg/kg	50.0	5	04/28/10 12:13	SW846 9056	10D4306
Volatile Organic Compounds by EPA N	Method 8021B							

THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

		Al	NALYTICAL	REPORT				
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NTD1497-12 (SB2 29-3 Volatile Organic Compounds by EPA N	<b>30 - Soil) - con</b> t Method 8021B -	t. Sampled: cont.	04/14/10 13:	:00				
Benzene	ND		mg/kg	0.000943	1	04/20/10 22:37	SW846 8021B	10D2997
Ethylbenzene	ND		mg/kg	0.000943	1	04/20/10 22:37	SW846 8021B	10D2997
Toluene	ND		mg/kg	0.000943	1	04/20/10 22:37	SW846 8021B	10D2997
Xylenes, total	ND		mg/kg	0.00283	1	04/20/10 22:37	SW846 8021B	10D2997
Surr: a,a,a-Trifluorotoluene (50-150%)	87 %					04/20/10 22	:37 SW846 8021B	10D2997
Extractable Petroleum Hydrocarbons								
Diesel	10.9		mg/kg	4.92	1	04/21/10 23:59	SW846 8015B	10D3356
Surr: o-Terphenyl (29-141%)	82 %					04/21/10 23	:59 SW846 8015B	10D3356
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		mg/kg	0 0943	1	04/20/10 22:37	SW846 8015B	10D2997
Surr: a.a.a-Trifluorotoluene (40-150%)	87 %			0.0715	1	04/20/10 22	:37 SW846 8015B	10D2997
Sample ID: NTD1497-13 (SB4 4-5 General Chemistry Parameters	- Soil) Sample	d: 04/14/10	08:30					
Chloride	43.2	B1	mg/kg	10.0	1	04/26/10 03:56	SW846 9056	10D4306
Sample ID: NTD1497-14 (SB4 9-10 General Chemistry Parameters	) - Soil) Sampl	ed: 04/14/1	.0 08:30	100	10	04/28/10 12-28	SW046 0056	10D4206
Chioride	/32	BI	mg/kg	100	10	04/28/10 13:28	SW846 9056	10D4306
Volatile Organic Compounds by EPA M	Method 8021B							
Benzene	ND		mg/kg	0.000873	1	04/20/10 23:15	SW846 8021B	10D2997
Ethylbenzene	ND		mg/kg	0.000873	1	04/20/10 23:15	SW846 8021B	10D2997
Toluene	ND		mg/kg	0.000873	1	04/20/10 23:15	SW846 8021B	10D2997
Xylenes, total	ND		mg/kg	0.00262	1	04/20/10 23:15	SW846 8021B	10D2997
Surr: a,a,a-Trifluorotoluene (50-150%)	75 %					04/20/10 23	:15 SW846 8021B	10D2997
Extractable Petroleum Hydrocarbons								
Diesel	5.69		mg/kg	4.99	1	04/22/10 00:17	SW846 8015B	10D3356
Surr: o-Terphenyl (29-141%)	72 %					04/22/10 00	:17 SW846 8015B	10D3356
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		mg/kg	0.0873	1	04/20/10 23:15	SW846 8015B	10D2997
Surr: a,a,a-Trifluorotoluene (40-150%)	75 %					04/20/10 23	:15 SW846 8015B	10D2997
Sample ID: NTD1497-15 (SB4 14-1	5 - Soil) Samp	oled: 04/14/	/10 08:30					
Chlorida	058	D1	ma/ka	100	10	04/28/10 12:51	SW946 0056	10D4306
Chionae	730	DI	шу/ку	100	10	04/20/10 12:31	SW 840 9030	1014300
Sample ID: NTD1497-16 (SB4 19-2 General Chemistry Parameters	20 - Soil) Samr	oled: 04/14/	10 08:30					
Chloride	163	B1	mg/kg	20.0	2	04/30/10 02:43	SW846 9056	10D4307

Sample ID: NTD1497-17 (SB4 24-25 - Soil) Sampled: 04/14/10 08:30

THE LEADER IN ENVIRONMENTAL TESTING

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

		Α	NALYTICAL	REPORT				
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NTD1497-17 (SB4 24-2	25 - Soil) - con	t. Sampled:	: 04/14/10 08	:30				
General Chemistry Parameters	,	-						
Chloride	552	B1	mg/kg	100	10	04/30/10 03:39	SW846 9056	10D4307
Sample ID: NTD1497-18 (SB4 29-3 General Chemistry Parameters	30 - Soil) Samp	oled: 04/14	/10 08:30					
Chloride	520	B1	mg/kg	100	10	04/30/10 03:58	SW846 9056	10D4307
Volatile Organic Compounds by EPA M	Method 8021B							
Benzene	ND		mg/kg	0.000926	1	04/20/10 23:54	SW846 8021B	10D2997
Ethylbenzene	ND		mg/kg	0.000926	1	04/20/10 23:54	SW846 8021B	10D2997
Toluene	ND		mg/kg	0.000926	1	04/20/10 23:54	SW846 8021B	10D2997
Xylenes, total	ND		mg/kg	0.00278	1	04/20/10 23:54	SW846 8021B	10D2997
Surr: a,a,a-Trifluorotoluene (50-150%)	97 %					04/20/10 2	3:54 SW846 8021B	10D2997
Extractable Petroleum Hydrocarbons								
Diesel	12.0		mg/kg	4.93	1	04/22/10 00:35	SW846 8015B	10D3356
Surr: o-Terphenyl (29-141%)	65 %					04/22/10 00	0:35 SW846 8015B	10D3356
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		mg/kg	0.0926	1	04/20/10 23:54	SW846 8015B	10D2997
Surr: a,a,a-Trifluorotoluene (40-150%)	97 %					04/20/10 2.	3:54 SW846 8015B	10D2997
Sample ID: NTD1497-19 (SB7 4-5	- Soil) Sample	d: 04/14/1	0 11:00					
General Chemistry Parameters								
Chloride	349	B1	mg/kg	50.0	5	04/30/10 04:16	SW846 9056	10D4307
Sample ID: NTD1497-20 (SB7 9-10	) - Soil) Sampl	ed: 04/14/	10 11:00					
General Chemistry Parameters	04.6	DI		10.0		04/20/10 00 12	CW1046 0056	1004207
Chloride	94.0	BI	mg/kg	10.0	1	04/29/10 08:13	SW846 9056	10D4307
Volatile Organic Compounds by EPA M	Method 8021B							
Benzene	ND		mg/kg	0.000990	1	04/21/10 00:32	SW846 8021B	10D2997
Ethylbenzene	ND		mg/kg	0.000990	1	04/21/10 00:32	SW846 8021B	10D2997
Toluene	ND		mg/kg	0.000990	1	04/21/10 00:32	SW846 8021B	10D2997
Xylenes, total	ND		mg/kg	0.00297	1	04/21/10 00:32	SW846 8021B	10D2997
Surr: a,a,a-Trifluorotoluene (50-150%)	86 %					04/21/10 00	0:32 SW846 8021B	10D2997
Extractable Petroleum Hydrocarbons								
Diesel	ND		mg/kg	4.86	1	04/22/10 00:52	SW846 8015B	10D3356
Surr: o-Terphenyl (29-141%)	75 %					04/22/10 00	0:52 SW846 8015B	10D3356
Purgeable Petroleum Hydrocarbons								
GRO as Gasoline	ND		mg/kg	0.0990	1	04/21/10 00:32	SW846 8015B	10D2997
Surr: a,a,a-Trifluorotoluene (40-150%)	86 %					04/21/10 00	0:32 SW846 8015B	10D2997

