PRELIMINARY SITE INVESTIGATION REPORT AND **REMEDIATION WORK PLAN**

Devon Energy Patsy #1 **Tank Battery** Lea County, New Mexico

Prepared For:

Devon Energy 4200 North FM 1788 Midland, Texas 79701

ETGI Project # DE 2101

Environmental Technology Group, Inc. V F. 2540 W. Marland Hobbs, New Mexico 88240

December 2002

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9900 W. I-20 Midland, Texas 79706 (915) 563 - 0665

December 11, 2002

Larry Johnson New Mexico Energy, Minerals & Natural Resources Oil Conservation Division, District 1 1625 North French Drive Hobbs, New Mexico 88240

RE: Pasty #1 Site Clean-up

Dear Sirs,

Enclosed for your review and approval is a preliminary site investigation report and proposed remediation work plan for the Patsy #1 Tank Battery Site, which is located approximately 5 miles southwest of Monument, New Mexico.

In May of this year, I met with the BLM along with Larry Johnson and Paul Sheely at this site to review the location and devise plans to evaluate this site and propose a closure strategy.

This plan represents the culmination of Devon's efforts to this point, along with proposals that we believe will meet the expectations of the BLM and NMOCD with regard to closure of this site. On behalf of Devon, I am hopeful that you will find this plan adequate to meet your guidelines. Upon receipt of approval of this proposal, Devon is prepared to start work on this site.

Should you have any questions or require additional information, please don't hesitate to contact me at (915) 495-7279.

Sincerely,

David Purdy EHS Specialist Devon Energy Production Corporation Midland, Texas 79711-0210



1.0 INTRODUCTION

On behalf of Devon Energy Environmental Technology Group, Inc. (ETGI) is pleased to submit this *Preliminary Site Investigation and Remediation Work Plan* as a summary of activities completed to date and to establish future actions to be conducted at the Patsy #1 Tank Battery in Lea County, New Mexico. The site is located west of US Highway 8 at Latitude 32° 34' 40.4" North and Longitude 103° 17' 13.8" West, approximately–5 miles southwest of the city of Monument, New Mexico, in the NW ¼, NE ¼ of Section 18, Township–20 South, Range 37 East, in Lea County, New Mexico. For reference, a site location and site map, are provided as Figures 1 and 2, respectively. Site investigation activities completed to date were conducted to complete delineation of the vertical and lateral extent of possible soil and groundwater impaction at the site. The proposed remediation work plan included in this document has been designed to complete vertical and lateral delineation of impacted soil and groundwater in the area. In addition, the remediation work plan is designed to remediate impacted soils to acceptable New Mexico Oil Conservation Division (NMOCD) regulatory levels.

The remediation work plan, as outlined in this document, will facilitate remediation action levels required by the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases,* dated August 1993 (NMOCD, 1993). To reiterate the site closure strategy, Devon Energy intends to seek regulatory closure by the following means:

- Delineate the nature and extent of impacts to the soil and groundwater;
- Excavate saturated/contaminated soils and treat these excavated soils at the release site (to a maximum root zone depth of 3 feet) by shredding and the addition of nutrients;
- Conduct confirmation sampling of treated soils to ascertain that constituent concentrations are below the approved site action levels. Subsequently backfilling excavated area with treated soils and re-seeding the surface with native grasses;
- Evaluate groundwater quality/usage by advancing a temporary groundwater monitor well to collect a sample to be analyzed for total dissolved solids (TDS). If the TDS is ≤10,000 mg/L, submit a Stage 2 Abatement Plan, if necessary, designed to mitigate groundwater constituent levels to applicable New Mexico Water Quality Control Commission (WQCC) standards. If the TDS is ≥10,000 mg/L, prepare a Site Closure Request as per NMOCD regulations;
- Utilization of approved risk assessment methods to mitigate impacted soils and groundwater, if applicable.

Documentations supporting the aforementioned closure strategy will be submitted for NMOCD's approval at the appropriate time. Upon approval of this Preliminary Site Investigation and Remediation Work Plan by NMOCD, Devon Energy will commence remediation activities specified in this report at the site.

2.0 SUMMARY OF FIELD ACTIVITIES

ETGI was contracted to conduct a preliminary site investigation on May 9, 2002 by Mr. David Purdy of Devon Energy. As per Mr. Purdy's request temporary groundwater monitor wells were installed at this location to determine the vertical and lateral extent of subsurface impacts. The site includes a tank battery to the east with a visually stained area that measures approximately 90 feet by 70 feet and a heater treater to the west with what appears to be a former pit which measures approximately 220 feet by 90 feet, these areas are depicted on Figure 2. Initial site activities consisted of vertical and lateral delineation to determine the extent of hydrocarbon impact of the area. ETGI mobilized an air-rotary drilling rig operated by ECO Drilling of Midland, Texas on May 9, 2002, to delineate the lateral and vertical extent of subsurface impacts. ETGI completed seven temporary groundwater monitor wells at this location. The locations of the temporary groundwater monitor wells are depicted on Figure 2, and the boring logs are provided as Appendix A. As indicated on Figure 2, temporary groundwater monitor wells TMW-1, TMW-3, TMW-4 and TMW-7 were positioned to define the lateral extents of the subsurface impacted area to the east of the tank battery, as estimated from staining observed in the area. Temporary groundwater monitor well TMW-2 was installed in the approximate middle of the visually stained area to delineate the vertical extent of the impacted area. Temporary groundwater monitor wells TMW-5 and TMW-6 were positioned to define the lateral extent of the subsurface impacted area to the west of the heater treater in what appears to be a former pit. The temporary groundwater monitor wells were completed to a maximum depth of approximately 40 feet below ground surface (bgs). During the boring process, soil samples were collected at five-foot intervals utilizing either a split spoon or grab sampling methods. The soil samples were collected during the installation of the temporary groundwater monitor wells and field-screened with a photoionization detector (PID). Each sample collected was visually inspected and described as to soil type, grain size, sorting characteristics, odor and staining present. Soil samples collected from TMW-3, TMW-4, TMW-5, TMW-6, and TMW-7 did not exhibit any visual signs of staining, olfactory evidence or elevated PID readings during installation. The soil sample collected from TMW-1 at a depth of 30 to 35 feet bgs exhibited moderate staining and olfactory evidence with a PID reading of 69.5 parts per million (ppm), the remaining soil samples from this boring did not exhibit any evidence of hydrocarbon impaction. Soil samples collected from TMW-2 at depths of 25 to 30 feet bgs and 30 to 35 feet bgs exhibited staining, olfactory evidence and elevated PID readings of 789 ppm and 869 ppm, respectively. The soil samples collected from the surface to a depth of 20 to 25 feet bgs from TMW-2 exhibited no evidence of hydrocarbon impaction. Analytical results indicate elevated levels of chloride concentrations are present in all the temporary monitor wells. In June 2002, the temporary monitor wells were completed in accordance with New Mexico Oil Conservation Division standards as permanent monitor wells.

All soil samples that were submitted to Environmental Lab of Texas, Odessa, Texas were analyzed for Total Petroleum Hydrocarbons – Gasoline Range Organics/Diesel Range Organics (TPH-GRO/DRO) utilizing EPA Method SW 846-8015M; Benzene, Toluene, Ethyl benzene and Xylenes (BTEX), utilizing EPA Method SW 846-8021B/5030; and total chloride concentrations using EPA Method 9253. Groundwater samples were also submitted to Environmental Lab of Texas, and tested for BTEX using EPA Method SW 846-8021B/5030, total chlorides utilizing EPA Method 9253, and Total Dissolved Solids (TDS) using EPA

Method 160.1. The soil and groundwater analytical results are summarized in Tables 1 and 2, respectively and the laboratory results are provided as Appendix B.

Research was conducted on the New Mexico Office of the State Engineer's (NMOSE) Water Well Database for information on well locations and the average depth to groundwater in the area. The database indicated that there are no registered water wells within Section 18. The database indicated that there are 10 registered water wells within Section 7 and Section 19. The average depth to groundwater as determined from these wells is 36 and 35 feet bgs, respectively. A copy of the NMOSE Water Well Report is provided in Appendix C. Based on local knowledge, the prevailing gradient of the groundwater in the release area trends to the southeast.

3.0 SITE DESCRIPTION

3.1 Regional Geology/Hydrogeology

In the site vicinity, the surface is composed of unconsolidated, wind blown sands and finer materials associated with the Tertiary Ogallala Formation, which serves as a major aquifer for southeastern New Mexico and several high plains states. Unconfined groundwater is typically present in these sands at varying depths and generally flows from the northwest to the southeast. This aquifer is typically characterized by relatively high hydraulic conductivity and transmissivity.

The Ogallala is underlain by the Triassic Dockum Formation, locally referred to as the "red beds". While there are sand lenses within the Dockum Formation, it is more typically characterized by red silt and micaceous shale in which detectable groundwater is often absent or limited in extent. Where groundwater is present, the aquiclude is usually characterized by relatively low hydraulic conductivity and transmissivity.

The site is located in the Southern Desertic Basins, Plains, and Mountains physiographic feature as classified in the Lea County Soil Survey by the U.S. Department of Agriculture Soil Conservation Service, January 1974. The average surface elevation in the area ranges between 3,000 to 4,000 feet above sea level with the average surface topography sloping to the south and southeast at approximately 10 feet per mile. The groundwater gradient in the region appears to reflect the topography with a similar slope to the south and southeast with some local variations. The site is located on Berino-Cacique Association type soils. This soil complex is about 35 percent Berino soils and 25 percent Cacique soils. Maljamar, Midessa, Pyote, Simona, Jal, Tonuco, and Wink soils make up the remaining 40 percent. This association consists of nearly level and gently sloping, well-drained soils on uplands in the southern part of Lea County. The soils generally have a loamy fine sand surface layer and a sandy clay loam subsoil. Berino-Cacique Loamy Fine Sand is moderately permeable and runoff is very slow. It has a rapid water intake and the available water holding capacity is 7 to 10 inches. Soil blowing is a severe hazard in this region.

Data collected by the United States Weather Bureau indicate that the average annual precipitation in the site vicinity is approximately 10 to 13 inches. This amount occurs primarily as storm events during the period between June and October. Infiltration and

evaporation rates are generally high resulting in limited surface flow from these events. The primary utilization of these lands consists of range, wildlife habitat, and recreational areas.

3.2 Site Geology/Hydrology

At the site, the subsurface is composed primarily of unconsolidated sands, which vary in color from brown to tan. The sands are very fine grained, well-sorted and interspersed with calcareous nodules. A limited amount of sandstone and clay is also present at the site. The sand was dry to a depth of approximately 20 to 25 feet bgs. Groundwater was detected at a depth of approximately 31 to 32 feet bgs as depicted on the soil boring logs in Appendix A.

