

HOBBS OCD

PIT REMEDIATION AND  
CLOSURE REPORT

APR 13 2012

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EAGLE ROCK ENERGY, LLC.  
BERRY HOBBS UNIT 17 #1, API 30-025-36657  
LEA COUNTY, NEW MEXICO

Prepared For:

EAGLE ROCK ENERGY, LLC.  
P.O. BOX 1311  
MIDLAND, TEXAS 79702

Prepared By:

SOUTH ENVIRONMENTAL SERVICES, INC  
2400 S. LOOP 250 WEST  
MIDLAND, TEXAS 79703

NOVEMBER 2009

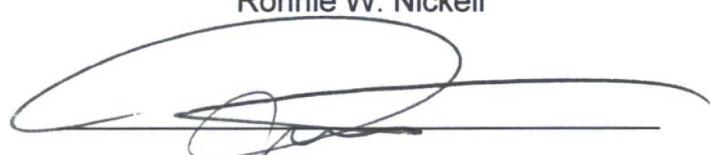
A Report Prepared for:

EAGLE ROCK ENERGY, LLC.  
P.O. BOX 1311  
MIDLAND, TEXAS 79702

PIT REMEDIATION AND  
CLOSURE REPORT

Prepared by:

Ronnie W. Nickell

A handwritten signature in black ink, appearing to read "Ronnie W. Nickell". It is written over a stylized, oval-shaped outline.

SOUTH ENVIRONMENTAL SERVICES, INC  
2400 S. LOOP 250 WEST  
MIDLAND, TEXAS 79703

NOVEMBER 2009

## TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Purpose of Report	
2.0	PROTOCOLS AND PROCEDURES	1
2.1	Pit Remediation and Closure Activities	1
3.0	CONFIRMATION SAMPLING	1
4.0	DISPOSAL FACILITY NAME AND PERMIT NUMBER	2
5.0	SOIL BACKFILL AND COVER DESIGN SPECIFICATIONS	2
6.0	RE-VEGETATION	2
7.0	RECOMMENDATIONS	2
8.0	QA/QC PROCEDURES	3
8.1	Soil Sampling	3
8.2	Laboratory Protocol	3
9.0	LIMITATIONS	3

## ATTACHMENTS

ATTACHMENT 1: LABORATORY ANALYSIS TABLES

TABLE 1: Concentrations of TPH, BTEX, and Chloride in Soil

ATTACHMENT 2: SITE FIGURES

FIGURE 1: Site Aerial Photograph

FIGURE 2: Site Location Map

FIGURE 3: Site Map

ATTACHMENT 3: SITE PHOTOGRAPHS

ATTACHMENT 4: SITE DRAFTS

- FIGURE 1: Pit Design
- FIGURE 2: Mixing and Drying Procedures
- FIGURE 3: Material Removal
- FIGURE 4: Backfill Procedures
- FIGURE 5: Backfill and Re-Vegetation Process
- FIGURE 6: Site Re-Vegetation and Reclamation

ATTACHMENT 5: WATER COLUMN/AVERAGE DEPTH OF WATER TABLE

ATTACHMENT 6: LABORATORY ANALYSIS REPORTS

ATTACHMENT 7: PREVIOUS CLOSURE PLAN APPLICATION C-144

ATTACHMENT 8: CLOSURE PLAN APPLICATION C-144

## **1.0 INTRODUCTION**

On behalf of Eagle Rock Energy, LLC. (EAGLE ROCK), South Environmental Services, Inc. (SES) is pleased to submit this Pit Remediation and Closure Report for the site known as Berry Hobbs unit 17 #1 Lease, API: 30-025-36657, Lea County, New Mexico (the site). The site is located approximately 2 miles southeast of the intersection of SR 18 and US 62/180 in Lovington, New Mexico. This report presents the results of the remedial actions performed at the above referenced site.

### **1.1 Purpose of Report**

The purpose of this report is to present a summary of the completed field activities and results of remedial actions performed in order to facilitate regulatory closure of this site.

## **2.0 PROTOCOLS AND PROCEDURES**

### **2.1 Pit Remediation and Closure Activities**

As illustrated in the attached Figures, the Excavation and Backfill procedures followed all applicable protocols and rules outlined in 19.15.17.10 NMAC. All liquids were removed prior to excavation process and the in place soil was mixed at a 3 to 1 ratio. South Environmental Services, Inc. took special care to ensure all impacted soils were included in the excavation and disposal. As outlined an approved state disposal facility was utilized for waste disposal. Confirmation sampling took place to ensure no impacted soil had been left in place. All backfilled material was appropriate soil, clean and compacted. Re-Vegetation and Site Remediation procedures were followed.

## **3.0 CONFIRMATION SAMPLING**

As illustrated in the attached figures, confirmation sampling took place after impacted material had been disposed of on-site. The confirmation samples were taken for each quadrant (North, South, East, and West) of the main reserve pit and as well as Bottom Hole sample from the center of the main reserve pit. Three samples were taken for the outer reserve pit. On September 31, 2009 a confirmation sampling event was conducted consisting of the collection of eight (8) samples from 6 to 12 inches in depth. The confirmation samples were analyzed for TPH using Method SW-846 8015M and BTEX, EPA method SW-846 8021, and Chlorides using EPA 4500-CI-B to confirm remediation levels. Confirmation sampling locations are depicted in Attachment 2, Figure 2.

Three (3) of the eight (8) confirmation samples collected (SW#1, SE#2, and NE#3) demonstrated Chloride concentrations below OCD regulatory limits (<500ppm), ranging

SS#3. Also, BTEX and TPH concentrations in all samples were below OCD standards of <1,000 mg/kg TPH, and Benzene <50.0 mg/kg. Laboratory data is included in Attachment 1, Table 1 and Attachment 5, Laboratory Analysis.

On September 22, 2009 an additional confirmation sampling event was conducted consisting of the collection of five (5) samples (following additional remediation). The confirmation samples (NW#4, CENTER#5, SS#1, SS#2, and SS#3) were analyzed for Chlorides using EPA 4500-Cl-B. Confirmation sampling locations are depicted in Attachment 2, Figure 2.

On October 19, 2009 an additional confirmation sampling event was conducted consisting of the collection of three (3) samples (following additional remediation). The confirmation samples (SS#1, SS#2, and SS#3) were analyzed for Chlorides using EPA 4500-Cl-B. Confirmation sampling locations are depicted in Attachment 2, Figure 2.

The final confirmation sample (SS#2) was collected on November 2, 2009, following additional remediation. Sample SS#2 demonstrated a Chloride concentration of <16 mg/kg, respectively, well below OCD regulatory limits (<500 mg/kg). Laboratory data is included in Attachment 1, Table 1, and Attachment 5, Laboratory analysis reports.

#### **4.0 DISPOSAL FACILITY NAME AND PERMIT NUMBER**

Controlled Recover, Inc. Disposal, Permit #: NM R-9166

#### **5.0 SOIL BACKFILL AND COVER DESIGN SPECIFICATIONS**

Please see attached figures for design and specifications. As illustrated, the soil cover is an adequate backfill material, compacted and non-waste containing, from top to cap (<4' below surface ground) to >1' below ground surface and topsoil to surface grade.

#### **6.0 RE-VEGETATION**

The attached Figure 5 & 6 of Attachment 4 shows the re-vegetation plan. As illustrated, the re-vegetation took place with a minimum of 70% native perennial vegetative cover consisted of at least 3 native plant species, including at least one grass and no noxious weeds. Cover will be maintained through 2 successive growing seasons.

#### **7.0 RECOMMENDATIONS**

Based on the findings and results of the remedial actions described herewith, South Environmental request the OCD's concurrence that the site meets the conditions for final site closure, thus requiring no further corrective action by EAGLE ROCK. Upon OCD approval, the site will be restored as near as possible to the original site conditions as set out below.

- The former pit area will be backfilled with native soils to the original elevation and contours of the surrounding land.

## **8.0 QA/QC PROCEDURES**

### **8.1 Soil Sampling**

Samples of subsurface soils were obtained utilizing proper EPA protocols and/or standards. Representative soil samples were collected using clean, disposable gloves and clean sampling tools. The soil sample was then 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 head-space present. Each container was labeled and placed on ice in an insulated cooler. Upon selection of samples for analysis, the cooler will be sealed for shipment to the laboratory. Proper chain-of-custody documentation will be maintained throughout the sampling and transportation process.

Soil samples were delivered to Cardinal Laboratories in Hobbs, NM for TPH, BTEX, and Chloride analyses using the methods described below. Soil samples were analyzed for BTEX, TPH, and Chloride within fourteen days following the collection date.

The soil samples were analyzed as follows:

1. BTEX concentrations in accordance with EPA Method SW-846 8021.
2. TPH concentrations in accordance with modified Method SW-846 8015 M.
3. Chloride concentrations in accordance with Method 4500-Cl-B.