Sample ID: NTD1497-21 (SB7 14-15 - Soil) Sampled: 04/14/10 11:00

General Chemistry Parameters

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

Dilution         Analysis         Date/Time         Method         B           Analyte         Result         Flag         Units         MRL         Factor         Date/Time         Method         B           Sample ID: NTD1497-21 (SB7 14-15 - Soil) - cont. Sampled: 04/14/10 11:00         General Chemistry Parameters - cont.         Chorde         1150         B1         mg/kg         200         20         04/30/10 04:35         SW846 9056         10           Sample ID: NTD1497-22 (SB7 19-20 - Soil) Sampled: 04/14/10 11:00         General Chemistry Parameters         General Chemistry Parameters         SW846 9056         10           Chorde         1450         B1         mg/kg         200         2         04/30/10 04:54         SW846 9056         10           Sample ID: NTD1497-23 (SB7 24-25 - Soil) Sampled: 04/14/10 11:00         General Chemistry Parameters         Chorde         155         B1         mg/kg         20.0         2         04/30/10 05:13         SW846 9056         10           Sample ID: NTD1497-24 (SB7 24-25 - Soil) Sampled: 04/14/10 11:00         General Chemistry Parameters         General Chemistry Parameters         10         B1         mg/kg         20.0         2         04/30/10 05:13         SW846 9056         10           Sample ID: NTD1497-24 (SB7 24-25 - Soil) Sampled: 04/14/10 11:00         <	
Sample ID: NTD1497-21 (SB7 14-15 - Soil) - cont. Sampled: 04/14/10 11:00         General Chemistry Parameters - cont.       IIS0       B1       mg/kg       200       20       04/30/10 04:35       SW846 9056       10         Sample ID: NTD1497-22 (SB7 19-20 - Soil) Sampled: 04/14/10 11:00         General Chemistry Parameters         Chloride       1450       B1       mg/kg       200       20       04/30/10 04:54       SW846 9056       10         Sample ID: NTD1497-23 (SB7 24-25 - Soil) Sampled: 04/14/10 11:00       General Chemistry Parameters         Chloride       155       B1       mg/kg       20.0       2       04/30/10 05:13       SW846 9056       10         Sample ID: NTD1497-24 (SB7 29-30 - Soil) Sampled: 04/14/10 11:00       General Chemistry Parameters         Chloride       10       B1       mg/kg       0.00       1       04/29/10 10:05       SW846 9056       10         Sample ID: NTD1497-24 (SB7 29-30 - Soil) Sampled: 04/14/10 11:00       General Chemistry Parameters         Chloride       10       B1       mg/kg       0.000904       1       04/29/10 10:05       SW846 8021B       10         VD       mg/kg       0.000904       1       04/21/10 01	atch
Outcome Chilling Child Ch	
Sample ID: NTD1497-22 (SB7 19-20 - Soil) Samplet: 04/14/10 11:00         General Chemistry Parameters       1450       B1       mg/kg       200       20       04/30/10 04:54       SW846 9056       10         Sample ID: NTD1497-23 (SB7 24-25 - Soil) Samplet: 04/14/10 11:00         General Chemistry Parameters       0       0       200       2       04/30/10 05:13       SW846 9056       10         Sample ID: NTD1497-24 (SB7 29-30 - Soil) Samplet: 04/14/10 11:00       General Chemistry Parameters         Chloride       10       B1       mg/kg       0.00       1       04/29/10 10:05       SW846 9056       10         Sample ID: NTD1497-24 (SB7 29-30 - Soil) Samplet: 04/14/10 11:00       General Chemistry Parameters         Chloride       10       B1       mg/kg       0.000904       1       04/29/10 10:05       SW846 9056       10         Odiganic Compounds by EPA Method 8021B       10       B1       mg/kg       0.000904       1       04/21/10 01:10       SW846 8021B       10         Chloride       ND       mg/kg       0.000904       1       04/21/10 01:10       SW846 8021B       10         Chloride       ND       mg/kg       0.000904       1       04/21/10 01:10       SW8	D4307
Chloride         1450         B1         mg/kg         200         20         04/30/10 04:54         SW846 9056         10           Sample ID: NTD1497-23 (SB7 24-25 - Soil) Sampled:         04/14/10 11:00         General Chemistry Parameters         0           Chloride         155         B1         mg/kg         20.0         2         04/30/10 05:13         SW846 9056         10           Sample ID: NTD1497-24 (SB7 29-30 - Soil) Sampled:         04/14/10 11:00         General Chemistry Parameters         0         10         B1         mg/kg         0.00         1         04/29/10 10:05         SW846 9056         10           Sample ID: NTD1497-24 (SB7 29-30 - Soil) Sampled:         04/14/10 11:00         General Chemistry Parameters         10         B1         mg/kg         0.000904         1         04/29/10 10:05         SW846 9056         10           Volatile Organic Compounds by EPA Method 8021B         Benzene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW846 8021B         10           Valence, total         ND         mg/kg         0.000904         1         04/21/10 01:10         SW846 8015B         10           Sur:: a.a.a. <sup>1</sup> Trifluorotoluene (50-150%)         87 %         0         0         0         0         0	
Sample ID: NTD1497-23 (SB7 24-25 - Soil) Sampled: 04/14/10 11:00 General Chemistry Parameters         SW846 9056         10           Chloride         155         B1         mg/kg         2.0.0         2         04/30/10 05:13         SW846 9056         10           Sample ID: NTD1497-24 (SB7 29-30 - Soil) Sampled:         04/14/10 11:00         General Chemistry Parameters         0	D4307
Choride       155       B1       mg/kg       20.0       2       04/30/10 05:13       SW846 9056       10         Sample ID: NTD1497-24 (SB7 29-30 - Soil) Sampled:       04/14/10 11:00       General Chemistry Parameters       5       5       8       10       B1       mg/kg       10.0       1       04/29/10 10:05       SW846 9056       10         Volatile Organic Compounds by EPA Method 8021B       Benzene       ND       mg/kg       0.000904       1       04/21/10 01:10       SW846 8021B       10         Ethylbenzene       ND       mg/kg       0.000904       1       04/21/10 01:10       SW846 8021B       10         Toluene       ND       mg/kg       0.000904       1       04/21/10 01:10       SW846 8021B       10         Surr: a, a, ar Trifluorotoluene (50-150%)       87 %       0       00271       1       04/21/10 01:10       SW846 8021B       10         Surr: a, a, a, ar Trifluorotoluene (50-150%)       87 %       0       04/22/10 01:10       SW846 8015B       10         Surr: a, a, a, Trifluorotoluene (40-150%)       87 %       0       0/422/10 01:10       SW846 8015B       10         Surr: a, a, a, Trifluorotoluene (40-150%)       87 %       0       0/422/10 01:10       SW846 8015B       10     <	
Sample ID: NTD1497-24 (SB7 29-30 - Soil) Sampled: 04/14/10 11:00         General Chemistry Parameters       II0       B1       mg/kg       10.0       1       04/29/10 10:05       SW 846 9056       10         Volatile Organic Compounds by EPA Method       8021B       III       mg/kg       0.000904       1       04/21/10 01:10       SW 846 8021B       10         Benzene       ND       mg/kg       0.000904       1       04/21/10 01:10       SW 846 8021B       10         Chloride       ND       mg/kg       0.000904       1       04/21/10 01:10       SW 846 8021B       10         Chloride       ND       mg/kg       0.000904       1       04/21/10 01:10       SW 846 8021B       10         Surr: a, a, ar Trifluorotoluene (50-150%)       87 %       0       0.00271       1       04/21/10 01:10       SW 846 8021B       10         Surr: a, a, a, Trifluorotoluene (50-150%)       87 %       0       0.00271       1       04/22/10 01:10       SW 846 8015B       10         Surr: a, a, a, Trifluorotoluene (50-150%)       87 %       0       0.00271       1       04/22/10 01:10       SW 846 8015B       10         Surr: a, a, a, Trifluorotoluene (40-150%)       87 %       0       0.00271       1       0	D4307
Choride         110         B1         mg/kg         10.0         1         04/29/10 10:05         SW846 9056         10           Volatile Organic Compounds by EPA Method 8021B         Benzene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW846 8021B         10           Ethylbenzene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW846 8021B         10           Toluene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW846 8021B         10           Sylenes, total         ND         mg/kg         0.00271         1         04/21/10 01:10         SW846 8021B         10           Sur: a, a, a-Trifluorotoluene (50-150%)         87 %          0         04/21/10 01:10         SW846 8021B         10           Sur: a, a, a-Trifluorotoluene (50-150%)         87 %          0         04/22/10 01:10         SW846 8015B         10           Sur: o-Terphenyl (29-141%)         69 %          mg/kg         0.0904         1         04/21/10 01:10         SW846 8015B         10           Sur: a, a, a-Trifluorotoluene (40-150%)         87 %          0         04/21/10 01:10         SW846 8015B         10	
Volatile Organic Compounds by EPA Method 8021B           Benzene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW 846 8021B         10           Ethylbenzene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW 846 8021B         10           Toluene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW 846 8021B         10           Surr: a,a,a-Trifluorotoluene (50-150%)         87 %         mg/kg         0.00271         1         04/21/10 01:10         SW 846 8021B         10           Surr: a,a,a-Trifluorotoluene (50-150%)         87 %         mg/kg         0.00271         1         04/21/10 01:10         SW 846 8021B         10           Surr: a,a,a-Trifluorotoluene (50-150%)         87 %         mg/kg         0.00271         1         04/21/10 01:10         SW 846 8015B         10           Surr: a,a,a-Trifluorotoluene (50-150%)         87 %         mg/kg         0.0904         1         04/22/10 01:10         SW 846 8015B         10           Surr: a,a,a-Trifluorotoluene (40-150%)         87 %         mg/kg         0.0904         1         04/21/10 01:10         SW 846 8015B         10           Surr: a,a,a-Trifluorotoluene (40-150%)         87 %	D4307
Benzene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW846 8021B         10           Ethylbenzene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW846 8021B         10           Toluene         ND         mg/kg         0.000904         1         04/21/10 01:10         SW846 8021B         10           Xylenes, total         ND         mg/kg         0.00271         1         04/21/10 01:10         SW846 8021B         10           Surr: a,a,a-Trifluorotoluene (50-150%)         87 %         0.00271         1         04/21/10 01:10         SW846 8021B         10           Surr: o-Terphenyl (29-141%)         69 %         0         87%         0.0024         1         04/22/10 01:10         SW846 8015B         10           Surr: o-Terphenyl (29-141%)         69 %         0         0.0904         1         04/22/10 01:10         SW846 8015B         10           Surr: a,a,a-Trifluorotoluene (40-150%)         87 %         0.0904         1         04/21/10 01:10         SW846 8015B         10           Surr: a,a,a-Trifluorotoluene (40-150%)         87 %         0.0904         1         04/21/10 01:10         SW846 8015B         10           Surr: a,a,a-Trifl	
Ethylbenzene       ND       mg/kg       0.000904       1       04/21/10 01:10       SW846 8021B       10         Toluene       ND       mg/kg       0.000904       1       04/21/10 01:10       SW846 8021B       10         Xylenes, total       ND       mg/kg       0.00271       1       04/21/10 01:10       SW846 8021B       10         Surr: a,a,a-Trifluorotoluene (50-150%)       87 %       04/21/10 01:10       SW846 8021B       10         Extractable Petroleum Hydrocarbons       0       87 %       04/22/10 01:10       SW846 8015B       10         Surr: o-Terphenyl (29-141%)       69 %       0       69 %       04/22/10 01:10       SW846 8015B       10         Purgeable Petroleum Hydrocarbons       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: o-Terphenyl (29-141%)       69 %       0       04/22/10 01:10       SW846 8015B       10         Purgeable Petroleum Hydrocarbons       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: a,a,a-Trifluorotoluene (40-150%)       87 %       0.9904       1       04/21/10 01:10       SW846 8015B       10         Sample ID: NTD1497-25 (SB 1 0-1 - Soil) Sampled: 04/14/10 15:45       Genera	D2997
Toluene       ND       mg/kg       0.000904       1       04/21/10 01:10       SW846 8021B       10         Xylenes, total       ND       mg/kg       0.00271       1       04/21/10 01:10       SW846 8021B       10         Surr: a,a,a-Trifluorotoluene (50-150%)       87 %       04/21/10 01:10       SW846 8021B       10         Extractable Petroleum Hydrocarbons       0       04/21/10 01:10       SW846 8015B       10         Surr: o-Terphenyl (29-141%)       69 %       04/22/10 01:10       SW846 8015B       10         Purgeable Petroleum Hydrocarbons       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: o-Terphenyl (29-141%)       69 %       0       04/22/10 01:10       SW846 8015B       10         Purgeable Petroleum Hydrocarbons       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: a,a,a-Trifluorotoluene (40-150%)       87 %       0/2/21/10 01:10       SW846 8015B       10         Sample ID: NTD1497-25 (SB 1 0-1 - Soil) Sampled: 04/14/10 15:45       General Chemistry Parameters       Sw846 9056       10         Chloride       1200       B1       mg/kg       200       20       04/30/10 05:31       SW846 9056       10	D2997
Xylenes, total       ND       mg/kg       0.00271       1       04/21/10 01:10       SW846 8021B       10         Surr: a,a,a-Trifluorotoluene (50-150%)       87 %       04/21/10 01:10       SW846 8021B       10         Extractable Petroleum Hydrocarbons       Diesel       ND       mg/kg       4.86       1       04/22/10 01:10       SW846 8015B       10         Surr: o-Terphenyl (29-141%)       69 %       04/22/10 01:10       SW846 8015B       10         Purgeable Petroleum Hydrocarbons       GRO as Gasoline       ND       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: a,a,a-Trifluorotoluene (40-150%)       87 %       04/21/10 01:10       SW846 8015B       10         Surr:: a,a,a-Trifluorotoluene (40-150%)       87 %       04/21/10 01:10       SW846 8015B       10         Sample ID: NTD1497-25 (SB 1 0-1 - Soil) Sampled:       04/14/10 15:45       04/21/10 01:10       SW846 9056       10         Sample ID: NTD1497-26 (SB 2 0-1 - Soil) Sampled:       04/14/10 13:00       20       04/30/10 05:31       SW846 9056       10	D2997
Extractable Petroleum Hydrocarbons         Diesel       ND       mg/kg       4.86       1       04/22/10 01:10       SW846 8015B       10         Surr: o-Terphenyl (29-141%)       69 %       04/22/10 01:10       SW846 8015B       10         Purgeable Petroleum Hydrocarbons       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         GRO as Gasoline       ND       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: a,a,a-Trifluorotoluene (40-150%)       87 %       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Sample ID: NTD1497-25 (SB 1 0-1 - Soil) Sampled:       04/14/10 15:45       General Chemistry Parameters       SW846 9056       10         Chloride       1200       B1       mg/kg       200       20       04/30/10 05:31       SW846 9056       10         Sample ID: NTD1497-26 (SB 2 0-1 - Soil) Sampled:       04/14/10 13:00       13:00       10       10       10       10	D2997 )D2997
Diesel       ND       mg/kg       4.86       1       04/22/10 01:10       SW846 8015B       10         Surr: o-Terphenyl (29-141%)       69 %       04/22/10 01:10       SW846 8015B       10         Purgeable Petroleum Hydrocarbons       GRO as Gasoline       ND       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: a,a,a-Trifluorotoluene (40-150%)       87 %       04/21/10 01:10       SW846 8015B       10         Sample ID: NTD1497-25 (SB 1 0-1 - Soil) Sampled:       04/14/10 15:45       General Chemistry Parameters       200       20       04/30/10 05:31       SW846 9056       10         Sample ID: NTD1497-26 (SB 2 0-1 - Soil) Sampled:       04/14/10 13:00       10       10       10       10       10	
Purgeable Petroleum Hydrocarbons       ND       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         GRO as Gasoline       ND       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: a,a,a-Trifluorotoluene (40-150%)       87 %       04/21/10 01:10       SW846 8015B       10         Sample ID: NTD1497-25 (SB 1 0-1 - Soil) Sampled:       04/14/10 15:45       General Chemistry Parameters       SW846 9056       10         Chloride       1200       B1       mg/kg       200       20       04/30/10 05:31       SW846 9056       10         Sample ID: NTD1497-26 (SB 2 0-1 - Soil) Sampled:       04/14/10 13:00       10       10       10       10	D3356 )D3356
GRO as Gasoline       ND       mg/kg       0.0904       1       04/21/10 01:10       SW846 8015B       10         Surr: a,a,a-Trifluorotoluene (40-150%)       87 %       04/21/10 01:10       SW846 8015B       10         Sample ID: NTD1497-25 (SB 1 0-1 - Soil) Sampled:       04/14/10 15:45       04/21/10 01:10       SW846 9056       10         Chloride       1200       B1       mg/kg       200       20       04/30/10 05:31       SW846 9056       10         Sample ID: NTD1497-26 (SB 2 0-1 - Soil) Sampled:       04/14/10 13:00       13:00       10       10       10	
Sample ID: NTD1497-25 (SB 1 0-1 - Soil) Sampled: 04/14/10 15:45         General Chemistry Parameters         Chloride       1200       B1       mg/kg       200       20       04/30/10 05:31       SW846 9056       10         Sample ID: NTD1497-26 (SB 2 0-1 - Soil) Sampled:       04/14/10 13:00	D2997 ) <i>D2997</i>
Chloride       1200       B1       mg/kg       200       20       04/30/10 05:31       SW846 9056       10         Sample ID: NTD1497-26 (SB 2 0-1 - Soil) Sampled:       04/14/10 13:00	
Sample ID: NTD1497-26 (SB 2 0-1 - Soil) Sampled: 04/14/10 13:00	D4307
General Chemistry Parameters	
Chloride <b>1070</b> B1 mg/kg 200 20 04/30/10 06:46 SW846 9056 10	D4307
Sample ID: NTD1497-27 (SB 4 0-1 - Soil) Sampled: 04/14/10 08:30 General Chemistry Parameters	
Chloride <b>494</b> B mg/kg 200 20 04/30/10 07:05 SW846 9056 10	D4307
Sample ID: NTD1497-28 (SB 7 0-1 - Soil) Sampled: 04/14/10 11:00 General Chemistry Parameters	
Chloride 521 B mg/kg 200 20 04/30/10 07:24 SW846 9056 10	D4307

