

**OCD-ARTESIA**

Form 3160-3  
(April 2004)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

FORM APPROVED  
OMB No 1004-0137  
Expires March 31, 2007

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER			5 Lease Serial No. <b>NM-29270</b>		
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			6 If Indian, Allottee or Tribe Name		
2. Name of Operator <b>Lime Rock Resources IIA, L.P.</b>			7 If Unit or CA Agreement, Name and No.		
3a. Address <b>1111 Bagby St., suite 4600 Houston, TX 77002</b>			8 Lease Name and Well No. <b>Eagle 34 P Federal, Well No. 59</b> [38969]		
3b. Phone No. (include area code) <b>713-292-9526</b>			9 API Well No. <b>36-015-39767</b>		
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface <b>900' FSL &amp; 900' FEL</b> At proposed prod zone <b>same</b>			10. Field and Pool, or Exploratory <b>Red Lake; Glorieta-Yeso</b> [96836]		
11. Sec, T R M. or Blk. and Survey or Area <b>Sec. 34-T17S-R27E</b>			12. County or Parish <b>Eddy</b>		
13 State <b>NM</b>			14 Distance in miles and direction from nearest town or post office* <b>12 miles SE or Artesia, NM.</b>		
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) <b>900'</b>		16 No. of acres in lease <b>40</b>		17 Spacing Unit dedicated to this well <b>40</b>	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft <b>990'</b>		19. Proposed Depth <b>4,500'</b>		20 BLM/BIA Bond No. on file <b>NMB-000715 &amp; NMB-000756</b>	
21 Elevations (Show whether DF, KDB, RT, GL, etc ) <b>3613.2</b>		22 Approximate date work will start* <b>11/20/2011</b>		23 Estimated duration <b>2-3 weeks</b>	

**24. Attachments**

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form.

- |  |   |
|--|---|
| 1 Well plat certified by a registered surveyor   | 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2 A Drilling Plan  | 5 Operator certification  |
| 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6 Such other site specific information and/or plans as may be required by the authorized officer. |

25 Signature <i>George R. Smith</i>	Name (Printed/Typed) <b>George R. Smith</b>	Date <b>09/19/2011</b>
Title <b>POA agent for Lime Rock Resources IIA, L.P.</b>		

Approved by (Signature) <i>Is/ Don Peterson</i>	Name (Printed/Typed) <b>Is/ Don Peterson</b>	Date <b>DEC 07 2011</b>
Title <b>FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>	

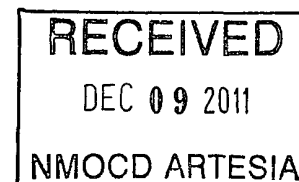
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon  
Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

**Roswell Controlled Water Basin**



**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

**Approval Subject to General Requirements  
& Special Stipulations Attached**

*dm*

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240  
DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210  
DISTRICT III  
1000 RIO BRAZOS RD., AZTEC, NM 87410  
DISTRICT IV  
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Form C-102  
Revised July 16, 2010  
Submit to Appropriate  
District Office

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-015-39767</b>	Pool Code <b>96836</b>	Pool Name <b>Red Lake; Glorieta-Yeso</b> <i>NE</i>
Property Code <b>38969</b>	Property Name <b>EAGLE 34 P FEDERAL</b>	Well Number <b>59</b>
OGRID No. <b>277558</b>	Operator Name <b>11</b> <b>LIME ROCK RESOURCES A, L.P.</b>	Elevation <b>3613'</b>

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>P</b>	<b>34</b>	<b>17-S</b>	<b>27-E</b>		<b>900</b>	<b>SOUTH</b>	<b>900</b>	<b>EAST</b>	<b>EDDY</b>

**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres <b>40</b>	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=649577.6 N X=522424.2 E LAT.=32.785758° N LONG.=104.260367° W</p>	<p>3608.3' 3605.2' 600' 3618.6' 3615.2' DETAIL</p>	<p><b>OPERATOR CERTIFICATION</b> I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  <i>George R. Smith</i> 10/19/11 Signature Date <b>George R. Smith, POA agent</b> Printed Name <b>gr.smith1@hotmail.com</b> E-mail Address</p>
	<p>SEE DETAIL 900' 900'</p>	<p><b>SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  JUNE 6, 2011 Date of Survey Signature &amp; Seal of Professional Surveyor: <b>RONALD J. EIDSON</b> 3239 Certificate Number Ronald J. Eidson 12641 LA TWSC W.O.: 11.11.0822</p>

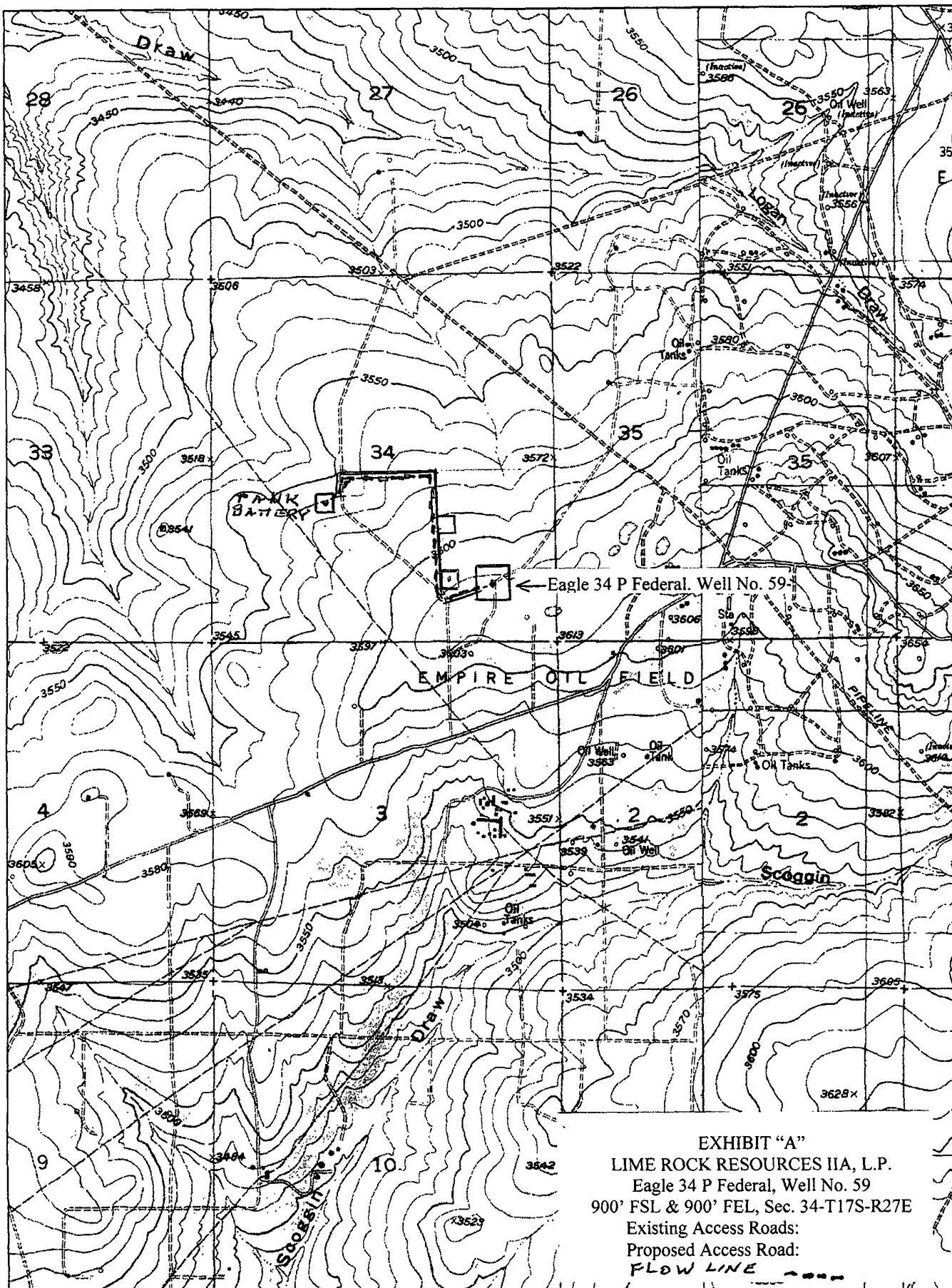
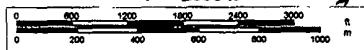