### **8.2 Laboratory Protocol**

The laboratory will be responsible for proper QA/QC procedures. These procedures will either be transmitted with the laboratory reports or on file at the laboratory.

## **9.0 LIMITATIONS**

South Environmental Services, Inc. has prepared this Pit Remediation and Closure Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

South Environmental Services, Inc. has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. South Environmental Services, 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. South Environmental Services, Inc. has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. South Environmental Services, 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 EAGLE ROCK Energy, LLC. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent of South Environmental Services, Inc. and/or EAGLE ROCK Energy, LLC.

Thank you for the assistance in this matter. If you have any questions or require additional information, please contact me at 432-425-8454.

Sincerely,  
SOUTH ENVIRONMENTAL SERVICES, INC.

Ronnie W. Nickell  
Sr. Project Manager

Cc: Eagle Rock Energy, LLC, Midland, Texas

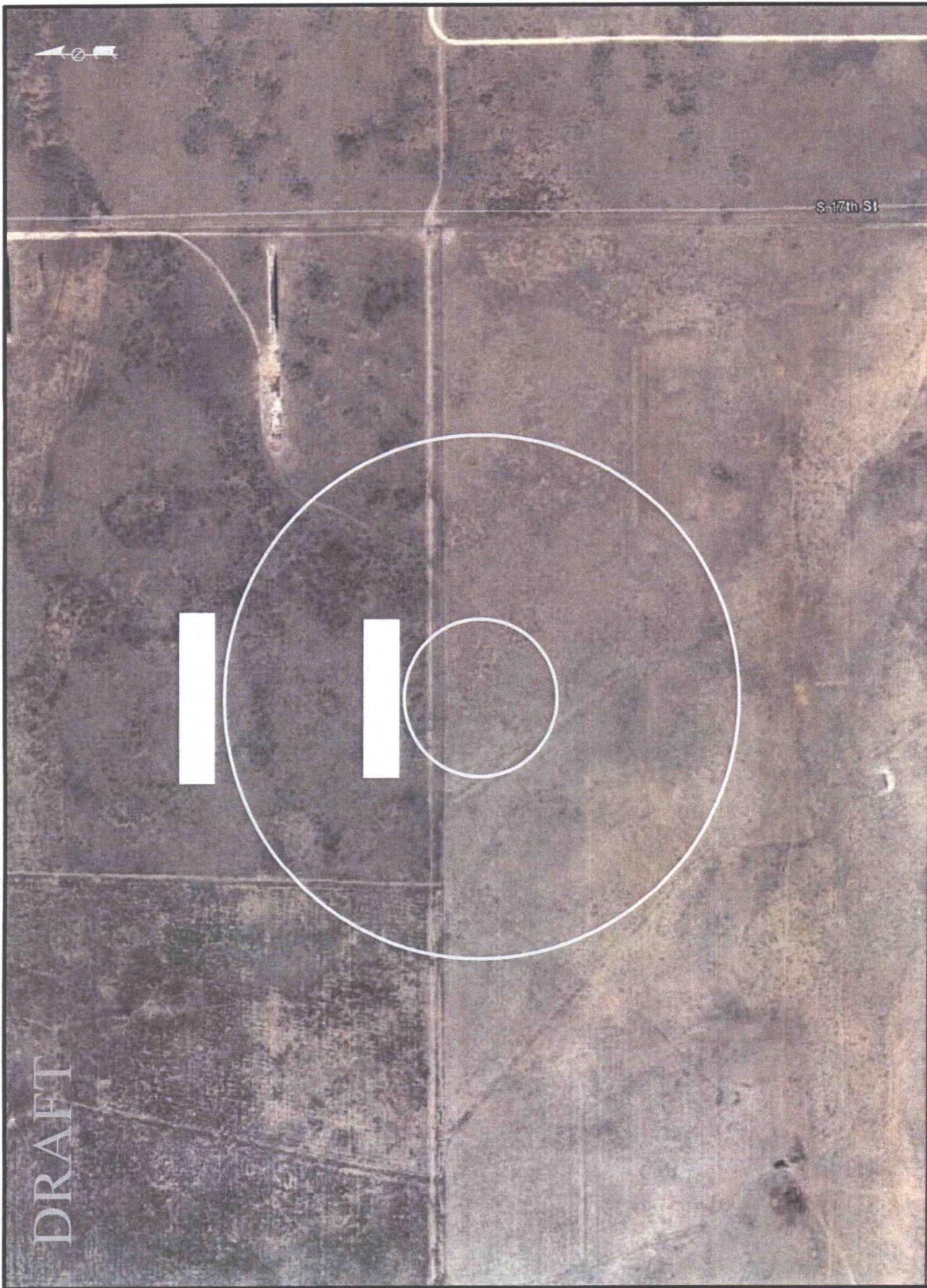
## **ATTACHMENTS**

**ATTACHMENT 1**  
**LABORATORY ANALYSIS TABLE**

**Table 1**  
**CONCENTRATIONS OF TPH, BTEX, & CHLORIDES SOIL**  
 Berry Hobbs Unit 17 Well#1  
**Eagle Rock Energy, LLC.**

**ATTACHMENT 2**

**SITE FIGURES**

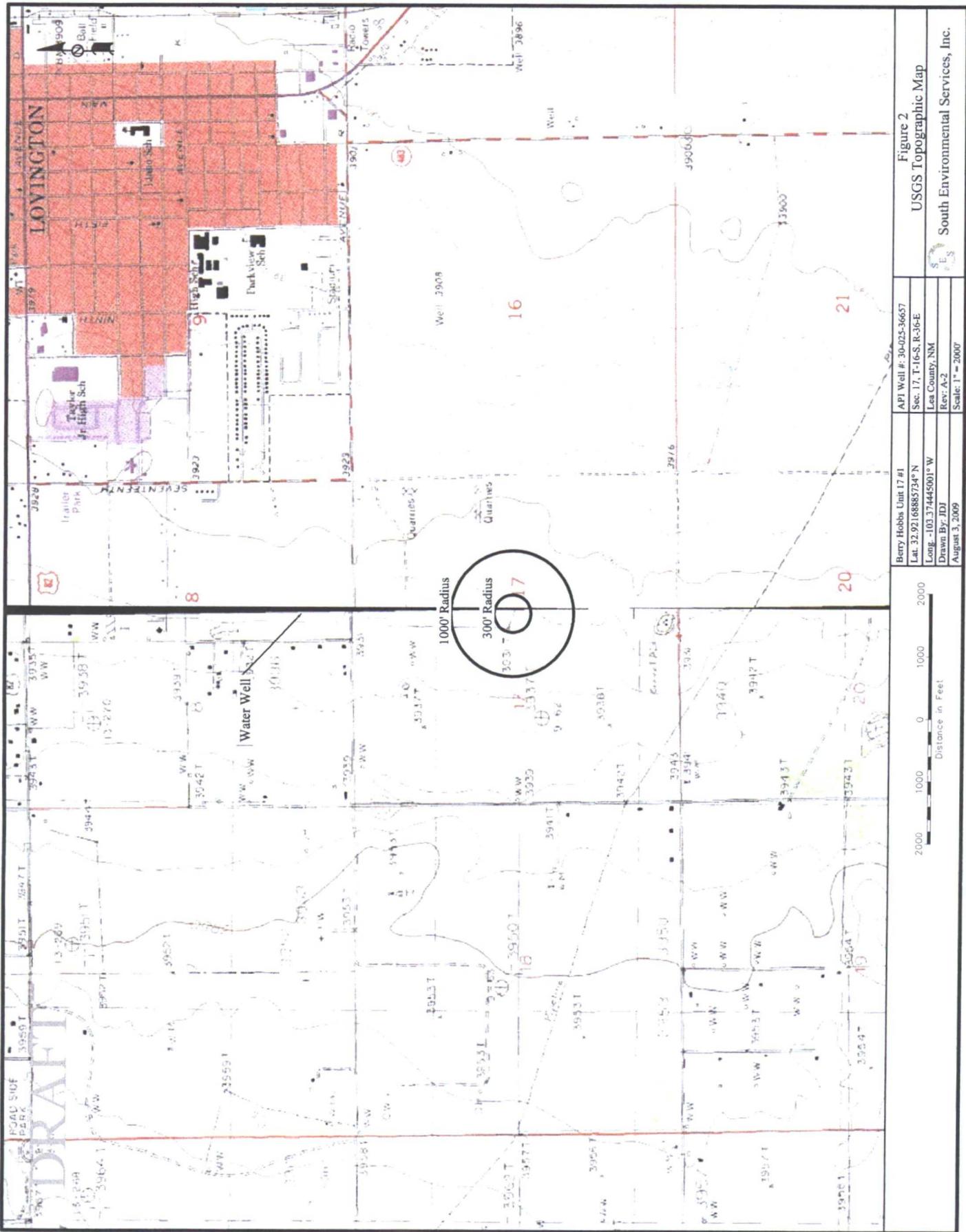


DRAFT

Berry Hobbs Unit 17 #1	API Well #: 304025-36657
Lat. 32° 9'21" N	Sect. 17, T-16S, R-36E
Long. -103° 37'44" W	Lea County, NM
Drawn By: IDI	Rev: A-2
August 3, 2009	Scale: 1" = 500'