THE LEADER IN ENVIRONMENTAL TESTING

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

### SAMPLE EXTRACTION DATA

			Wt/Vol				Extraction
Parameter	Batch	Lab Number	Extracted	Extracted Vol	Date	Analyst	Method
Extractable Petroleum Hydrocarbons							
SW846 8015B	10D3356	NTD1497-02	25.84	1.00	04/20/10 09:06	AJF	EPA 3550B
SW846 8015B	10D3356	NTD1497-06	25.80	1.00	04/20/10 09:06	AJF	EPA 3550B
SW846 8015B	10D3356	NTD1497-11	25.64	1.00	04/20/10 09:06	AJF	EPA 3550B
SW846 8015B	10D3356	NTD1497-12	25.39	1.00	04/20/10 09:06	AJF	EPA 3550B
SW846 8015B	10D3356	NTD1497-14	25.04	1.00	04/20/10 09:06	AJF	EPA 3550B
SW846 8015B	10D3356	NTD1497-18	25.37	1.00	04/20/10 09:06	AJF	EPA 3550B
SW846 8015B	10D3356	NTD1497-20	25.71	1.00	04/20/10 09:06	AJF	EPA 3550B
SW846 8015B	10D3356	NTD1497-24	25.74	1.00	04/20/10 09:06	AJF	EPA 3550B
Purgeable Petroleum Hydrocarbons							
SW846 8015B	10D2997	NTD1497-02	5.38	5.00	04/19/10 14:14	JRL	EPA 5035A (GC)
SW846 8015B	10D2997	NTD1497-06	5.37	5.00	04/19/10 14:16	JRL	EPA 5035A (GC)
SW846 8015B	10D2997	NTD1497-11	5.28	5.00	04/19/10 14:18	JRL	EPA 5035A (GC)
SW846 8015B	10D2997	NTD1497-12	5.30	5.00	04/19/10 14:21	JRL	EPA 5035A (GC)
SW846 8015B	10D2997	NTD1497-14	5.73	5.00	04/19/10 14:24	JRL	EPA 5035A (GC)
SW846 8015B	10D2997	NTD1497-18	5.40	5.00	04/19/10 14:27	JRL	EPA 5035A (GC)
SW846 8015B	10D2997	NTD1497-20	5.05	5.00	04/19/10 14:29	JRL	EPA 5035A (GC)
SW846 8015B	10D2997	NTD1497-24	5.53	5.00	04/19/10 14:31	JRL	EPA 5035A (GC)
Volatile Organic Compounds by EPA	Method 8021B						
SW846 8021B	10D2997	NTD1497-02	5.38	5.00	04/19/10 14:14	JRL	EPA 5035A (GC)
SW846 8021B	10D2997	NTD1497-06	5.37	5.00	04/19/10 14:16	JRL	EPA 5035A (GC)
SW846 8021B	10D2997	NTD1497-11	5.28	5.00	04/19/10 14:18	JRL	EPA 5035A (GC)
SW846 8021B	10D2997	NTD1497-12	5.30	5.00	04/19/10 14:21	JRL	EPA 5035A (GC)
SW846 8021B	10D2997	NTD1497-14	5.73	5.00	04/19/10 14:24	JRL	EPA 5035A (GC)
SW846 8021B	10D2997	NTD1497-18	5.40	5.00	04/19/10 14:27	JRL	EPA 5035A (GC)
SW846 8021B	10D2997	NTD1497-20	5.05	5.00	04/19/10 14:29	JRL	EPA 5035A (GC)
SW846 8021B	10D2997	NTD1497-24	5.53	5.00	04/19/10 14:31	JRL	EPA 5035A (GC)

THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

#### PROJECT QUALITY CONTROL DATA Blank

Analyte	Blank Value	0	Units	O.C. Batch	Lab Number	Analyzed Date/Time	
Canaral Chamistry Daramatars		·····					
ADDA206 DI KA							
10D4306-BLK1 Chloride	<2.00		mg/kg	10D4306	10D4306-BLK1	04/25/10 22:06	
10D4306-BLK2							
Chloride	3.90		mg/kg	10D4306	10D4306-BLK2	04/27/10 23:04	
10D4307-BLK1							
Chloride	3.31		mg/kg	10D4307	10D4307-BLK1	04/29/10 05:24	
10D4307-BLK2							
Chloride	4.61		mg/kg	10D4307	10D4307-BLK2	04/30/10 01:46	
Volatile Organic Compounds by	EPA Method 8021B						
10D2997-BLK1							
Benzene	< 0.000300		mg/kg	10D2997	10D2997-BLK1	04/20/10 12:21	
Ethylbenzene	< 0.000300		mg/kg	10D2997	10D2997-BLK1	04/20/10 12:21	
Toluene	< 0.000300		mg/kg	10D2997	10D2997-BLK1	04/20/10 12:21	
Xylenes, total	< 0.00100		mg/kg	10D2997	10D2997-BLK1	04/20/10 12:21	
Surrogate: a,a,a-Trifluorotoluene	89%			10D2997	10D2997-BLK1	04/20/10 12:21	
10D2997-BLK2							
Benzene	< 0.000300		mg/kg	10D2997	10D2997-BLK2	04/20/10 21:59	
Ethylbenzene	< 0.000300		mg/kg	10D2997	10D2997-BLK2	04/20/10 21:59	
Toluene	< 0.000300		mg/kg	10D2997	10D2997-BLK2	04/20/10 21:59	
Xylenes, total	< 0.00100		mg/kg	10D2997	10D2997-BLK2	04/20/10 21:59	
Surrogate: a,a,a-Trifluorotoluene	86%			10D2997	10D2997-BLK2	04/20/10 21:59	
Extractable Petroleum Hydroca	rbons						
10D3356-BLK1							
Diesel	<2.00		mg/kg	10D3356	10D3356-BLK1	04/21/10 21:55	
Surrogate: o-Terphenyl	73%			10D3356	10D3356-BLK1	04/21/10 21:55	
Purgeable Petroleum Hydrocart	oons						
10D2997-BLK1							
GRO as Gasoline	< 0.0100		mg/kg	10D2997	10D2997-BLK1	04/20/10 12:21	
Surrogate: a,a,a-Trifluorotoluene	89%			10D2997	10D2997-BLK1	04/20/10 12:21	
10D2997-BLK2							
GRO as Gasoline	0.0110		mg/kg	10D2997	10D2997-BLK2	04/20/10 21:59	
Surrogate: a,a,a-Trifluorotoluene	86%			10D2997	10D2997-BLK2	04/20/10 21:59	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client Kleinfelder Midland - Exxon 8004 West Highway 80 Midland, TX 79706 Attn

Aaron Hale

Work Order:	NTD1497
Project Name:	Exxon NM State K
Project Number:	State K - NM
Received:	04/16/10 08:00

# PROJECT QUALITY CONTROL DATA

## Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters 10D4306-DUP2 Chloride	958	959		mg/kg	0.07	20	10D4306	NTD1497-15RE1		04/28/10 13:09
10D4307-DUP2 Chloride	521	530		mg/kg	2	20	10D4307	NTD1497-28RE1		04/30/10 07:42

THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

## PROJECT QUALITY CONTROL DATA

### LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
General Chemistry Parameters								
10D4306-BS1								
Chloride	30.0	31.7	MNR	mg/kg	106%	90 - 110	10D4306	04/25/10 22:24
10D4306-BS2								
Chloride	30.0	28.2	MNR	mg/kg	94%	90 - 110	10D4306	04/28/10 07:51
10D4307-BS1								
Chloride	30.0	31.4		mg/kg	104%	90 - 110	10D4307	04/29/10 05:43
10D4307-BS2								
Chloride	30.0	31.6		mg/kg	105%	90 - 110	10D4307	04/30/10 02:05
Volatile Organic Compounds by E	PA Method 8021B							
10D2997-BS1								
Benzene	0.100	0.101		mg/kg	101%	70 - 120	10D2997	04/20/10 19:26
Ethylbenzene	0.100	0.106		mg/kg	106%	72 - 120	10D2997	04/20/10 19:26
Toluene	0.100	0.0993		mg/kg	99%	70 - 120	10D2997	04/20/10 19:26
Xylenes, total	0.300	0.294		mg/kg	98%	71 - 122	10D2997	04/20/10 19:26
Surrogate: a,a,a-Trifluorotoluene	20.0	18.4			92%	50 - 150	10D2997	04/20/10 19:26
Extractable Petroleum Hydrocarbo	ons							
10D3356-BS1								
Diesel	40.0	38.9		mg/kg	97%	55 - 123	10D3356	04/21/10 22:13
Surrogate: o-Terphenyl	0.800	0.669			84%	29 - 141	10D3356	04/21/10 22:13
Purgeable Petroleum Hydrocarbon	18							
10D2997-BS2								
GRO as Gasoline	10.0	9.86		mg/kg	99%	60 - 131	10D2997	04/21/10 02:27
Surrogate: a,a,a-Trifluorotoluene	20.0	24.2			121%	40 - 150	10D2997	04/21/10 02:27

THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

### PROJECT QUALITY CONTROL DATA LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
General Chemistry Parameters 10D4306-BSD1 Chloride		31.6		mg/kg	30.0	106%	90 - 110	0.2	20	10D4306		04/25/10 22:43
10D4306-BSD2 Chloride		27.7		mg/kg	30.0	92%	90 - 110	2	20	10D4306		04/28/10 08:10

**TestAmerica** 

THE LEADER IN ENVIRONMENTAL TESTING

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

		PROJE	CCT QU	ALITY CO Matrix Spi	DNTROL DA	АТА				
Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
General Chemistry Parameters										
10D4307-MS2										
Chloride	163	229		mg/kg	60.0	110%	80 - 120	10D4307	NTD1497-16RE 1	04/30/10 03:01
Volatile Organic Compounds by El	PA Method 802	1B								
10D2997-MS1										
Benzene	0.000316	0.0375		mg/kg	0.0436	85%	10 - 127	10D2997	NTD1497-24	04/21/10 11:10
Ethylbenzene	ND	0.0448		mg/kg	0.0436	103%	10 - 127	10D2997	NTD1497-24	04/21/10 11:10
Toluene	ND	0.0404		mg/kg	0.0436	93%	10 - 120	10D2997	NTD1497-24	04/21/10 11:10
Xylenes, total	ND	0.126		mg/kg	0.131	96%	10 - 126	10D2997	NTD1497-24	04/21/10 11:10
Surrogate: a,a,a-Trifluorotoluene		17.7		ug/kg	20.0	89%	50 - 150	10D2997	NTD1497-24	04/21/10 11:10
Extractable Petroleum Hydrocarbo	ons									
10D3356-MS1										
Diesel	ND	32.2		mg/kg	39.2	82%	10 - 154	10D3356	NTD1497-02	04/21/10 22:31
Surrogate: o-Terphenyl		0.526		mg/kg	0.784	67%	29 - 141	10D3356	NTD1497-02	04/21/10 22:31

THE LEADER IN ENVIRONMENTAL TESTING

\_

2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

### PROJECT QUALITY CONTROL DATA Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
General Chemistry Parameters												
10D4307-MSD2												
Chloride	163	227		mg/kg	60.0	107%	80 - 120	0.7	20	10D4307	NTD1497-16R E1	04/30/10 03:20
Volatile Organic Compounds by	EPA Method 8	021B										
10D2997-MSD1												
Benzene	0.000316	0.0380		mg/kg	0.0439	86%	10 - 127	1	50	10D2997	NTD1497-24	04/21/10 11:49
Ethylbenzene	ND	0.0450		mg/kg	0.0439	103%	10 - 127	0.5	50	10D2997	NTD1497-24	04/21/10 11:49
Toluene	ND	0.0409		mg/kg	0.0439	93%	10 - 120	1	50	10D2997	NTD1497-24	04/21/10 11:49
Xylenes, total	ND	0.127		mg/kg	0.132	96%	10 - 126	0.7	50	10D2997	NTD1497-24	04/21/10 11:49
Surrogate: a,a,a-Trifluorotoluene		18.8		ug/kg	20.0	94%	50 - 150			10D2997	NTD1497-24	04/21/10 11:49
Extractable Petroleum Hydroca	rbons											
10D3356-MSD1												
Diesel	ND	36.9		mg/kg	39.5	93%	10 - 154	14	48	10D3356	NTD1497-02	04/21/10 22:49
Surrogate: o-Terphenyl		0.633		mg/kg	0.791	80%	29 - 141			10D3356	NTD1497-02	04/21/10 22:49

THE LEADER IN ENVIRONMENTAL TESTING

Client	Kleinfelder Midland - Exxon	Work Order:	NTD1497
	8004 West Highway 80	Project Name:	Exxon NM State K
	Midland, TX 79706	Project Number:	State K - NM
Attn	Aaron Hale	Received:	04/16/10 08:00

#### DATA QUALIFIERS AND DEFINITIONS

**B** Analyte was detected in the associated Method Blank.

- **B1** Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank.
- MNR No results were reported for the MS/MSD. The sample used for the MS/MSD required dilution due to the sample matrix. Because of this, the spike compounds were diluted below the detection limit.
- ND Not detected at the reporting limit (or method detection limit if shown)

