Dist 1			1								
District 1 1625 N. French Dr.,						e of New Mexico Form C-101 Revised July 18, 2013					
Phone: (575) 393-61 District II		93-0720		]	EnergyMinera	rals and Natural Resources					
					Oil Con	nservation Division ARTESIA DISTRICT					
District III 1000 Rio Brazos Ro					1220 So	uth St. Fran	icis Dr.				
Phone: (505) 334-61 District IV	178 Fax: (505) 3	34-6170			Santa	a Fe, NM 87	<b>7505</b>		JAN <b>2 0</b>	2013	
1220 S. St. Francis I Phone: (505) 476-34									DECEN		
									RECEIV		
	PLICAT	TION FO				E-ENTER	, DEEPF	-		ADD A ZONE	
			<sup>1</sup> Operator Nar LRE Ope						2 OGRID Number 2819		
		1111 Bag	-		uston, Texas 7700	2		30-	015-	- 42899	
	operty Code				<sup>5</sup> Property 1				• W	/ell No. γ	
	309865					s 36 State				#6	
UL - Lot	Section	Township	Range	1 1	' Surfac	ce Locatio	N/S Line	Feet From	E/W Line	County	
B	36	17S	27E			90	N	1655	E	Eddy	
· ·		I		<sup>8</sup> Pr	oposed Bott	om Hole I	Location	·			
UL - Lot	Section	Township	Range		ot Idn Feet	t From	N/S Line	Feet From	E/W Line	County	
В	36	175	27E		8	90	N	1655	E	Eddy	
<b></b>					9 Pool I	nformatio	n				
Red Lake; Glo	rieta-Yeso N	E				*				96836	
, 010		•		A	dditional W	ell Inforn	nation	· ·		,,,,,,,	
	k Tvne		<sup>10</sup> Well Type		<sup>11</sup> Cable/I		Lease Type				
14 MI	N ultiple		O <sup>15</sup> Proposed Depth	•	R <sup>16</sup> Formation			S .	S         3624.2           Contractor <sup>18</sup> Soud Date		
1	V	360	0' MD / 3600' T		· Yes	0	United Drilling, Inc.			After 4/1/2015	
Depth to Groun	d Water:	95	Ft. Dista	nce from	n nearest fresh water well: 0.5 Mile			liles Distance from	n nearest surfa	ace water: 20 Miles	
X We will	be using a cl	losed-loop sy	ystem in lieu of	ined pits							
· · · · · · · · · · · · · · · · · · ·			19	Prop	osed Casing	and Cem	ent Prog	ram			
Туре	Hole	Size	Casing Size	· C	asing Weight/ft	Settir	ng Depth	Sacks of Co	ement	Estimated TOC	
Conductor	20	)"	14"		68.7		40	40		Surface	
Surface	11	"	8-5/8"		24		425 250			Surface	
Production	7-7	/8"	5-1/2"		17	3600		675		Surface	
			Casi	ng/Ce	ment Progra	am: Addit	ional Co	mments			
			•		·						
			P	ropos	ed Blowout	Prevention	n Progra	m			
	Туре			Working	Pressure		Test Pressu	ire	١	Manufacturer	
	377 75 1 1 0										
XLT 11" 5000				00		2000	:	N	ational Varco		
I hereby certify	that the infor	mation given	above is true and	d comple	e to the best	[		<u></u>			
of my knowledg		-					OIL CO	ONSERVATI	ON DIV	ISION	
I further certif 19.15.14.9 (B) I			ith 19.15.14.9 (A	A) NMA(	and/or	<u> </u>		~	•		
12.13.14.2 (0) 1	· · ·	ipplicatic.				Approved By	ROI				
Signature: Elin A. mulluchur						NK)-	KOU				
Brinted Norma			very				12<	- 10			
Printed Name:	ENC MCCh	usky	1			Title: DIST H. Sylewiso					
Title: Product	tion Enginee	r				Approved Dat	··1/20/2	015 Expi	ration Date:	120/2017	
E-mail Address	s: EMcClu	sky@Limer	ockresources.co	m				<b>----</b>			
Date: 1/15/20	)15		Phone: 713-6	60-5714		Conditions of	f Approval At	tached -yes			
1	-		1				rrrorui m				

v

C101Conditions

# Permit Conditions of Approval

N

API: 30-015 - 42899

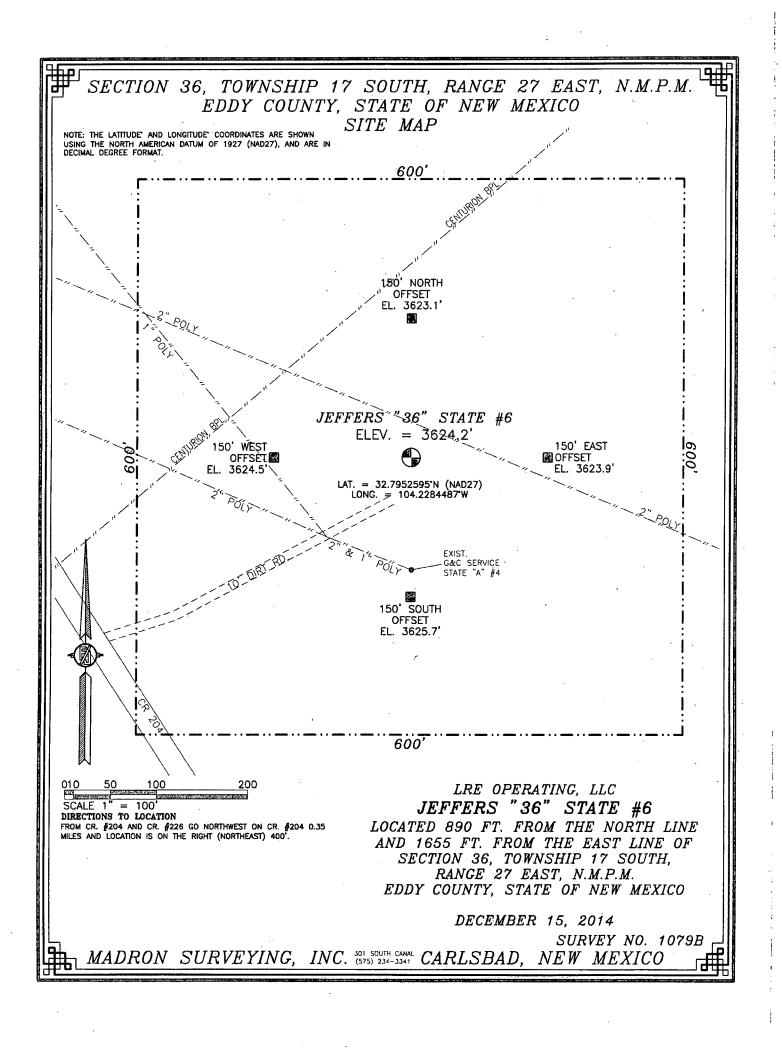
	OCD Reviewer	Condition
$\rightarrow$	CSHAPARD	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string