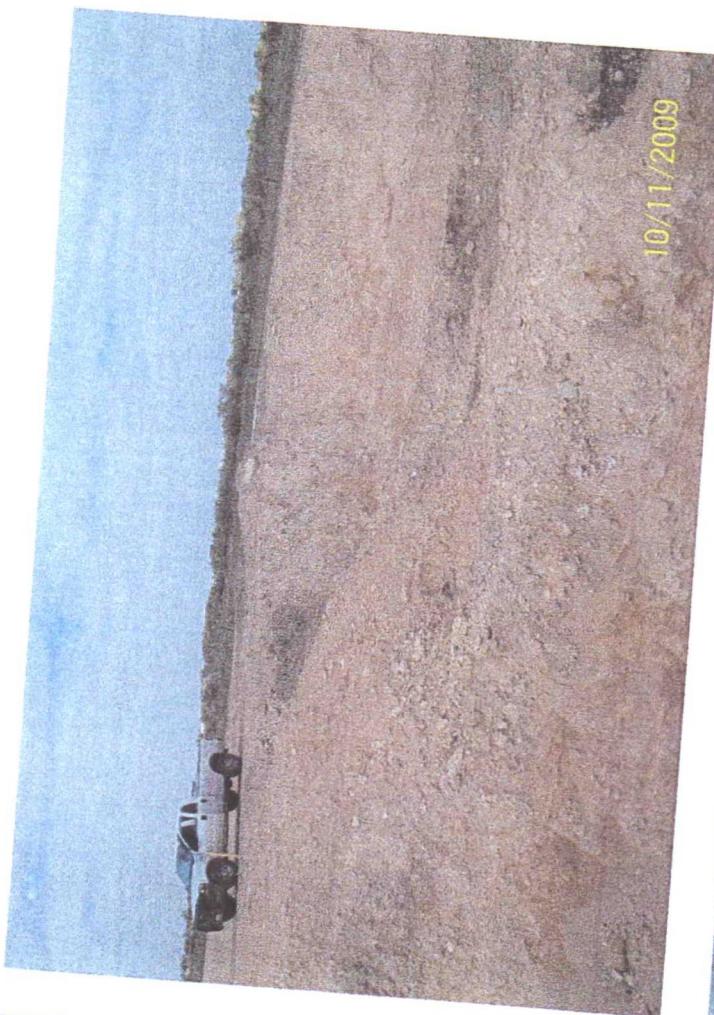
500  
250  
0  
250  
500  
Distance in Feet

Figure 1	Aerial Photograph
S. E. S. S.	South Environmental Services, Inc.





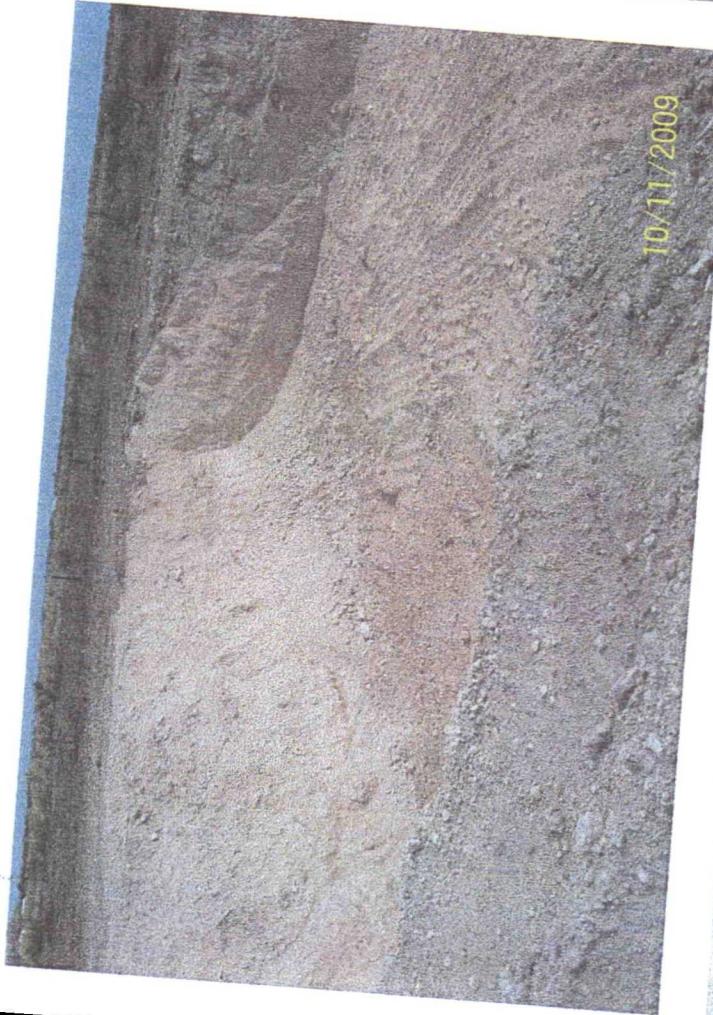
**ATTACHMENT 3**  
**SITE PHOTOGRAPHS**



10/11/2009



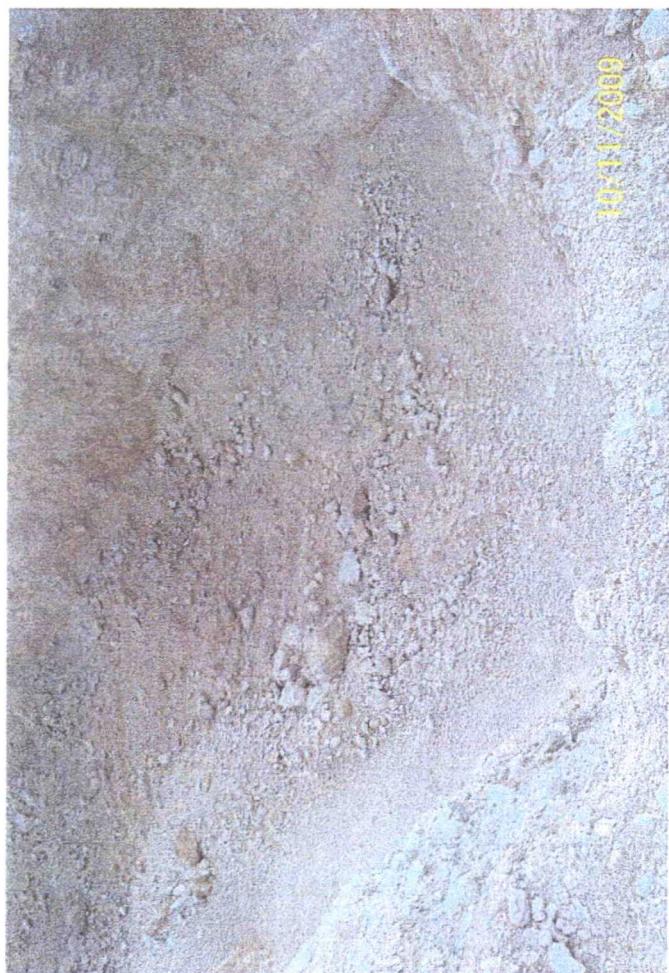
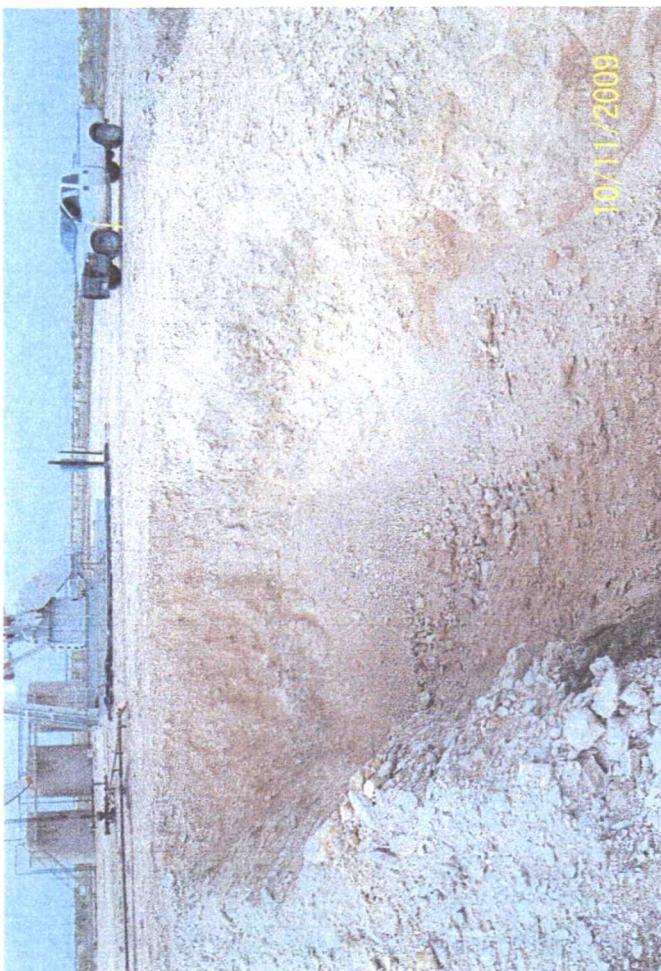
10/11/2009



