District 1 1625 N French Dr., Hobbs, NM 88240 Phone (575) 393-6161 Fax (575) 393-0720 District II 811 S First St., Artesia, NM 88210 Phone (575) 748-1283 Fax (575) 748-9720

District III 1000 Rio Brazos Road, Aztec, NM 87410

Phone (505) 334-6178 Fax (505) 334-6170

1220 S St Francis Dr , Santa Fe, NM 87505 Phone (505) 476-3460 Fax (505) 476-3462

#### State of New Mexico

Minerals and Natural Resources

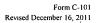
RECEIVED фіl Conservation Division

JUL 16 2012

1220 South St. Francis Dr.

**NMOCD ARTESIA** 

Santa Fe, NM 87505



Permit



LICA					RE-ENT	ΓER, DEEP	EN, PLUGB			
		•				-				
1111	Bagby Str	eet, Suite 4600	Hous	ston, Texas 7	7042		20.0	27/55 API Nu <u>y</u>		
/ Code	$\overline{}$			<sup>3</sup> Propert	v Name	Name 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				
343				Waldro	p 13 O				#2	
				<sup>7</sup> Surf	ace Loc	ation				
Section	Township	Range	Lot			N/S Line	Feet From	E/W Line		
13	185	26E					1650	E	Eddy	
	•			1 001	11110111	ation	***			
-Yeso								· · · · · · · · · · · · · · · · · · ·	51120	
`vne		10 Well Type	<i>A</i>			<u>iformation</u>	12 Lease Type	11	Ground Level Elevation	
•		O			R		P P		3294 2	
ple		Proposed Depth	/			U	17 Contractor		<sup>18</sup> Spud Date After 07/15/2012	
water 5	8 Feet	Distar	nce from	nearest fresh wa	ter well. 0	1		to nearest sur	face water   24 Miles	
		19	Prop	osed Casir	g and (	Cement Pro	gram			
Hole	Size							Cement	Estimated TOC	
20	6"	20"		91 5		40 F		Mıx	Surface	
12-	1/4"	8-5/8"		24		425	. 300		Surface	
7-7	7/8"	5-1/2"		17		4700	875		Surface	
		<u> </u>	/(C	4 D		1114 10				
,		Casin	ig/Ce	ment Prog	ram: A	daitional C	omments			
• ,		I	Propo	sed Blowo	ut Prev	ention Prog	ram			
Туре									Manufacturer	
XLT 11"			500	00		2000			National Varco	
hat the in	nformation gi	ven above is true	and com	plete to the best						
		will be construc	ted acco	rding to		OIL C	CONSERVAT	ION DI	VISION	
lines 🔲,	a general pe				Approx	ed By				
plan X	1/1			_	, apple			/		
W	Ush	5				100	.S//0//UNU	<u> </u>		
d Ashwo	orth				Title	(SA)	Vocist			
Title Operations Manager					Approv	Approved Date: 7/17/70/12 Expiration Date. 7/17/70/14				
	th@limerock	resources.com					jwiv		414 1017	
1/12		T	92-9568	,	Conditi	Conditions of Approval Attached				
	Section 13  -Yeso  Type  Hole  2  12-  7-  Type  XLT 11"  that the ire and bely that the lines  , plan  , plan  , with the lines  , with	Section Township 13 18S  -Yeso  Type ple di water 58 Feet  Hole Size 26" 12-1/4" 7-7/8"  Type  XLT 11"  that the information give and belief by that the drilling pit lines  , a general per plan  , a general per plan  .	Operator Name a   Lime Rock Resour	Operator Name and Addi   Lime Rock Resources II-   1111 Bagby Street, Suite 4600 House   Code   Section   Township   Range   Lot     13	Lime Rock Resources II-A, L.P.  1111 Bagby Street, Suite 4600 Houston, Texas 77  V Code  V Code  V Surfi  Section Township Range Lot Idn Fee  13 18S 26E   Read Lot Idn Fee  Range Lot I	Code	Operator Name and Address   1-A, L.P.	Toperator Name and Address   Lot   Lot	Lime Rock Resources II-A, L.P.  1111 Bagby Street, Suite 4600 Houston, Texas 77042    Code   Waldrop 13 O	