3.3 New Mexico Oil Conservation Division (NMOCD) Soil Classification

As stated in the previous section, field data have determined depth to groundwater at the site is approximately 31 to 32 feet bgs. As a result of this criterion a ranking score of twenty (20) points would be assigned to the site.

The water well database, maintained by the New Mexico State Engineer's Office, was accessed in order to determine the location and type of nearby water wells in the area. The data indicate that there are no known water wells located within 1,000 feet of the site. These site conditions result in no points assigned to the site as a result of this criterion.

As depicted on Figures 1 and 2, there are no bodies of surface water located within 1,000 feet of the site. These site conditions result in no points assigned to the site as a result of this criterion.

The NMOCD guidelines indicate that the site would have a Ranking Score of >19. The action levels for a site with a Ranking Score of >19 points are as follows:

Benzene - 10 ppm

BTEX - 50 ppm

TPH - 100 ppm

3.4 Distribution of Hydrocarbons in the Unsaturated Zone

Review of laboratory analysis of the soil samples collected from temporary monitor wells TMW-3, TMW-4, TMW-5, TMW-6, and TMW-7 indicate that the soil in these areas has not been impacted by oil and gas production activities. Analytical results obtained from soil samples of temporary monitor wells TMW-1 and TMW-2 indicate soils impacted above NMOCD criteria were identified at depths of 30 to 35 feet bgs in temporary monitor well TMW-1, and 25 to 35 feet bgs in temporary monitor well TMW-2. Analytical results are shown on Table 1.

The distribution of hydrocarbons in the unsaturated zone has been estimated by utilizing the following techniques:

- Visual observation of surface staining
- Visual observation of subsurface soil samples, and
- Review of laboratory analyses of selected soil samples.

3.5 Distribution of Hydrocarbons in the Saturated Zone

Groundwater was encountered at depths varying from 31 to 32 feet bgs in the temporary monitor wells. Reviews of the analytical results from the groundwater samples collected indicate groundwater has not been impacted at the location, as shown on Table 2.

4.0 **RECOMMENDATIONS**

The visually stained area observed during the initial site investigation indicates that the hydrocarbon-impacted area is delineated to the extent of approximately 90 feet by 70 feet east of the former tank battery. The soil samples collected in the east stained area indicate the staining is limited to approximately 2 feet bgs. The visually stained area observed west of the former tank battery is approximately 220 feet by 90 feet. The soil samples collected in the west stained area indicate the staining is limited to approximately 220 feet by 90 feet. The soil samples collected in the west stained area indicate the staining is limited to approximately 2 feet bgs. Approximately 468 cubic yards of visually stained soil is located in the east area and 1,464 cubic yards are contained in the west area. During the excavation activities the soils will be blended and shredded with nutrients added to enhance the remediation process. A minimal amount of asphaltines are located on the site, and these soils will be transported to an approved NMOCD landfarm for disposal. Bottom confirmation samples will be collected upon completion of excavation of the east and west areas to determine contaminant level reduction. The blended soils will be landfarmed on-site and once contaminant levels are confirmed below regulatory limits, the remediated soil will be utilized to backfill the excavations, contoured to grade, and seeded with native grasses pursuant to Bureau of Land Management protocol.

Based on the analytical data from the soil samples it appears that the subsurface soil has not been impacted by petroleum operations on-site. The impacted soils appear to be from an upgradient source as the contaminants are located in the capillary fringe and not above the unsaturated zone with the exception of the shallow visually stained area. During the installation process, the subsurface soils appeared to be native and undisturbed. An area search was conducted which revealed numerous areas of stained soil and asphaltine impacted soil. The condition of the subsurface soil is consistent with numerous other sites in this area of Lea County.

The analytical results from groundwater samples indicate that all the monitor wells are either below detection limits or are below the regulatory standards established by NMOCD. It is recommended that four (4) consecutive sampling events be performed and if the groundwater samples remain below NMOCD regulatory standards the site be closed.

The current operator has indicated to Devon Energy that the tanks and associated production equipment has been removed from the site. Additionally, the production well located northwest of the site has been plugged and abandoned. Upon approval of this Preliminary Site Investigation and Remediation Work Plan by NMOCD, Devon Energy will commence remediation activities specified in this report at the site.

5.0 QA/QC PROCEDURES

5.1 Soil Sampling

Samples of subsurface soils were obtained utilizing a split spoon sampler. Representative soil samples were divided into two separate portions using clean, disposable gloves and clean sampling tools. One portion of the soil sample was placed in a disposable sample bag. The bag was labeled and sealed for headspace analysis using a PID calibrated to a 100 ppm isobutylene standard. Each sample was allowed to volatilize for approximately thirty minutes at ambient temperature prior to conducting the analysis.

The other portion of the soil sample was placed in a sterile glass container equipped with a Teflon-lined lid furnished by the analytical laboratory. The container was filled to capacity to limit the amount of headspace present. Each container was labeled and placed on ice in an insulated cooler. Upon selection of samples for analysis, the cooler was sealed for shipment to the laboratory. Proper chain-of-custody documentation was maintained throughout the sampling process.

Soil samples were delivered to Environmental Lab of Texas, Inc., in Odessa, Texas for BTEX, TPH, and Total Chloride analyses using the methods described below. Samples were analyzed for BTEX, TPH-GRO/DRO, and Total Chloride concentration within fourteen days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8260B/5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO
- Total Chloride concentrations in accordance with EPA Method 9253

5.2 Groundwater Sampling

The temporary groundwater monitor wells were purged of approximately 3 well volumes of water or until the wells were dry using an electrical Grundfos Pump. Groundwater was allowed to recharge and samples were obtained using a disposable Telfon sampler. Water samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a polystyrene tank and disposed of by Pate Trucking, Hobbs, New Mexico or Vista Trucking, Eunice, New Mexico utilizing a licensed disposal facility (NMOCD AO SWD-730). Groundwater samples were delivered to Environmental Lab of Texas, Odessa, Texas for analysis of BTEX, TDS, and Chlorides using the methods described below. All samples were analyzed within approved holding times following the collection date.

- BTEX concentrations in accordance with EPA Method 8260B/5030;
- TDS concentrations in accordance with EPA Method 160.1;
- Total chlorides concentrations in accordance with EPA Method 9253

5.3 Decontamination Of Equipment

The drilling crew utilized a high-pressure steam cleaning machine to wash the drilling and sampling equipment prior to drilling and prior to starting successive hole. Prior to use, the sampling equipment was cleaned with Liqui-Nox[®] detergent and rinsed with distilled water. A single-use, clear, poly-liner was utilized for collection of each sample.

5.4 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-ofcustody form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

6.0 LIMITATIONS

Environmental Technology Group, Inc. has prepared this Preliminary Site Investigation Report to the best of its ability. No other warranty, expressed or implied, is made or intended. Environmental Technology Group, Inc. has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Environmental Technology Group, Inc. has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Environmental Technology Group, Inc. has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Environmental Technology Group, Inc. also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Devon Energy. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Environmental Technology Group, Inc. and/or Devon Energy.

DISTRIBUTION

Copies 1 and 2 to: **Bill Olson and Randy Bayliss** New Mexico Energy, Minerals and Natural Resources **Oil Conservation Division** 1220 South St. Francis Drive Santa Fe, NM 87505 Paul Sheeley and Larry Johnson Copies 3 and 4 to: New Mexico Energy, Minerals and Natural Resources Oil Conservation Division, District 1 1625 North French Drive Hobbs, New Mexico 88240 Copy 5 to: **Devon Energy** David Purdy 4200 North FM 1788 Midland, Texas 79701 Copy 6 to: Environmental Technology Group, Inc. 2540 West Marland Hobbs, New Mexico 88240 Copy 7 to: Environmental Technology Group, Inc. 4600 West Wall Street Midland, Texas 79703

n. and Quality Control Reviewer

COPY NO .:

TABLES

TABLE 1

SOIL CHEMISTRY

DEVON ENERGY PATSY #1 LEA COUNTY, NEW MEXICO ETGI PROJECT # DV 2101

	SAMPLE	SAMPLE	Methods: B1	TEX-EPA SW	846 8021B,	5030B	Methods:	SW-846 8	015M	Method: 9253
	LOCATION	DATE	BENZENE	TOLUENE	ETHYL-	TOTAL				
					BENZENE	XYLENES				
							GRO	DRO	TOTAL TPH	CHLORIDES
			(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
	TMW - 1 10-15'	05/09/02	<0.025	<0.025	<0.025	<0.025	<10.0	20.8	20.8	197
4.2	TMW - 1 - 25-30'	05/09/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	<u>3280</u>
	TMW - 1 30-35'	05/09/02	<0.025	<0.025	0.046	0.239	114	175	289	248
	TMW - 2 10-15'	05/09/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	62
	TMW - 2 25-30'	05/09/02	0.099	0.401	0.456	2.353	673	701	1,374	26
	TMW - 2 30-35'	05/09/02	0.337	0.555	0.466	2.119	873	872	1,745	80
	TMW - 3 25-30'	05/09/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	62
	TMW - 4 25-30'	05/09/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	71
1	TMW - 5 25-30'	05/09/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	47
	TMW - 6 25-30'	05/09/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	138
	TMW - 7 25-30'	05/02/02	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0	89

TABLE 2

GROUNDWATER CHEMISTRY

DEVON ENERGY PATSY #1 LEA COUNTY, NEW MEXICO ETGI PROJECT # DV 2101

	All concentrations are in mg/L											
		М	ETHODS: SW	Method: 9253	Method: 160.1							
	DATE	BENZENE	TOLUENE	ETHYL- BENZENE	TOTAL XYLENES	CHLORIDES	TDS					
TMW - 1	05/10/02	<0.001	<0.001	0.001	0.002	736	2,230					
TMW - 2	05/10/02	0.003	0.003	0.003	0.011	727	2,250					
TMW - 3	05/10/02	<0.001	<0.001	<0.001	<0.001	780	2,360					
TMW - 4	05/10/02	<0.001	<0.001	<0.001	<0.001	744	2,270					
TMW - 5	05/10/02	<0.001	<0.001	<0.001	<0.001	762	2,350					
TMW - 6	05/10/02	<0.001	<0.001	<0.001	<0.001	1,100	3,170					
TMW - 7	05/10/02	<0.001	<0.001	<0.001	<0.001	709	2,370					