#### METHOD MODIFICATION NOTES

TestAmerica	
Nashville, TN COOLER RECI	
Cooler Received/Opened On_04/16/10 @ 08:00 0	NTD149?
1. Tracking # / 213(last 4 digits, F	
Courier:FED-EX IR Gun ID97310166	
2. Temperature of rep. sample or temp blank when opened. Degrees Cel	sius
3. If Item #2 temperature is 0°C or less, was the representative sample or temp bla	nk frozen? YES 🔞 NA
4. Were custody seals on outside of cooler?	
If yes, how many and where: [-	FRAIT
5. Were the seals intact, signed, and dated correctly?	ESNONA
6. Were custody papers inside cooler?	TESNONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES NO and In	tact YESNO
Were these signed and dated correctly?	YESNO MA
8. Packing mat'l used Bubblewrap Plastic bag Peanuts Vermiculite Foam In	sert Paper Other None
9. Cooling process:	t) Dry ice Other None
10. Did all containers arrive in good condition (unbroken)?	ESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	ES.).NONA
12. Did all container labels and tags agree with custody papers?	VESNONA
13a. Were VOA vials received?	YESNA
b. Was there any observable headspace present in any VOA vial?	YESNO
14. Was there a Trip B ank in this cooler? YESNO.	rs, sequence
I certify that I unloaded the cooler and answered questions 7-14 (intial)	<u> </u>
15a. On pres'd bottles did pH test strips suggest preservation reached the correct	t pH level? YESNO.NA
b. Did the bottle labels indicate that the correct preservatives were used	YESNO
16. Was residual chlorine present?	YES NO MA
I certify that I checked for chlorine and pH as per SOP and answered questions 15	-16 (intial)
17. Were custody papers properly filled out (ink, signed, etc)?	ES.).NONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	TSNONA
20. Was sufficient amount of sample sent in each container?	ESNONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	
I certify that I attached a label with the unique LIMS number to each container (intia	
21. Were there Non-Conformance issues at login? YES WO Was a PIPE generat	ed? YES#

. .

nMobil * 3		2								RUSH TAT (Pre Schedule)	) *														Date: Time:		Date Due of Report:		
EXo	PO#: 2010 Pendi	0110) (80110)						New Mexico	A nalvza far				2	m	7	Ŷ	9	4	6	2	<u>9</u>	0# 19061			jy:	e Circle (Jno) .	e officie offic): Level 4 Site Specific	pre-schedule w/ TestAmerica ach specific instructions)	
	×	Mobil Corporatio	Hale	NM State K		9.40847				TPH-Gasoline Range SW80 TPH - Diesel Range SW846 801 Chloride Automated Color SM450 8021B BT	15 5B 00- 4	~	X X X X	×	X	X	XXXX	X	, X	X	X	UCTIONS: B			Relinquished	Jeliverahles (Please	12 Level 3	te specific, please <sub>l</sub> ect <u>Manager or at</u> t	
2.	40973	VIIOXX	aron ]	( uoxx		(A.200				(specify) Oth	er oil	×	×		X	$\overline{\mathbf{x}}$		X	×			INSTR			ime:	001	Level	Proje	
4	nt #: 1	ie to: F	rtto: ⊿	ame: F	Na	EE): N	ress:	Zip:	atrix	Sludg	je										$ \geq $	ECIAL			F		Z	z	
6-340	Accou	Invoic	Repoi	ject N	ct (M]	ect (A)	e Add	State,	≥ 	Drinking Wat Wastewat	er er	-										ES/SPI			Date:		act? Y	ce?	
204 15) 72	TA			Pro	Proje	Proj	Sit	City	L	Groundwat	er								-			ION					ers Int	eadspa	
N 37; ax:(6)					etail	<b>Jajor</b>				(Black Label) Nor	ie 2	×	$\times$	×	X	$\sim$	X	< >		1	$\leq$		ŝ				ntain	of H	
lle Tl 77 Fi	() () ()		1		ິ	[			l e	(Yellow Label) Glass H2SC	)3 )4								-				IIagei				le Co	<sup>s Free</sup>	
shvi 6-01	<u>č</u>					4			vati	(Yellow Label) Plastic H2SC	)4			-								t Ma	1				Samp	20C	
* Na 5) 72	stric					503			'eser	(Orange Label) NaO	н											ica.	ا ک از: ک						
ive (61:	Ğ		9706			561.			<u>م</u>	(Blue Label) HC	Ľ											umer D	Dai					Й	
n Dr 80 /	Rei		2			132)				Sodium Bisulfa	te											lestA meri			by:	/ia:	arre	$[\mathcal{M}]$	
n Ehto -098	•					<u>a</u>			L	Methan	ol		_	_								t at ] 'ast A		nders	ived	ed /	perat	ä	
visio Creis 765			Ϋ́			Fax				Field Filtere	d											sceipi the T		mair	Recei	Shior	Tem	Recei	
e Div ter ( 800)							3			Composit	e	_	_									ofre	lager	ole re			1,	$\overline{}$	
hvill Fos ne: (	u						Ř			Gra	<u>b</u> .	4	<u>&gt;</u>	۲	<u>×</u>	$\prec$	~		<u>~</u>		*	time to no	t mai	sam	10. 10.	<u>i</u>	i	ЗI	
Nasl 296( Phoi	EXX6						12	M		# Containers Shippe	٥	1	4	N	2	N	5	N	N	61	N	n the Hant	ojec	lg of	E /	4	Ĩ	20	
<b>77 1</b> 5	Vidland • ]	dhway 80		Ξ		9	1713	224	£	Time Sample		1747	1545	545	1545	1545	Stal	1300	[360	เว้อย	1300	culated fron or its consul	tted. TA P	ica disposir	- 4-15-10	-	Datt: /	2/10/A	•
	einfelder N	04 West Hig	dland	ary Gilkiso	ron Hale	(2) 563-11(	plester	alel		Date Sample	d	ML LL+	01-44-10	01-1-11	4-14-10	4-14-10	01-4-1-15	0-+1-+	6-4-10	# 71/10	4-14-0	mes are cald xon Mohil d	ill be submi	r TestAmer					
<b>NTD1497</b> <b>04/30/10 23:59</b>	Consultant: Kle	Address: 800	City, State, Zip: Mic	ExxonMobil Project Mgr: <u>Ma</u>	Consultant Project Mgr: Aar	Consultant Telephone #r: (43.	Sampler Name (Print)	SamplerSignature:		âmple ID	Vator CRI d-T	( ) / / / / / / / / / / / / / / / / / /	>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	51-11-185	581 19-20	581 29-25	581 29-30	582 4-5	01-6 245	582 19-15	582 19-20	.UMMENTS: All turn around tin It will be the resnonsibility of Exy	hone or fax that a rush sample wil	here may be a charge assessed for	clinquished by:	hipped Yia:	eceived for Test the pick by:		