10/11/2009



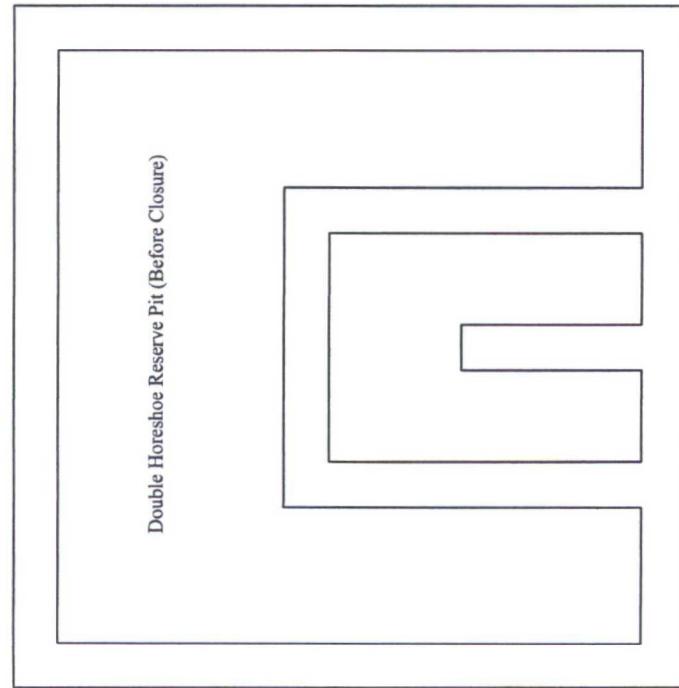
10/11/2009



**ATTACHMENT 4**

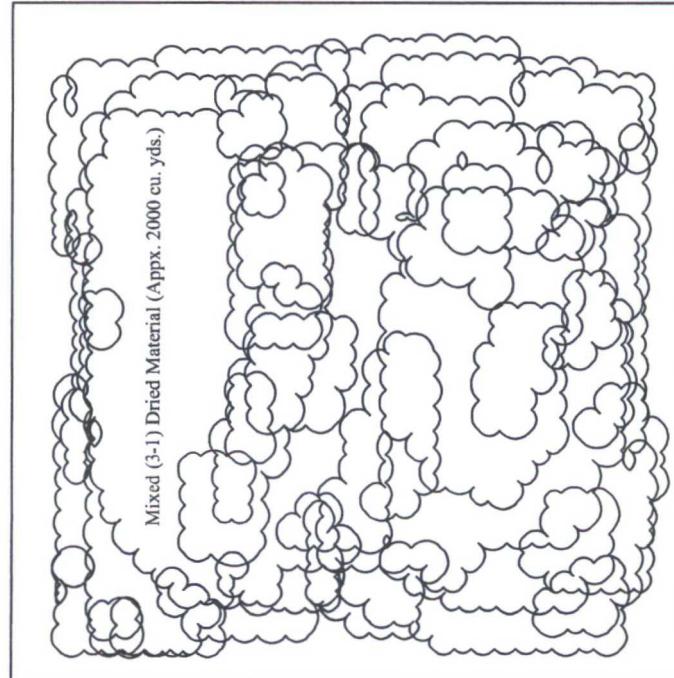
**SITE DRAFTS**

DRAFT



Berry Hobbs Unit 17 #1 Lat: 32.92168885734° N Long: -103.37444501° W Drawn By: JDJ August 3, 2009	API Well #: 30-025-36657 Sec. 17, T-16-S, R-36-E Lea County, NM Rev: A-2 Scale: 1" = 40'	Figure 3 Previous Pit Design \$ E S South Environmental Services, Inc.
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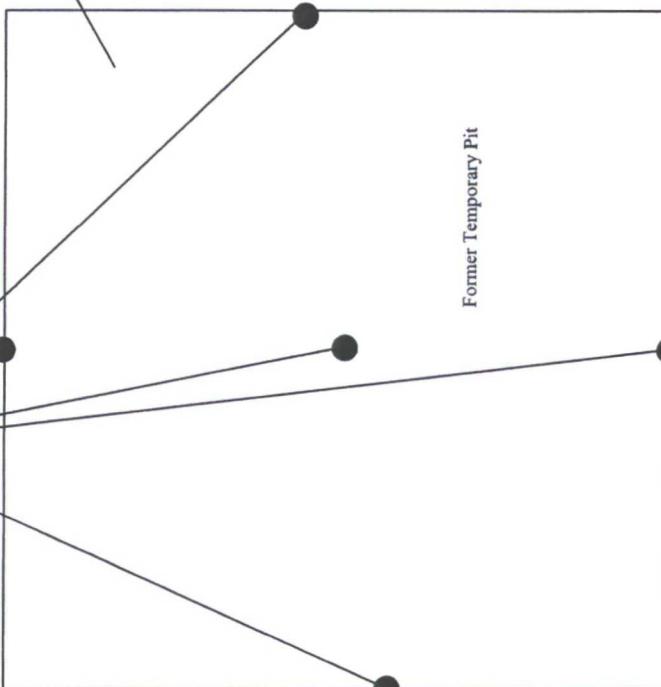
Berry Hobbs Unit 17 #1	API Well #: 30-025-36657	Figure 4 Mixing and Drying Procedures
Lat: 32.9216885734° N	Sec. 17, T-16S, R-36E	
Long: -103.374445001° W	Lea County, NM	 SES
Drawn By: JD	Rev: A-2	South Environmental Services, Inc.
August 3, 2009	Scale: 1" = 40'	



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Confirmation Samples (Taken after Dig and Haul)

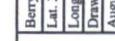
All On Site Material Over Regulatory Limits  
Excavated and Hauled (Appx. 2000 cu yds) to Disposal



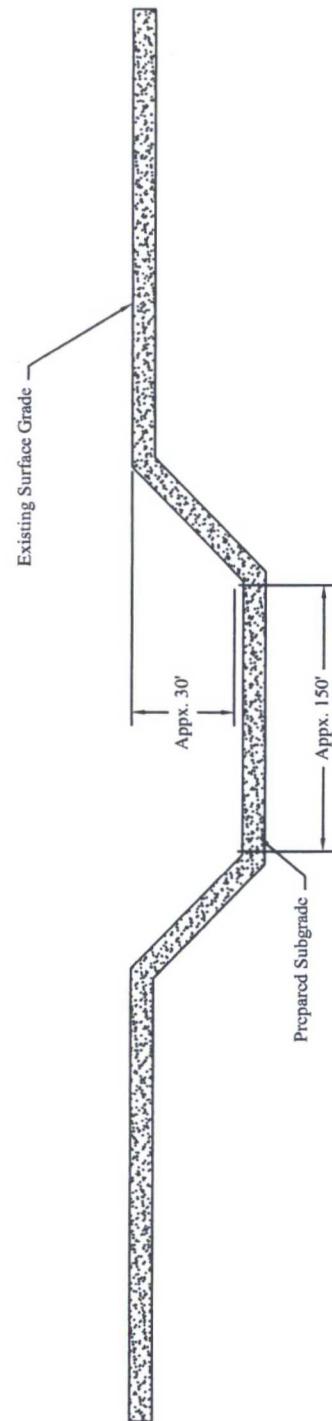
Former Temporary Pit

Berry Hobbs Unit 17 #1	API Well #: 30-025-36657
Lat. 32° 52' 68885734" N	Sac. 17, T. 16S, R. 36E
Long. -103° 37' 44.5001" W	Lea County, NM
Drawn By: JDJ	Rev: A-2
August 3, 2009	Scale: 1" = 40'

Figure 5  
Sample Locations and Material Removal  

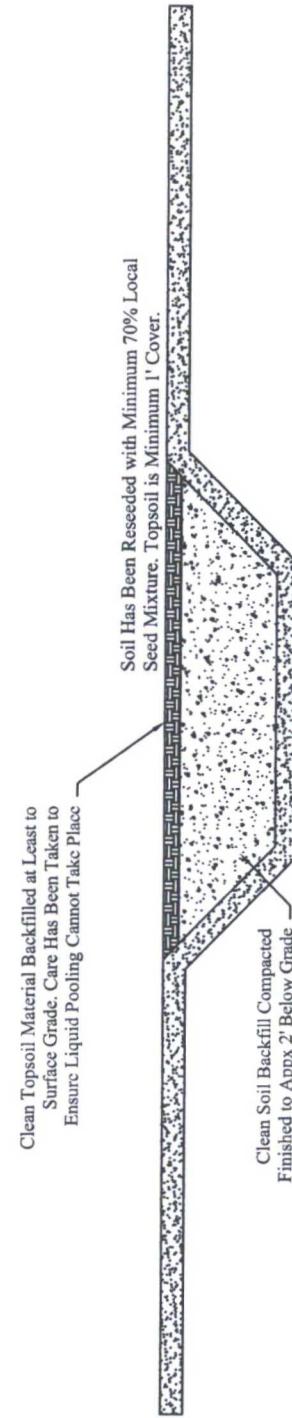

  
South Environmental Services, Inc.