<u>District 1</u>
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
<u>District II</u>
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1220 S St. Francis Dr., Santa Fe, NM 87505 Phone. (505) 476-3460 Fax: (505) 476-3462

District IV

#### State of New Mexico

# Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

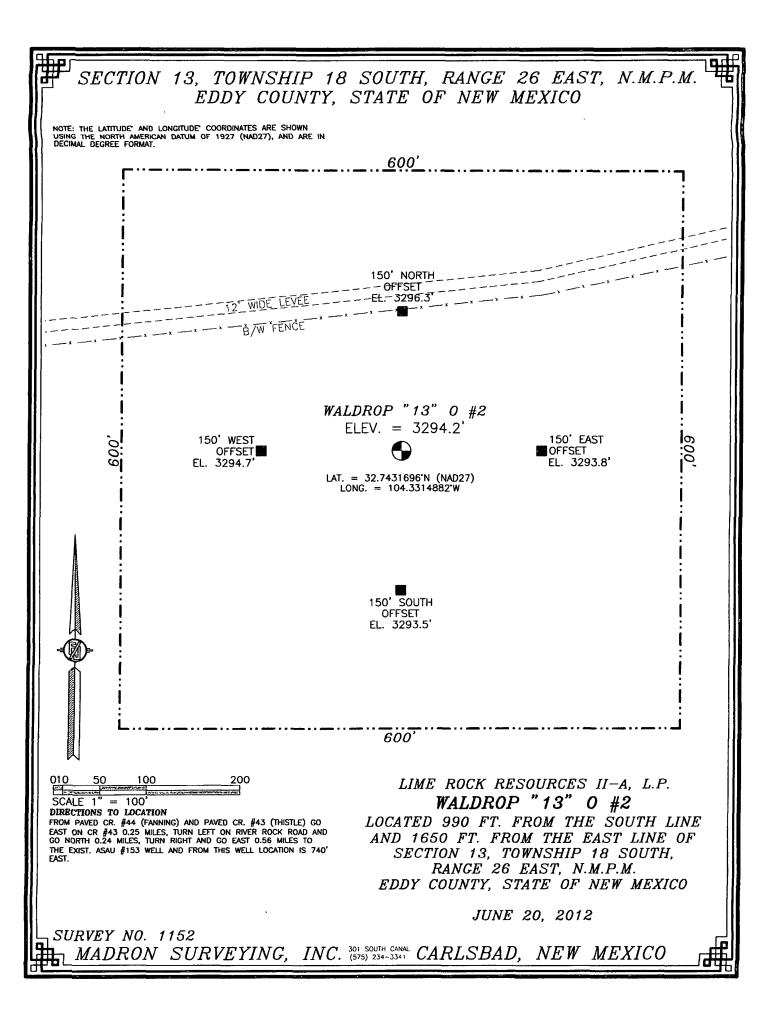
Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