EXHIBIT "A"  
 LIME ROCK RESOURCES IIA, L.P.  
 Eagle 34 P Federal, Well No. 59  
 900' FSL & 900' FEL, Sec. 34-T17S-R27E  
 Existing Access Roads:  
 Proposed Access Road:  
**FLOW LINE**

**DeLORME**

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[www.delorme.com](http://www.delorme.com)

Scale 1 : 24,000  
 1" = 2000 ft



TH  
 MN  
 0.0°W

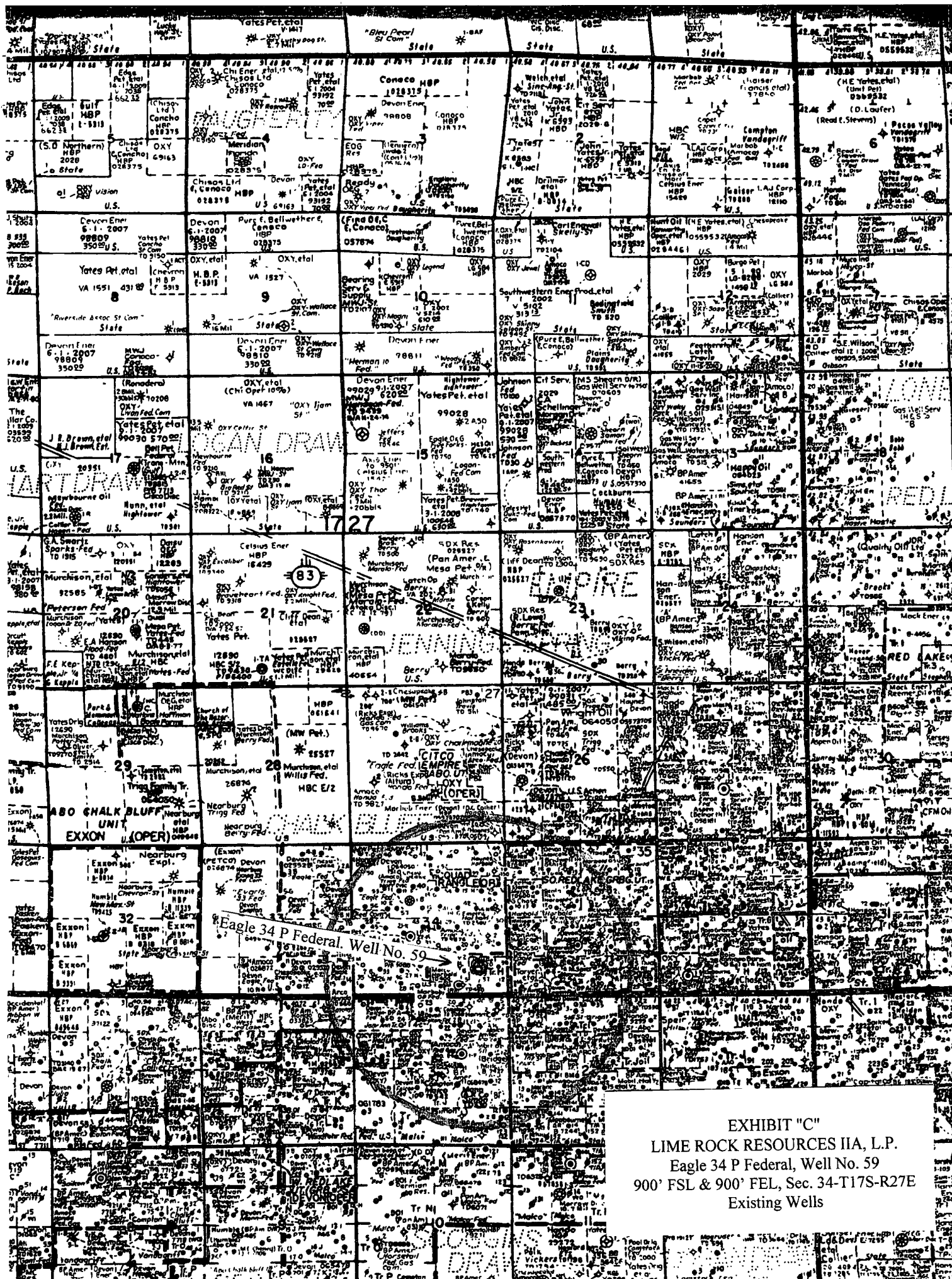
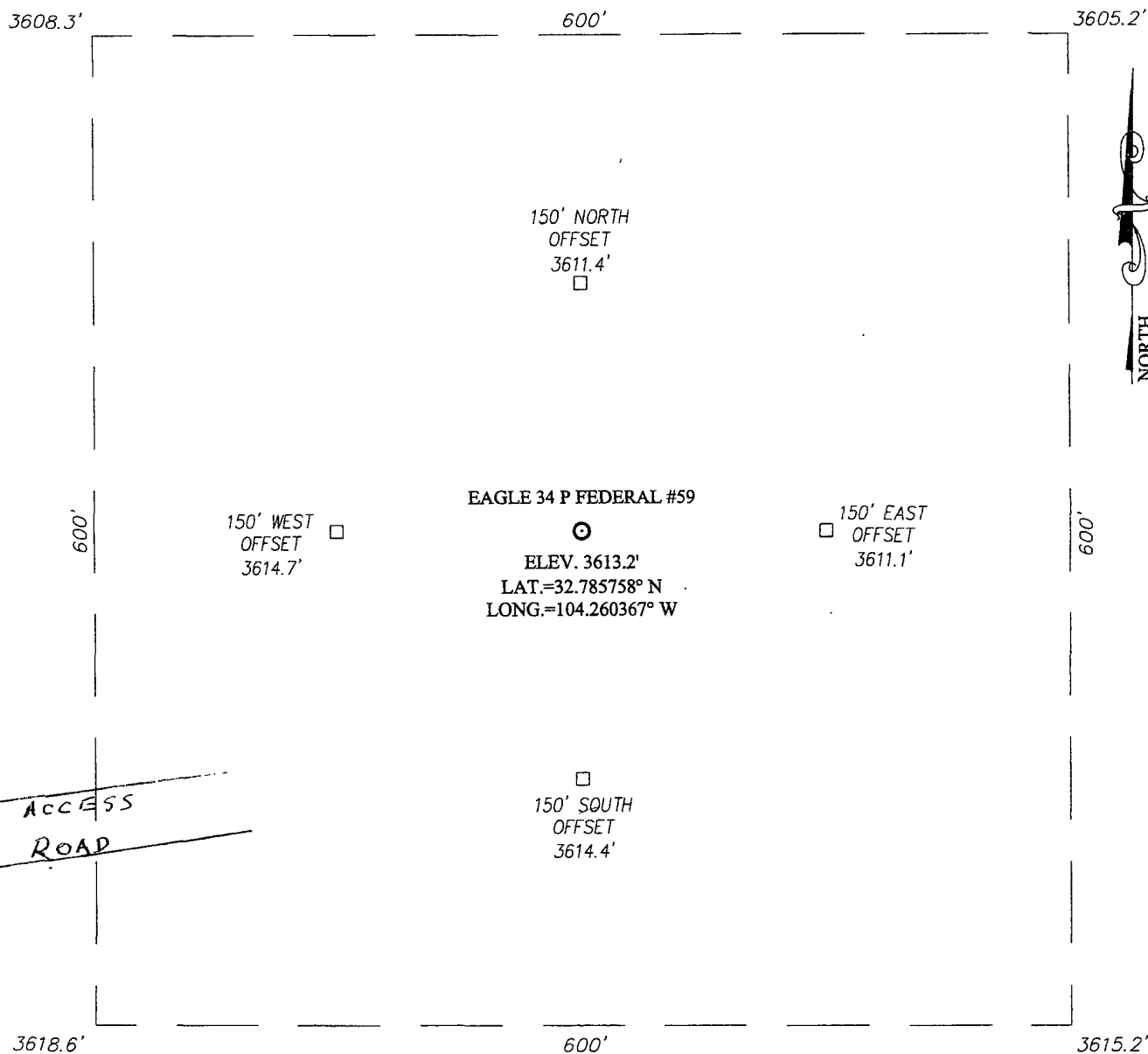