COLUMNATION     Description     Description     Description       Image: Statistic column control of the				1	ļ	1		1		1		RUSH TAT (Pre Schedule)	*												Ţ	Të	$\neg$	
●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●						ļ													_						Time:	Repoi		
Control	Mobi	of S																							ate:	ate Due of		
Name		N	ing											ļ											<u> </u>	┦ݠ	5	
Constraint     Name and the first of celestion brie * Name in the First of Cision brie * Name i	×	.   ອີຍ	Pend							vico	L H																ic meri ons)	
Control Projection         Sample Projection         Sample Projection         Projection <td><u>Li</u></td> <td>Pa</td> <td>010</td> <td></td> <td></td> <td></td> <td>ļ</td> <td></td> <td></td> <td>Me</td> <td>yze f</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ipecif FestA <u>ructio</u></td> <td></td>	<u>Li</u>	Pa	010				ļ			Me	yze f										+						ipecif FestA <u>ructio</u>	
Constant         Namile Drive			17 17							New	Anal		_	N	N	4	5	و	4	<b>S</b> :	5- 1	<u>Ş</u>	-			(e) :	Site S e w/ ' c inst	
Consultant:     NDD1437     National District (CN)       Source:     NDD1437     Source:     NDD1437       Source:     NDD1437     Source:     NDD1437       Address:     None:     NDD1437       Address:     None:     NDD1437       Address:     None:     NDD1437       Address:     NDD1437       Address:     NDD1437       Address:     NDD1437       Address:     NDD1437       Address:     NDD1437       Chyster Highman     TX       Dispect Man:     NDD144       Chyster Highman     ND       Dispect Man:     NDD144       Dispect Man:     NDD144       None:     ND144			#O4	10)									-	-	-	-	-	-	`-	-	د.	$\overline{C}$	1906			le On	4 hedul	
Constant:     Const				(801																			#		1	Circ	evel - re-scl ich si	
MIDIAS     Nonhibition     Nonhibition     Nature State     Nonhibition       Matters     State (SA)     None: (80), Y6-909, / (615), 726-314       Matters     State (SA)     None: (80), Y6-909, / (615), 726-314       Consultant:     Event (SA)     None: (80), Y6-909, / (615), 726-314       Address     State (SA)     None: (80), Y6-909, / (615), 726-314       Consultant:     Event (SA)     None: (80), Y6-909, / (615), 726-314       Address     State (SA)     None: (80), Y6-909, / (615), 726-314       Address     State (SA)     None: (80), Y6-909, / (615), 726-314       Consultant Project Ngr:     Matter     Project Name:       Consultant Project Ngr:     Matter     Project Name:       Sampler Signary (CR)     Name:     Register Signary (CR)       Sampler Signary (CR)     Name:     Signary (				tion								TPH-Gasoline Range SW8015		-									BC		ed by	lease	L ase pi	
Consultant:     District Creitmin     District Creitmin     District Creitmin       Austres:     Bioline Shandler Mitchen Mitchen     Nich 1497     Networks 105, 126-344       Austres:     Bioline Shandler Mitchen     Nich 145, 126-344       Austres:     Bioline Shandler Mitchen     Nich 145, 126-344       Austres:     Bioline Shandler Mitchen     Nich 145, 126-344       Austres:     Bioline Shandler Mitchen     Nich 12, 126-344       Austres:     Bioline Shandler Mitchen     Nich 12, 126-344       Austres:     Bioline Shandler     Nich 12, 126-344       Sumplet Signature:     Mich 12, 126-344     Nich 142       Sumplet Signature:     Mich 13, 126-344     Nich 142       Sumplet Signature:     Mich 13, 126-344<				pora		K						TPH - Diesel Range SW846 8015E	x	X		$\hat{\mathbf{x}}$				Ż		$\sum_{i=1}^{i}$	ä		quish	es (P	el 3 , ples ger ol	
Consultant       NDD1497       Nonscience				Cor		tate		4				Chloride Automated Color SM4500	×	$\overline{\mathbf{X}}$	$\times$	Ň	X	X	1	X	$\overline{\mathbf{x}}$	Ż	NO		telino	rable	Lev Scific lanag	
Consultant: Submitted in the construction of the standard from 3704 standard				lido	ale	M		408				8021B BTEX	X	×		×	·					$\boldsymbol{\kappa}$	ECI		<u> </u>	-live	te spe	
Consultant:     NID1497     Name     NiD1497     NiD1497       Autor:     04/30/10/23 55     Prone: (800) Foste Creeption Drive a Nashriller N 3724     Prone: (800) Foste Creeption Drive a Nashriller N 3724       Autors:     Sup Vest Highway 30     Consultant:     Kenort to: Exact       Autors:     Sup Vest Highway 30     In Account 4: 140       Autors:     Sup Vest Highway 30     In Account 4: 140       Autors:     Sup Vest Highway 30     In Account 4: 140       Consultant:     Fraction Data     Report to: Exact       Consultant:     Projert Name: Exact     In Account 4: 140       Consultant:     Mark     Report to: Exact       Consultant:     Mark     Report to: Exact       Consultant:     Mark     Report to: Exact       Suppler/Signature:     Mark     Reprod       Suppler/Signature:     Mark     Reprod       Suppler/Signature:     Mark     Reprod			738	Mno	on H	N NO		2009			Γ	( specify) Other	- -										STR		ij	QCD	Level If sit	
Consultant: Extendedier Midland: Excun     Stability Extendedier Midland: Excun     Stability Extendedier Midland: Excun     Stability Extendedier Midland: Excun     TA ecconut #: Invoice tac mode tac m			1409	Exx	Aar	EXX		<u>ک</u> ا				Soi		$\prec$	$\times$	$\boldsymbol{\times}$	ト	$\prec$	$\times$	<u>×</u>	- >	$\leq$			Tiu		ĪΠ	
Consultant Report As a subject of creation bries = % seaving fr % 3704     Seave 2030/10.23 (St. 326, 401)     State 11 A recommendation of the = % seaving fr % 3704       Address: Sout West Eighawy So     Consultant: Scienteder Nickinan			t #:	to:	to:	me:	ź	E):	ess:	Zip:	trix	Sludge											CIA				ZZ	
Material Market (S)       Machine Private Anderhule (P) 734.3         Masses       0430/10.23 56       Pronen: (S0) 754-990 / (615) 734-3         Material Market (S)       Material Material Maland       TA Atterial Material Maland       TA Atterial Material Maland         Address       Soundhart (S) 754-917       Maland       TX 7706       Real Project         Address       Soundhart (S) 754-917       Maland       TX 7706       Real Project         Address       Soundhart (S) 754-917       Maland       TX 7706       Real Project         City State       Mala Project       Mala Project       Mala Project       Mala Project         Sampler Vaine (Frain       Mala Project       Mala Project       Mala Project       Mala Project         Sampler Spatture       Mala Project       Preservative       Mala Project       Mala Project         Sampler Spatture       Mala Project       Mala Project       Mala Project       Mala Project         Sampler Spatture       Mala Project       Mala Project       Mala Project       Mala Project         Sampler Spatture       Mala Project       Mala Project       Mala Project       Mala Project         Sampler Spatture       Mala Project       Mala Project       Mala Project       Mala Project       Mala Project <t< td=""><td></td><td>404</td><td>uno</td><td>oice</td><td>port</td><td>Na</td><td>MR</td><td>(AF</td><td>ddr</td><td>ate,Z</td><td>Ma</td><td>Drinking Water</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>A CA</td><td></td><td>ate:</td><td></td><td>12</td><td></td></t<>		404	uno	oice	port	Na	MR	(AF	ddr	ate,Z	Ma	Drinking Water											A CA		ate:		12	
Consultant:     NID1497     Solution Drive * Natville TN 3724       20430/103359     Pione: (80): 75-0930     (15): 75-017     1)       Address:     Biouver Highway 80		26-3	Act	Inv	Re	ojeci	ject (	ject	č ite A	y,St		Wastewater	1	ļ									LES		<u> </u>	1	Intac	
Consultant Night     Nashville IN sign     Nashville IN sign       Marken Register Creation Drive     Read (80) 7(63) 76-0900 / (61) 76-090 / (61) 72-0 / (71) / (71	204	15) 7	ΊA			$\mathbf{Pr}$	Proj	. Pre	Ŷ	ē		Groundwater								_			ž				ners Head	
MID1401     Subvitie Division       Sold Faster Credition Drive * Nashville Three Washville Three Cardina Three Washville Cardina Three Washville Three Washville Three Washvi	N 37	9):x					etail	lajoı	,			(Black Label) None	X	$\vdash$	$\times$	스	<u> </u>	$\sim$	<u> </u>		<u>~</u>	$\leq$	r by				ontai e of ]	
Constraint       NID1497       Nonstrikt Division       Nonstrikt Division         Autors       Book Foster Creitation Drive * Nashrill       Phone: (801) 755-0930 / (615) 75-0910         Address       Book Relater Creitation Drive * Nashrill       Phone: (801) 755-0930 / (615) 75-0910         Address       Book Relation       Tyrke       District (CA         Address       Book Relation       Tyrke       District (CA         Address       Book Relation       Tyrke       District (CA         Consultant Project Mg:       Auron Hale       Tyrke       Tyrke         Sampler Discret Mg:       Auron Hale       Tyrke       Tyrke       Tyrke         Sampler Discret Mg:       Auron Hale       Tyrke       Tyrke       Tyrke         Sampler Discret Mg:       Bale Left Science Mg       Post Market Science Mg       Post Market Science Mg         Sampler Signature:       Sampler Discret Market Science Mg       Post Mg       Discret Science Mg       P	e T	77 Fa					2	_≥ 		1	و ا	(Red Label) HNU3	i 	+									nage				S Fre	
Consultant Telebrone Priore     Nashville Division       Address: Boar Versitiender Midland     Tyrono       City, State, Lip: Midland     Tyrono       Sampler Name (Frant)     Mary Gilkion       Consultant Telephone #:     (432) 563-1100       Sampler Name (Frant)     Mary Gilkion       Consultant Telephone #:     (432) 563-1100       Sampler Name (Frant)     Mary Gilkion       S	hvill	-10	(CA								vativ	(Yellow Label) Plastic H2SO4									+		t Ma				VOC	
NID1497     Neshville Division       address     Bool Foster Creighton Drive       Address     Bool Hale       Consultant Project Mgr. Mary Gilkson     TX       Sampler Name (Prim)     Mary Gilkson       Sampler Signature:     Mary Gilkson       Sampler Signature:     Mary Gilkson       Sampler ID     Sampler ID       Sampler ID <td< td=""><td>Nas</td><td>726</td><td></td><td></td><td></td><td></td><td></td><td>5034</td><td></td><td></td><td>eserv</td><td>(Orange Label) NaOH</td><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td>rojec 10.</td><td>ļ</td><td></td><td></td><td></td><td></td></td<>	Nas	726						5034			eserv	(Orange Label) NaOH								-			rojec 10.	ļ				
MID1497     Nashrille Division       04/30/10/23/59     Pione:: 800; 76:44: Creitation Driven:       04/30/10/23/59     Pione:: 800; 76:4980       Consultant: Kientelder Midland - Excon     "Weg       Address: Son Wear Highway S0     Ty       Consultant Project Mgr: Auron Hale     Ty       Sampler Signature:     Th       Sampler Signature:     Th <tr< td=""><td>* ^</td><td>615</td><td>DISIO</td><td></td><td>706</td><td></td><td></td><td>561-</td><td></td><td></td><td>Pr</td><td>(Blue Label) HCL</td><td></td><td><u> </u></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ca P</td><td></td><td></td><td></td><td><math> \mathcal{D} </math></td><td></td></tr<>	* ^	615	DISIO		706			561-			Pr	(Blue Label) HCL		<u> </u>									ca P				$ \mathcal{D} $	
NID1497     Nashrille Division       04/30/10/23 59     Phone: (800) 765-9980       04/30/10/23 59     Phone: (800) 765-9980       Consultant: Kleinfelder Midland     Exxon       Address: Song West Highway 80     City, State, Zip, Midland       Tyty-State, Zip, Midland     Tx       Address: Song West Highway 80     City, State, Zip, Midland       City, State, Zip, Midland     Tx       Consultant Project Mgr.     Autor Fillson       Consultant Project Mgr.     Autor Billson       Consultant Project Mgr.     Autor Billson       Sampler Name (Fritt)     McC.       Sampler Name (Fritt)     McC.       Sampler ID     Sampler Signature:       Sampler ID     Sampler ID       Sampler ID     Sap	Dri	) / 0	Neg		61			32) 5		1		Sodium Bisulfate											l est <i>A</i> meri		by:	Via:	ШĨ	
NTD1497     Nashville Division       04/30/10 23 59     Phone: (800) 765.       04/30/10 23 59     Phone: (800) 765.       Consultant: Kleinfelder Midland     Exxon       Atduress: Stott Wert Highway 80     City, State, Zip: Midland       Cusultant Project Mgr: Mary Gilkison     TX       Consultant Project Mgr: Mary Gilkison     TX       Sampler Name (Prim)     Mary Gilkison       Sampler Name (Prim)     Mary Gilkison       Sampler Name (Prim)     Mary Gilkison       Sampler Signature:     Mary Gilkison       Sampler Signature:     Mary Gilkison       Sampler Name (Prim)     Mary Gilkison       Sampler ID     Mary Gilkison       Sampler Name (Prim)     Mary	hton	060	•					1		5	L	Methano	1										t at ] lestA	nder	ived	ped	peral ipt:	
NTD1497     Nashville Div       Okashville Div     Nashville Div       Odd30/10 23 59     Phone: (800)       Consultant: Kleinfelder Midland     Excon       Address: 8004 west Highway 80     Consultant: Kleinfelder Midland       City, State, Zip: Midland     Address: 8004 west Highway 80       City, State, Zip: Midland     Excon       Address: 8004 west Highway 80     Consultant Project Mgr: Aaron Hale       Oussultant Project Mgr: Aaron Hale     District Complexity       Consultant Project Mgr: Aaron Hale     District Complexity       Consultant Project Mgr: Aaron Hale     District Complexity       Consultant Project Mgr: Aaron Hale     District Complexity       Sampler Name (Prun)     District Complexity       Sampler Signature:	ision	765-			<b>XI</b>	ł		Fax:		1		Field Filtered											ecerp the J	emai	Rece	Ship	Tem	
NTD1497     Nashville       2060 Foil To 23 59     Phone: (1)       2060 Foil To 23 59     Phone: (1)       City, State, Zip: Midland     Address: 8004 West Highway 80       City, State, Zip: Midland     Address: 8004 West Highway 80       City, State, Zip: Midland     Aaron Hale       Consultant Project Mgr:     Aaron Hale       Consultant Telephone #r:     (432) 563-1100       Sampler Name (Prim) <i>Mutter</i> Sampler Signature: <i>Mutter</i> Sampler Signature: <i>Mutter</i> Sample ID     Sampler Mark       Sample ID     Sample Volume Signature:       Sample ID     Sample O       Sample Volume     Sample Volume Signature:       Sample ID     Sample Volume Signature: <td< td=""><td>Div C</td><td>300)</td><td></td><td></td><td></td><td></td><td></td><td>[</td><td></td><td>3</td><td></td><td>Composite</td><td></td><td>ļ</td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td>otify</td><td>nage Dle ri</td><td></td><td><math>\Box</math></td><td>5</td><td></td></td<>	Div C	300)						[		3		Composite		ļ						_			otify	nage Dle ri		$\Box$	5	
Attack       NTD1497       Name         Matches       Od(3001/02359       Pano         Power       Consultant: Kleintelder Midland       Excomplation         Consultant Freiptone #r:       Mary Gitkison       Name         Consultant Teleptone #r:       (432) 563-1100       Sampler Name       Name         Sampler Name (Print)       Mary Gitkison       Mary Gitkison       Mary Gitkison         Consultant Teleptone #r:       (432) 563-1100       Mary Gitkison       Mary Gitkison         Sampler Name (Print)       Mary Gitkison       Mary Gitkison       Mary Gitkison         Sampler Name (Print)       Mary Gitkison       Mary Gitkison       Mary Gitkison         Sampler Name       Sampler Name       Mary Gitkison       Mary Gitkison	Fost	e: (2	_						$\mathbf{N}$	0		Grab		<u>ح</u> _	1	<u>ح ·</u>	-4	بد	~	-	<u>×</u>	_		sam	ime:	2		
Consultant: Lieinfelder Midland - Extended       Address: 8004 West Highway 80       Consultant: Froited Mgr: Mary Gilkison       Address: 8004 West Highway 80       City, State, Zip: Midland       Address: 8004 West Highway 80       Consultant Project Mgr: Mary Gilkison       Francisch Mgr: Mary Gilkison       Consultant Telephone #::       Mary Gilkison       Sampler Name (Print)       Marken       Set	Nash 1960	hon	0XX						K	\$		# Containers Shipped	0	N	4	4	4	2	N	N	14	4	n the ltant	ng of			10	
Consultant:     Kinifelder Midlan       Address:     04/30/10 23 59       Address:     8094 West Highway 8       City, State. Zip: Midland     Address:       ExvonMobil Project Mgr:     Aary Gilkison       Consultant Project Mgr:     Aaron Hale       Consultant Telephone #r:     (432) 563-1100       Sampler Name (Print)     McC.p       Sampler Signature:     (432) 563-1100       Sampler ID     (432)       Sampler Signature:     (432) 563-1100       Sampler Signature:     (441-0)       Sampler Signature:     (432) 563-1100       Sampler Signature:     (441-0)       Sampler Signature:     (441-0)       Sampler Signature:     (441-0)       Sign 4     (4-1-2)       Sgd 7     (4-1-2)       Sgd 7	~ (1		d - F	9					$\mathbb{N}$			Time Sampled		8	.0	.9	9	0	ġ,	0			1 froi consu	snosi		5	100	
Sample ID       SB2       SP2       SP3       SP3         Sample ID       SB2       24730/10 23 59       SP3         Address:       8004 West High       Consultant Elephone #::       (32) 563-1100         Sampler Name (Print)       Math Annual Hale       Consultant Telephone #::       (32) 563-1100         Sampler Name (Print)       Mary Gilkison       Mary Gilkison         Sample ID       Sample ID       Sample ID       Sample ID         Sample ID       SB2L       2472       47470         SB4       7-10       47470       582       27-30         SB4       7-10       47470       584       27-25         SA       7-75       47470       584       7-10         SB4       7-10       7-1470       584       587       4-1470         SB4       7-10       7-75       4-1470       584       587       4-1470         SB4       7-75       4-175       4-1470       584       587       4-1470       584	-		dlan	vay 8					14	9			300	1 M	30	80	083	083	680	963	101	હુ	ulated r its c	ca di	T Dat	1	a J	•
Sample ID       Second tanta in the second tank i		L S S	r Mi	lighv		ison	a	100	J.	2		Date Sampled	0	0	0	0	0	0	0	0	0	0	calci bil o	meri				
Consultant: Kleinf         Address: 8004 W         City, State, Zip: Middan         FixonMobil Project Mgr: Aaron         Consultant Project Mgr: Aaron         Consultant Project Mgr: Aaron         Sampler Name (Primit)         Sampler Name (Primit)         Mader         Sampler Name (Primit)         Mathematical Project Mgr: Aaron         Consultant Project Mgr: Aaron         Sampler Name (Primit)         Mathematical Prime         Sampler Name (Primit)         Sampler Name (Primit)         Sampler Name (Primit)         Sampler Name (Primit)         Mathematical Via:         Sampler Name (Primit)		Г. 4. :	elde	iest I	p	Gilk	Hale	63-1	$\mathcal{Z}$	Z		Date Sampled	14	1-	4-1-1-	Ē	1-+1-	ー	Ī	トサー	Ŧ	Ŧ	i are 1 Mo	estA	N			
NTD1497         O4/30/10 23:5         Address: 80         City, State, Zip; M         FixonMobil Project Mgr: As         Consultant Project Mgr: As         Consultant Project Mgr: As         Sampler Name (Print)		<b>ດ</b> ຊິ	leinf	04 M	idlar	ary	ron	32) 5	12				4	3	+	4	4	7	\$	4	÷	7	times [XX01	for T	$  \rangle$			
<ul> <li>NTD14</li> <li>NTD14</li> <li>Consultan</li> <li>Address</li> <li>City, State, Zij</li> <li>FixonMobil Project Mgr</li> <li>Consultant Project Mgr</li> <li>Consultant Project Mgr</li> <li>Consultant Project Mgr</li> <li>Sampler Name (Prini Sampler Mgr</li> <li>Sampler Name (Prini Sampler Mgr</li> <li>Sampler D</li> <li>Sample ID</li> <li>Sampler B</li> <li>Sampler Name (Prini Sampler Mgr</li> <li>Sampler Name (Prini Sampler Mgr</li> <li>Sampler Mgr</li> <li></li></ul>	97	ດ ເດີຍ ເດີຍ ເດີຍ ເດີຍ ເດີຍ ເດີຍ ເດີຍ ເດີ	E E	s: 80	N	Σ	. <u>A</u> a	1 T					5	20								1	und y of E	sted			; \	
Ad Ada Consultant Project Consultant Project Consultant Project Consultant Project Consultant Project Sampler Name (1 Sampler Name (1 Sampler SamplerSigna Sampler Name (1 Sampler Sampler Signa Sampler Name (1 Sampler (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	4	2	ltan	dres	Zip	Mg1	Mgı	ne #1	TIMIT'	ture			24	15			,		5	30			n aro bility boos	asse	$ \mathcal{H} $	A		8
City, S EvvonMobil Pro Consultant Pro Consultant Pro Consultant Tele Sample ID sampler Nar Sampler Nar Sampler S Sampler S Sampler S Sampler S Sampler S Sampler S Sampler S Sampler S Sampler S Sampler S S S S S S S S S S S S S S S S S S S	2	òg ?	onsu	Ψd	itate	ject	ject	phoi	ne (†	igna			4	N	5	01	-15	2	2	1	5	5	l turi ponsi	arge		3	<b>T</b>	À
Sample ID water Sample ID water Sample ID water Sample ID water SB4 SB4 SB4 SB4 SB4 SB4 SB4 SB4 SB4 SB4	Z	04/	Ũ		ity, S	Pro	Pro	Tele	Nan	lerS			50	25	#	-6	14	6	24	7	7	4	e resj	ach	py:	+	Lest/	j
Sample Sa		4			σ	lidol	ltant	ant	pler	amp		e		5	~	,	*			4	2	2	N IS Set for	v be	hee	킼ä	for	
	สัง					onN	Insue	usult	Sam	S		ple ]	ł		84	584	58.	5 84	501	584	3.8	28.	MMI VIII V VIII V	ue oi re mi	Mapri		eived	
	<u> </u>					ЕXX	ŭ	Col				Sam				•		• )		• '		- 1		The	Reli	Ship	Rec	