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Berry Hobbs Unit 17 #1 Lat: 33° 9'21" N Long: -103° 37'44" W Drawn By: JDJ August 3, 2009	API Well #: 30-025-36657 Sec. 17, T-16S, R-36E Lea County, NM Rev: A-2 Scale: 1" = 40'	Figure 6 Cross Section Backfill Procedures S <sup>E</sup> S <sub>W</sub> South Environmental Services, Inc.
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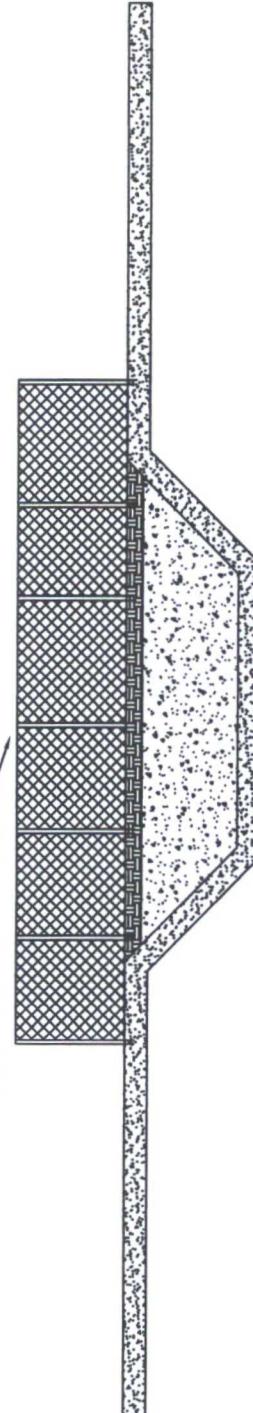
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40	20	0	20	40	Berry Habbs Unit 17 #1 Lat. 32° 9.2' N 103° 57.34' W Long. -103.3744500° W	API Well #: 30-025-36657 Sec. 17, T-16S, R-35E Lea County, NM	Figure 7 Cross Section Backfill and Re-Vegetation Procedures
					Drawn By: JDJ August 3, 2009	Rev. A-2 Scale: 1" = 40'	\$ E B C

# DRAFT

If Necessary, the Re-Vegetation will be  
protected from traffic, using appropriate  
measures, which may included fencing.



Berry Hobbs Unit 17 #1	API Well #: 30-025-36657	Figure 8 Cross Section
Lat. 32° 52' 68885734° N	Sec. 17, T-16S, R-36E	Site Re-Vegetation and Reclamation
Long. -103.374445001° W	Lea County, NM	
Drawn By: JDJ	Rev: A-2	S.E.S.
August 3, 2009	Scale: 1" = 40'	

**ATTACHMENT 5**

**WATER COLUMN/AVERAGE DEPTH OF WATER TABLE**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q				X	Y	Distance	Depth Well	Depth WaterColumn		
				64	16	4	Sec							
L 07649		PRO	LE			17	16S	36E	651767	3643800*	0	140		
L 00209 B		IRR	LE	3	2	3	17	16S	36E	651460	3643506*	425	127	
L 04437		DOM	LE			3	17	16S	36E	651365	3643398*	568	120	
L 04437 APPRO		DOM	LE			3	17	16S	36E	651365	3643398*	568	120	
L 00209 C		IRR	LE			3	4	17	16S	36E	651972	3643212*	622	128
L 07757		DOM	LE	1	1	2	17	16S	36E	651851	3644520*	724	72	
L 02056		PRO	LE			1	1	17	16S	36E	651144	3644406*	869	130
L 02056 APPRO		PRO	LE			1	1	17	16S	36E	651144	3644406*	869	130
L 01457 APPRO		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	923	85	
L 03298		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	923	90	
L 03298 APPRO		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	923	90	
L 03373		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	923	97	
L 03373 APPRO		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	923	97	
L 05380		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	923	100	
L 11796		DOM	LE	4	3	4	08	16S	36E	652045	3644723*	963	120	
L 01070 APPRO		DOM	LE	3	4	3	08	16S	36E	651441	3644715*	971	75	
L 08189		DOM	LE	3	4	3	08	16S	36E	651441	3644715*	971	120	
L 11841		DOM	LE	1	1	1	17	16S	36E	651043	3644505*	1010	120	
L 11841 POD1		DOM	LE	1	1	1	17	16S	36E	651043	3644505*	1010	116	
L 10572		OIL	LE	1	2	2	20	16S	36E	652282	3642915*	1023	150	
L 10572		PRO	LE	1	2	2	20	16S	36E	652282	3642915*	1023	150	
L 04598		DOM	LE	2	4	18		16S	36E	650755	3643593*	1032	136	
L 04598 APPRO		DOM	LE	2	4	18		16S	36E	650755	3643593*	1032	136	
L 06132		DOM	LE	2	4	18		16S	36E	650755	3643593*	1032	95	
L 10712		PRO	LE	2	4	18		16S	36E	650755	3643593*	1032	165	
L 07063		DOM	LE	2	4	4	18	16S	36E	650861	3643289*	1040	120	
L 07845		DOM	LE		4	3	08	16S	36E	651542	3644816*	1040	110	
L 00247 BA		IRR	LE	4	3	3	08	16S	36E	651236	3644708*	1051	123	
L 09307		DOM	LE	4	3	3	08	16S	36E	651236	3644708*	1051	135	
													75	

\*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q							X	Y	Distance	Depth Well	Depth Water	Water Column
				64	16	4	Sec	Tws	Rng							
L 06934		DOM	LE	1	2	4	18	16S	36E	650654	3643692*	1118	118	68	50	
L 10880		DOM	LE	2	4	3	08	16S	36E	651641	3644915*	1122	150	70	80	
L 06963		DOM	LE	4	4	4	18	16S	36E	650861	3643089*	1151	120	80	40	
L 06982		DOM	LE	4	4	4	18	16S	36E	650861	3643089*	1151	120	72	48	
L 01378 APPRO		DOM	LE	3	3	3	08	16S	36E	651036	3644708*	1165	76	51	25	
L 01581 APPRO		DOM	LE	3	3	3	08	16S	36E	651036	3644708*	1165	89			
L 05218		DOM	LE	3	3	3	08	16S	36E	651036	3644708*	1165	120	90	30	
L 01086		DOM	LE	2	2	18	16S	36E		650742	3644399*	1187	75			
L 01087 APPRO		DOM	LE	2	2	18	16S	36E		650742	3644399*	1187	75			
L 04939		DOM	LE	3	3	08	16S	36E		651137	3644809*	1189	100	75	25	
L 09466		DOM	LE	3	3	08	16S	36E		651137	3644809*	1189	135	60	75	
L 08898		PRO	LE	4	1	1	20	16S	36E	651269	3642693*	1213	147	70	77	
L 09913		IRR	LE		3	08	16S	36E		651338	3645010*	1283	140	60	80	
L 09913		STK	LE		3	08	16S	36E		651338	3645010*	1283	140	60	80	
L 03236		DOM	LE	4	2	3	08	16S	36E	651634	3645118*	1324	96	55	41	
L 03236 APPRO		DOM	LE	4	2	3	08	16S	36E	651634	3645118*	1324	96			
L 11253		DOM	LE	4	2	3	08	16S	36E	651634	3645118*	1324	140	86	54	
L 12023 POD1		DOM	LE	4	1	4	08	16S	36E	652038	3645126*	1353	110	60	50	
L 06937		DOM	LE	4	2	2	19	16S	36E	650867	3642686*	1432	110	69	41	
L 01508		STK	LE	3	3	09	16S	36E		652754	3644838*	1432	95	55	40	
L 03550		DOM	LE	2	3	08	16S	36E		651535	3645219*	1437	87	70	17	
L 10103		DOM	LE	2	3	08	16S	36E		651535	3645219*	1437	123			
L 03596		DOM	LE	2	2	3	08	16S	36E	651634	3645318*	1523	88	70	18	
L 03596 APPRO		DOM	LE	2	2	3	08	16S	36E	651634	3645318*	1523	88	70	18	
L 07445		STK	LE	2	2	3	08	16S	36E	651634	3645318*	1523	100	68	32	
L 11133		DOM	LE	2	2	3	08	16S	36E	651634	3645318*	1523	120			
L 06053		DOM	LE	2	4	08	16S	36E		652343	3645234*	1545	83	69	14	
L 03727		DOM	LE		08	16S	36E			651740	3645412*	1612	100	60	40	
L 03727 APPRO		DOM	LE		08	16S	36E			651740	3645412*	1612	100	60	40	
L 03728		DOM	LE		08	16S	36E			651740	3645412*	1612	100	65	35	
L 03728 APPRO		DOM	LE		08	16S	36E			651740	3645412*	1612	100	65	35	
L 04651		DOM	LE		08	16S	36E			651740	3645412*	1612	97	85	12	