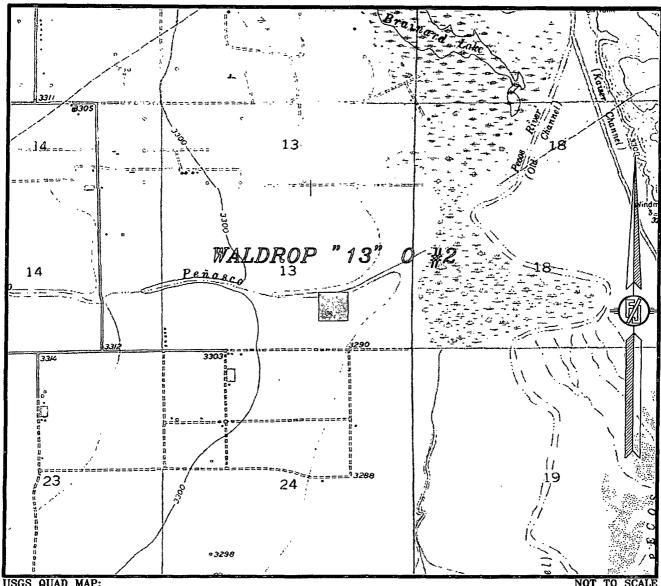
WELL LOCATION AND ACREAGE DEDICATION PLAT <sup>2</sup> Pool Code 3 Pool Name 511Z0 GLORIETA-VESO <sup>5</sup> Property Name Well Number WALDROP "13" O 2 8 Operator Name 9 Elevation 277558 LIME ROCK RESOURCES II-A, L.P. 3294.2 " Surface Location UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County SOUTH 0 13 18 S 26 E 990 1650 **EAST EDDY** " 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 12 Dedicated Acres <sup>13</sup> Joint or Infill 15 Order No. 4 Consolidation Code

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.

	S89°27'42"W	V 2692.34 FT S89	27'42"W 2692.34 FT	"OPERATOR CERTIFICATION
	NW CORNER SEC. 13	COMPUTED	NE CORNER SEC. 13	I hereby certify that the information contained herein is true and complete
ĺ	LAT. = 32.7550409'N		LAT. = 32.7551800'N LONG. = 104.3259527'W	to the best of my knowledge and belief, and that this organization either
	LONG. = 104.3434626'W	1	EONG 104.3233327 W	owns a working interest or unleased mineral interest in the land including
٫,		1	1	the proposed bottom hole location or has a right to drill this well at this
S00.			I I =	location pursuant to a contract with an owner of such a mineral or working
7.17			2.56	interest, or to a voluntary pooling agreement or a compulsory pooling
41"E 2			Ses	order heftenfore quered of the division.
265		LATITUDE AND LONGITUDE COORDINATES ARE SHOWN	[S	Signature Date
0.54 FT		USING THE NORTH AMERICAN DATUM OF 1927 (NAD27), AND ARE IN DECIMAL DEGREE FORMAT.	N00'40'50'	SID ASHWORTH
				Sashwarthe limerockresources com E-mail Address
Ì	COMPUTED	+	COMPUTED	
				*SURVEYOR CERTIFICATION
				I hereby certify that the well location shown on this
			i	plat was plotted from field notes of actual surveys
.00S			(E	made by me or under my supervision, and that the
7		WALDROP "13" 0 #2 ELEV. = 3294.2'	2682.56	same is true and correct to the best of my belief.
4		LAT. = $32.7431696$ N (NAD27)	682	
μį		LONG. = 104.3314882'W	5	JUNE 20, 2012 W ME 3
2650.54		SURFACE_	20."	Date of Survey
0.5		LOCATION	1650'	1500 11/1/1/1/1/2
4			NO00.	Missing A Williams
-		-,0	z/	Signature and Seal of Professional Surveyor
	SW CORNER SEC. 13	66-	SE CORNER SEC. 13	Certificate Number, FILIMON E, JARANILLO PLS 12797
ĺ	LAT. = 32.7404736'N		LAT. = 32.7404376'N	LAND SURVEY NO 1152
	LONG. = 104.3433724'W	СОМПИТЕD 2646.72 FT S89'51'28"E	LONG. = 104.3261612'W	"""""
	209 21 20 E	2040.72 F1 S89 S1 28 E	2040 /Z F1	



## SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO LOCATION VERIFICATION MAP



USGS QUAD MAP: SPRING LAKE LAKE McMILLAN NORTH

LIME ROCK RESOURCES II—A, L.P.

WALDROP "13" O #2

LOCATED 990 FT. FROM THE SOUTH LINE

AND 1650 FT. FROM THE EAST LINE OF

SECTION 13, TOWNSHIP 18 SOUTH,

RANGE 26 EAST, N.M.P.M.