FIGURES





APPENDICES

APPENDIX A

Soil Boring Logs

					Monitor We	ell I	MM	/-1	
Depth (feet)	Soil <u>Columns</u>	PID Reading	Petroleum <u>Odor</u>	Petroleum <u>Stain</u>	Soil Description	٦			A Mar III D - Marila
- 5	10000000000000000000000000000000000000	0.0	None	None		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Date Drilled Length of PVC Depth of Explo	5-9-02 C Well Screen 15 ft Well 40 ft oratory Well 40 ft
n n n =	10000000000000000000000000000000000000	0:0	···None ·	None	Sand (SP) - Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 2 0 2 0 2 0 2 0 0 0 0 0 0 0 0 0 0 0		a en alan new new a da de service a da d
- 15 - 15	800000 8088 800000 800000 8000000	0.0	None	None		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		44	Grout Surface Seal
- 20	0.000000000000000000000000000000000000	0.0	None	None	Sand (SP) - Tan to Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.				Bentonite Pellet Seal
- 25		0.0	None	None	Sand (SP) - Brown, Very Fine Grained, Well				Screen
- 30		0.0	None	None	Sorted, Imbedded with Sandstone.			O Indi PID Hea	icates samples selected for Laboratory Analysis. ad-space reading in ppm obtained with a photo-ionization detecto
- 35		69.5	Moderate	Moderate	Sand (SP) - Dark Brown, Very Fine Grained, We Sorted, Imbedded with Caliche Nodules.			Notes: The line approxi	as between material types shown on the profile log represent imate boundaries. Actual transitions may be gradual.
40	тр						IJ	The dep Hole wa	pths indicated are referenced from the ground surface. as plugged with bentonite.
			Soil Bor	ing Log	Details	or itan	<u>Е</u> т	121 COT G.	Environmental Technology Group, Inc.
Devon	Energy			NIVV-1	1 Les Coupty NM			G	Prep By: JDJ Checked By: KD

		<u>х х</u>		an a tha an an an	Monitor W	ell <u>MW-2</u>
Depth <u>(feet)</u>	Soil Columns	PID Reading	Petroleum <u>Odor</u>	Petroleum <u>Stain</u>	Soil Description	
- 5	25 12 12 12 12 12 12 12 12 12 12 12 12 12	0.0	Slight	Slight	Sand (SP) - Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.	V Monitor Well Details V V
10- 10- 		0:0	None	None	n na ing ing an na sang ar na	
- 15		(11.2)	Slight	None		v v v v
- 20		9.2	None	None	Sand (SP) - Tan to Brown, Very Fine Grained, Well Sorted, imbedded with Caliche Nodules.	Bentonite Pellet Seal
- 25		0.0	Slight	None	Sand (SP) - Dark Brown, Very Fine Grained, Well Sorted, Imbedded with Sandstone	
- 30	Y	789	Moderate	Moderate		Indicates the groundwater level measured on date. Indicates samples selected for Laboratory Analysis.
- 35 - 35 - 40	TD	869	Heavy	Heavy	Sand (SP) - Dark Brown to Black, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.	PID Head-space reading in ppm obtained with a photo-ionization detector. Notes: The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual. The depths indicated are referenced from the ground surface. Hole was plugged with bentonite.
			Soil Bor	ring Log Details		Environmental Technology
Devon	Energy			MW-2 Patsy #1	Lea County, NM	Croup, Inc. Prep By: JDJ Checked By: KD May 14, 2002 ETGI Project # DEV2101R

					Monitor W	ell M	W-	.3	
Depth <u>(feet)</u>	Soil <u>Columns</u>	PID Reading	Petroleum <u>Odor</u>	Petroleum <u>Stain</u>	Soil Description	٦٢		_	
					Sand (SP) - Brown, Very Fine Grained, Well Sorted.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Date Drilled Length of PVC Depth of PVC V	<u>5 - 9 - 02</u> Weli Screen <u>15 ft</u> Weli <u>39 ft</u>
5		0.0	None	None	Sand (SP) - Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.		2 Q 2 Q 2 Q 2 Q 2 Q 2 Q 2 Q 2 Q 2 Q 2 Q	Depth of Exploi Depth to Groun	ratory Well39 ft dwater32 ft
		0.0	None	None	· · · · · · · · · · · · · · · · · · ·	▼ ▼ ▼ ▼ ▼ ▼ ▼ ▼			· · ·· · · · · · · · · · · · · · · · ·
- 15 - 15		0.0	None	None	Sand (SP) - Tan, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.	0000	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	P G	irout Surface Seal
20		0.0	None	None	Sand (SP) - Tan, Very Fine Grained, Well			₿	entonite Pellet Seal
- 25		0.0	None	None	Sorted. Sand (SP) - Tan to Brown, Very Fine Grained,			s s	and Pack
- 30		0.0	None	None	Well Sorted, Imbedded with Caliche Nodules.			India	cates the groundwater level measured on date. cates samples selected for Laboratory Analysis.
- 35	9999 9999 9999 9999 9999 9999 9999 9999 9999	0.0	None	None	Sand (SP) - Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.			Notes: The line	s between material types shown on the profile log represent
40	Т							approxin The dep Hole wa	nate boundaries. Actual transitions may be gradual. ths indicated are referenced from the ground surface. s plugged with bentonite.
			Soil Bor	ing Log MW-3	Details	V ^V			Environmental Technology Group, Inc.
Devon	Energy		1	Patsy #1	Lea County, NM				Prep By; JDJ Checked By; KD May 14, 2002 ETGI Project # DEV2101R

ining and such that the such such

104 22 24 24 25				· · · · · · · · · · · · · · · · · · ·	Monitor We	ell MV	V-4	··· ···
Depth (feet)	Soil <u>Columns</u>	PID Reading	Petroleum F Odor	Petroleum <u>Stain</u>	Soil Description	<u> </u>	 >	
- 0 - 5 - 5		0.0	None	None	Sand (SP) - Tan to Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules. Sand (SP) - Tan, Very Fine Grained, Well Sorted.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Date Drilled Length of PVC	S-9-02 Well Screen 15 ft Well 39 ft ratory Well 39 ft adwater 31 ft
- 10 -		0.0	None	None	en e	······································		
- - - 15 -	15 0.0 None None Sand (SP) - Tan, Very Fine Grained, Well					444444 444444	a 44	Grout Surface Seal
- 20		0.0	None	None			<u> </u>	Bentonite Pellet Seal
- 25		0.0	None	None	Sand (SP) - Tan to Brown, Very Fine Grained,		s S S S	Sand Pack Screen
- 30	2024 8026 8026 8026	0.0	None	None	TAGI Solieu, inibeudeu ann Caiche Houriss.			icates the groundwater level measured on date.
- 35		0.0	None	None	Sand (SP) - Brown, Very Fine Grained, Well Sorted, imbedded with Caliche Nodules.		PID Hea Notes: The line approxil	ad-space reading in ppm obtained with a photo-ionization detect by between material types shown on the profile log represent mate boundaries. Actual transitions may be gradual.
	E TD					LÐ	The dep	oths indicated are referenced from the ground surface.
40			Soil Bori	ng Log	Details		Hole wa	
				MW-4		ST E.		Group, Inc.
Devon	Energy		F	Patsv #1	Lea County, NM			Prep By; JDJ Checked By: KD

- 					Monitor W	/ell MW-5
Depth <u>(feet)</u>	Soil Columns	PID Reading	Petroleum I <u>Odor</u>	^D etroleum <u>Stain</u>	Soil Description	
		0.0	None	None	Sand (SP) - Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules. Caliche Layer.	Vert Monitor VVeil Details V V
		0.0	None	None	an a	
15		0.0	None	None	Sand (SP) - Tan to Brown, Very Fine Grained Well Sorted, Imbedded with Caliche Nodules.	d, v v s. v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v v
- 20		0.0	None	None		Bentonite Pellet Seal
- 25	- 25 25	0.0	None	None	Sand (SP) - Tan, Very Fine Grained, Well Sorted, imbedded with Caliche Nodules.	Sand Pack
- 30		0.0	None	None		Indicates the groundwater level measured on date.
- 35	T	0.0	None	None	Sand (SP) - Tan to Brown, Very Fine Grained, Well Sorted, imbedded with Caliche Nodules.	d, Notes: The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
40	BROM TD					The depths indicated are referenced from the ground surface. Hole was plugged with bentonite.
	1		Soil Bori	ng Log MW-5	Details	ETCEN
Devon	Energy		F	Patsy #1	Lea County, NM	Prep By: JDJ Checked By: KD May 14: 2002 ETGI Project # DEV2101P

					Monitor We	ell MV	V-6	an an an an Araba an
Depth (feet) <u>C</u>	Soil Columns	PID <u>Reading</u>	Petroleum <u>Odor</u>	Petroleum <u>Stain</u>	Soil Description	اا	۲	
	00000000000000000000000000000000000000		Nene	blanc	Sand (SP) - Tan to Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Date Drille	Monitor Well Details d5-9-02 PVC Well Screen_15 ft vC Well39 ft
		0.0	None	None	Sand (SP) - Tan, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Depth of E V Depth to G V Depth to G V V V V V V V V V V	roundwater31 ft
		0.0	None	None	Sand (SP) - Tan to Brown, Very Fine Grained, Well Sorted.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	▼	
- 15		0.0	None	None			101 101 101	Grout Surface Seal
- 20		0.0	None	None	Sand (SP) - Tan, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.			Bentonite Pellet Seal Sand Pack
- 25 - 25		0.0	None	None				Screen
- 30	959956660 88956988 899569888 89956988 895698 895698 89569 80569 80	0.0	None	None	Sand (SP) - Brown, Very Fine Grained, Well			Indicates the groundwater level measured on date. Indicates samples selected for Laboratory Analysis.
- 35	10000000000000000000000000000000000000	0.0	None	None	Sorted, Imbedded with Caliche Nodules.		Notes: The	lines between material types shown on the profile log represent roximate boundaries. Actual transitions may be gradual.
L 40	TD TD						The	depths indicated are referenced from the ground surface. e was plugged with bentonite.
			Soil Bor	ing Log	Details	1120maile	TOCTADION C	Environmental Technology
				MW-6			Ţ _{Ġ I}	Prep By: JDJ Checked By: KD
Devon E	nergy		1	Patsy #1	Lea County, NM			May 14, 2002 ETGI Project # DEV2101R