EXHIBIT "C"  
LIME ROCK RESOURCES IIA, L.P.  
Eagle 34 P Federal, Well No. 59  
900' FSL & 900' FEL, Sec. 34-T17S-R27E  
Existing Wells

# SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.

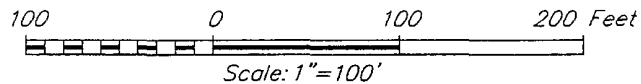
EDDY COUNTY

NEW MEXICO



## DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CO. RD. #225 (EMPIRE RD) AND CO. RD. #227 (LITTLE DIAMOND), GO SOUTHWEST ON CO RD #227 APPROX. 0.5 MILES. TURN RIGHT NORTH APPROX. 0.4 MILES TO THE APACHE OD FEDERAL #2 WELL PAD. THIS LOCATION IS APPROX. 750 FEET EAST.



## LIME ROCK RESOURCES A, L.P.

EAGLE 34 P FEDERAL #59 WELL  
LOCATED 900 FEET FROM THE SOUTH LINE  
AND 900 FEET FROM THE EAST LINE OF SECTION 34,  
TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO



PROVIDING SURVEYING SERVICES  
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO  
HOBBS, N.M. 88240  
(575) 393-3117

Survey Date: 6/6/11	Sheet 1 of 1 Sheets
W.O. Number: 11 11.0822	Dr By: LA
Date: 6/16/11	11110822
	Scale: 1"=100'

**APPLICATION FOR DRILLING  
LIME ROCK RESOURCES IIA, L.P.**

Eagle 34 P Federal, Well No. 59  
900' FSL & 900' FEL, Sec. 34-T17S-R27E  
Eddy County, New Mexico  
Lease No.: NMNM-29270  
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Lime Rock Resources IIA, L.P. submits the following items of pertinent information in accordance with BLM requirements:

- The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
- The estimated tops of geologic markers are as follows:

Yates	70'	San Andres	1,588'
Seven Rivers	300'	Glorieta	2,936'
Queen	870'	Yeso	3,030'
Grayburg	1,240'	TD	4,500'

- The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water possible in the Triassic between 80' - 230'.  
Oil: Possible in the San Andres, Glorieta below 2,936'  
Gas: Possible in the San Andres, Glorieta below 1,588'

- Proposed New Casing Program:

See 20A

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH <del>FACTOR</del>	COLLAPSE DESIGN FACTOR	BURST DESIGN FACTOR	TENSION DESIGN FACTOR
12 1/4"	8 5/8"	24.0#	J-55	ST&C	350' 360	1.2	1.18	2.0
7 7/8"	5 1/2"	17.0#	J-55	LT&C	4,500'	1.2	1.18	2.0

- Proposed Control Equipment: A 2M Shaffer Type "E" Double Gate 10" BOP will be installed on the 8 5/8" casing. Casing and BOP will be tested as a 2M system as per Onshore Oil & Gas Order #2 before drilling out with the 7 7/8". The Pipe Rams will be operated and checked daily, plus each time drill pipe is out of hole. This will be documented on driller's log. See Exhibit "E".

- Cement Program

CASING	SETTING DEPTH	QUANTITY OF CEMENT	TOC	YEILD
8 5/8"		Lead: 175 sx "C"+2%CaCl2+.125pps Poly-E Flake		1.35
	350'	Tail: 200 sx "C" +2% CaCl2 150% excess	Surface	1.32
5 1/2"	4,500'	Lead: 450 sx 35:65 (Poz:C)+.6% Gel + 0.125 pps PE Flake +3pps NaCl+3 pps Gilsonite + 0.5% Halad 9		1.87
		Tail: 550 sx "C"+0.4% LAP-1+ 0.5% CFR-3, + 0.25 pps D-AIR +0.125 pps Poly E Flake 100% excess	Surface	1.325

**7. Mud Program:**

DEPTH	MUD PROGRAM MUD	MUD WEIGHT	VIS.	W/L CONTROL
0 - <del>350'</del> <b>360'</b>	Fresh water mud:	8.4 - 9.2 ppg	28 - 34	No W/L control
<del>350'</del> - 3000'	Brine water	9.8 - 10.2 ppg	28 - 29	No W/L control
3000' - 4500'	Brine, Salt Gel, Starch	9.8 - 10.2 ppg	30 - 32	W/L control 20-30 cc w/starch

**8. Auxiliary Equipment:** Blowout Preventer, gas detector, Kelly cock.

**9. Testing, Logging, and Coring Program:**

Drill Stem Tests: None planned unless warranted.

Logging: T.D -Surface Casing: GR-DLL, GR-CND

350' to surface: G/R/Neutron

Coring: None planned unless warranted..

**10.** No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated Surface Pressure = 1357 psi (evac. hole) and BHP of 2387 psi (evac) with temperature of 105°.

**11. H<sub>2</sub>S:** The mud log unit will be cautioned to use a gas trap to detect H<sub>2</sub>S and if any is detected the mud weight will be increased along with H<sub>2</sub>S inhibitors sufficient to control the gas. H<sub>2</sub>S monitoring equipment will be installed before drilling out from the 8 5/8" casing. If H<sub>2</sub>S is detected in concentrations requiring activation of the contingency program, a mud separator and flare line will be installed on the choke manifold and the H<sub>2</sub>S gas contingency program will be not only activated, but enforced. See Exhibit "D".