										ſ	RUSH TAT	(Pre Schedule)	*									-			ne:	nort.		Ţ
, pi	M															+				i					Ti			
ž	of														+	-						-			ä	e Duv		
	$\sim$	ing																				-			Dai			4
×	ge	Pend							ico							3	S	e	M	$\mathcal{E}$		_					erica	
Ш	Pa	0101							Mex	ze fo		·····	-			2	10	10	1	<u> </u>		-					stAm	ction
		й 	-						Vew	nalv	·	••••• <u>•</u> •••••		1	~							-					e Spe v/ Te	Istru
		# O.	10)							<b>I</b>			2	5	10	RA						9061				One)	Sit Jule	ific u
		<u> </u>	(801																			# 1				ircle	el 4 scher	spec
			tion																			B0 ;			l by:	ase C	Lev.	ttacn
			pora		к						TPH - Diesel R	ange SW801	5			$\ge$						-			úshec	(Ples	3 olease	OL A
			Cor		tate		Ę				Chloride Automa	ated Color SM450		~	×	X	×	×	×	-		- SNG			linqu	ables	Level ific, p	lager
			obil	ale	MS		408					8021B BTE	X	$\vdash$		$\frac{1}{\lambda}$			7	4					Re	livera	speci	INTA
		738	Muo	Hu	N		0000			ΪΓ		(specify) Othe	r						+		_	IRU - I				CDel	vel 2 Site	
		1405	EXX	Aar	EXX							So		X	X	X	$\times$	×	×	$\overline{\mathbf{x}}^{\dagger}$		INS			lime	ð	<u>384</u> TT	1
		t #:	to:	Ë	nc:	ź	É	:SS:	idi.	trix		Sludg	e							<u></u>		IAL				1	zz	
101		unoc	roice	port	Nar	MR	(AF	ddre	ate,Z	Ma		Drinking Wate	r									PEC			ë			
-90		Act	ľ	Re	ojeci	ect (	iect	te A	y,Sti			Wastewate	r									ESV			Da	4	tact?	
204		ΓV			Ч	Proj	, Pro	S	Cit			Groundwate	r									EON					ers In eadsp	1
N 37 N 37						etail	laior				( Bla	ck Label) None	X	X	$\boldsymbol{\times}$	~	$\times$	×.	×'	$\leq$		<b> </b>	þý.				of He	
le TI 75 F5	5	١	ł	ļ	I	ž	2		1		(Re	d Label) HNO	3								_		ager				Free Con	
ihvil 10-2	ξŊ									ativ	( Yellow Label	Diass H2SU									_		Man				OC mp	
Nase 172	trict 7						5034			serv	( Orang	e Label) NaOH	¦						_			ri	)ject			ĺ	<u>s</u> s	$\left\{ \right.$
ive *	Dis			706			561-			Pre	(B	lue Label) HCL							-			neric	a Pro Date				Do L	
n Dri	, Reg			62			32)				5	Sodium Bisulfate					+	+	-+-			estAr	Deric		y:	a:	ч Ч Ч	ł
n zhtoi -098	3 - 1						9	] ]				Methano										at To	stAn	ders.	ed b	iv ba	eratu A	
visio Creis 765	8			XL			Fax:	10				Field Filtered										ceipt	he Te	nain	tecein	hipp	empleceip	
e Div ter ( 800)				į				2	A			Composite										of re	tify ti ager	le rei	¥	S	H M	ł
hville Fos	-							HQ				Grab	$\boldsymbol{\times}$	<	<u>&gt;</u>	$\boldsymbol{\times}$	- بد	$\geq \vdash$	4	~		time	to not	amp	ne: 760		ä	
Nasl 296( Phoi	c	EXXO						4	M		# Conta	iners Shipped	4	7	N	2	N	NI	N,	7		the	tant 1 oject	got			<u>ãV</u> =	
	-		20						1	Ì		Fime Sampled					5		_			fron	A Pr	posin	5 C		10	
			Way	ĺ				3	$\mathbb{N}$				7011	ratt	20	001	B.	300	ax a	00)		ated	its ce d. T	a dis	Date A-1		A C	
	1997 - 19		HgH				3	N	1			Dato Sampled	0	0						<u> </u>		alcul	il or mitte	heric				
			vest.		Ē	Hal	563-	1	Z		•	Jale Gampleu	1-1-	F	1-1	T	Ŧ	T :	4 4	2		are c	Mob e sub	stAn				
n	line.			Lana		aron	32)		2	╞			#	4	4	4	<u>+</u> .	<u>+</u> :	5	<u> </u>	_	imes	vxon vill b	or Te	~			
<b>97</b> 3.5(	ten Nation	4   8 4   8	6   2 6   1	Ξ ≥ ä	8 . ∷	₹  ::	<u>ः</u> ।	 ⊈	1						ļ							md ti	of E. ple v	sed fe	$\left( \right)$			
4 0	Iter	ulta.	ž	. 7 	Яg	Mg	ne #	Prim	iture				57	0	5	Μ.						arot	oility sam	asses	$\mathcal{A}$		a by	
<b>D</b> 20	ene l		5424	oran	n)eci	oject	epho	me (	lign				11	1	+	8	6			-		turn	onsil rush	urge	X	R	XIII	l
<b>-</b> Z 0	6 <b>-</b> 2			ίμς. Π		it Pr	Tel	r Na	plert				57		N	N		.] '		2		: All	: resp hat a	a chi	1	_	est W	Ą
in !	1.		<u> </u>	Aohi	, 10D	ultan	ltant	nple	Sam			a	$\overline{\nabla}$	87	8	18.	200	13	- 5	~		SIN	e thc fax ti	ty be		Via:	for T	4
	- 1.			Anov	IIOV .	onst	onsu	Sar				aple	t	n	5	Ϋ́	5	10	2 4	1		/IME	will t	ce ma		péd 1	ived	
farmer 37				د با		<b>-</b>	Ŭ			L		San	₽¥									0 	phor	The		Ship	Rece	

...



Outside TX County Laboratory Number: 303449 Customer Sample ID: SB-1 0-1

## Soil Analysis Report

Soll, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Analysis	Results	CL*	Units	ExLow VLow	Low	Mod	High	VHigh	Excess.	
рН	8.9	(5.8)	177 M 1942	Strongly Alkalin	18		1.50	#DV#BUILT	- 16.7	the state of the s
Conductivity	2,050	(-)	umho/cm	High		CL			Fert	lizer Recommended
Nitrate-N	8	(-)	ppm		1.0	13.5	142.28	建构成		20 lbs N/acre
Phosphorus	1	(50)	ppm				1		1	00 lbs P2O5/acre
Potassium	184	(125)	ppm			Dunnut			1 Carl	0 lbs K20/acre
Calcium	41,713	(180)	ppm		İttilli	ĢI UN UTON	unnuț			0 lbs Ca/acre
Magnesium	253	(50)	ppm		<b>İ</b> ternenin	in n n n n	1111			0 lbs Mg/acre
Sulfur	209	(13)	ppm	INTERNETER		)IIIIIIIii	ununți			0 lbs S/acre
Sodium	1,623	(-)	ppm			Muunin	111			
Iron										
Zinc	网络蒙特尔伊斯 全日	1. A 1.	"你有些'你				Sec. 3	1996		
Manganese						l i				
Copper		and a second				120.0	<b>常生学</b>			
Boron										
Limestone Requireme	ent					1.5 M	Hu dep	(学校生)	0	00 tons 100ECCE/acre
			Sec. And	Same Same						
				<b>Detailed Sal</b>	Inity II	est (il to	o 1 Pas	ste Ext	ract)	
				рН				8.3		
				Conduc	liviiy -			30	mmhos/ci	n.
				Sodium				1050	ppm	45.690 meg/L
Same the second second				Potassli	IM	æ		31	ppm 2 m	0.784 meg/L
				Calcium				50	ppm	2.507 meg/L
		1. 20		Magnes	lum			2	ppm -	0.197 meg/L
Chloride	1207	Ą	pm	SAR				39.30		
	A DATE OF THE REAL	1 - E. " and	1.2-4、1.2.2	SSP		10.0		92.91	1. A. S. C. P. S.	

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.



**Soil Analysis Report** 

Soil, Water and Forage Testing Laboratory Department of Soll and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Outside TX County Laboratory Number: 303450 Customer Sample ID: SB-1 4-5

Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (ESTABLISHMENT)

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
<b>pH</b> The Market Physics Physics	9.3	(5.8)	(2) 明白 國際	Strongly	Alkaline	潮時	10000		- TRUCK		and a state of the state of the
Conductivity	1,180	(-)	umho/cm	Moderate	}		C	L•		Fertilizer Recom	mended
Nitrate-N	5	(-)	ppm		经公司	1.44	2812	5		25 lbs N/acre	and the
Phosphorus	1	(50)	ppm							100 ibs P2O5/a	acre
Potassium	33	(125)	ppm		1111	精制	101210	1074	對位的	70 lbs K20/ac	re
Calcium	41,626	(180)	ppm	hunnin	IIIIIIIII	IIIIIIIII			ļI I	0 lbs Ca/acr	B
Magnesium	200	(50)	ppm		10000				diasta -	0 lbs Mg/acr	e
Sulfur	91	(13)	ppm	mmmi	hunnd		hummi			0 lbs S/acre	
Sodium	1,034	(-)	ppm		IIIIBIII	THIN	) an in in it				
Iron											
Zinc	e an the second s	國際	臺灣視星	i ingeler	14.5	18/38					
Manganese											
Copper	· 《如何》		alinen st	1-1-1		Ç <sup>4</sup> - 1 2		3	20		
Boron							1				
Limestone Requirement		1.1.4	in salat e Mili	品成常的	. A?	- 5			See. 1	0.00 tons 100E	CCE/acre
				Detaile	d Salli	iliy T	est (1, t	o 1 Pa	ste Ex	ract)	
				pН					8.	8	
	Tencies			Co	nducti	vity,			<u> </u>	3 mmhos/cm	
				So	dlum				125	7 ppm 54	.689 meq/L
		- The second		Pol	lassiu	m.	1.1	n	1	li ppm 👘 🕐	294 meg/L
				Cal	lcium	< ***			3	2 ppm 1	.609 meq/L
			naet all stat d'altre de la cale	Ma	gnesil	lin ,		1.57		Dippon 👘 👘 🖓	.099 meq/L
Chloride	1793	P	pm	SA	R	-			59.17		
				SS	$\mathbf{p} = \mathbf{r}$				96.4	$F = F = \frac{1}{2} F$	

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.