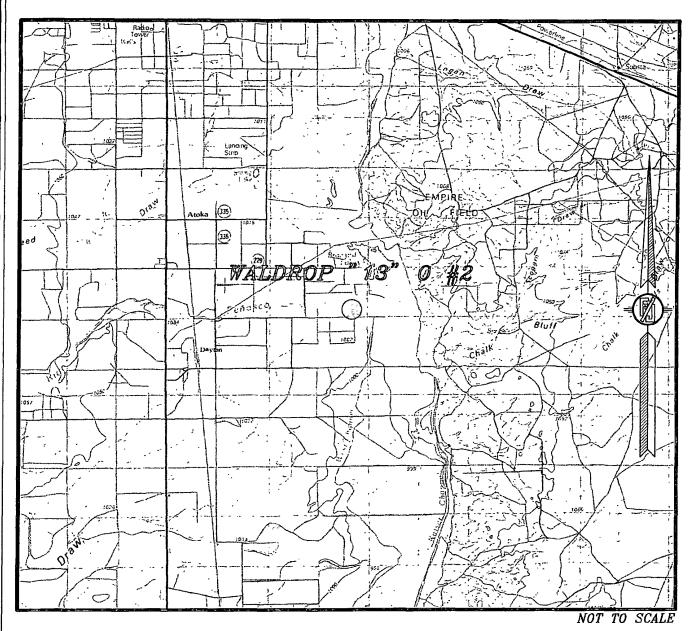
EDDY COUNTY, STATE OF NEW MEXICO

JUNE 20, 2012

SURVEY NO. 1152

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

## SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO VICINITY MAP



LIME ROCK RESOURCES II-A, L.P.

WALDROP "13" 0 #2

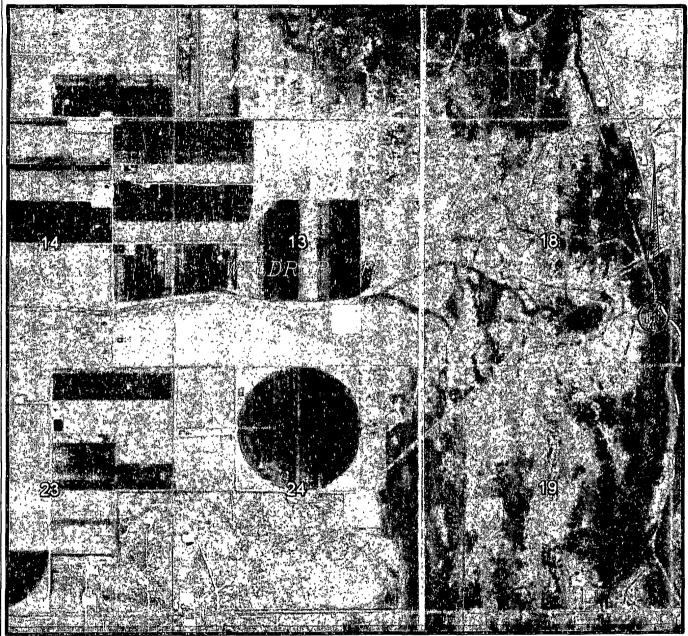
LOCATED 990 FT. FROM THE SOUTH LINE AND 1650 FT. FROM THE EAST LINE OF SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

JUNE 20, 2012

SURVEY NO. 1152

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

## SECTION 13, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO AERIAL PHOTO



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH JUNE 2011

LIME ROCK RESOURCES II-A, L.P.

