

APPLICATION FOR DRILLING
LIME ROCK RESOURCES A, L.P.
Eagle 26 N Federal, Well No. 6
700' FSL & 2250' FWL, Sec. 26-T17S-R27E T
Eddy County, New Mexico
Lease No.: NMNM-0557370
(Development Well)

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

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.

2. The estimated tops of geologic markers are as follows:

Yates	46'	San Andres	1560'
Seven Rivers	276'	Glorieta	2,943'
Queen	846'	Yeso	3,020'
Grayburg	1,289'	TD	4,500'

3. 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 1,560

Gas: Possible in the San Andres, Glorieta below 1,560'

4. Proposed New Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH FACTOR	COLLAPSE DESIGN FACTOR	BURST DESIGN FACTOR	TENSION DESIGN FACTOR
12 1/4"	8 5/8"	24.0#	J-55	ST&C	250 375	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

5. Proposed Control Equipment: A 5M Shaffer Type LWS Double Gate 11" 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".

6. 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-I+ 0.5% CFR-3, .+ 0.25 pps D-AIR +0.125 pps Poly E Flake 100% excess	Surface	1.325

7. Mud Program:

MUD PROGRAM		MUD WEIGHT	VIS.	W/L CONTROL
DEPTH	MUD			
0 - 350' 315'	Fresh water mud:	8.4 - 9.2 ppg	28 - 34	No W/L control
350' - 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

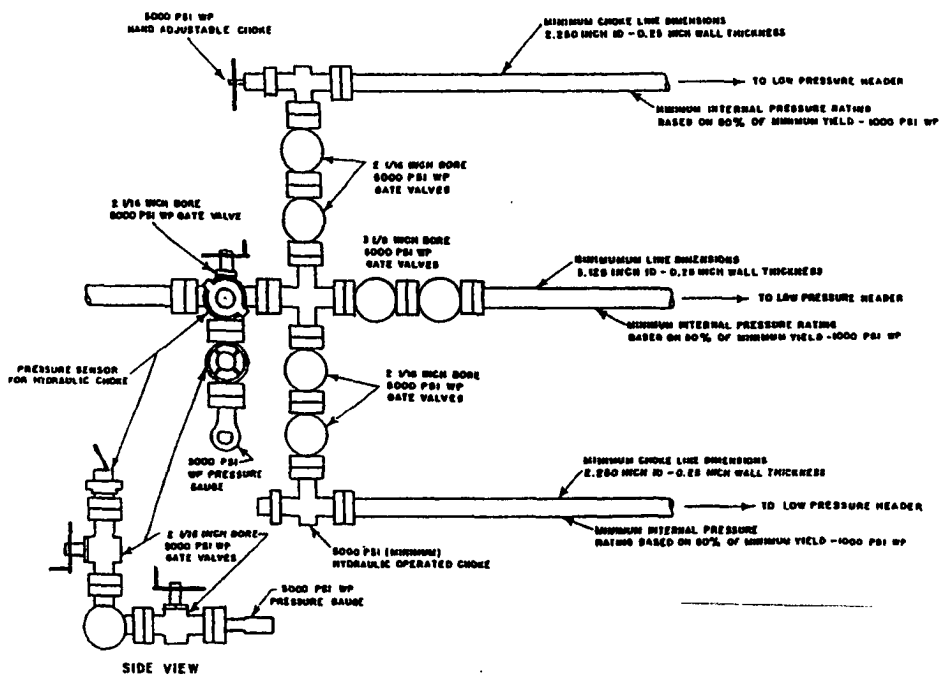
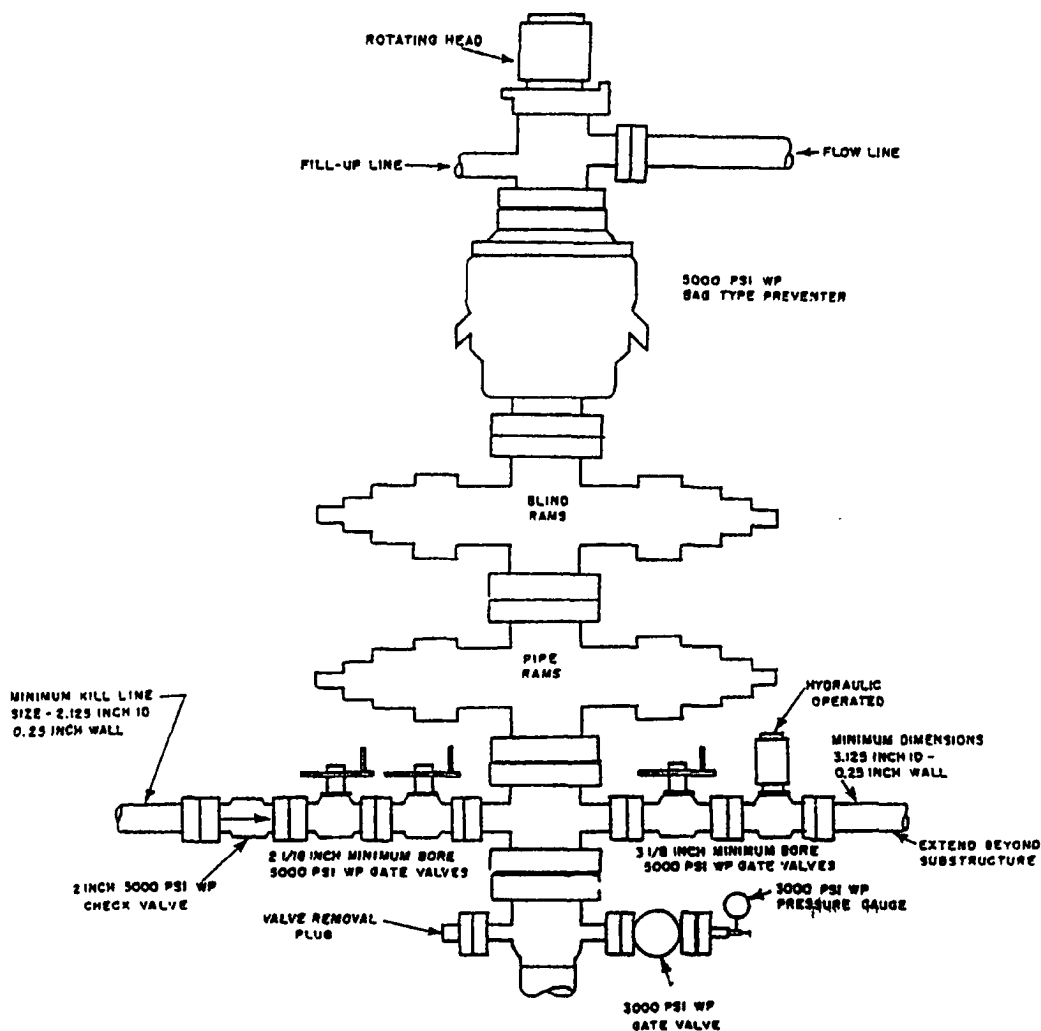
350' to surface: G/R/Neutron