**12.** Anticipated starting date: November 14, 2011.

Anticipated completion of drilling operations: Approx. 3 weeks

## 2000 psi System

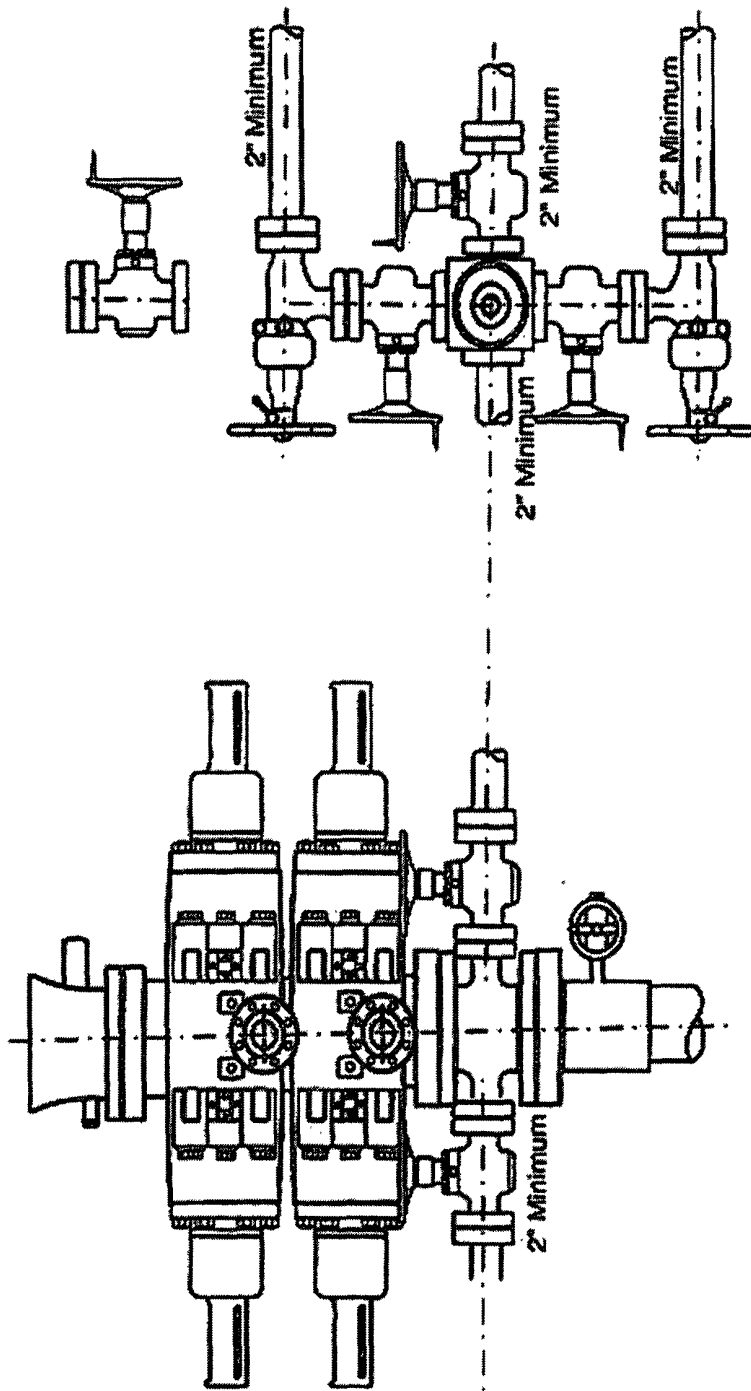
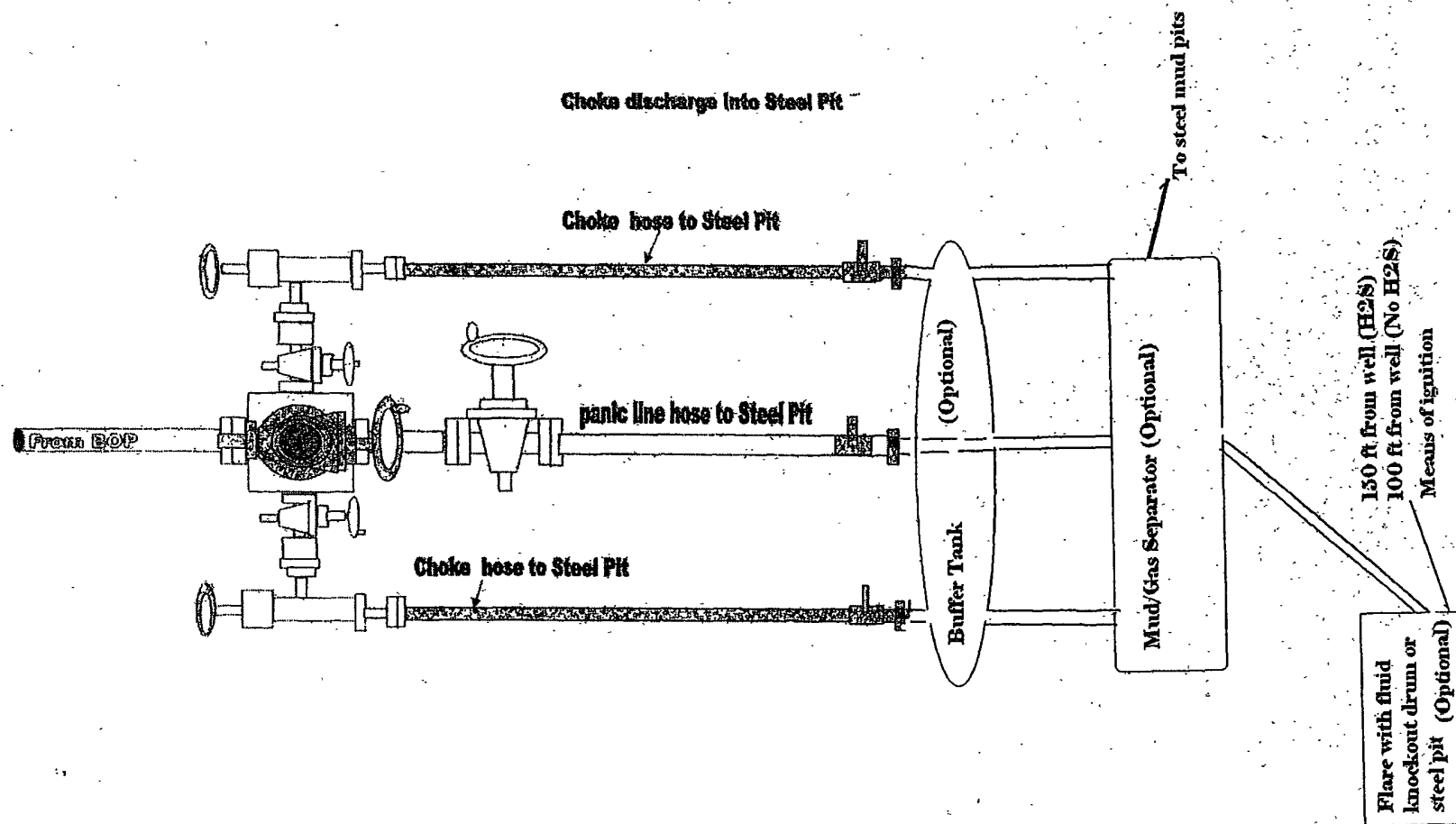