Outside TX County Laboratory Number: 303451 Customer Sample ID: SB-2 0-1 Texas A&M System

Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soll and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
pH	8.7	(5.8)	月代的 <b>-</b> 目標的	Mod. Alka	allne	911	- 1. 11	100 18		100	1997 - 1998 - 1998 - 1996 - 1996 - 1996 - 1996 - 1996 - 1996 - 1996 - 1996 - 1996 - 1996 - 1996 - 1996 - 1996 -
Conductivity	1,370	(-)	umho/cm	Moderate			0	e		Fe	ertillzer Recommended
Nitrate-N	4	(-)	ppm	II I	- S.C		7	1.5	國自己的	1989	30 lbs N/acre
Phosphorus	1	(50)	ppm								100 lbs P2O5/acre
Potassium	37	(125)	ppm		min		25.5	1.3.4	36.34	Stark.	70 lbs K20/acre
Calcium	41,736	(180)	ppm	junnun (n	nimmin				11		0 lbs Ca/acre
Magnesium	195	(50)	ppm	humud	in think in a	unm		him	<b>强急 於</b>	A.S. Ber	0 ibs Mg/acre
Sulfur	113	(13)	ppm							and a second second	0 lbs S/acre
Sodium	1,008	(·)	ppm	hummin	ininini					25-15	
Iron										and the set of	
Zinc		a na sala	在空气情况				1.36	125		13	あったい デージ
								and the second se	the second second second second second second second second second second second second second second second se		
Manganese											
Manganese Copper	10 E of C				- C 1	137		心动		-la secondaria de	Andreas - Patrice - Patrice - Patrice
Manganese Copper Boron						11 1 1		修構		Hard Hard Hard	$\sum_{i=1}^{n} \frac{1}{2} \sum_{i=1}^{n} \frac{1}{2} \left[ \sum_{i=1}^{n} \frac{1}{2} \sum$
Manganese Copper Boron Limestone Requirement			neme Satesa								0.00 tons 100ECCE/acre
Manganese Copper Boron Limestone Requirement			n la fu Salta Sa					松 橋 11100		$\frac{1}{2} \frac{1}{2} \frac{1}$	0.00 tons 100ECCE/acre
Manganese Copper Boron Limestone Requirement			triarit. Salta sa		diSalini	ty Te	ist (1)	ö 1 Pa	ste Exi	ract)	0.00 tons 100ECCE/acre
Manganese Copper Boron Limestone Requirement					asalini	ty Te	st (1)	öʻ1 Pa	šte Exi 7.1	ract)	0.00 tons 100ECCE/acre
Manganese Copper Boron Limestone Requirement				Detailed pH Cor	diSallini	ty Te Ity	st(1)	o 1 Pa	šte Exi 7.1	ract)	0.00 tons 100ECCE/acre
Manganese Copper Boron Limestone Requirement				Detailer pH Cor Soc	diSallini nductiv tium	ty Te	ist (/)	oʻi Pa	<b>šte Ex</b> 7. 37/ 72	ract) a limmhos 7 ppm	0.00 tons 100ECCE/acre
Manganese Copper Boron Limestone Requirement				Detailed pH Cor Soc	diSallini nductiv Jium assium	ty Te Ity	ist(()(	oʻi Pa	<b>štejEx</b> 7.1 377 721	ract) Simmhor Ppm	0.00 tons 100ECCE/acre
Manganese Copper Boron Limestone Requirement				Detailed pH Cor Soc Pot Cal	diSalini nductiv Jium assium cium	ty Te Ity	ist (()	oʻ1 Pa	<b>šte EX</b> 7.1 377 721 11 12	ract) Simmhce 7 ppm 9 ppm 9 ppm	0.00 tons 100ECCE/acre %/cm 31.652 meq/L 0.391 meq/L 6.055 meq/L
Manganese Copper Boron Limestone Requirement				Defailed pH Cor Soc Pot Cal Mac	diSallini nductiv Jium assium cium anesiur	ty Te Ity Te	ist (1)	01 Pa	<b>šte Ext</b> 7.1 3.77 72 11 12	ract) Smmhor 7 ppm 9 ppm 9 ppm	0.00 tons 100ECCE/acre 3/cm 31.652 meq/L 0.391 meq/L 6.055 meq/L 0.434 meq/L
Manganese Copper Boron Limestone Requirement	1146		in de la company	Detailed pH Cor Soc Pot Cal Mag	diSallini nductiv Jium assium cium gnesiur R	ty Fe Ity: 1	ist(()(	041 Pa	ste Exi 7.1 37/ 72 11 12 12 17.5	ract) Smmhos 7 ppm 9 ppm 9 ppm 9 ppm	0.00 tons 100ECCE/acre %/cm 31.652 meq/L 0.391 meq/L 6.055 meq/L 0?434 meq/L

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.



Outside TX County Are Laboratory Number: 303452 Customer Sample ID: SB-2 4-5 Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (ESTABLISHMENT)

## Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	
PH	8.5	(5.8)		Mod. Alk	allne	a la la	11年1日2月	관습관계	in the second	$T_{i}^{(1)} = \begin{cases} 0 & 0 \\ 0 & 0 \\ 0 & 0 \end{cases}$	$ \sum_{\substack{i=1,\dots,n\\m\neq 1}}^{n-1} \sum_{\substack{i=1,\dots,m\\m\neq n}}^{n-1} \sum_{\substack{i=1,\dots,m}}^{n-1} \sum_{\substack{i=1,\dots,m\\m\neq n}}^{n-1} \sum_{\substack{i=1,\dots,m}}^{n-1} \sum_{\substack{i=1,\dots,m\\m\neq n}}^{n-1} \sum_{\substack{i=1,\dots,m}}^{n-1} \sum_{i=1,\dots,m$
Conductivity	1,530	(-)	umho/cm	Moderate			CL			Fe	rtilizer Recommended
Nitrate-N	2	(-)	ppm			15-		1.123	500.95		35 lbs N/acre
Phosphorus	1	(50)	ppm								100 lbs P2O5/acre
Potassium	18	(125)	ppm	Innund	10	- 5-	Sec.	1 <sup>1</sup>	- 4	1001	85 lbs K20/acre
Calcium	41,946	(180)	ppm	hunnin	mond	mmnd			I		0 lbs Ca/acre
Magnesium	243	(50)	ppm	i indiana in	HITHIN						0 lbs Mg/acre
Sulfur	271	(13)	ppm					manat		COULT WORK	0 lbs S/acre
Sodium	755	(-)	ppm		1111111			南部	N.S.W.	asia j	國國際爆發信用國際
Iron	areas maxim		1969. · · · · · · · · · · · · · · · · · · ·		1	1.00			- ***		of the Magnetic strategy and the second strategy of the second strat
Zinc		a ta da			1. S.F	E. 67	en en en		1.822	2 B	的 医糖素的医尿酶医尿酶
Manganese	and a second second									0.000	
Copper		in an in-	S. States					7	••: -: <sup></sup>	Y	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
Boron											
Limestone Requirement		21.2-1	Sand.		3		122			1	0.00 tons 100ECCE/acre
				-		0.000					
				Detalle	liSalli	ilty Te	est (1 t	o 1 Pa	ste Ext	ract)	
				pH					8.2	2	
				Col	nducti	vity	1.11		3:47	Ammhos	/cm
				Soc	dium				534	1 ppm	23.217 meg/L
				Pot	asslu	m 🦾				ppm	0.167 meg/L
				Cal	cium			199 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	257	ppm	12.815 meg/L
	合。 建聚为			Maj	gnesiu	Im			10	) ppm	0.854 (meg/L
Chloride	821	р	pm	SAI	R	dium 2560 and	Light Link of the		8.88	3	
				SS	2150		1. 200000		62.66	S ALE OF	

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen Apply an additional 40 lbs/A of nitrogen upon 75% vegetative cover.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



Outside TX County Are Laboratory Number: 303453 Customer Sample ID: SB-4 0-1 Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (ESTABLISHMENT)

**Soil Analysis Report** 

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Analysis	Results	CL*	Units	ExLow VLc	w Law	Mod	High	VHigh	Excess.		
pH	8.2	(5.8)		Mod. Alkaline		State of the		Non-	et al parte	化气油的 医节状的	1. 19 18 P.
Conductivity	1,270	(-)	umho/cm	Moderate		c	iL.		Fertil	Izer Recommer	nded
Nitrate-N	9	(-)	ppm		15 2-1-1	1223	25.10	.59 65	经济 全都	20 lbs N/acre	12/13/14
Phosphorus	1	(50)	ppm						10	0 lbs P2O5/acre	
Potassium	53	(125)	ppm		an Se	18250	100.00	1953	19 A 18	55 lbs K20/acre	1. 120 -
Calcium	41,574	(180)	ppm				MIDIDURI	I	1.00	0 lbs Ca/acre	
Magnesium	235	(50)	ppm		ninni		tim 😒	644.32	1. 1.	0 lbs Mg/acre	17 Bal
Sulfur	1,326	(13)	ppm				¢			0 lbs S/acre	
Sodium	491	(-)	ppm		Innun	n 🤅		622.34	1 Section 2	<b>公司</b> 提供基本。	142 P
Iron	and a state of second sec										
Zinc	<b>《小田</b> 》(1995年)	STATES IN		多代基本的	7 14 1			The state		클릭, 사망하다	1. 16
Manganese	CONTRACTOR OF CONTRACTOR		A server to a server	1			1				
Copper	1. A. A. A. A. A. A. A. A. A. A. A. A. A.	in the second		7 - E 2	1.1			6070			
Boron	Contraction of the second second second second second second second second second second second second second s										
Limestone Requirem	nent	Section in						Mag.	0.0	0 tons 100ECCE	/acre
					-		-		Mar and the second second		
		the other		Detailed	illnity 1	rest (d)	to 1 Pa	ste Ext	ract)		AN DESCRIPTION
HORMORE CONTRACTOR				рН	101515151027	*****		7.6			eterne to protection
计可以通过 化合正常设置 化合				Condu	ctivity		12 × 45.00	3.99	mmhos/cm		
		and the second second second second second second second second second second second second second second second		Sodiun	1			381	ppm	16.561	meq/L
				Potass	ium			<b>13</b>	ppm	0.34	meq/Log
	HIDPHY CARE IN THE WOLLD			Calciur	n			698	ppm	34.841	meq/L
				Magne	slum		1	- 21	ppm	117,01	meg/L
Chloride	643	p;	pm	SAR				3.87			
				SSP				30.99			600,010

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.



**Outside TX County** 

## **Soil Analysis Report**

Soil, Water and Forage Testing Laboratory **Department of Soil and Crop Sciences** 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://solltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

High

Mod

VHigh

Excess.

Laboratory Number: 303454 Customer Sample ID: SB-4 4-5 Crop Grown: IMPROVED AND HYBRID BERMUDA GRASS (ESTABLISHMENT) Analysis Results CL\* Units ExLow VLow Low nH 8.3 (5.8) Mod. Alkaline

Conductivity	1,620	(-)	umho/cm	High		CL.		Fertilizer Red	commended
Nitrate-N	5	(-)	ppm	In CLA	1	1 3.1 3.1	12011	30 lbs N	acre
Phosphorus	1	(50)	ppm					100 lbs P2	2O5/acre
Potassium	37	(125)	ppm		1 1 1			70 lbs K	20/acre
Calcium	41,675	(180)	ppm					0 lbs Ci	a/acre
Magnesium	280	(50)	ppm	Southand Comments	minin			0 lbs M	g/acre
Sulfur	799	(13)	ppm			1)1010101000000000000000000000000000000		0 lbs S/	acre
Sodium	797	(-)	ppm						A MARY SHILL
Iron					ľ				
Zinc	的行动自己。	Color 4	San Even				e Anterio de S	1 1 1 18 2 mg	
Manganese									
Copper					13 (51)	10 建合金		韓軍 建制度 出版	
Boron			contraction of the second						
Limestone Requiren	nent		的问题。			地震和基础		0.00 tons 1	00ECCE/acre
Real Property in the second second second second second second second second second second second second second				ID: CHICALO					V. C. Marger
		an an a la an anna an an an an an an an an an an		Detailedis	auriitysi	Cortheore	7.6		的人民主义的问题
		S. F. Dela		Condu	ictivity/		4.56 m	nhos/cm	
				Sodiu	m		<b>584</b> pp	m	25.419 meg/l
				Potas	sium		10 00	m	0.265 mea/
Contraction of the state of the second		and the second second		Calciu	m	ariar gold in glow of the life	635 pp	n an an an an an an an an an an an an an	31.669 meg/(
		6		Magine	Blum		17/ DD	me	1-387/med/
Chloride	880	5	ppm	SAR	rtra Constants are Sin Me	an an an an an an an an an an an an an a	6.25		n maanaa dahar kanya tarahan dari
		<b>"</b> 总统是		SSP			43:27		

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.