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 = 1584 psi (evac. hole) and BHP of 2574 psi (evac) with temperature of 105°.
- 11. H₂S:** None expected. The mud log unit will be cautioned to use a gas trap to detect H₂S and if any is detected the mud weight will be increased along with H₂S inhibitors sufficient to control the gas. H₂S monitoring equipment will be installed before drilling out from the 8 5/8" casing. The well will have a mud separator and flare line installed on the choke manifold and the H₂S gas contingency program will be in force. See Exhibit "D".
- 12.** Anticipated starting date: September 1, 2011.
Anticipated completion of drilling operations: Approx. 3 weeks

5000 PSI WORKING PRESSURE BLOWOUT PREVENTER STACK

EXHIBIT C-1



1/1" 5000 PSI WORKING PRESSURE CHOKE MANIFOLD

EXHIBIT C-2

EXHIBIT "E"
LIME ROCK RESOURCES A, L.P.
Eagle 26 N Federal, Well No. 6
BOP Specifications

HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

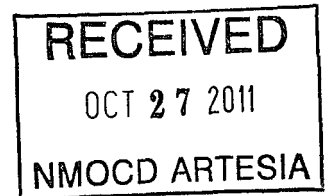
Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, 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 H₂S 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 H₂S, 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 (SO₂). 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 H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	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 México's "Hazardous Materials Emergency Response Plan" (HMER).

H₂S CONTINGENCY PLAN EMERGENCY CONTACTS

Company Office –Lime Rock Resources 713-292-9510
Answering Service (During Non-Office Hours) 713-292-9555

Key Personnel

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

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

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

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

Other

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