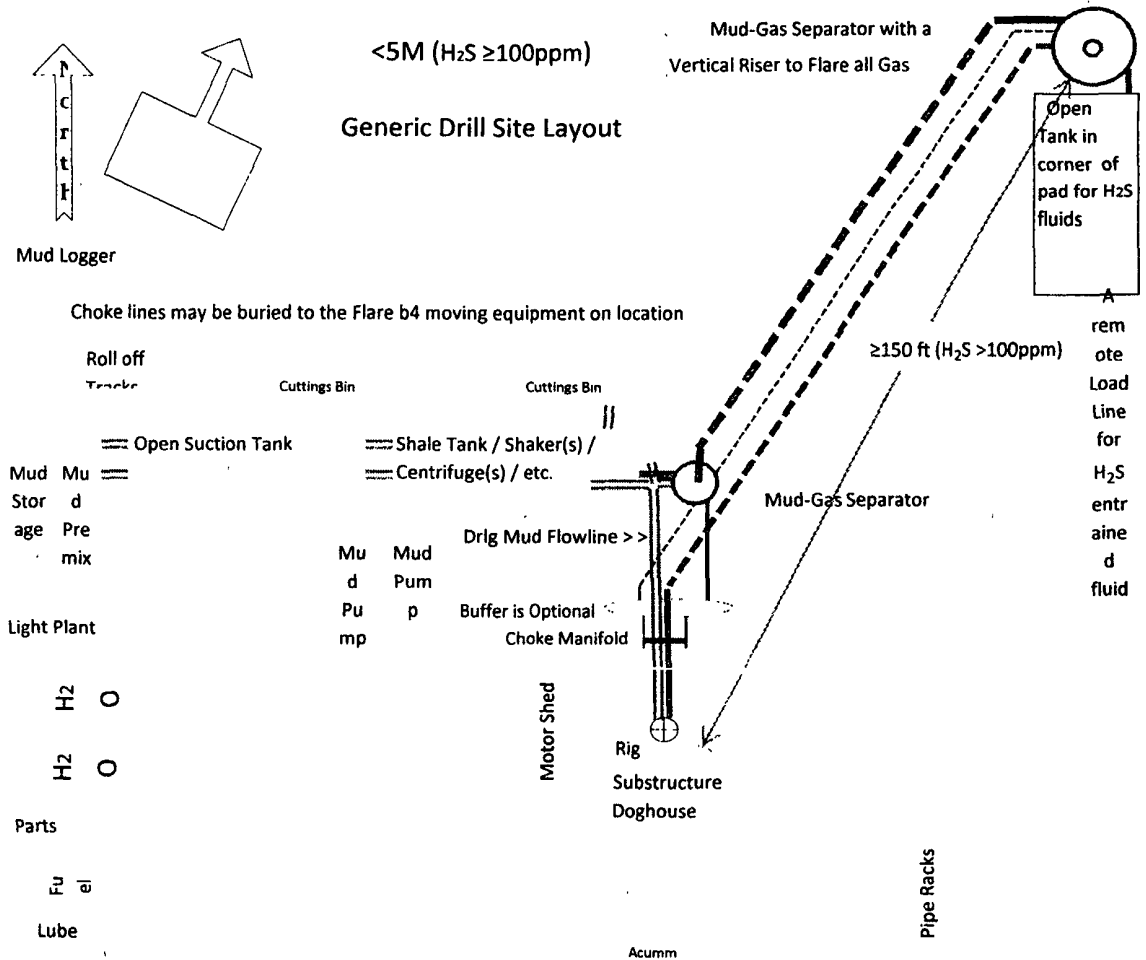
Figure 3-1





3000<sup>#</sup> & 2000# BOP manifold system  
(Suggested configuration)

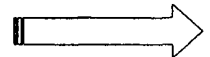
For a vertical gas vent or flare to be 150ft from the wellbore, the well needs to be centered in a square 250ft min on a side. To be 100ft from the wellbore, the well needs to be centered in a square 150ft min on a side.

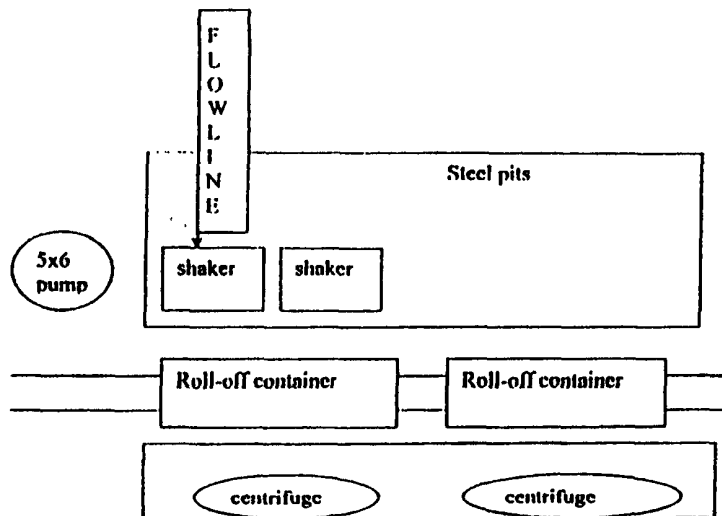


Preplanning reasonable accommodations to achieve necessary and useable "Closed Loop" drillsite features is challenging. Specific considerations must be custom fitted to each wellsite. This generic plat was prepared to emphasize desired APD planning elements for lower pressure wells with the potential for H<sub>2</sub>S gas. As a minimum the plat should include: a north arrow, prevailing wind direction, access road, a mud-gas separator, and steel tank location or blowdown pit for overpressured fluids. Include truck routing for removal of cuttings bins. Consider an overpressured situation, with the BOPE being closed. Show the choke manifold and a piping system for venting overpressured fluid through a gas/liquid separator to burn gas and flow liquids into the steel tank. Also consider the need for fluid/gas separation during normal drilling with fluid discharged to mud tanks and H<sub>2</sub>S gas from the flowline venting to the flare.

Tool Pusher Housing

Company man Housing





This will be maintained by 24 hour solids control personnel that stay on location.

*TOMMY WILSON*



**CLOSED LOOP  
SPECIALTY**

Office: 575.746.1689

Cell: 575.748.6367

**LIME ROCK RESOURCES IIA, L.P., EAGLE 34 P FEDERAL,  
WELL NO. 59  
API: 30-**

**A- Sec. 34, T17S-R27E: 900' FSL & 900' FEL Eddy Co., NM**

**DESIGN: Closed Loop System with roll-off steel bins (pits)**

CRI/Hobbs will supply (2) bins ( ) volume, rails and transportation relating to the Close Loop system. Specifications of Close Loop System attached.

Contacts: Gary Wallace 432-638-4076 Office # 575-393-1079

**Scomi Oil Tool: Supervisor: Armando Soto – 432-553-7978 Hobbs, NM**

Monitoring 24 hour service

Equipment:

Centrifuges (brand): Derrick

Rig Shakers (brand): Brandt

D-watering Unit

Air pumps on location for immediate remediation process

Layout of Close Loop System with bins, centrifuges and shakers attached.

Cuttings and associated liquids will be hauled to a State regulated third party disposal site: CRI (Controlled Recovery, Inc.) Disposal Facility Permit # R9166

2-250 bbl tanks to hold fluid

2- CRI Bins with track system

2- 500 bbl frac tanks for fresh water

2-500 bbl frac tanks for brine water

**OPERATIONS:**

Closed Loop equipment will be inspected daily by each tour and any necessary maintenance performed.

Any leak in system will be repaired and or/contained immediately

OCD will be notified within 48 hours of the spill.