Outside TX County Laboratory Number: 303455 Customer Sample ID: SB-7 0-1

## **Soil Analysis Report**

Soll, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Analyele	Resulte		Linite		GRAS	10 (E9	IABLE	SHME	NI)	France	
Allalysis	INCOULO E	(E 0)	Units	EXLOW	VLOW	LOW	Mod	High	VHIgn	Excess.	And Andrews and Announcements of the
	0,0 720	(0.0)	使用自己的程序	MOD. AI	kaiine		1.24454	2.762.24		A.195	diller Decommonded
	739	(-)	umno/cm	Sight	CTREASURE IN	-150.00	Ċ	A WAR WAR	-	Fe	rtilizer Recommended
Nitrate-N	a stated	(-)	ppm		1997	THE	14336	- 1, E.M.	S. (6.27)	1200	25 lbs N/acre
Phosphorus	1	(50)	ppm	or a langer	- Martine of	B. Jakor	- 12 20	- 000.000	a composition		100 lbs P2O5/acre
Potassium	20	(125)	ppm		11 義 清		124125		多可將	11	80 lbs K20/acre
Calcium	41,251	(180)	ppm		1001000	1111111111			11		0 lbs Ca/acre
Magnesium	211	(50)	ppm							1.800	0 lbs Mg/acre
Sulfur	292	(13)	ppm								0 lbs S/acre
Sodium	600	(-)	ppm		unnun		11	13.25		3.1 12	
Iron											
Zinc	1. 443	1. 200		10.20		8.	1-2-2	9 - B			Carlos a de la contra de
Manganese							i		,		
Copper	Ser Children			4.345	1.58	·	1000	1:23	14/2	These are	
Boron											
Limestone Requirement	Ala Charles		Martin States		ALL OF	31, 23	12.00			148.2.2	0.00 tons 100ECCE/acre
							-				
				Detaile	d Sali	nity Te	est (1 t	o 1 Pa	ste Ext	ract)	
				ph	alle the local days of the	Stant Contante	APRIL - G. C. C. C. C.	an an an an an an an an an an an an an a	7.8		and a grant of the second state of the second second second second second second second second second second s
				Go	nduct	lvity			2:56	mmhos	7cm
				So	dium				436	ppm	18.995 meq/L
		12.4		Po	tassiu	m			5	ppm	0.133 meg/L
			and the second se	Ca	lcium	and the second second second second second second second second second second second second second second second	and the second second	Caller Caller Carlo	163	ppm	8.152 meg/L
				Ma	gnesli	um			8	ppm	0.695 meg/L
Chloride	555	D	om	SA	R	and a second party of the	a constant	and a second of	9.03		
		1 Harrison		SS	P	1990			87.90	1	

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.

Nitrogen Apply an additional 40 lbs/A of nitrogen upon 75% vegetative cover.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.


Report generated for: Kleinfelder Aaron Hale 8004 W HWY 80 Midiand, TX 79706

Outside TX County Laboratory Number: 303456 Customer Sample ID: SB-7 4-5 Soil Analysis Report

Soll, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Analysis	Results	CL*	Units	ExLow	VLow	Low	Mod	High	VHigh	Excess.	and the second second
pH and the second second	9.5	(5.8)		Strongly	Aikaling	1	Chine Se	- 70	187	10-	leg of the second acress of the
Conductivity	411	(-)	umho/cm	None			с	ŀ		Ferti	lizer Recommended
Nitrate-N	3	(-)	ppm	1							30 lbs N/acre
Phosphorus	1	(50)	ppm	1						1	00 lbs P2O5/acre
Potassium	15	(125)	ppm	Internet	12 ( See		1.20	3 . A.	1.5	1 7	85 lbs K20/acre
Calcium	40,663	(180)	ppm	mmmi					11	1	0 ibs Ca/acre
Magnesium	223	(50)	ppm	mmm	Bunnun	IN CONTRACTOR	Annanna			10-14-14-14-14-14-14-14-14-14-14-14-14-14-	0 lbs Mg/acre
Sulfur	101	(13)	ppm							and the second second	0 lbs S/acre
Sodium	457	(-)	ppm	lunun				123		30.03	
Iron											28/11.
Zinc	The Barris	14 M	- Bay and			-11-	- 19	1.019	200	30 P -	a+性的感情。15
Manganese			A Design of the second								
Copper	2.64种状态。				38 S	朝田市	15-7	10	Te Vit	and the	A semine for all
Boron	a contra tra se		10,282,9104.4								
Limestone Requiremen	it her trail	in the second	se de la la	LA DE	11.478	58-2	100	1.24	4.855	i 0.	00 tons 100ECCE/acre
		11.1									
				Detaile	d Salli	uity To	est (1 t	o 1 Pa	ste Ext	ract)	
				pH			Land Subser	Liddlive . white Serves	8.1	8	NOT OUR DAY OF A LOW A LOW AND A MAKENING THE DAY OF A MAKENING AND A DAY OF A DAY
		11 11		Co	nduct	vity	5 46.7 2		1.0	mmhos/cr	n
				So	dium	64977-37984	Caracterio de la como	AD HAT AND A NAME	4	5 ppm	1.956 meg/L
				Po	tasslu	m			1001.0	l opm	0.016 meg/L_
				Ca	Icium	and all sides	AND AND AND AND AND AND AND AND AND AND	A WAY AND AND	ALC SAMPLES	3 ppm	0.137 meg/L
				Ma	ignesi	m	129	6.945		) ppm	0.001 meg/L
Chloride	159	p	pm	SA	R	ALCONTRACT	South Caracon	RACIO ESCARA	7.4		IN MARINE CONST. CONST AND CONST. AND AND AND AND AND AND AND AND AND AND
2012日代的古代中国的1940年代的中国				SS	PHAN			05155	92 74	1 Martin	

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.

Nitrogen Apply an additional 40 lbs/A of nitrogen upon 75% vegetative cover.

Potassium: Split apply potassium fertilizer if recommendation is for more than 75 lbs K2O per acre.



Report generated for: Kleinfelder Aaron Hale 8004 W HWY 80 Midland, TX 79706

Outside TX County Laboratory Number: 303458 Customer Sample ID: SB-5 0-1 Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Analysis	Results	CL*	Units	ExLow VLov	V Low	Mod H	igh VHigh	Excess.	
pH State Block Care	8.1	(5.8)		Mod. Alkaline	- à ci	9 7 A 17	- 7 4 (47 H) - 7 4 (47 H)	e de la	1077
Conductivity	6,530	(-)	umho/cm	V. Hìgh		CL.		Fert	ilizer Recommended
Nitrate-N	56	(-)	ppm	formen formere	ninnni	) HI HI HI HI HI HI HI HI HI HI HI HI HI			0 lbs N/acre
Phosphorus	44	(50)	ppm						10 lbs P2O5/acre
Potassium	787	(125)	ppm 🗠 🗧		uluuuuuu				0 lbs K20/acre
Calcium	26,913	(180)	ppm		111111111111		IIIIii		0 lbs Ca/acre
Magnesium	323	(50)	ppm			<b>NUMBER OF CONTRACTOR</b>	■ 認知	Maria R	0 lbs Mg/acre
Sulfur	151	(13)	ppm						0 lbs S/acre
Sodium	2,877	(-)	ppm	arinitation homena		timmitim	nund Sta	malifier of	的问题。这些是一个方法
	and declare and a	and states		l largan ana i		राग्न्ये अस्त्रे १९३३	22. (C1989)	and the second	el nuere esta conten
		A.B. SAMEL	的影响。	机管理管理 电子口	J 1294.84	Charles Part	AN SOUTH		
Manganese	the state of the state	a set to a set	Handad Astron	1 34440 (1944)	1 4 4 19 1	and and and		and the second	and which is a data
Copper	100 - 100 - 100 ETS	1.18.° -		지수는 말 아니?	l étére (	1. St. 154	State State State	A MARCHENE AND A MARCHENE	· · · · · · · · · · · · · · · · · · ·
Boron	1 5 26 Mile 5 21	1 6 2 8				· · · ·	المعر والمرا		
Limestone Require	ment	The M		1999 - 11 - <u>-</u>		10 1 22 3	A State	U.	00 tons 100ECCE/acre
				Detailed Sa	linityat	et (1 to 1	Paste Fyt	rach.	
				pH	and the States	and the state of the	7.9	A CALL STREET	
		The state		Conduc	tivity		8.2	/simmhos/c	n Service and the service of the ser
And the second second second second second second second second second second second second second second second		And the second second		Sodium	and the other	in the local is a second	16051	l opm	698.466 meg/L
			and the second second	State of the state	States and the states of the	NUT STREET	A DESCRIPTION OF	The second second second	
				Potass	um	1995年1月1日 (J-14)	100 Jan 210	AD DIN ASS	2+2+5 meg/
				Potassi Calciun	um 1		87 186	Appm S ppm	2:215/meg/L 9.294 meg/L
				Potass Calciun Magnes	um 1 Ium		87 186 16	ppm ppm ppm	2:215/meq/L 9.294 meq/L 1:220/meg/L
Chloride	5223	p	Dm	Potass Calciun Magnes SAR	um 1 Ilum	2 4/2	87 186 16 304.63	ppm ppm ppm ppm s	2:215/meq/L 9.294 meq/L 1:220/meq/L

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen Apply an additional 40 lbs/A of nitrogen upon 75% vegetative cover.



Report generated for: Kleinfelder Aaron Hale 8004 W HWY 80 Midland, TX 79706

Outside TX County Laboratory Number: 303459 Customer Sample ID: SB-6 0-1

## Soil Analysis Report

Soil, Water and Forage Testing Laboratory Department of Soil and Crop Sciences 345 Heep Center, 2474 TAMU College Station, TX 77843-2474 979-845-4816 (phone) 979-845-5958 (FAX) Visit our website: http://soiltesting.tamu.edu

Sample received on: 4/21/2010 Printed on: 4/29/2010 Area Represented: not provided

Crop Grown: I Analysis	MPROVED Results	AND H	YBRID BEI Units	RMUDA GRAS		ABLISHME	NT) VHigh	Excess.		
pH & MARRIE (1997)	8.5	(5.8)	和影响 一种的	Mod. Alkaline	19 Jacob	- Selection	Similar I	Star Brief Str.	Constant States	Alter and the
Conductivity	1,290	(-)	umho/cm	Moderate		CL.		Fert	ilizer Recom	mended
Nitrate-N	28	(-)	ppm	[teermeterinannum]	unum 1		1811	133.745	0 lbs N/acre	
Phosphorus	261	(50)	ppm				inn		0 lbs P205/	acre
Potassium	750	(125)	ppm		HANNAN		tu i		0 ibs K20/ac	re
Calcium	10,635	(180)	ppm				þi		0 lbs Ca/acr	e
Magnesium	435	(50)	ppm			u este de la composition de la composition de la composition de la composition de la composition de la composit			0 lbs Mg/acr	e e
Sulfur	93	(13)	ppm	11111111111111111111111111111111111111			ann		0 ibs S/acre	
Sodium Iron	1,683	(-)	ppm				- 7 O L 4		-7, OF .	19 T.
Zinc		$(1,2,3) \stackrel{(1,0,0)}{} (1,2,3)$	148314月		1.438	지난 문	-20	561° (i		10 10 1
Manganese	•		1 -Jones - Borries			1				
Copper		10000	Section of the section of the		1910		- (10)	0. P. 2. 1.	· · ·	
Boron						- 1				
Limestone Requirement	Ale and	Contraction of the second		a state of	at is here	<u>u i ku i ar</u>		0	.00 tons 100E	CCE/acre
				Detailed Sall	nity Tes	t (11 to 1 Pa	iste Exti	act)		
				pН		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	7.8	all a series of all and the series	and a state of the second second	
				Conduct	ivity		s 520	mmhos/c	m	
				Sodium			1066	ppm	46	.369 meq/L
				Potassiu	m	State State	74	ppm	1	.895°meq/L
				Calcium			143	ppm	7	.126 meq/L
				Magnesi	um		19	ppm	1	.572 meq/L
Chloride	1632	P	pm	SAR			22.24			
				SSP		de l'alert	81.40			A STAR

\*CL=Critical level is the point which no additional nutrient (excluding nitrate-N, sodium and conductivity) is recommended.

Conductivity: Salinity levels are becoming elevated, monitor levels or remove salts with 10-15 inches of clean leach water. Nitrogen Apply an additional 40 lbs/A of nitrogen upon 75% vegetative cover.

Phosphorus: Phosphorus is highly elevated, avoid phosphorus containing fertilizers and organics for the next 5 years, retest annually.