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					Monitor We	ell M	W-	-7	
Depth <u>(feet)</u>	Soil <u>Columns</u>	PID Reading	Petroleum <u>Odor</u>	Petroleum <u>Stain</u>	Soil Description	זר			-
	କୁହିତ୍ତ୍ର ଅନ୍ତ୍ର ଅନ୍ତ୍ର କୁହିତ୍ତ୍ର ଅନ୍ତର୍ଭ କୁହିତ୍ତ୍ର ଅନ୍ତର୍ଭ କୁହିତ୍ତ୍ର ଅନ୍ତର୍ଭ	0.0	None	None	Sand (SP) - Tan to Brown, Very Fine Grained, Well Sorted, Imbedded with Caliche Nodules.	20202020 20202020		Date Drilled Length of PVC V Depth of PVC V	<u>5 - 9 - 02</u> Well Screen_ <u>15 ft</u> Vell <u>39 ft</u>
- 10		0.0	None	None	Sand (SP) - Tan, Very Fine Grained, Well Sorted.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 0 0	Depth to Grour	ratory wei <u></u> idwater31 ft
- 15		0.0	None	None	Sand (SP) - Tan, Very Fine Grained, Well Sorted. Imbedded with Caliche Nodules.	00000000000000000000000000000000000000	00000000000000000000000000000000000000	P G	irout Surface Seal
— 20		0.0	None	None				Ø •	entonite Pellet Seal
- 25 -		0.0	None	None	Sand (SP) - Tan to Brown, Very Fine Grained,			s s	anu Pack Creen
- 30	▼ 49999 99999 99999 99999 99999 99999 99999	0.0	None	None	Well Sorted, Imbedded with Caliche Nodules.			India India PID Hea	cates the groundwater level measured on date. cates samples selected for Laboratory Analysis. d-space reading in ppm obtained with a photo-ionization detector.
- 35	ଅନ୍ତର୍କ୍ତ ଅନ୍ତର୍କ ଜନ୍ମ କରି କରି କରି ଜନ୍ମ କରି	0.0	None	None	Sand (SP) - Brown, Very Fine Grained, Well Sorted.			Notes: The line approxir	s between material types shown on the profile log represent nate boundaries. Actual transitions may be gradual.
L 40	BREA TD						Z	The dep Hole wa	ths indicated are referenced from the ground surface. s plugged with bentonite.
			Soil Bor	ring Log	Details	i senne	al Techne	1037 0	Environmental Technology
				MW-7			Ţ	3)	
Devon	Energy			Patsy #1	Lea County, NM	181 Ju			May 14, 2002 ETGI Project # DEV2101R

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APPENDIX B

Laboratory Reports

ANALYTICAL REPORT

Prepared for:

KEN DUTTON Environmental Technology Group, Inc. 2540 W. MARLAND HOBBS, NM 88240

Project:	Patsy #1
Order#:	G0203327
Report Date:	05/14/2002

<u>Certificates</u> US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS SAMPLE WORK LIST

Environmental Technology Group, Inc. 2540 W. MARLAND HOBBS, NM 88240 505-397-4701 Order#:G0203327Project:Dev 2101RProject Name:Patsy #1Location:Monument

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

				Date / Time	D	ate / Time		
<u>Lab ID:</u>	Sample :	Matrix:		Collected	_	Received	<u>Container</u>	Preservative
0203327-01	TMW-1 10-15'	Soil		5/9/02 9:20		5/10/02 15:07	4 oz glass	Ice
<u>La</u>	b Testing:	Rejected:	No	Те	emp:	1.5 C		
	8015M							
-	8021B/5030 BTEX							
	Chloride	· · ·						
0203327-02	TMW-1 25-30'	Soil		5/9/02 9:31		5/10/02 15:07	4 oz glass	Ice
<u>La</u>	<u>b Testing:</u>	Rejected:	No	Т	emp:	1.5 C		
ł	8015M							
-	8021B/5030 BTEX	•						
	Chloride							· · · · · · · · · · · · · · · · · · ·
0203327-03	TMW-1 30-35'	Soil		5/9/02		5/10/02	4 oz glass	Ice
_		·		9:47		15:07		
<u>La</u>	ib Testing:	Rejected:	NO	T	emp:	1.5 C		
	8015M							
	8021B/5030 BTEX							
	Chloride							
0203327-04	TMW-2 10-15'	Soil		5/9/02 10:50		5/10/02 15:07	4 oz glass	Ice
<u>La</u>	ib Testing:	Rejected:	No	Т	emp:	1.5 C		
	8015M							
l i i i i i i i i i i i i i i i i i i i	8021B/5030 BTEX							
	Chloride		·					
0203327-05	TMW-2 25-30'	Soil		5/9/02 10:57		5/10/02 15:07	4 oz glass	Ice
<u>La</u>	<u>ıb Testing:</u>	Rejected:	No	Т	emp:	1.5 C		
	8015M							
	8021B/5030 BTEX							
_	Chloride				_			
0203327-06	TMW-2 30-35'	Soil		5/9/02 11:15		5/10/02 15:07	4 oz glass	Ice
<u> </u>	<u>ab Testing:</u>	Rejected:	No	Т	emp:	1.5 C		
	8015M							
	8021B/5030 BTEX							

ENVIRONMENTAL LAB OF TEXAS SAMPLE WORK LIST

Environmental Technology Group, Inc. 2540 W. MARLAND HOBBS, NM 88240 505-397-4701 Order#:G0203327Project:Dev 2101RProject Name:Patsy #1Location:Monument

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

<u>Lab ID;</u>	Sample :	Matrix:		Date / Time <u>Collected</u>	e D 	ate / Time <u>Received</u>	Container	Preservative
	Chloride							- <u></u>
0203327-07	TMW-3 25-30'	Soil		5/9/02 14:20		5/10/02 15:07	4 oz glass	Ice
La	<u>ıb Testing:</u>	Rejected:	No	1	Temp:	1.5 C		
	8015M							
	8021B/5030 BTEX							
<u></u>	Chloride				-		· · · · · · · · · · · · · · · · · · ·	
0203327-08	TMW-4 25-30'	Soil		5/9/02		5/10/02	4 oz glass	Ice
				16:25		15:07		
La	<u>ıb Testing:</u>	Rejected:	No]	ſemp:	1.5 C		
	8015M							
	8021B/5030 BTEX							
<u></u>	Chloride			, <u> </u>				<u></u>
0203327-09	TMW-5 25-30'	Soil		5/9/02		5/10/02	4 oz glass	Ice
-		n • • •	NI-	17:35	-	15:07		
<u>La</u>	ib Testing:	Rejected:	NO		l'emp:	1.5 C		
	8015M							
	8021B/5030 BTEX							
	Chloride			· ····				
0203327-10	TMW-6 25-30'	Soil		5/9/02		5/10/02	4 oz glass	Ice
		Datastat	No	18:27		15:07		
<u>La</u>	<u>ID Testing:</u>	Rejected:	NU		lemp:	1.5 C	κ.	
	8015M							
	8021B/5030 BTEX							
	Chloride							
0203327-11	TMW-7 25-30'	Soil		5/9/02		5/10/02	4 oz glass	Ice
T.	ah Taatina.	Deiestade	No	19:44	Famme	15:07		
<u>L</u> (<u>no resung:</u>	rejected:	110		remp:	1.5 C		
	00131VI 80312/5030 275V							
	Chloride							

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-01 TMW-1 10-15'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/10/02	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	<u>Method</u> 8015M
	Parameter		Resu mg/k	lt g	RL	
	DRO, >C12-C35		20.8	8	10.0	
	GRO, C6-C12		<10.	0.	10.0	
	TOTAL, C6-C35		20.8	8	10.0	

8021B/5030 BTEX

Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	Analyst	Method
0001687-02		5/13/02 13:47	1	25	СК	8021B

Parameter	Result µg/kg	RL
Benzene	<25.0	25.0
Ethylbenzene	<25.0	25.0
Toluene	<25.0	25.0
p/m-Xylene	<25.0	25.0
o-Xylene	<25.0	25.0

Lab ID: Sample ID: 0203327-02 TMW-1 25-30'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	<u>Analyst</u>	Method
		5/10/02	1	1	СК	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	<10.0	10.0
GRO, C6-C12	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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KEN DUTTON Environmental Technology Group, Inc.	Order#: Project:	G0203327 Dev 2101B
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-02 TMW-1 25-30'

		8021E	x/5030 BTEX	7		
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 14:10	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	<u>N</u> 8
	Parameter		Resu µg/kj	lt g	RL	
	Benzene		<25.0)	25.0	
	Ethylbenzene		<25.0) .	25.0	
	Toluene		<25.	0	25.0	
	p/m-Xylene		<25.	0	25.0	
	o-Xylene		<25.	0	25.0	

Lab ID: Sample ID:

0203327-03 TMW-1 30-35'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/10/02	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	Method 8015M
	Parameter		Resu mg/k	lt g	RL	
	DRO, >C12-C35		175	5	10.0	

114

289

10.0

10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

GRO, C6-C12

TOTAL, C6-C35

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-03 TMW-1 30-35'

8021B/5030 BTEX						
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 14:32	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	<u>Methoo</u> 8021B
	Parameter		Resi µg/J	ılt «g	RL	
E	Benzene	······································	<25	.0	25.0	
E	Ithylbenzene		46.	4.	25.0	
T	oluene		<25	.0	25.0	
p	/m-Xylene		18	8	25.0	
a	-Xylene		51.	4	25.0	

Lab ID: Sample ID:

0203327-04 TMW-2 10-15'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/10/02	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	<u>Method</u> 8015M
. [Parameter		Resi	ult	RL	

- - - -

Parameter	mg/kg	RL
DRO, >C12-C35	<10.0	10.0
GRO, C6-C12	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS I, LTD.

Environmental Technology Group, Inc. Project:	
2540 M/ ALADIAND	Dev 2101R
2540 W. MARLAND Project Nat	ne: Patsy #1
HOBBS, NM 88240 Location:	Monument

Lab ID: Sample ID: 0203327-04 TMW-2 10-15'

		8021E	R/5030 BTEX			
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 14:54	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	<u>Method</u> 8021B
	Parameter		Result µg/kg	t	RL	
	Benzene	<u></u>	<25.0		25.0	
	Ethylbenzene		<25.0		25.0	
	Toluene		<25.0		25.0	
	p/m-Xylene		<25.0		25.0	
	o-Xylene		<25.0		25.0	

Lab ID: Sample ID:

0203327-05 TMW-2 25-30'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/10/02	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 5	<u>Analyst</u> CK	<u>Method</u> 8015M
	Parameter		Resu mg/kg	lt g	RL	
	DRO, >C12-C35		701		50.0	
	GRO, C6-C12		673		50.0	
	TOTAL, C6-C35		1374		50.0	

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

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ENVIRONMENTAL LAB OF TEXAS I, LTD.