\*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q				X	Y	Distance	Depth	Water Well	Water Column		
				64	16	4	Sec								
L 04176		DOM	LE	3	1	2	08	16S	36E	651824	3645931*	2131	105	82	23
L 04176 APPRO		DOM	LE	3	1	2	08	16S	36E	651824	3645931*	2131	105	82	23
L 02783		DOM	LE	2	4	1	19	16S	36E	650069	3642469*	2157	80	50	30
L 02783 APPRO		DOM	LE	2	4	1	19	16S	36E	650069	3642469*	2157	80	50	30
L 11489		DOM	LE	3	4	1	09	16S	36E	653044	3645552*	2168	130		
L 08296		DOM	LE	1	2	08	16S	36E	651925	3646032*	2237	150	70	80	
L 09562		DOM	LE	2	1	08	16S	36E	651521	3646025*	2238	100	70	30	
L 01244 REPAR		DOM	LE		09		16S	36E	653357	3645441*	2284	90			
L 11037		DOM	LE	2	2	08	16S	36E	652330	3646040*	2309	100	65	35	
L 01423 APPRO		DOM	LE	1	1	08	16S	36E	651117	3646017*	2310	90	60	30	
L 09784		DOM	LE	1	1	08	16S	36E	651117	3646017*	2310	100	65	35	
L 01156		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	76	54	22
L 02336		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	63	37
L 02336 APPRO		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	62	38
L 03826		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	66	34
L 03826 APPRO		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	66	34
L 04572		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	66	34
L 04572 APPRO		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	66	34
L 05282		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	92	70	22
L 05944		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	68	32
L 03501		DOM	LE	1	4	1	09	16S	36E	653044	3645752*	2332	125	70	55
L 03501 APPRO		DOM	LE	1	4	1	09	16S	36E	653044	3645752*	2332	125	70	55
L 11480		STK	LE	2	1	2	08	16S	36E	652024	3646131*	2345	100		
L 01011 APPRO		DOM	LE	2	1	1	08	16S	36E	651216	3646116*	2380	75		
L 11488		DOM	LE	2	1	1	08	16S	36E	651216	3646116*	2380	150		
L 04487 APPRO		DOM	LE	2	2	2	16	16S	36E	654073	3644559*	2427	110	82	28
L 11436		DOM	LE	3	3	2	09	16S	36E	653449	3645560*	2434	160		
L 11437		DOM	LE	3	3	2	09	16S	36E	653449	3645560*	2434	160		
L 01124		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	85		
L 01124 APPRO		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	85		
L 02266		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	90	60	30
L 02266 APPRO		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	90	60	30

\*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Q Q Q								X	Y	Distance	Depth Well	Depth Water	Water Column
		Use	County	64	16	4	Sec	Tws	Rng						
L 04176		DOM	LE	3	1	2	08	16S	36E	651824	3645931*	2131	105	82	23
L 04176 APPRO		DOM	LE	3	1	2	08	16S	36E	651824	3645931*	2131	105	82	23
L 02783		DOM	LE	2	4	1	19	16S	36E	650069	3642469*	2157	80	50	30
L 02783 APPRO		DOM	LE	2	4	1	19	16S	36E	650069	3642469*	2157	80	50	30
L 11489		DOM	LE	3	4	1	09	16S	36E	653044	3645552*	2168	130		
L 08296		DOM	LE	1	2	08	16S	36E		651925	3646032*	2237	150	70	80
L 09562		DOM	LE	2	1	08	16S	36E		651521	3646025*	2238	100	70	30
L 01244 REPAR		DOM	LE			09	16S	36E		653357	3645441*	2284	90		
L 11037		DOM	LE	2	2	08	16S	36E		652330	3646040*	2309	100	65	35
L 01423 APPRO		DOM	LE	1	1	08	16S	36E		651117	3646017*	2310	90	60	30
L 09784		DOM	LE	1	1	08	16S	36E		651117	3646017*	2310	100	65	35
L 01156		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	76	54	22
L 02336		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	63	37
L 02336 APPRO		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	62	38
L 03826		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	66	34
L 03826 APPRO		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	66	34
L 04572		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	66	34
L 04572 APPRO		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	66	34
L 05282		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	92	70	22
L 05944		DOM	LE	3	1	1	09	16S	36E	652633	3645946*	2314	100	68	32
L 03501		DOM	LE	1	4	1	09	16S	36E	653044	3645752*	2332	125	70	55
L 03501 APPRO		DOM	LE	1	4	1	09	16S	36E	653044	3645752*	2332	125	70	55
L 11480		STK	LE	2	1	2	08	16S	36E	652024	3646131*	2345	100		
L 01011 APPRO		DOM	LE	2	1	1	08	16S	36E	651216	3646116*	2380	75		
L 11488		DOM	LE	2	1	1	08	16S	36E	651216	3646116*	2380	150		
L 04487 APPRO		DOM	LE	2	2	2	16	16S	36E	654073	3644559*	2427	110	82	28
L 11436		DOM	LE	3	3	2	09	16S	36E	653449	3645560*	2434	160		
L 11437		DOM	LE	3	3	2	09	16S	36E	653449	3645560*	2434	160		
L 01124		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	85		
L 01124 APPRO		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	85		
L 02266		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	90	60	30
L 02266 APPRO		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	90	60	30

\*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Q Q Q								X	Y	Distance	Depth	Depth	Water Well	Water Column
		Use	County	64	16	4	Sec	Tws	Rng							
L 03549		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	123	70	53	
L 03549 APPRO		DOM	LE	2	4	1	09	16S	36E	653244	3645752*	2447	123	70	53	
L 02338		DOM	LE	4	4	4	09	16S	36E	654066	3644762*	2492	90	60	30	
L 02338 APPRO		DOM	LE	4	4	4	09	16S	36E	654066	3644762*	2492	90	60	30	
L 04154		DOM	LE	2	2	2	07	16S	36E	650813	3646109*	2498	102	65	37	
L 04154 APPRO		DOM	LE	2	2	2	07	16S	36E	650813	3646109*	2498	102	65	37	
L 03304		DOM	LE	3	2	4	09	16S	36E	653860	3645166*	2499	96	69	27	
L 03304 APPRO		DOM	LE	3	2	4	09	16S	36E	653860	3645166*	2499	96	69	27	
L 00968		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	78			
L 00968 APPRO		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500				
L 00982		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	85	55	30	
L 00982 APPRO		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	85	55	30	
L 01329 APPRO		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	71	55	16	
L 03205		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	90	60	30	
L 03205 APPRO		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	90	60	30	
L 03448		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	85	65	20	
L 03448 APPRO		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	85	65	20	
L 06061		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	90	71	19	
L 06119		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	180	68	112	
L 07345		DOM	LE	1	1	1	09	16S	36E	652633	3646146*	2500	100	70	30	
L 03110		DOM	LE	4	4	3	05	16S	36E	651613	3646327*	2531	100	65	35	
L 03310 APPRO		DOM	LE	4	4	3	05	16S	36E	651613	3646327*	2531	100	65	35	
L 07182		DOM	LE	4	4	3	05	16S	36E	651613	3646327*	2531	138	68	70	
L 00245		IRR	LE	3	1	3	15	16S	36E	654290	3643560*	2534	95			
L 04659		DOM	LE	3	3	4	05	16S	36E	651818	3646334*	2534	110	85	25	
L 04659 APPRO		DOM	LE	3	3	4	05	16S	36E	651818	3646334*	2534	110	85	25	
L 04249 APPRO		DOM	LE	1	3	1	15	16S	36E	654284	3644164*	2543	96	74	22	
L 08676		DOM	LE	4	3	4	05	16S	36E	652018	3646334*	2546	127	70	57	
L 11204		DOM	LE	4	3	4	05	16S	36E	652018	3646334*	2546	100	62	38	
L 03966 APPRO		DOM	LE	4	2	2	21	16S	36E	654099	3642745*	2559	95	60	35	
L 05269		DOM	LE	4	2	2	21	16S	36E	654099	3642745*	2559	110	90	20	
L 01380 APPRO		DOM	LE	2	1	1	09	16S	36E	652833	3646146*	2576	74	53	21	