WALDROP "13" O #2

LOCATED 990 FT. FROM THE SOUTH LINE
AND 1650 FT. FROM THE EAST LINE OF
SECTION 13, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JUNE 20, 2012

SURVEY NO. 1152

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

### Lime Rock Resources II-A, L.P. Drilling Plan

Waldrop 13 O #2 990' FSL 1650' FEL O-S13-T18S-R26E Eddy County, NM

- 1. The elevation of the unprepared ground is 3294.2' feet above sea level.
- 2. The geologic name of the surface formation is Quaternary Alluvium.
- 3. A rotary rig will be utilized to the well to 4700' and run casing. This equipment will be rigged down and the well will be completed with a workover rig.
- 4. Proposed total depth is 4700'.
- 5. Estimated tops of geologic markers:

Quaternary – Alluvium	Surface
Queen	411
Grayburg	854
San Andres	1149
Glorieta	2548
Yeso	2738
Tubb	4148
TD	4700'

6. Estimated depths at which anticipated oil, gas, or other mineral bearing formations are expected to be encountered:

Queen	411
Grayburg	854
San Andres	1149
Glorieta	2548
Yeso	2738
Tubb	4148
TD	4700'

#### 7. Proposed Casing and Cement program is as follows:

Туре	Hole Size	Casing Size	Wt	Grade	Thread	Depth	Sx	Density	Yield	Components
Conductor	26"	20"	91.5	В	Welded	40				Ready Mix
Surface	12-1/4"	8-5/8"	24	J-55	ST&C	425	300	14.8	1.35	CI C Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl2
Production	7-7/8"	5-1/2"	17	J-55	LT&C	4700	200	12.8	1.903	35:65 Poz/Cl H w/ 6% Gel, 0.125 lbs/sk Cello Flake, 5 pps LCM-1 and retarder
							675	14.8	1.33	Cl H w/ 0.6% R-3, 0.125% Cello Flake, 2% Gel

#### 8. Proposed Mud Program is as follows

Depth	0-40	40-4400	4400-4700
Mud Type	Fresh Water Mud	Brine	Brine, Salt Gel, & Starch
Properties			
MW	8.5-9.2	9.8-10-1	9.9-10.2
рН	10	10-11.5	11/12/2012
WL	NC	NC	20-30
Vis	28-34	29-32	32-35
MC	NC	NC	<2
Solids	NC	<1	<3
Pump Rate	300-350	375-425	400-450
Special		Use Poymers sticks and MF-55 Hi-Vis Sweeps as necessary	Hi Vis Sweeps, add acid and starch as req. Raise Vis to 35 for log.

### 9. Pressure Control Equipment: See Attached Description and diagram of Pressure Control Equipment.

#### 10. Testing, Logging and Coring Program

Testing Program: No drill stem tests are anticipated

Electric Logging Program: SGR-DLL-CDL-CNL Quad Combo from 4700 to surf. Csg. SGR-CNL to Surf.

Coring Program: No full or sidewall cores are anticipated.

#### 11. Potential Hazards:

No abnormal temperatures or pressures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2068 psi based on 0.44 x TD. The estimated BHT is 125 degrees F.

#### 12. Duration of Operations:

Anticipated spud date will be soon after approval and as soon as a rig will be available. Move in operations and drilling is expected to take 10 days. An additional 14 days will be needed it complete the well and to construct surface facilities.