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-05 TMW-2 25-30'

	8021B/5030 BTEX						
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 15:16	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	Method 8021B	
	Parameter		Resu µg/k	alt sg	RL		
]	Benzene		98.	6	25.0		
]	Ethylbenzene	· · · · · · · · · · · · · · · · · · ·	450	5 .	25.0		
-	Foluene		401	1	25.0		
1	p/m-Xylene		194	0	25.0		
-	o-Xylene		413	3	25.0		

Lab ID: Sample ID:

0203327-06 TMW-2 30-35'

8015M						
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	<u>Analyst</u>	Method
		5/10/02	1	5	СК	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	872	50.0
GRO, C6-C12	873	50.0
TOTAL, C6-C35	1745	50.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-06 TMW-2 30-35'

		8021B	/5030 BTEX	K		
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 15:38	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	Metho 8021B
	Parameter		Resu µg/k	ılt g	RL	
Ĩ	Benzene		337	7	25.0	
I	Ethylbenzene		466	j .	25.0	
. 1	Toluene		555	5	25.0	
I	/m-Xylene		178	0	25.0	
-	o-Xylene		339)	25.0	

Lab ID: Sample ID:

0203327-07 TMW-3 25-30'

			8015M		-	
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	<u>Analyst</u>	Method
		5/10/02	1	1	СК	8015M
٢						

Parameter	Result mg/kg	RL
DRO, >C12-C35	<10.0	10.0
GRO, C6-C12	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-07 TMW-3 25-30'

		8021B	x/5030 BTEX			
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 16:00	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	<u>Method</u> 8021B
	Parameter		Result µg/kg	;	RL	
	Benzene		<25.0		25.0	
	Ethylbenzene		<25.0		25.0	
	Toluene		<25.0		25.0	
	p/m-Xylene		<25.0		25.0	
	o-Xylene		<25.0		25.0	

Lab ID: Sample ID: 0203327-08 TMW-4 25-30'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	<u>Analyst</u>	Method
		5/10/02	1	1	СК	8015M

Parameter	Result mg/kg	RL
DRO, >C12-C35	<10.0	10.0
GRO, C6-C12	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev. 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-08 TMW-4 25-30'

		8021B	8/5030 BTEX			
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 16:22	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	Method 8021B
	Parameter		Result µg/kg	t	RL	
В	enzene		<25.0		25.0	
E	thylbenzene		<25.0		25.0	
T	oluene		<25.0		25.0	
p/	m-Xylene		<25.0		25.0	
0-	-Xylene		<25.0		25.0	

Lab ID: Sample ID:

0203327-09 TMW-5 25-30'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Anaiyzed</u> 5/10/02	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	<u>Method</u> 8015M
	Parameter		Result mg/kg	t	RL	
	DRO, >C12-C35		<10.0		10.0	
	GRO, C6-C12		<10.0		10.0	
	TOTAL, C6-C35		<10.0		10.0	

- - - -

TOTAL, C6-C35

ENVIRONMENTAL LAB OF TEXAS I, LTD.

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-09 TMW-5 25-30'

		8021B	X/5030 BTEX			
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 16:44	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	<u>Method</u> 8021B
	Parameter		Result μg/kg		RL	
•	Benzene		<25.0		25.0	
[]	Ethylbenzene		<25.0		25.0	
,	Toluene		<25.0		25.0	
	p/m-Xylene	····	<25.0		25.0	
-	o-Xylene		<25.0		25.0	

Lab ID: Sample ID:

0203327-10 TMW-6 25-30'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/10/02	DateSampleAnalyzedAmount5/10/021		<u>Analyst</u> CK	<u>Method</u> 8015M
	Parameter		Result mg/kg		RL	
	DRO, >C12-C35		<10.0		10.0	

<10.0

<10.0

10.0

10.0

GRO, C6-C12

TOTAL, C6-C35

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-10 TMW-6 25-30'

		8021E	R/5030 BTEZ	X		
Method <u>Blank</u> 0001687-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/13/02 17:06	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 25	<u>Analyst</u> CK	Method 8021B
	Parameter		Resu µg/k	ılt	RL	
	Benzene		<25	.0	25.0	
	Ethylbenzene		<25	.0	25.0	
	Toluene		<25	.0	25.0	
	p/m-Xylene		<25	.0	25.0	
	o-Xylene		<25	.0	25.0	

Lab ID: Sample ID:

0203327-11 TMW-7 25-30'

			8015M			
Method <u>Blank</u>	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/10/02	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	<u>Method</u> 8015M
	Parameter		Res mg/	ult /kg	RL	
	DRO, >C12-C35		<10).0	10.0	

<10.0

<10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

GRO, C6-C12

TOTAL, C6-C35

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10.0

10.0

KEN DUTTON	Order#:	G0203327
Environmental Technology Group, Inc.	Project:	Dev 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument

Lab ID: Sample ID: 0203327-11 TMW-7 25-30'

		<i>8021B</i>	8/5030 BTEX			
Method Blank	Date <u>Prepared</u>	Date <u>Analyzed</u>	Sample <u>Amount</u>	Dilution <u>Factor</u>	<u>Analyst</u>	Method
0001687-02		5/13/02 17:28	1	25	СК	8021B
	Parameter		Resu µg/kj	lt g	RL	
	Benzene		<25.	0	25.0	
	Ethylbenzene		<25.0	0.	25.0	
	Toluene		<25.	0	25.0	
	p/m-Xylene		<25.	0	25.0	
	o-Xylene		<25.	0	25.0	

Stistor enl Approval: Date

Raland K. Tuttle, Lab Director, QA Officer Celey D. Keene, Org. Tech/Director Jeanne McMurrey, Inorg. Tech. Director Sandra Biezugbe, Lab Tech. Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

S I, LTD. 12600 West I-20 East, Odessa, TX 79765 Ph: 915-563-1800

Lab ID: 0203327-01 Sample ID: TMW-1 10-15' Test Parameters Result Units Pactor RL Method Analyz Chloride 197 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-02 Sample ID: TMW-1 25-30' Test Parameters Result Units Pactor RL Method Analyz Chloride 3280 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-03 Sample ID: TMW-1 30-35' Test Parameters Result Units Pactor RL Method Analyz Chloride 248 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Result Units Pactor RL Method Analyz Chloride 248 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Result Units Pactor RL Method Analyz Chloride 52.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Result Units Pactor RL Method Analyz Chloride 52.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 25.30' Test Parameters Result Units Pactor RL Method Analyz Chloride 52.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 25.30' Test Parameters Result Units Sample ID: TMW-2 30-35' Test Parameters Result Units Sample ID: TMW-2 30-35' Test Parameters Result Units Sample ID: TMW-2 30-35' Test Parameters Result Units Sample ID: TMW-2 30-35'				203327 v 2101R tsy #1 onument	: G0 : De Name: Pa n: Mo	Order# Project: Project Locatio		Fechnology Group, Inc. AND 8240	KEN DUTTON Environmental 7 2540 W. MARL HOBBS, NM 8
Test Parameters Dilution Batter Parameter Inits Factor RL Method Analyz Chloride 197 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-02 Sample ID: TMW-1 25-30' Dilution Date Parameters Result Units Factor RL Method Analyz Chloride 3280 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-03 Sample ID: TMW-1 30-35' Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 203327-04 Sample ID: TMW-2 10-15' Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 0203327-05 Sample ID: TMW-2 25-30' 5/13/0 1 5.00 9253 5/13/0 Lab ID: <								0203327-01 TMW-1 10-15'	Lab ID: Sample ID:
Chloride 197 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-02 Sample ID: TMW-1 25-30' Dilution Date Date Analyz Chloride 3280 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-02 3280 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-03 3280 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-03 308 Test Parameters Dilution Date Analyz Chloride 248 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 38 38 Sample ID: TMW-2 10-15' Dilution Date Parameters Result Units Factor RL Method Analyz Chloride 62.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-05 Sample ID: TM	<u>d Analyst</u>	Date Analyzed	Method	<u>RL</u>	Dilution <u>Factor</u>	<u>Units</u>	Result	neters	Test Param
Lab ID: 0203327-02 Sample ID: TMW-1 25-30' Test Parameters Parameter Chloride 0203327-03 Sample ID: 0203327-03 Sample ID: 0203327-04 Sample ID: TMW-1 30-35' Test Parameters Parameters Parameter Result Units Factor RL Method Analyz Analyz Chloride 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Parameter Result Units Factor RL Method Analyz Chloride 0203327-05 Sample ID: TMW-2 25-30' Test Parameters Parameter Result Units Factor RL Method Analyz Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Parameter Result Units Factor RL Method Analyz Chloride 1 5.00 9253 5/13/0 Lab ID: 0203327-05 Sample ID: TMW-2 25-30' Test Parameters Parameter Result Units Factor RL Method Analyz Chloride 1 5.00 9253 5/13/0 Lab ID: 0203327-05 Sample ID: TMW-2 25-30' Test Parameters Parameter Result Units Factor RL Method Analyz Chloride 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 Sample ID: TMW-2 30-35' Test Parameter	SB	5/13/02	9253	5.00	1	mg/kg	197		Chloride
Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 3280 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-03 Sample ID: TMW-1 30-35' Dilution Date Parameters Result Units Factor RL Method Analyz Chloride 248 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Dilution Parameter Parameter Result Units Factor RL Method Analyz Chloride 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 62.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-05 Sample ID: TMW-2 25-30' Date Test Parameters Result Units Factor RL Method Analyz Chloride 26.0 mg/kg 1 5.00 9253<					<u> </u>			0203327-02 TMW-1 25-30'	Lab ID: Sample ID:
Chloride 3280 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-03 Sample ID: TMW-1 30-35' Dilution Date Parameters Parameter Result Units Factor RL Method Analyz Chloride 248 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 0203327-04 Sample ID: TMW-2 10-15' Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 0203327-05 Sample ID: TMW-2 25-30' Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 26.0 mg/kg 1 5.00 9253 <td><u>d Analyst</u></td> <td>Date Analyzed</td> <td>Method</td> <td><u>RL</u></td> <td>Dilution <u>Factor</u></td> <td>Units</td> <td><u>Result</u></td> <td>neters</td> <td>Test Param Parameter</td>	<u>d Analyst</u>	Date Analyzed	Method	<u>RL</u>	Dilution <u>Factor</u>	Units	<u>Result</u>	neters	Test Param Parameter
Lab ID: 0203327-03 Sample ID: TMW-1 30-35' Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 248 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Dilution Date Test Parameter Result Units Factor RL Method Analyz Chloride 0203327-04 Sample ID: TMW-2 10-15' Dilution Date Test Parameters Dilution Chloride Analyz Chloride 0203327-05 Sample ID: TMW-2 25-30' Dilution Date Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 0203327-05 Sample ID: TMW-2 25-30' Dilution Date Lab ID: 0203327-06 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 S	SB	5/13/02	9253	5.00	1	mg/kg	3280		Chloride
Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 248 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Dilution Date Test Parameters Dilution Easult Units Factor RL Method Analyz Chloride 62.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-05 Sample ID: TMW-2 25.30' 5/13/0 Lab ID: 0203327-05 Sample ID: TMW-2 25.30' 5/13/0 Test Parameter Result Units Factor RL Method Analyz Chloride 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 Sample ID: TMW-2 30-35' 5/13/0 Lab ID: 0203327-06 Sample ID: TMW-2 30-35' 5/13/0								0203327-03 TMW-1 30-35'	Lab ID: Sample ID:
Chloride 248 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Dilution Date Test Parameters Result Units Factor RL Method Analyz Chloride 62.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-05 0203327-05 Sample ID: TMW-2 25-30' Test Parameters Dilution Pactor RL Method Analyz Chloride 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-05 0 0 0 0 0 0 Lab ID: 0203327-05 0 7 0 9253 5/13/0 Lab ID: 0203327-06 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 0 0 9253 5/13/0 Lab ID: 0203327-06 0 0 0 0 0 Sample ID: TMW-2 30-35' 0 0 0 0	<u>d Analyst</u>	Date Analyzed	Method	<u>RL</u>	Dilution <u>Factor</u>	<u>Units</u>	<u>Result</u>	neters	Test Paran Parameter
Lab ID: 0203327-04 Sample ID: TMW-2 10-15' Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 0203327-05 Sample ID: TMW-2 25-30' Dilution Date Test Parameter Result Units Factor RL Method Analyz Chloride 0203327-05 Sample ID: TMW-2 25-30' Dilution Date Test Parameter Result Units Factor RL Method Analyz Chloride 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 Sample ID: TMW-2 30-35' Test Parameter Dilution Date Test Parameter Nethod Analyz Nethod Analyz Nethod Analyz Lab ID: 0203327-06 Sample ID: TMW-2 30-35' Nethod Nethod Nethod Method<	SB	5/13/02	9253	5.00	1	mg/kg	248		Chloride
Test ParametersDilutionDateParameterResultUnitsFactorRLMethodAnalyzChloride62.0mg/kg15.0092535/13/0Lab ID:0203327-050203327-050203327-050203327-050203327-05Sample ID:TMW-2 25-30'DilutionDateParametersResultUnitsFactorRLMethodParameterResultUnitsFactorRLMethodAnalyzChloride26.0mg/kg15.0092535/13/0Lab ID:0203327-060203327-060203327-060203327-060203327-060203327-06Sample ID:TMW-2 30-35'Tract Barameters0203327-060203327-060203327-06								0203327-04 TMW-2 10-15'	Lab ID: Sample ID:
Taranteer Kesult Omits Factor Kesult Intention Main Chloride 62.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-05 0203327-05 0203327-05 0203327-05 0203327-05 0203327-05 0203327-05 0203327-05 0203327-05 0203327-05 0203327-05 0203327-06 0203327	d Analyst	Date Analyzed	Method	191.	Dilution Factor	Unite	Docult	neters	Test Paran
Lab ID: 0203327-05 Sample ID: TMW-2 25-30' Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 Sample ID: TMW-2 30-35' Tract Daragementation Dilution Date	SB	5/13/02	9253	5.00	1	mg/kg	62.0		Chloride
Test Parameters Dilution Date Parameter Result Units Factor RL Method Analyz Chloride 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 Sample ID: TMW-2 30-35'								0203327-05 TMW-2 25-30'	Lab ID: Sample ID:
Chloride 26.0 mg/kg 1 5.00 9253 5/13/0 Lab ID: 0203327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06 020327-06	ed <u>Analyst</u>	Date Analyzed	Method	<u>RL</u>	Dilution <u>Factor</u>	Units	<u>Result</u>	neters	Test Paran Parameter
Lab ID: 0203327-06 Sample ID: TMW-2 30-35'	SB	5/13/02	9253	5.00	1	mg/kg	26.0		Chloride
Tool Danges store								0203327-06 TMW-2 30-35'	Lab ID: Sample ID:
I CSI FUTUMEIETS Dilution Date Parameter Result Linits Factor RI Method Analysis	ad Analyst	Date	Method	RI	Dilution Factor	Ilnite	Posult	neters	Test Paran
Chloride 80.0 mg/kg 1 5.00 9253 5/13/0	sB	5/13/02	9253	5.00	1	mg/kg	80.0		Chloride