\*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Q Q Q								X	Y	Distance	Depth Well	Depth Water	Water Column
		Use	County	64	16	4	Sec	Tws	Rng						
L 01527		DOM	LE	3	2	09	16S	36E		653550	3645661*	2577	85	60	25
L 02809		DOM	LE	4	3	3	05	16S	36E	651209	3646319*	2580	100	64	36
L 05835		DOM	LE	3	4	4	05	16S	36E	652222	3646342*	2582	96	72	24
L 02267		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	90	60	30
L 02267 APPRO		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	90	60	30
L 02392		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	100	62	38
L 02392 APPRO		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	100	62	38
L 02396		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	85	60	25
L 02396 APPRO		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	85	60	25
L 02543		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	115	62	53
L 02543 APPRO		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	115	62	53
L 02916		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	92	65	27
L 02916 APPRO		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	92	65	27
L 05496		DOM	LE	1	3	2	09	16S	36E	653449	3645760*	2582	139	79	60
L 01033 APPRO		DOM	LE	4	4	4	13	16S	35E	649286	3643062*	2588	70	50	20
L 01054 APPRO		DOM	LE	3	1	19	16S	36E		649601	3642364*	2598	76	45	31
L 02486		DOM	LE	1	2	4	09	16S	36E	653860	3645366*	2614	90	60	30
L 02486 APPRO		DOM	LE	1	2	4	09	16S	36E	653860	3645366*	2614		60	
L 03109		DOM	LE	4	4	4	05	16S	36E	652422	3646342*	2625	85	60	25
L 03109 APPRO		DOM	LE	4	4	4	05	16S	36E	652422	3646342*	2625	85	60	25
L 05140		DOM	LE	1	3	15	16S	36E		654391	3643661*	2627	110	90	20
L 00967		DOM	LE	3	3	3	05	16S	36E	651009	3646319*	2630	75		
L 01319 APPRO		DOM	LE	3	3	3	05	16S	36E	651009	3646319*	2630	103	65	38
L 02465 APPRO		DOM	LE	3	3	3	05	16S	36E	651009	3646319*	2630	100	65	35
L 02465 CLW		PRO	LE	3	3	3	05	16S	36E	651009	3646319*	2630	145	120	25
L 02910		DOM	LE	3	3	3	05	16S	36E	651009	3646319*	2630	120	63	57
L 02910 APPRO		DOM	LE	3	3	3	05	16S	36E	651009	3646319*	2630	76	68	8
L 06130		DOM	LE	3	1	15	16S	36E		654385	3644065*	2631	85	70	15
L 00984		DOM	LE	2	2	2	24	16S	35E	649292	3642860*	2647	60		
L 00985		DOM	LE	2	2	2	24	16S	35E	649292	3642860*	2647		60	
L 01007 APPRO		DOM	LE	3	3	3	10	16S	36E	654271	3644771*	2685	84	47	37
L 02179		DOM	LE	3	3	15	16S	36E		654398	3643257*	2686	85	57	28

\*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Q Q Q							X	Y	Distance	Depth Well	Depth Water	Water Column	
		Use	County	64	16	4	Sec	Tws							
L 02179 APPRO		DOM	LE	3	3	15	16S	36E	654398	3643257*	2686	85	57	28	
L 04379		DOM	LE	3	3	15	16S	36E	654398	3643257*	2686	112	70	42	
L 04379 APPRO		DOM	LE	3	3	15	16S	36E	654398	3643257*	2686	112	70	42	
L 03184		DOM	LE	4	4	05	16S	36E	652323	3646443*	2700	100	58	42	
L 03184 APPRO		DOM	LE	4	4	05	16S	36E	652323	3646443*	2700	100	58	42	
L 02465		DOM	LE	3	3	05	16S	36E	651110	3646420*	2701	145	120	25	
L 08852		DOM	LE	3	3	05	16S	36E	651110	3646420*	2701	110	70	40	
L 00057 A		IRR	LE	2	4	3	05	16S	36E	651613	3646527*	2731	110		
L 02422 APPRO		DOM	LE	3	1	2	09	16S	36E	653442	3645964*	2736			
L 03966		DOM	LE	4	4	2	21	16S	36E	654106	3642342*	2756	95	60	35
L 01608 APPRO		PRO	LE	2	2	30	16S	36E	650795	3641175*	2799	145	80	65	
L 03385		DOM	LE	1	3	3	05	16S	36E	651009	3646519*	2822	100	55	45
L 09346		DOM	LE	1	3	3	05	16S	36E	651009	3646519*	2822	126	70	56
L 00245 S2		IRR	LE	3	15	16S	36E		654599	3643458*	2852	137	65	72	
L 11673		SAN	LE	3	4	3	04	16S	36E	653031	3646358*	2853	120	62	58
L 00971		DOM	LE	3	05	16S	36E		651311	3646621*	2857	70			
L 03700 APPRO		DOM	LE	3	05	16S	36E		651311	3646621*	2857	100			
L 10603		DOM	LE	3	05	16S	36E		651311	3646621*	2857	158	60	98	
L 03911		DOM	LE	4	05	16S	36E		652120	3646636*	2857	85	65	20	
L 03911 APPRO		DOM	LE	4	05	16S	36E		652120	3646636*	2857	85	65	20	
L 04902		DOM	LE	4	05	16S	36E		652120	3646636*	2857	110	65	45	
L 04903		DOM	LE	4	05	16S	36E		652120	3646636*	2857	100	80	20	
L 05962		DOM	LE	4	05	16S	36E		652120	3646636*	2857	125	70	55	
L 06590		DOM	LE	4	05	16S	36E		652120	3646636*	2857	100	65	35	
L 06804		DOM	LE	4	05	16S	36E		652120	3646636*	2857	74	60	14	
L 08218		DOM	LE	4	05	16S	36E		652120	3646636*	2857	120			
L 08274		DOM	LE	4	05	16S	36E		652120	3646636*	2857	120	68	52	
L 08705		DOM	LE	4	05	16S	36E		652120	3646636*	2857	102	65	37	
L 05706		DOM	LE	3	2	1	07	16S	36E	649808	3645894*	2867	74	60	14
L 01709		DOM	LE	4	3	3	10	16S	36E	654471	3644771*	2873	100	60	40
L 01709 APPRO		DOM	LE	4	3	3	10	16S	36E	654471	3644771*	2873	100	60	40
L 05561		DOM	LE	4	2	09	16S	36E		653954	3645670*	2877	100	75	25

\*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Q Q Q							X	Y	Distance	Depth Well	Depth Water	Water Column	
		Use	County	64	16	4	Sec	Tws							
L 05247 REPAR		DOM	LE	1	2	09	16S	36E	653543	3646065*	2878	109	77	32	
L 01180 APPRO		DOM	LE	1	1	2	09	16S	36E	653442	3646164*	2897	78	60	18
L 00153 ENLGD-S		PRO	LE	2	2	4	12	16S	35E	649254	3645276*	2914	98		
L 00245 -S-		IRR	LE	1	2	3	15	16S	36E	654693	3643767*	2926	95		
L 01484 APPRO		DOM	LE	3	3	1	22	16S	36E	654310	3642350*	2927	88	55	33
L 07514		DOM	LE	4	2	3	05	16S	36E	651606	3646729*	2933	115	56	59
L 01401 APPRO		DOM	LE	3	1	4	05	16S	36E	651811	3646737*	2937	80		
L 04249		DOM	LE	1	4	1	15	16S	36E	654686	3644171*	2942	96	74	22
L 10244		DOM	LE	4	1	4	05	16S	36E	652011	3646737*	2947	120	67	53
L 10413		DOM	LE	4	1	4	05	16S	36E	652011	3646737*	2947	110	76	34
L 03212		DOM	LE	3	2	4	05	16S	36E	652216	3646744*	2978	95	65	30
L 03212 APPRO		DOM	LE	3	2	4	05	16S	36E	652216	3646744*	2978	95	65	30
L 03212 REPAR		DOM	LE	3	2	4	05	16S	36E	652216	3646744*	2978	85	65	20
L 10469		DOM	LE	3	2	4	05	16S	36E	652216	3646744*	2978	120	120	0
												Average Depth to Water:			67 feet
												Minimum Depth:			45 feet
												Maximum Depth:			120 feet

**Record Count: 235****UTMNAD83 Radius Search (in meters):**

Easting (X): 651767

Northing (Y): 3643800

Radius: 3000

**\*UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

**ATTACHMENT 6**  
**LABORATORY ANALYSIS REPORTS**



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

September 1, 2009

Libby Einhorn  
Eagle Rock Resources  
P.O. Box 690  
Monahans, TX 79756

Re: Berry Hobbs

Enclosed are the results of analyses for sample number H18133, received by the laboratory on 08/31/09 at 11:48 am.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

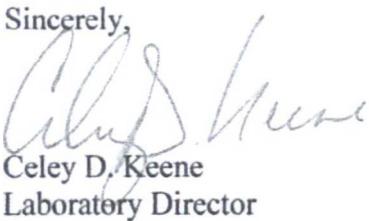
Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 4 (includes Chain of Custody)

Sincerely,

  
Celey D. Keene  
Laboratory Director

---

This report conforms with NELAP requirements.