Remediation process started immediately

**CLOSURE:**

During drilling operations all liquids, drilling fluids and cuttings will be hauled off via CRI (Controlled Recovery Incorporated) Disposal Facility Permit # R9166

## HYDROGEN SULFIDE (H<sub>2</sub>S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Emergency Procedures

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

### Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

### Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

### Contacting Authorities

Lime Rock Resources personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Lime Rock Resources response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

## **H<sub>2</sub>S CONTINGENCY PLAN EMERGENCY CONTACTS**

**Company Office –Lime Rock Resources**  
**Answering Service (During Non-Office Hours)**

**713-292-9510**  
**713-292-9555**

### **Key Personnel**

<b><u>Name</u></b>	<b><u>Title</u></b>	<b><u>Phone Number</u></b>
<b>Sid Ashworth</b>	<b>Production Engineer</b>	<b>713-292-9526 Cell: 713-906-7750</b>
<b>Mike Barrett</b>	<b>Production Supervisor</b>	<b>575-623-8424 Cell: 505-353-2644</b>

<b>Ambulance</b>	<b>911</b>
<b>State Police</b>	<b>575-746-2703</b>
<b>City Police</b>	<b>575-746-2703</b>
<b>Sheriff's Office</b>	<b>575-746-9888</b>
<b>Fire Department</b>	<b>575-746-2701</b>
<b>Local Emergency Planning Committee</b>	<b>575-746-2122</b>
<b>New Mexico Oil Conservation Division</b>	<b>575-748-1283</b>

### **Carlsbad**

<b>Ambulance</b>	<b>911</b>
<b>State Police</b>	<b>575-8885-3137</b>
<b>City Police</b>	<b>575-885-2111</b>
<b>Sheriff's Office</b>	<b>575-887-7551</b>
<b>Fire Department</b>	<b>575-887-3798</b>
<b>Local Emergency Planning Committee</b>	<b>575-887-6544</b>
<b>US Bureau of Land Management</b>	<b>575-887-6544</b>

<b>New Mexico Emergency Response Commission (Santa Fe)</b>	<b>505-476-9600</b>
<b>24 Hour</b>	<b>505-827-9126</b>
<b>New Mexico State Emergency Operations Center</b>	<b>505-476-9635</b>
<b>National Emergency Response Center (Washington, DC)</b>	<b>800-424-8802</b>

### **Other**

<b>Boots &amp; Coots IWC</b>	<b>800-256-9688 or 281-931-8884</b>
<b>Cudd PressureControl</b>	<b>915-699-0139 or 915-563-3356</b>
<b>Halliburton</b>	<b>575-746-2757</b>
<b>B. J. Services</b>	<b>575-746-3569</b>
<b>Flight For Life – 4000 24<sup>th</sup> St. Lubbock, Texas</b>	<b>806-743-9911</b>
<b>Aerocare – R3, Box 49F, Lubbock, Texas</b>	<b>806-747-8923</b>
<b>Med Flight Air Amb – 2301 Yale Blvd SE #D3, Albuquerque, NM</b>	<b>505-842-4433</b>
<b>S B Air Med Service – 2505 Clark Carr Loop SE, Albuquerque, NM</b>	<b>505-842-4949</b>

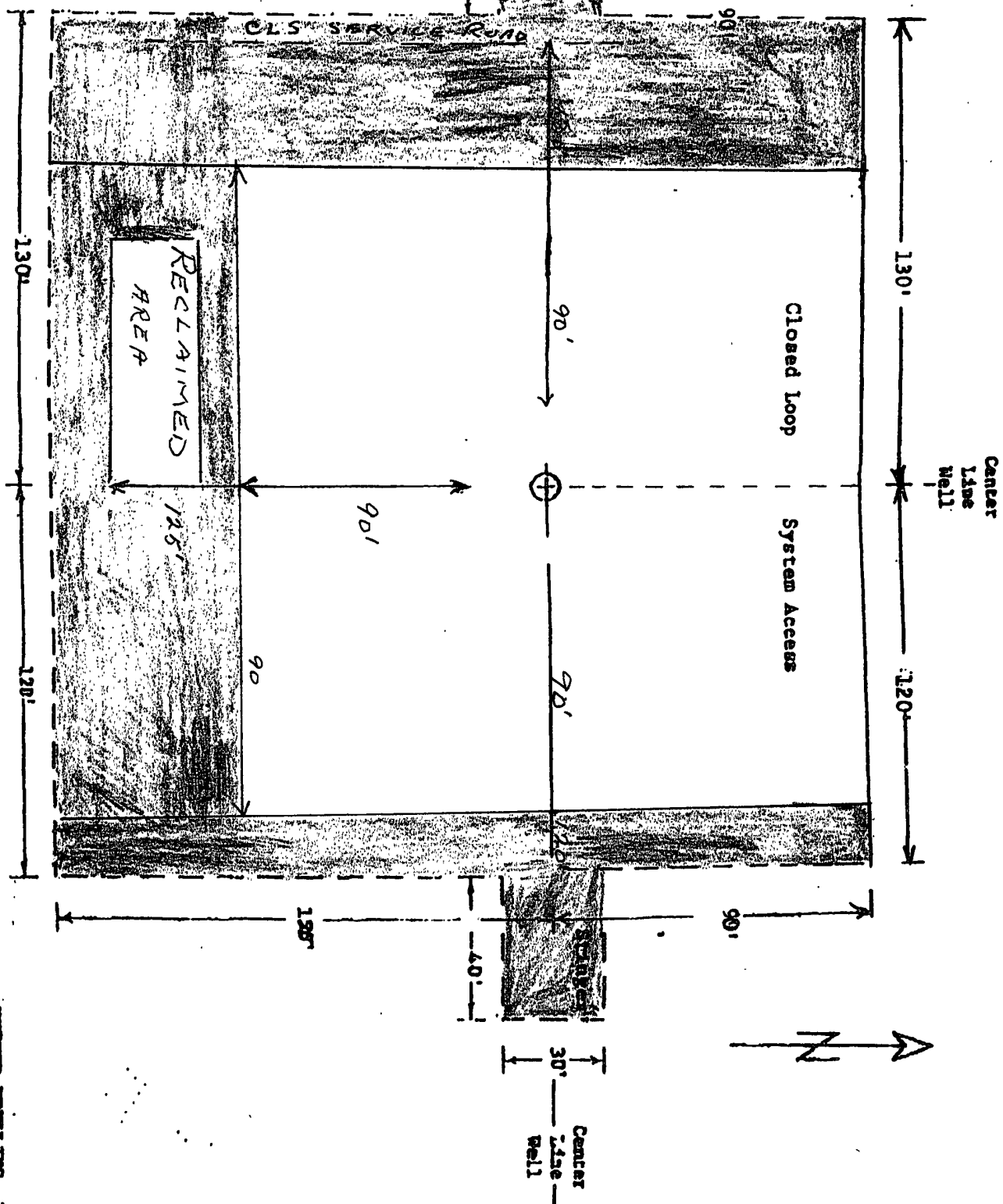


EXHIBIT "D"  
 LIME ROCK RESOURCES IIA, L.P.  
 Eagle 34 P Federal, Well No. 59  
 Reclaimed Pad

## **MULTI POINT SURFACE USE AND OPERATIONS PLAN**

### **LIME ROCK RESOURCES IIA, L.P.**

Eagle 34 P Federal, Well No. 59  
900' FSL & 900' FEL, Sec. 34-T17S-R27E  
Eddy County, New Mexico  
Lease No.: NMNM-29270  
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan to be followed in rehabilitating the surface and environmental effects associated with the operations.

#### **1. EXISTING ROADS:**

- A. Exhibit "A" is a portion of a BLM topo map showing the location of the proposed well as staked. The well site location is approximately 9.9 road miles east of Artesia, NM. Traveling east of Artesia on U.S. Hwy 82 there will be approximately 9.2 miles of existing highway and 2.6 miles of County Rd. 204, 225 and 227.
- B. Directions: Travel east of U.S. Hwy 285 in Artesia on U.S. Hwy 82 for approximately 9.2 miles to County Rd. 204. Turn south approximately .1 mile, then southwest on County Rd. 225. Continue southwest to the intersection of 227 and then approximately .5 past the intersection turn right for approx .4 mile to the start of the proposed access road which will run NE 600' to the southwest corner of the proposed pad.

#### **2. PLANNED ACCESS ROAD:**

- A. Length and Width: The proposed new access road will be 600' in length and 12' in width. The existing roads are color coded on Exhibit "A".
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: None will be required.
- D. Culverts: None.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None will be required.
- G. Off lease right of way: None required.

#### **3. LOCATION OF EXISTING WELLS:**

- A. Existing wells within a two-mile radius are shown on Exhibit "C".