RL = Reporting Limit N/A = Not Applicable

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ENVIRONMENTAL LAB OF TEXAS I, LTD.

KEN DUTTON Environmental 2540 W. MARI HOBBS, NM	Technology Group, Inc. LAND 88240		Order# Project Project Locatio	: G : D Name: P on: N	60203327 Dev 2101R Patsy #1 fonument			
Lab ID: Sample ID:	0203327-07 TMW-3 25-30'							
Test Parar Parameter	neters	<u>Result</u>	Units	Dilution <u>Factor</u>	<u>RL</u>	Method	Date Analyzed	Analyst
Chloride		62.0	mg/kg	1	5.00	9253	5/13/02	SB
Lab ID: Sample ID:	0203327-08 TMW-4 25-30'							
Test Paran Parameter	meters	 Result	Units	Dilution <u>Factor</u>	<u>RL</u>	Method	Date Analyzed	<u>Analyst</u>
Chloride		71.0	mg/kg	1	5.00	9253	5/13/02	SB
Lab ID: Sample ID:	0203327-09 TMW-5 25-30'							
Test Paran Parameter Chloride	meters	 <u>Result</u> 47.0	<u>Units</u> mg/kg	Dilution <u>Factor</u> 1	<u>RL</u> 5.00	<u>Method</u> 9253	Date Analyzed 5/13/02	<u>Analyst</u> SB
Lab ID: Sample ID:	0203327-10 TMW-6 25-30'	 						
Test Parage	meters	<u>Result</u>	Units	Dilution <u>Factor</u>	<u>RL</u>	Method	Date <u>Analyzed</u>	<u>Analyst</u>
Chloride		138	mg/kg	1	5.00	9253	5/13/02	SB
Lab ID: Sample ID:	0203327-11 TMW-7 25-30'							
Test Para Parameter	meters	 Result	Units	Dilution <u>Factor</u>	RL	Method	Date <u>Analyzed</u>	<u>Analyst</u>
Chloride		 89.0	mg/kg	1	5.00	9853	5/13/02	SB
				Approva Raland K Celey D. Jeanne M Sandra Bi Sara Moli	I: . Tuttle, Lab I Keene, Org. T cMurrey, Ino iezugbe, Lab ina, Lab Tech	Director, DA Off Tech. Director rg. Tech. Director Tech.	Ceine S icer I pr	5//5/07 Date

Page 2 of 2

ENVIRONMENTAL LAB OF TEXAS QUALITY CONTROL REPORT

8015M

BLANK	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0001674-02			<10		
MS	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0203327-07	0	952	1060	111.3%	
MSD	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	···· · · · · ·	0203327-07	0	952	1170	122.9%	9.9%
SRM	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0001674-05		1000	1090	109.%	

ENVIRONMENTAL LAB OF TEXAS QUALITY CONTROL REPORT 8021B/5030 BTEX or

BLANK	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/kg		0001687-02			<25.0		
Ethylbenzene-µg/kg		0001687-02			<25.0		
Toluene-µg/kg	<u> </u>	0001687-02			<25.0		
p/m-Xylene-µg/kg		0001687-02			<25.0		
o-Xylene-µg/kg	· · · · · · · · · · · · · · · · · · ·	0001687-02			<25.0		
MS	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/kg		0203298-03	0	100	112	112.%	····
Ethylbenzene-µg/kg		0203298-03	0	100	111	111.%	· · · · · · · · · · · · · · · · · · ·
Toluene-µg/kg		0203298-03	0	100	108	108.%	
p/m-Xylene-µg/kg		0203298-03	0	200	224	112.%	
o-Xylene-µg/kg		0203298-03	0	100	112	112.%	
MSD	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/kg		0203298-03	0	100	111	111.%	0.9%
Ethylbenzene-µg/kg		0203298-03	0	100	114	114.%	2.7%
Toluene-µg/kg		0203298-03	0	100	109	109.%	0.9%
p/m-Xylene-µg/kg		0203298-03	0	200	223	111.5%	0.4%
o-Xylene-µg/kg		0203298-03	0	100	112	112.%	0.%
SRM	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/kg	\- <u></u>	0001687-05		100	112	112.%	
Ethylbenzene-µg/kg		0001687-05		100	110	110.%	
Toluene-µg/kg		0001687-05	·····	100	106	106.%	haa
p/m-Xylene-µg/kg		0001687-05		200	226	113.%	
o-Xylene-µg/kg		0001687-05		100	111	111.%	

ENVIRONMENTAL LAB OF TEXAS QUALITY CONTROL REPORT

Test Parameters

BLANK	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0001692-01			<5.00		
MS	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203312-01	19500	5000	24500	100.%	
MSD	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0203312-01	19500	5000	24500	100.%	0.%
SRM	Soil	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/kg		0001692-04		5000	5050	101.%	

mottolet Environmental Lab of Texas I, Ltd. Phone: 915-563-1800 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUE 12600 West I-20 East Fax: 915-563-1713 Odessa, Texas 79763 Project Name: PA-184 HEL Project #: Der 21012 Project Loc: Monument Project Manager: Ken Dutton Company Name ETGT Company Address: 2540 West Marland City/State/Zip: Hobbs, New Mexico \$\$240 PO #: Fax No: (505)397-470/ 297-4882 Telephone No: 505 Kunalch Sampler Signature Analyze For: TCLP: TOTAL Preservative Matrix 1006 Cd Cr Pb Hg Se RUSH TAT (Pre-Schedule CO3, HCO3) 1005 2002 No. of Containers Ха, Time Sampled Sampled SO4, (Metals: As Ag Ba SAR / ESP / CEC Cations (Ca, Mg, Standard TAT scify) Semivolatiles TPH: 418.1 Anions 🔘 S Sp Other (spe Volatiles Other (Sludge Date NaOH H₂SO4 Water HN0. None BTEX Ę Soil 8 SCI LAB # (lab use only) FIELD CODE 5-9 0920 0203327-01 TMIN-10-15' 25-301 TMW-0931 6Z 30-35' 0947 Tmw-03 TMW 10-15-1050 oy 25-30' 05 TMW-a 1057 30-35' 1115 TMW-2 06 25.30 1420 07 TMW-3 25-30 1625 TMW-4oB 25-30 735 TMW-5 091 25.30 10 TMW·6 Ŕ Special Instructions: Sample Containers Intact? N Temperature Upon Receipt:

Date Time Time Received 140 mm/ 1140 5-10-02 Date Time Time Received by ELOT 5-10-02 1507

Reinquished by:

asas

Date

5-10-62

Date

Laboratory Comments:

1.5°C

1507

5110/0Z

Environn 12600 West I-20 Eas Odessa, Texas 7976 Project Ma Company Company Ad City/Sta Talepha	nental Lab t Pr anager: Ker y Name ET ddress: A54 ate/Zip: Hob one No: S55	of Tenter $915-56$ Fax: $915-56$ DU GT 0 0 0 0 0 0 0 0 0 0	exas 53-1800 53-1713 L-lor) est 200	I, Ltd.	Fax Nd				397		47	8/	CH4 -	IN OF Pri	⁼ CU. Pro Proje	STOE t Nam oject cct Lo PO	DY R e: #:	Pa Pa D	Ro A				C Z REQU Z en	EST		N
LAB # (lab use only) 02033221 - 11	FIELD TMW-7	CODE	30	Date Sampled	Time Sampled	L No. of Containers	Ice Ice	P	reserv Property and the second	rative	None Other (Specify)	Water	Matu e6pnis	Soll Soll Soll	K TPH: 418. 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Amons CL 604, CU3, HCU3)	Metals: As Ag Ba Cd Cr Pb Hg Se	A	Semivolatites	A BTEXB021B5030 4				RUSH TAT (Pre-Schedule)	Standard TAT
Special Instructions: Relinguished by: Relinguished by:	Runold	Date 5-10-02 Date	Time U45 Time	Received by:	LOT:								ate The ate		Time	ST L	Samp		ntair re U y Co	ners li pon F	ntact ⁷	pt:	0	1		

ANALYTICAL REPORT

Prepared for:

KEN DUTTON Environmental Technology Group, Inc. 2540 W. MARLAND HOBBS, NM 88240

Project:	Patsy #1
Order#:	G0203328
Report Date:	05/15/2002

<u>Certificates</u> US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS SAMPLE WORK LIST

Environmental Technology Group, Inc. 2540 W. MARLAND HOBBS, NM 88240 505-397-4701 Order#:G0203328Project:DEV 2101RProject Name:Patsy #1Location:Monument, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

				Date / Time	Date / Time		
Lab ID:	Sample :	Matrix:		Collected	Received	Container	Preservative
0203328-01	TMW1	WATER		5/10/02	5/10/02	See COC	See COC
7		Deiestede	No	12:46 Tom	15:07		
La	<u>b Testing:</u>	Rejecteu:	NO	lem	ip: 1.5 C		
	8021B/5030 BTEX						
	Chloride						
·	Total Dissolved Solids	(TDS)					, , <u></u>
0203328-02	TMW2	WATER		5/10/02 13:00	5/10/02 15:07	See COC	See COC
La	ib Testing:	Rejected:	No	Ten	ip: 1.5 C		
	8021B/5030 BTEX						
	Chloride						
	Total Dissolved Solids	(TDS)					
0203328 03	TMW3	WATER		5/10/02	5/10/02	See COC	See COC
0203320-03				12:30	15:07		
<u>La</u>	ib Testing:	Rejected:	No	Теп	ър: 1.5 C		
	8021B/5030 BTEX						
	Chloride						
	Total Dissolved Solids	(TDS)					
0203328-04	TMW4	WATER		5/10/02	5/10/02	See COC	See COC
				12:17	15:07		· · · · · · · · · · · · · · · · · · ·
<u>La</u>	<u>ıb Testing:</u>	Rejected:	No	Ten	ap: 1.5 C		
	8021B/5030 BTEX						
	Chloride						
	Total Dissolved Solids	(TDS)					
0203328-05	TMW5	WATER		5/10/02	5/10/02	See COC	See COC
				11:30	15:07		
<u>La</u>	<u>ab Testing:</u>	Rejected:	No	Ten	np: 1.5 C		
	8021B/5030 BTEX						
	Chloride						
	Total Dissolved Solids	(TDS)					
0203328-06	TMW6	WATER		5/10/02	5/10/02	See COC	See COC
				11:45	15:07		
<u>La</u>	ab Testing:	Rejected:	No	Ter	np: 1.5 C		
	8021B/5030 BTEX						
	Chloride						

ENVIRONMENTAL LAB OF TEXAS SAMPLE WORK LIST

Environmental Technology Group, Inc. 2540 W. MARLAND HOBBS, NM 88240 505-397-4701 Order#:G0203328Project:DEV 2101RProject Name:Patsy #1Location:Monument, NM

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

Lab ID:	<u>Sample :</u> Total Dissolved Solic	<u>Matrix:</u> ls (TDS)	Date / Time <u>Collected</u>	Date / Time <u>Received</u>	Container	Preservative
0203328-07	TMW7	WATER	5/10/02 12:00	5/10/02 15:07	See COC	See COC
<u>La</u>	<u>b Testing:</u>	Rejected: No	Tei	np: 1.5 C		
	8021B/5030 BTEX					
	Chloride					
	Total Dissolved Solid	is (TDS)				

KEN DUTTON	Order#:	G0203328
Environmental Technology Group, Inc.	Project:	DEV 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument, NM

Lab ID: Sample ID: 0203328-01 TMW1

	8021B/5030 BTEX								
Mei <u>Bla</u> 00017	thod Date <u>nk Prepared</u> 04-02	Date <u>Analyzed</u> 5/14/02 16:16	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	<u>Method</u> 8021B			
	Parameter		Resi µg/	ult L	RL				
	Benzene		<1.0)0	1.00				
	Ethylbenzene		1.0	0.	1.00				
	Toluene		<1.0	00	1.00				
	p/m-Xylene		2.2	3	1.00				
	o-Xylene		<1.	00	1.00				

Lab ID: Sample ID:

0203328-02 TMW2

8021B/5030 BTEX

Method	Date	Date	Sample	Dilution		
Blank	Prepared	Analyzed	<u>Amount</u>	Factor	<u>Analyst</u>	Method
0001704-02		5/14/02 16:39	1	1	СК	8021B
	· · · · ·	· · · · · · · · · · ·				

Result μg/L	RL
2.61	1.00
2.81	1.00
3.08	1.00
9.77	1.00
1.28	1.00
	Result μg/L 2.61 2.81 3.08 9.77 1.28 1.28

KEN DUTTON	Order#:	G0203328
Environmental Technology Group, Inc.	Project:	DEV 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument, NM

Lab ID: Sample ID: 0203328-03 TMW3

	8021B/5030 BTEX									
Method <u>Blank</u> 0001704-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/14/02 11:56	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	<u>Method</u> 8021B				
	Parameter		Result µg/L		RL					
. 1	Benzene		<1.00		1.00					
Ī	Ethylbenzene		<1.00		1.00					
1	Toluene		<1.00		1.00					
1	p/m-Xylene		<1.00		1.00					
ī	o-Xylene		<1.00		1.00					

Lab ID: Sample ID: 0203328-04 TMW4

Method Date Date Sample Dilution Amount <u>Analyst</u> Factor Method Blank Prepared **Analyzed** 5/14/02 1 1 CK 8021B 0001704-02 12:18 Result RL Parameter μg/L 1.00 <1.00 Benzene Ethylbenzene 1.00 <1.00 1.00 <1.00 Toluene 1.00 <1.00 p/m-Xylene 1.00 o-Xylene <1.00

8021B/5030 BTEX

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

KEN DUTTON	Order#:	G0203328
Environmental Technology Group, Inc.	Project:	DEV 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument, NM

Lab ID: Sample ID:

0203328-05 TMW5

		8021B	8/5030 BTEX	<u> </u>		
Method <u>Blank</u> 0001704-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/14/02 17:01	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	Method 8021B
ſ	Parameter		Resu µg/L	lt	RL	
Ī	Benzene		<1.00)	1.00	
J	Ethylbenzene		<1.00).	1.00	
	Foluene		<1.00)	1.00	
	o/m-Xylene		<1.00)	1.00	
	o-Xylene	·····	<1.00)	1.00	

Lab ID: Sample ID: 0203328-06 TMW6

Method Date Date Sample Dilution Blank Prepared Analyzed Amount Factor Analyst Method 5/14/02 1 1 СК 8021B 0001704-02 13:02 Result Parameter RL μg/L 1.00 <1.00 Benzene 1.00 Ethylbenzene <1.00 1.00 Toluene <1.00 <1.00 1.00 p/m-Xylene <1.00 1.00 o-Xylene

8021B/5030 BTEX

KEN DUTTON	Order#:	G0203328
Environmental Technology Group, Inc.	Project:	DEV 2101R
2540 W. MARLAND	Project Name:	Patsy #1
HOBBS, NM 88240	Location:	Monument, NM

Lab ID: Sample ID:

0203328-07 TMW7

		8021B	x/5030 BTEX	C		
Method <u>Blank</u> 0001704-02	Date <u>Prepared</u>	Date <u>Analyzed</u> 5/14/02 13:25	Sample <u>Amount</u> 1	Dilution <u>Factor</u> 1	<u>Analyst</u> CK	Method 8021B
	Parameter		Resu µg/L	lt	RL	
	Benzene		<1.00)	1.00	•
	Ethylbenzene		<1.00	D .	1.00	
	Toluene		<1.00	D	1.00	
	p/m-Xylene	• • • • •	<1.0	0	1.00	
	o-Xylene		<1.0	0	1.00	,

Isla Approval: Date

Raland K. Tuttle, Lab Director, QA Officer Celey D. Keene, Org. Tech. Director Jeanne McMurrey, Inorg. Tech. Director Sandra Biezugbe, Lab Teeh. Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

Page 4 of 4

Environmental 7 2540 W. MARLA HOBBS, NM 88	Fechnology Group, Inc. AND 8240		Order# Project Project Locatio	: : Name: on:	G0203328 DEV 2101R Patsy #1 Monument, N	NM		
Lab ID:	0203328-01							
Sample ID:	TMW1							
Test Param Parameter	neters	Result	Units	Dilutior Factor	RL	Method	Date Analyzed	<u>Analyst</u>
Chloride		736	mg/L	1	5.00	9253	5/10/02	SB
Total Dissolve	ed Solids (TDS)	2230	mg/L	1	5.00	160.1	5/13/02	SB
Lab ID: Sample ID:	0203328-02 TMW2							
Test Param Parameter	neters	Result	Units	Dilution <u>Factor</u>	1 <u>RL</u>	Method	Date Analyzed	<u>Analyst</u>
Chloride		727	mg/L	1	5.00	9253	5/10/02	SB
Total Dissolve	ed Solids (TDS)	2250	mg/L	1	5.00	160.1	5/13/02	SB
Lab ID: Sample ID:	0203328-03 TMW3							
Test Param Parameter	neters	Result	<u>Units</u>	Dilution <u>Factor</u>	n <u>RL</u>	Method	Date Analyzed	<u>Analyst</u>
Chloride		780	mg/L	1	5.00	9253	5/10/02	SB
Total Dissolve	ed Solids (TDS)	2360	mg/L	1	5.00	160.1	5/13/02	SB
Lab ID: Sample ID:	0203328-04 TMW4						- , ,, , , , , , , , , , , , , , , , ,	
- -								
Parameter	neters	Result	Units	Dilution Factor	n r RL	Method	Date Analyzed	Analyst
Chloride		744	mg/L	1	5.00	9253	5/10/02	SB
Total Dissolv	ed Solids (TDS)	2270	mg/L	1	5.00	160.1	5/13/02	SB
Lab ID: Sample ID:	0203328-05 TMW5							
Test Paran Parameter	neters	Result	Units	Dilutio <u>Factor</u>	n <u>r RL</u>	Method	Date <u>Analyzed</u>	<u>Analyst</u>
Chloride		762	mg/L	1	5.00	9253	5/10/02	SB
Total Dissolv	ed Solids (TDS)	2350	mg/L	1	5.00	160.1	5/13/02	SB