ANALYTICAL RESULTS FOR  
 EAGLE ROCK RESOURCES  
 ATTN: LIBBY EINHORN  
 P.O. BOX 690  
 MONAHANS, TX 79756  
 FAX TO: (432) 943-3827, (432) 682-4182 &  
 (575) 746-6534

Receiving Date: 08/31/09

Reporting Date: 09/01/09

Project Number: UNIT 17 WELL #1

Project Name: BERRY HOBBS

Project Location: LEA, NM; UNIT J SEC. 17 T16S R36E

Sampling Date: 08/31/09

Sample Type: SOIL

Sample Condition: INTACT\*\* @ 24.5°C

Sample Received By: ML

Analyzed By: AB/HM

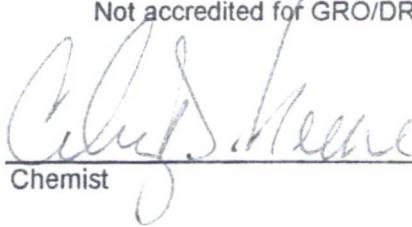
LAB NUMBER SAMPLE ID		GRO (C <sub>6</sub> -C <sub>10</sub> )	DRO (>C <sub>10</sub> -C <sub>28</sub> )	TOTAL TPH	418.1 CI*
		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
ANALYSIS DATE		08/31/09	08/31/09	08/31/09	09/01/09
H18133-1 SW#1		<10.0	<10.0	<100	80
H18133-2 SE#2		<10.0	<10.0	<100	208
H18133-3 NE#3		<10.0	75.0	245	480
H18133-4 NW#4		<10.0	<10.0	<100	688
H18133-5 CENTER#5		<10.0	<10.0	<100	912
H18133-6 SS#1		<10.0	<10.0	<100	688
H18133-7 SS#2		<10.0	<10.0	<100	1,500
H18133-8 SS#3		<10.0	<10.0	<100	3,600
Quality Control		556	506	337	500
True Value QC		500	500	300	500
% Recovery		111	101	112	100
Relative Percent Difference		4.8	5.9	3.2	2.0

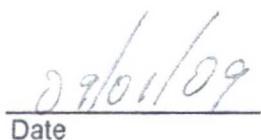
METHODS: TPH GRO & DRO: EPA SW-846 8015 M; EPA 418.1; CI: Std. Methods 4500-CI-B

\*Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.

\*\*H18133-5 was not INTACT.

Not accredited for GRO/DRO, TPH 418.1, and Chloride.

  
 Chemist

  
 Date

H18133 TPH2CL ERR

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

ANALYTICAL RESULTS FOR  
 EAGLE ROCK RESOURCES  
 ATTN: LIBBY EINHORN  
 P.O. BOX 690  
 MONAHANS, TX 79756  
 FAX TO: (432) 943-3827, (432) 682-4182, & (575) 746-6534

Receiving Date: 08/31/09

Sampling Date: 08/31/09

Reporting Date: 09/01/09

Sample Type: SOIL

Project Number: UNIT 17 WELL #1

Sample Condition: INTACT\*\* @ 24.5°C

Project Name: BERRY HOBBS

Sample Received By: ML

Project Location: LEA, NM; UNIT J SEC. 17 T16S R36E

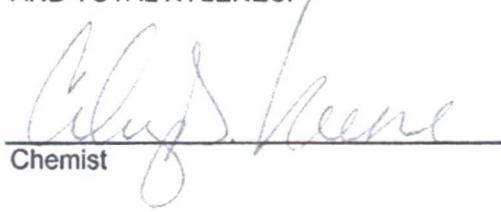
Analyzed By: ZL

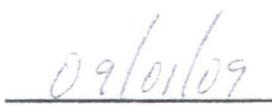
LAB NUMBER	SAMPLE ID	ETHYL TOTAL			
		BENZENE	TOLUENE	BENZENE	XYLENES
(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
ANALYSIS DATE		08/31/09	08/31/09	08/31/09	08/31/09
H18133-1	SW#1	<0.050	0.054	<0.050	<0.300
H18133-2	SE#2	<0.050	<0.050	<0.050	<0.300
H18133-3	NE#3	<0.050	<0.050	<0.050	<0.300
H18133-4	NW#4	<0.050	<0.050	<0.050	<0.300
H18133-5	CENTER#5	<0.050	<0.050	<0.050	<0.300
H18133-6	SS#1	<0.050	<0.050	<0.050	<0.300
H18133-7	SS#2	<0.050	<0.050	<0.050	<0.300
H18133-8	SS#3	<0.050	<0.050	<0.050	<0.300
Quality Control		0.017	0.022	0.017	0.051
True Value QC		0.020	0.020	0.020	0.060
% Recovery		85.0	110	85.0	85.0
Relative Percent Difference		3.4	5.1	3.6	2.4

METHODS: EPA SW-846 8021

\*\*H18133-5 was not INTACT.

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES.


 Chemist


 Date

H18133 BTEX ERR

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.





PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

September 28, 2009

Libby Einhorn  
Eagle Rock Resources  
P.O. Box 690  
Monahans, TX 79756

Re: Berry Hobbs

Enclosed are the results of analyses for sample number H18286, received by the laboratory on 09/22/09 at 10:40 am.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

Celey D. Keene  
Laboratory Director

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This report conforms with NELAP requirements.



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

October 19, 2009

Libby Einhorn  
Eagle Rock Resources  
P.O. Box 690  
Monahans, TX 79756

Re: Berry Hobbs

Enclosed are the results of analyses for sample number H18526, received by the laboratory on 10/19/09 at 10:17 am.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

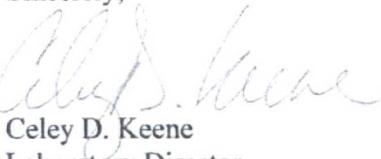
Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

  
Celey D. Keene  
Laboratory Director

---

This report conforms with NELAP requirements.



# **ARDINAL LABORATORIES**

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
EAGLE ROCK RESOURCES  
ATTN: LIBBY EINHORN  
P.O. BOX 690  
MONAHANS, TX 79756  
FAX TO: (575) 746-6534 & (432) 682-4182

Receiving Date: 10/19/09  
Reporting Date: 10/19/09  
Project Number: 17 #1  
Project Name: BERRY HOBBS  
Project Location: LEA COUNTY, NM

Analysis Date: 10/19/09  
Sampling Date: NOT GIVEN  
Sample Type: SOIL  
Sample Condition: INTACT @ 23.5°C  
Sample Received By: ML  
Analyzed By: HM

## METHOD: Standard Methods

4500-CIB

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

Date

H18526 Eagle Rock

**PLEASE NOTE: Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of **Cardinal Laboratories**.





PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

November 3, 2009

Libby Einhorn  
Eagle Rock Resources  
P.O. Box 690  
Monahans, TX 79756

Re: Berry Hobbs Unit

Enclosed are the results of analyses for sample number H18625, received by the laboratory on 11/02/09 at 2:59 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

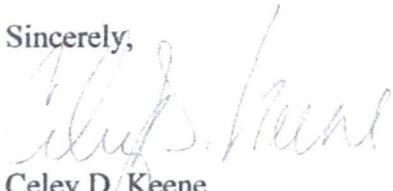
Cardinal Laboratories is accredited though the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.2	Regulated VOCs (V2, V3)

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

  
Celey D. Keene  
Laboratory Director

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This report conforms with NELAP requirements.



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR  
EAGLE ROCK RESOURCES  
ATTN: LIBBY EINHORN  
P.O. BOX 690  
MONAHANS, TX 79756  
FAX TO: (575) 746-6534 & (432) 682-4182

Receiving Date: 11/02/09  
Reporting Date: 11/03/09  
Project Number: UNIT 17 WELL #1  
Project Name: BERRY HOBBS UNIT  
Project Location: LEA COUNTY, NM

Sampling Date: NOT GIVEN  
Sample Type: SOIL  
Sample Condition: INTACT @ 24°C  
Sample Received By: ML  
Analyzed By: AB

LAB NUMBER SAMPLE ID

Cl\*  
(mg/kg)

ANALYSIS DATE	Cl*
H18625-1      # 1	11/03/09
	<16
Quality Control	500
True Value QC	500
% Recovery	100
Relative Percent Difference	<0.1

METHODS: Cl: Std. Methods 4500-Cl'B. Not accredited for Chloride.

\*Analysis performed on a 1:4 w:v aqueous extract.

Jeff Kue  
Lab Director

11/03/09  
Date

H18625 CL ERR

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



**ATTACHMENT 7**

**PREVIOUS CLOSURE PLAN APPLICATION C-144**