#### **4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;**

- A. Lime Rock Resources IIA, L.P. has production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities will be installed on the drilling pad. A 3" SDR 11 PVC surface production flow line will be run parallel to the proposed access road to the oil field road and then north to a well pad and follow this pipeline back to the Eagle tank battery to the NESW in Sec. 34-T27S-R27E.



**LIME ROCK RESOURCES IIA, L.P.**

Eagle 34 P Federal, Well No. 59

Page 2

**5. LOCATION AND TYPE OF WATER SUPPLY:**

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads

**6. SOURCE OF CONSTRUCTION MATERIALS:**

- A. Caliche for surfacing the proposed access road and well site pad will be obtained from the approved COG private pit in the SW4/SW4 Sec. 32-T17S-R28E or a closer pit if available. No surface materials will be disturbed except those necessary to for grading and leveling the pad area and access road.

**7. METHODS OF HANDLING WASTE DISPOSAL:**

- A. Drill cuttings and liquids will be stored in the steel tanks of the closed loop mud system during the drilling operations and delivered to CRI, Permit No. R-9166, as needed, and at closure.
- B. There will be no mud pits to be fenced.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.

**8. ANCILLARY FACILITIES:**

- A. None required.

**9. WELL SITE LAYOUT:**

- A. Exhibit "D" shows the relative location and dimensions of the well pad, closed loop system and major rig components. The pad and pit area has been staked and flagged, 600' X 600'.
- B. Mat Size: 300' X 120', plus 80' X 300' pad to service the closed loop mud system on the north.
- C. Cut & Fill: The location will require approximately a 1.5' foot cut on the southwest with fill to the northeast.
- D. The surface will be topped with compacted caliche.

**LIME ROCK RESOURCES IIA, L.P.**

Eagle 34 P Federal, Well No. 59

Page 3

**10. PLANS FOR RESTORATION OF THE SURFACE:**

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. The location will be cleaned of all trash and junk to leave the well site in an aesthetically pleasing condition as possible.
- B. There will be no unguarded pits containing fluids.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. Mud from the closed system will be disposed of as required.

**11. OTHER INFORMATION:**

- A. Topography: The proposed well site and access road are located on a 2% slope to the northwest. The location has an elevation of 3613.2' GL.
- B. Soil: The topsoil at the well site is a shallow gypsiferous soil with gyp rock on surface. The soil is part of the Reeves Gypsum Land complex.
- C. Flora and Fauna: The location has a poor grass cover of grama, tobosa and alkali sacaton along with plants of mesquite, creosote, yucca, broomweed, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, deer, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None.
- E. Residences and Other Structures: None in the immediate vicinity, except producing oil wells surrounding the location of the Eagle 34 P Federal, Well No. 59.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no immediate evidence of an archaeological site on the location of the staked area. Archaeological Survey Consultants, PO Box 2285, Roswell NM 88202, has conducted an archaeological survey and their report will be submitted to the appropriate government agencies.

**12. OPERATOR'S REPRESENTATIVE:**

- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

Sid Ashworth  
LIME ROCK RESOURCES IIA, L.P.  
Heritage Plaza  
1111 Bagby Street, Suite 4600  
Houston, TX 77002  
Office Phone: 713-292-9526  
Cell Phone: 713-906-7750

**CERTIFICATION:**

I hereby certify that I have inspected the proposed drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have knowledge of state and Federal laws applicable to this operation; that the statements made in the APD package are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions which it is approved. I also certify that I, or the company I represent, am/is responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Executed this September 16, 2011

  
George R. Smith

POA agent for Lime Rock Resources IIA, L.P.

P.O. Box 458

Roswell, NM 88202

575-623-4940

Sid Ashworth

1111 Bagby St., Suite 4600

Houston, TX 77002

713-292-9526 (office)

713-906-7750 (cell)

**POWER OF ATTORNEY****DESIGNATION OF AGENT**

LIME ROCK RESOURCES A, L.P. hereby names the following person as its agent:

Name of Agent: George R. Smith d/b/a/ Energy Administrative Services Company

Agent's Address: P.O. Box 458, Roswell, NM 88202

Agent's Telephone Number: (575) 623-4940

**GRANT OF SPECIAL AUTHORITY**

LIME ROCK RESOURCES A, L.P. grants its agent the authority to act for it with respect to the following only:

1. Executing forms required to be filed with the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department.
2. Executive forms required to be filed with the Bureau of Land Management of the Department of Interior of the United States of America.

**EFFECTIVE DATE**

This power of attorney is effective immediately.

**RELIANCE ON THIS POWER OF ATTORNEY**

Any person, including the agent, may rely upon the validity of this power of attorney or a copy of it unless that person knows it has terminated or is invalid.

## SIGNATURE AND ACKNOWLEDGMENT

LIME ROCK RESOURCES A, L.P.

By: 

Name: Charles Adcock

Title: Managing Director - Lime Rock Resources, G.P.

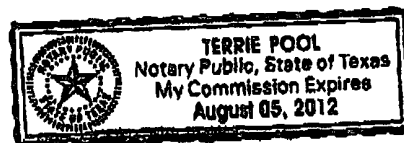
Date: 10/27/2008

Address: 1111 Bagby Street, Suite 4600, Houston, TX 77002

Telephone Number: (713) 292-9512

State of TEXAS  
County of HARRIS

This instrument was acknowledged before me on October 27, 2008 by Charles Adcock,  
Managing Director of LIME ROCK RESOURCES A, L.P. acting on behalf of said limited  
partnership.

Signature of notarial officer: My commission expires: August 05, 2012

# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Lime Rock Resources
LEASE NO.:	NM29270
WELL NAME & NO.:	59 - Eagle 34 P Federal
SURFACE HOLE FOOTAGE:	900' FSL & 900' FEL
BOTTOM HOLE FOOTAGE:	
LOCATION:	Section 34, T.17 S., R.27 E., NMPM
COUNTY:	Eddy County, New Mexico

## TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Cave/Karst
- ☐ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
  - H2S – Onshore Order 6 requirements
  - High cave/karst
  - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- ☒ **Interim Reclamation**
- ☒ **Final Abandonment & Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## **V. SPECIAL REQUIREMENT(S)**

### **Cave and Karst**

\*\* Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

#### **Cave/Karst Surface Mitigation**

The following stipulations will be applied to minimize impacts during construction, drilling and production.

##### **Construction:**

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

##### **No Blasting:**

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

##### **Tank Battery Liners and Berms:**

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

##### **Leak Detection System:**

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

##### **Automatic Shut-off Systems:**

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

#### **Cave/Karst Subsurface Mitigation**

The following stipulations will be applied to protect cave/karst and ground water concerns:

##### **Rotary Drilling with Fresh Water:**

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

##### **Directional Drilling:**

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.



**Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

**Abandonment Cementing:**

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

**Pressure Testing:**

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

**VI. CONSTRUCTION****A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-6235 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

**B. TOPSOIL**

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 4 inches in depth. The topsoil will be used for interim and final reclamation.

**C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

**D. FEDERAL MINERAL MATERIALS PIT**

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

#### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

#### **F. ON LEASE ACCESS ROADS**

##### **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty (20) feet.

##### **Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

##### **Crowning**

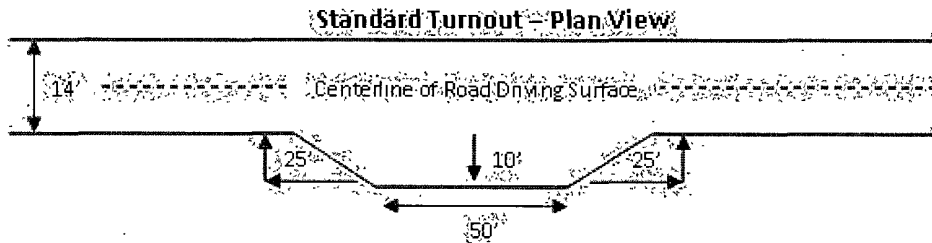
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

##### **Ditching**

Ditching shall be required on both sides of the road.