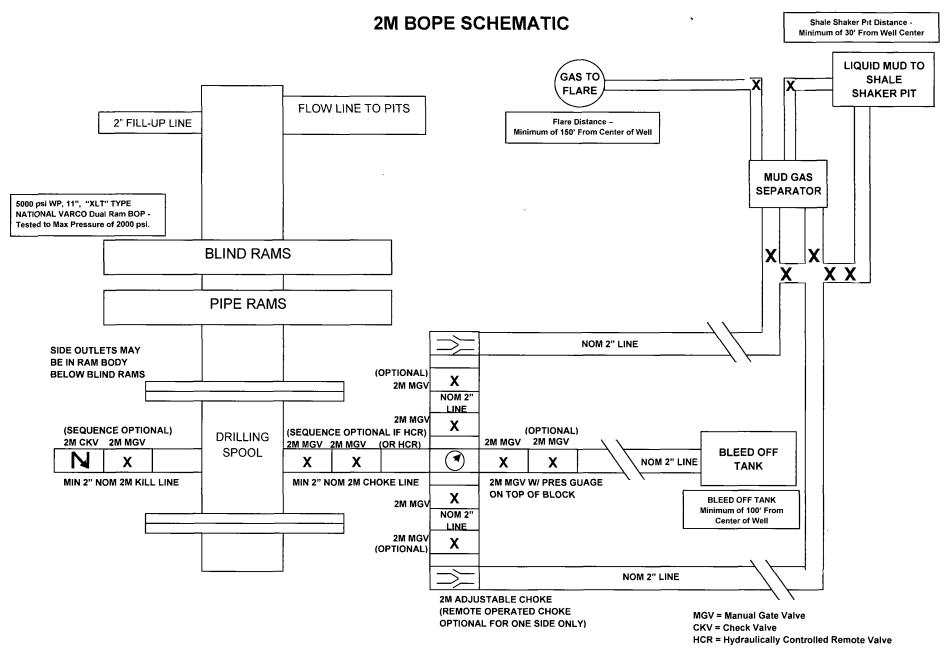
#### **Pressure Control Equipment**

The blowout preventer equipment (BOP) will consist of a 5000 psi rated, 11", "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. The 2M BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. All casing strings will be tested as per Onshore Order #2. This also includes a thirty day (30) test, should the rig still be operating on the same well in thirty days.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drilling logs.

#### The BOP equipment will consist of the following:

- Double ram with blind rams (top) and pipe rams (bottom),
- Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 2" minimum diameter, kill side will be at least 2 inch diameter),
- Kill line (2 inch minimum),
- A minimum of 2 choke line valves (2 inch minimum),
- 2 inch diameter choke line,
- 2 kill valves, one of which will be a check valve (2 inch minimum),
- 2 chokes, one of which will be capable of remote operation,
- Pressure gauge on choke manifold,
- Upper Kelly cock valve with handle available,
- Safety valve and subs to fit all drill string connections in use,
- All BOPE connections subjected to well pressure will be flanged, welded, or clamped.
- A Fill-up line above the uppermost preventer.



NOTE: All lines, valves and chokes are shown at the minimum size allowed, but may be larger.

#### Lime Rock Resources II-A, L.P.

### Waldrop 13 O #2 HYDROGEN SULFIDE (H2S) CONTINGENCY DRILLING PLAN

**Assumed 100 ppm ROE = 3000'** 

100 ppm H2S concentration shall trigger activation of this plan.

This is an open drilling site.  $H_2S$  monitoring equipment and emergency response equipment will be rigged up and in use when the company drills out from under surface casing.  $H_2S$  monitors, warning signs, wind indicators and flags will be in use.

#### **EMERGENCY PROCEDURES**

#### **Escape**

Crews shall escape upwind of escaping gas in the event of an emergency release of gas, or if monitors indicate H<sub>2</sub>S is present. Escape will take place via the entry road away from the flare stack, or a foot path marked and designated before the well is spud by on site personnel. Once crews and other personnel are a safe distance, the crews will move to evacuate any persons in the Radius of Exposure, followed by blocking access to the Radius of Exposure.

There are no homes or buildings within the Radius of Exposure ("ROE"), so efforts will be concentrated on evacuating any third parties within the ROE. Immediate response will include evacuation of any persons potentially affected by toxic or flammable gasses. Once evacuation is under way, perimeter monitoring and control of access will be executed to ensure safe areas and stage areas.

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
  - o Detection of H2S, and
  - o Measures for protection against the gas,
  - o Equipment used for protection and emergency response.

#### H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

#### Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (S02). 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 S02

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	S0 <sub>2</sub>	2.21 Air= 1	2ppm	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) and BLM Onshore Order #6.