RL = Reporting Limit N/A = Not Applicable

ENVIRONMENTAL LAB OF TEXAS I, LTD. 12600 Wes

KEN DUTTON Environmental 2540 W. MARI HOBBS, NM 4	Technology Group, Inc. .AND 38240		Order# Project Project Locatio	: Name: on:	G0203328 DEV 2101R Patsy #1 Monument, N	NM		
Lab ID: Sample ID:	0203328-06 TMW6							
Test Parar Parameter	neters	<u>Result</u>	Units	Dilutior <u>Factor</u>	n <u>RL</u>	Method	Date Analyzed	<u>Analyst</u>
Chloride Total Dissolv	ved Solids (TDS)	1100 3170	mg/L mg/L	1 1	5.00 5.00	9253 160.1	5/10/02 5/13/02	SB SB
Lab ID: Sample ID:	0203328-07 TMW7				<u> </u>			
Test Paran Parameter	neters	Result	Units	Dilution <u>Factor</u>	n : <u>RL</u>	Method	Date Analyzed	<u>Analyst</u>
Chloride Total Dissolv	ved Solids (TDS)	709 2370	mg/L mg/L	1 1	5.00 5.00	9253 160.1	5/10/02 5/13/02	SB SB
				Approva		er B.h	Pine 2	stistez

Approval: <u>Child P</u> - <u>Minl</u> Raland K. Tuttle, Lab Director, QA Officer Celey D. Keene, Org. Tech. Director Jeanne McMurrey, Inorg. Tech. Director Sandra Biezugbe, Lab Fech. Sara Molina, Lab Tech.

RL = Reporting Limit N/A = Not Applicable

Date

ENVIRONMENTAL LAB OF TEXAS QUALITY CONTROL REPORT 8021B/5030 BTEX or

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/L	0001704-02			<1.00		
Ethylbenzene-µg/L	0001704-02			<1.00		
Toluene-µg/L	0001704-02			<1.00		
p/m-Xylene-µg/L	0001704-02			<1.00		
o-Xylene-µg/L	0001704-02			<1.00		<u></u>
MS WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/L	0203328-07	0	100	110	110.%	
Ethylbenzene-µg/L	0203328-07	0	100	106	106.%	
Toluene-µg/L	0203328-07	0	100	104	104.%	
p/m-Xylene-µg/L	0203328-07	0	200	217	108.5%	
o-Xylene-µg/L	0203328-07	0	100	106	106.%	
MSD WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/L	0203328-07	0	100	107	107.%	2.8%
Ethylbenzene-µg/L	0203328-07	0	100	104	104.%	1.9%
Toluene-µg/L	0203328-07	0	100	102	102.%	1.9%
p/m-Xylene-µg/L	0203328-07	0	200	212	106.%	2.3%
o-Xylene-µg/L	0203328-07	0	100	104	104.%	1.9%
SRM WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-µg/L	0001704-05		100	108	108.%	
Ethylbenzene-µg/L	0001704-05		100	106	106.%	
Toluene-µg/L	0001704-05		100	103	103.%	· · · · · · · · · · · · · · · · · · ·
p/m-Xyiene-µg/L	0001704-05	ļ	200	214	107.%	
o-Xylene-µg/L	0001704-05		100	105	105.%	

ENVIRONMENTAL LAB OF TEXAS QUALITY CONTROL REPORT

Test Parameters

BLANK WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L	0001693-01			<5.00		
Total Dissolved Solids (TDS)-mg/L	0001702-01			<5.00		
DUPLICATE WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Total Dissolved Solids (TDS)-mg/L	0203328-01	2230		2270		1.8%
MS WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L	0203328-01	736	500	1240	100.8%	
MSD WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L	0203328-01	736	500	1230	98.8%	0.8%
SRM WATER	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Chloride-mg/L	0001693-04		5000	5050	101.%	

Environmental Lab of Texas, 12600 West I-20 East Odessa, Texas 79763 Project Manager: Company Name Company Name City/State/Zip: HOBBS MM	Inc. Meland 88240	COC D65 CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST Project Name: PATSY # Project #: DEV 2/0/R Project Loc: MONUMENT NM PO #:	
Telephone No: GOSY357-VSS2 Sampler Signature: Samon Gasas LAB # (lab use only) FIELD CODE 0203328-01 TMW 1 02	Fax No: Cos J 35 7 - 4 7 Date Sampled Date Sampled Ime Sampled No. of Containers Mo. of Containers Mone Sampled	Water Water Soil Soil Soil Soil Soil Soil Other (specify) Other (specify) Amain Amain Matix Amain IPH 418 1 IPH 418 1 IPH 11 1005(1006 IPH 118 1 IPH 11 1005(1006 IPH 11 1005(1006 <	RUSH TAT (Pre-Schedule)
O3 TMW 3 O4 FMW 4 O5 TMW 5 O6 TMW 6 O7 TMW 7 Special Instructions: Date Time Relinguisted by: Date Time Mma Gase Frooz IS 07 Relinquisted by: Date Time	1230 1277 1130 1145 1145 1200 <td>Sample Containers Infact? Sample Containers Infact? Temperature Upon Receipt Laboratory Comments: Date Time 1.5°C</td> <td></td>	Sample Containers Infact? Sample Containers Infact? Temperature Upon Receipt Laboratory Comments: Date Time 1.5°C	

APPENDIX C

New Mexico Office of the State Engineer Water Well Database Report and Record of Communication

New Mexico Office of the State Engineer Well Reports and Downloads

Township: 20S Range: 37E Sections: 18,7,8,17,19,20	
NAD27 X: Y: Zone: Search Radius:	
County: LE Basin: Number: Suffix:	
Owner Name: (First) (Last) ONon-Domestic ODomestic @All	
Well / Surface Data Report Avg Depth to Water Report Water Column Report	
Clear Form WATERS Menu Help	

WELL / SURFACE DATA REPORT 12/10/2002

						(quarters are	1=NW 3	2=NE 3=31	W 4=SE)		
	(acre	ft per ann	um)			(quarters are	bigge	st to sm	allest	X Y are	in Feet
DB File Nbr	Use	Diversion	Owner	Well	l Number	Source	Tws	Rng Sec	ववव	Zone	x
L 01253	PRO	3	GULF OIL CORPORATION	L	01253		20S	37E 08	231		
L 02139	PRO	3	GACKLE DRILLING CO.	A	02139	Shallow	20S	37E 08	222		
				L	02139 APPRO	Shallow	20s	37E 08	222		
L 02274	PRO	3	SINCLAIR OIL & GAS CO.	L	02274	Shallow	20s	37E 08	13		
				L	02274 APPRO	Shallow	205	37E 08	13		
<u>L 02274 (1)</u>	PRO	0	SINCLAIR OIL AND GAS COMPANY	L	02274 (1)		20S	37E 08	13		
<u>L 02450</u>	PRO	3	THE TEXAS CO.	L	02450	Shallow	20s	37E 19	22		
				L	02450 APPRO	Shallow	20S	37E 19	22		
<u>L 02451</u>	PRO	3	THE TEXAS CO.	L	02451	Shallow	20S	37E 19	1 1		
				L	02451 APPRO	Shallow	20S	37E 19	1 1		
L 02460	PRO	3	MORAN DRILLING CO.	L	02460	Shallow	20S	37E 07	2 1		
				L	02460 APPRO	Shallow	20S	37E 07	2 1		
L 02463	PRO	3	AMERADA PETROLEUM CORPORATION	L	02463	Shallow	20S	37E 08	321		
				L	02463 APPRO	Shallow	20S	37E 08	321		
L 02483	PRO	3	MORAN DRILLING CO.	L	02483	Shallow	205	37E 08	144		
				L	02483 APPRO	Shallow	20S	37E 08	144		
<u>L 02533</u>	PRO	0	MORAN DRILLING CO.	L	02533	Shallow	20S	37E 07	23		
				L	02533 APPRO	Shallow	20S	37E 07	23		
L 04410	SRO	500	BURGUNDY OIL & GAS OF NM, INC	L	04410	Shallow	205	37E 19	24		
				L	04410 S	Shallow	20S	37E 19	214		
L 09590	DOM	3	JIMMY COOPER	L	09590	Shallow	20S	37E 08	4		
L 09594	DOM		JIMMY COOPER	L	09594 EXP	··	205	37E 08	42		
L 09890	EXP	0	JIMMY COOPER	<u>L</u>	09890	Shallow	20S	37E 08	4		

Record Count: 23

New Mexico Office of the State Engineer Well Reports and Downloads

Township: 20S Range: 36E Section	_{1S:} 12,13,24
NAD27 X: Y: Zone	Search Radius:
County: LE Basin:	Number: Suffix:
Owner Name: (First) (Last)	○ Non-Domestic ○ Domestic ④ All
Well / Surface Data Report Avg Depth t Clear Form WAT	o Water Report Water Column Report ERS Menu Help

WELL / SURFACE DATA REPORT 12/10/2002

				(quarters	are 1=NW	2=NE 3=SW 4=SE)		
	(acre ft per an	unum)		(quarters	are bigg	est to smallest	X Y are	in Feet
DB File Nbr	Use Diversion	n Owner	Well Nu	mber Sourc	e Tws	Rng Sec q q q	Zone	x

No Records found, try again

Township: 20S	Range: 37E	Sections: 18	,7,8,17,19,20		
NAD27 X:	Y:	Zone:	Search Ra	adius:	
County: LE	Basin:		Number:	Suffix:	
Owner Name: (First)	(Last)		O Non-Dom	iestic ODomesti	ic ③Ali

AVERAGE DEPTH OF WATER REPORT 12/10/2002

								(Depth	Water	in Feet)
Bsn	Tws	Rng S	ec	Zone	х	Y	Wells	Min	Max	Avg
Α	20S	37E 0	8				1	38	38	38
L	20S	37E 0	7				4	34	38	36
L	20S	37E 0	8				9	30	38	35
L	205	37E 1	.9				6	35	35	35

Record Count: 20

Township: 20S	Range: 36E Sect	ions: 12,13,24	
NAD27 X:	Y: Z	one: Search	Radius
County: LE	Basin:	Number:	Suffix:
Owner Name: (First)	(Last)	O Non-Do	omestic 🔿 Domestic 🙆 Al
Well / Surface Data Report	Avg Dep	th to Water Report	Water Column Report

AVERAGE DEPTH OF WATER REPORT 12/10/2002

Bsn	Tws	Rng Sec	Zone	x	Y	Wells	(Depth Min	Water : Max	in Feet) Avg
No	Records	s found,	try again						