##### **Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

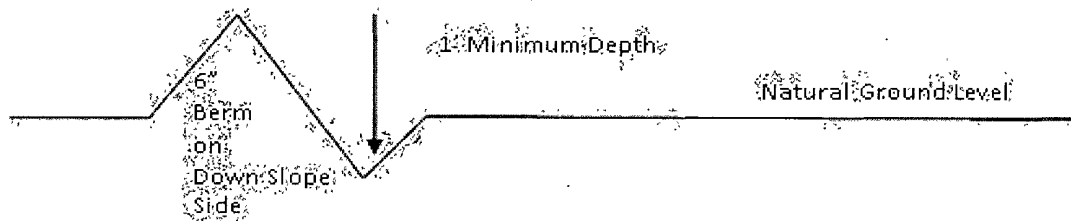


### Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out sloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

### Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

**Cattleguards**

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

**Fence Requirement**

Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

**Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

**Typical Turnout Plan**

Diagram showing the plan view of a turnout. The center line of the roadway is indicated. The turnout width is 100 feet, with 25-foot transition zones on either side. The shoulder width is 10 feet. The full turnout width is 100 feet.

Intervisible turnouts shall be constructed on all single lane roads on all blind curves with additional turnouts as needed to keep spacing below 1000 feet.

**Embankment Section**

Diagram showing the cross-section of an embankment. The top width is 24 feet. The natural ground is shown below the embankment. The height of fill at the shoulder is 0' to 4' above 4'.

height of fill at shoulder	embankment slope
0' - 4'	3:1
above 4'	2:1

**Side Hill Section**

Diagram showing the cross-section of a side hill. The natural ground is shown. The road surface is shown with various slopes: 2:1 common, 1:1 common, 1/2:1 common, 1/4:1 common, and 3:1 outside slope. The depth is measured from the bottom of the ditch.

road type	slope
earth surface	2:03 - 0:05 ft/ft
aggregate surface	0:02 - 0:04 ft/ft
paved surface	0:02 - 0:03 ft/ft

**Typical Outsloped Section**

Diagram showing the cross-section of a typical outsloped section. The natural ground line is shown. The travel surface is shown with a slope of 2% to 4%. The back slope is shown. The center line is indicated.

**Typical Insloped Section**

Diagram showing the cross-section of a typical insloped section. The natural ground line is shown. The travel surface is shown with a slope of 2% to 4%. The back slope is shown. The center line is indicated.

## **VII. DRILLING**

### **A. DRILLING OPERATIONS REQUIREMENTS**

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

1. **Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is encountered in quantities greater than 10 PPM the well shall be shut in and a mud/gas separator and flare line must be installed pursuant to Onshore Oil and Gas Order #6. After detection, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**
2. **Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

### **B. CASING**

**Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**HIGH CAVE/KARST – CONTINGENCY CASING WILL BE REQUIRED IF LOST CIRCULATION OCCURS WHILE DRILLING THE SURFACE HOLE. THE SURFACE HOLE WILL HAVE TO BE REAMED AND A LARGER CASING INSTALLED. IF LOST CIRCULATION OCCURS WHILE DRILLING THE 7-7/8" HOLE, THE CEMENT PROGRAM FOR THE 5-1/2" CASING WILL NEED TO BE MODIFIED AND THE BLM IS TO BE CONTACTED PRIOR TO RUNNING THE CASING. A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH THEREFORE, ONE INCH OPERATIONS WILL NOT BE PERMITTED. A DV TOOL WILL BE REQUIRED.**

**Possible lost circulation in the Grayburg and San Andres formations.**

1. The 8-5/8 inch surface casing shall be set at approximately 360 feet and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

### **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 (2M) psi.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - c. The results of the test shall be reported to the appropriate BLM office.



- d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

#### **D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

#### **E. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**CRW 120511**

## **VIII. PRODUCTION (POST DRILLING)**

### **A. WELL STRUCTURES & FACILITIES**

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Containment Structures**

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

#### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color  
Shale Green, Munsell Soil Color Chart # 5Y 4/2

### **B. PIPELINES**

#### **STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES**

**A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing.
  - (2) Earth-disturbing and earth-moving work.
  - (3) Blasting.
  - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full

expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 20 feet.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline

route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

### **C. ELECTRIC LINES**

## **IX. INTERIM RECLAMATION**

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## **X. FINAL ABANDONMENT & RECLAMATION**

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

#### Seed Mixture 4, for Gypsum Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Alkali Sacaton ( <i>Sporobolus airoides</i> )	1.0
DWS Four-wing saltbush ( <i>Atriplex canescens</i> )	5.0

DWS: DeWinged Seed

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL ---

Operator Limerock OGRID # 27755-8  
 Well Name & # LAKE 34 P FEDERAL 59 Surface Type (F) (S) (P)  
 Location: UL D Sect 34 Twnship 17 s, RNG 27 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd 12/9/2011 C101 reviewed 12/13/2011

B. 1. Check mark, Information is OK on Forms:

OGRID ☒ BONDING ☐ PROP CODE ☐ WELL # ☐ SIGNATURE ☐

2. Inactive Well list as of: 12/13/2011 # wells 354 # Inactive wells 1

a. District Grant APD but see number of inactive wells:

No letter required ☒; Sent Letter to Operator ☐ , to Santa Fe ☐

3. Additional Bonding as of: 12/13/2011

a. District Denial because operator needs addition bonding:

No Letter required ☒; Sent Letter to Operator ☐ , To Santa Fe ☐

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required ☒; Sent Letter to Operator ☐ , To Santa Fe ☐

C. C102 YES ☒ NO ☐ Signature ☒

1. Pool RED LAKE; GICORITA - 4 Code 96836

a. Dedicated acreage 40 , What Units P

b. SUR. Location Standard ☒ : Non-Standard Location ☐

c. Well shares acres: Yes ☐ No ☒ # of wells ☐ plus this well # ☐

2. 2<sup>nd</sup>. Operator in same acreage, Yes ☐ No ☒

Agreement Letter ☐ Disagreement letter ☐

3. Intent to Directional Drill Yes ☐ No ☒

a. Dedicated acreage ☐ , What Units ☐

b. Bottomhole Location Standard ☐ , Non-Standard Bottomhole ☐

4. Downhole Commingle: Yes ☐ No ☒

a. Pool #2 ☐ , Code ☐ , Acres ☐

Pool #3 ☐ , Code ☐ , Acres ☐

Pool #4 ☐ , Code ☐ , Acres ☐

5. POTASH Area Yes ☐ No ☒

D. Blowout Preventer Yes ☒ No ☐

E. H2S Yes ☒ No ☐

F. C144 Pit Registration Yes ☐ No ☐

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes ☐ No ☒ NSL # ☐

2. Non-Standard Proration: Yes ☐ No ☒ NSP # ☐

3. Simultaneous Dedication: Yes ☐ No ☒ SD # ☐

Number of wells ☐ Plus # ☐

4. Injection order Yes ☐ No ☒ ; PMX # ☐ or WFX # ☐

5. SWD order Yes ☐ NO ☒ ; SWD # ☐

6. DHC from SF ☐ ; DHC-HOB ☐ ; Holding ☐

7. OCD Approval Date 12/13/2011

API #30-0 15-39767

8. Reviewers ☐