#### H<sub>2</sub>S Operations

Though no H<sub>2</sub>S is anticipated during the drilling operation, this contingency plan will provide for methods to ensure the well is kept under control in the event an H<sub>2</sub>S reading of 100 ppm or more are encountered. Once personnel are safe and the proper protective gear is in place and on personnel, the operator and rig crew essential personnel will ensure the well is under control, suspend drilling operations and shut-in the well (unless pressure build up or other operational situations dictate suspending operations will prevent well control), increase the mud weight and circulate all gas from the hole utilizing the mud/gas separator downstream of the choke, the choke manifold and the emergency flare system located 150' from the well. Bring the mud system into compliance and the H<sub>2</sub>S level below 10 ppm, then notify all emergency officers that drilling ahead is practical and safe.

Proceed with drilling ahead only after all provisions of Onshore Order 6, Section III.C. have been satisfied.

#### **H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS**

Company Offices -

 Lime Rock Houston Office
 713·292·9510

 Answering Service(After Hours)
 713·292-9555

 Artesia, NM Office
 575-748-9724

 Roswell, NM
 575-623-8424

KEY PERSONNEL							
Name	Title	Location	Office #	Cell #	Home #		
SID ASHWORTH	PRODUCTION ENGINEER	HOUSTON	713-292-9526	713-906-7750	713-783-1959		
JERRY SMITH	ASSISTANT PRODUCTION SUPERVISOR	ARTESIA	575-748-9724	505-918-0556	575-746-2478		
MICHAEL BARRETT	PRODUCTION SUPERVISOR	ROSWELL	575-623-8424	505-353-2644	575-623-4707		
GARY FATHEREE	WELL SITE SUPERVISOR	ROTATES ON SITE	NA	940-389-6044	NA		
GARY MCCELLAND	WELL SITE SUPERVISOR	ROTATES ON SITE	NA	903-503-8997	, NA		

Agency Call List							
City	Agency or Office	Telephone Number					
Artesia	Ambulance	911					
Artesia	State Police	575-746-2703					
Artesia	Sheriff's Office	575-746-9888					
Artesia	City Police	575-746-2703					
Artesia	Fire Department	575-746-2701					
Artesia	Local Emergency Planning Committee	575-746-2122					
Artesia	New Mexico OCD District II	575-748-1283					
Carlsbad	Ambulance	911					
Carlsbad	State Police	575-885-313 <b>7</b>					
Carlsbad	Sheriff's Office	575-887-7551					
Carlsbad	City Police	575-885-2111					
Carlsbad	Fire Department	575-885-2111					
Carlsbad	Local Emergency Planning Committee	575-887-3798					
Carlsbad	US DOI Bureau of Land Management	575-887-6544					
State Wide	New Mexico Emergency Response Commission ("NMERC")	505-476-9600					
State Wide	NMERC 24 hour Number	505-827-9126					
State Wide	New Mexico State Emergency Operations Center	505-476-9635					
National	National Emergency Response Center (Washington, D.C.)	800-424-8802					

### H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

Emergency Services							
Name	Service	Location	Telephone Number	Alternate Number			
Boots & Coots International Well Control	Well Control	Houston / Odessa	1-800-256-9688	281-931-8884			
Cudd Pressure Control	Well Control & Pumping	Odessa	915-699-0139	915-563-3356			
Baker Huges Inc.	Pumping Service	Artesia, Hobbs and Odessa	575-746-2757	SAME			
Total Safety	Safety Equipment and Personnel	Artesia	575-746-2847	SAME			
Cutter Oilfield Services	Drilling Systems Equipment	Midland	432-488-6707	SAME			
Assurance Fire & Safety	Safety Equipment and Personnel	Artesia	575-396-9702	575-441-2224			
Flight for Life	Emergency Helicopter Evacuation	Lubbock	806-743-9911	SAME			
Aerocare	Emergency Helicopter Evacuation	Lubbock	806-747-8923	SAME			
Med Flight Air Ambulance	Emergency Helicopter Evacuation	Alburquerque	505-842-4433	SAME			
Artesia General Hospital	Emergency Medical Care	Artesia	575-748-3333	702 North 13 Street			