.

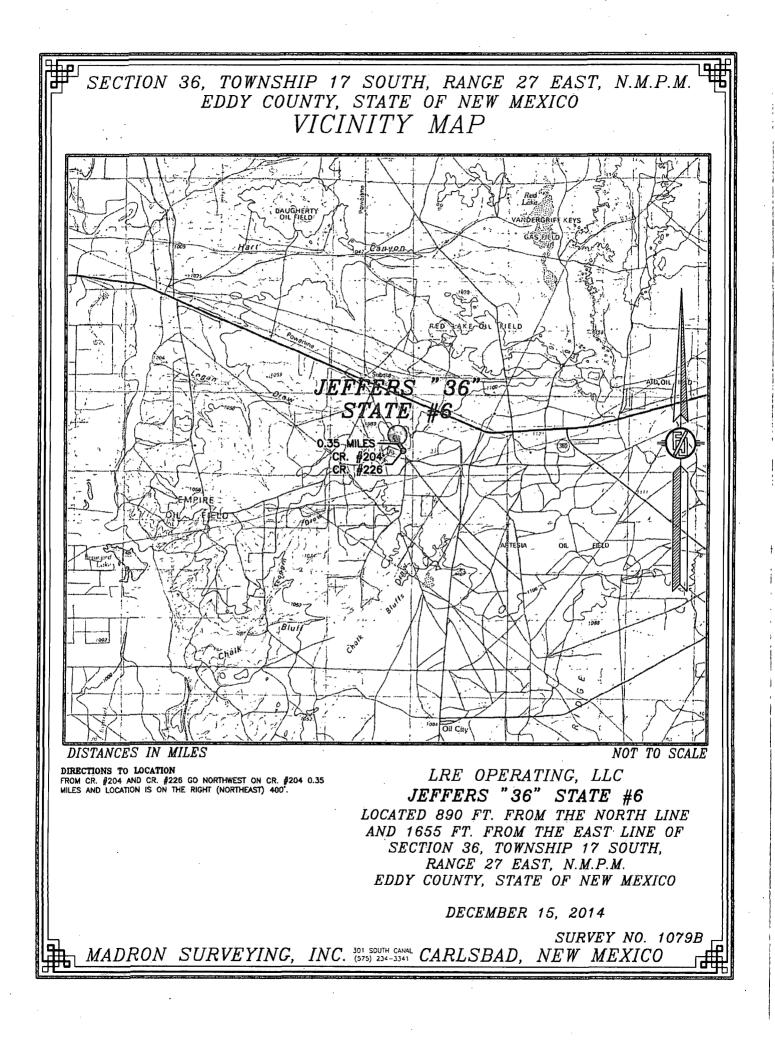
District I 1625 N, French Dr., F Phone: (575) 393-616 District II \$11 S, First St., Artes Phone: (575) 748-128 District III 1000 Rio Brazos Roa Phone: (505) 334-617 District IX 1220 S, St. Francis D Phone: (505) 476-346	<ul> <li>Hax: (575) 34</li> <li>ia, NM \$8210</li> <li>3 Fax: (575) 74</li> <li>d. Aztee, NM \$6</li> <li>8 Fax: (505) 33</li> <li>r Santa Fe, NM</li> </ul>	93-0720 	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505					Su	Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office	
		W	ELL LO	OCATIO	N AND ACF	REAGE DEDIC	CATION PLA	٩T		
30-015-42899 96836 Red Lake							3 Pool Na		VE	
<sup>4</sup> Property	Code		<sup>3</sup> Property Name						<sup>6</sup> Well Number	
30986	5		JEFFERS "36" STATE						6	
<sup>7</sup> OGRID	No.		<sup>3</sup> Operator Name						<sup>9</sup> Elevation	
28199	)4	•	LRE OPERATING, LLC							3624.2
					<sup>10</sup> Surface	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/W	'est line	County
В	36	17 S	27 E 890 NORTH 1655						ST	EDDY
· · · ·			и Вс	ottom Ho	le Location I	f Different Froi	n Surface	·		<u> </u>
UL or lot nó.	Section					East/W	'est line	County		
<sup>12</sup> Dedicated Acro	s <sup>13</sup> Joint o	r Infill   <sup>14</sup> C	onsolidation	Code <sup>15</sup> Or	l rder No.	<u>]</u>	l	L		· · · · · · · · · · · · · · · · · · ·

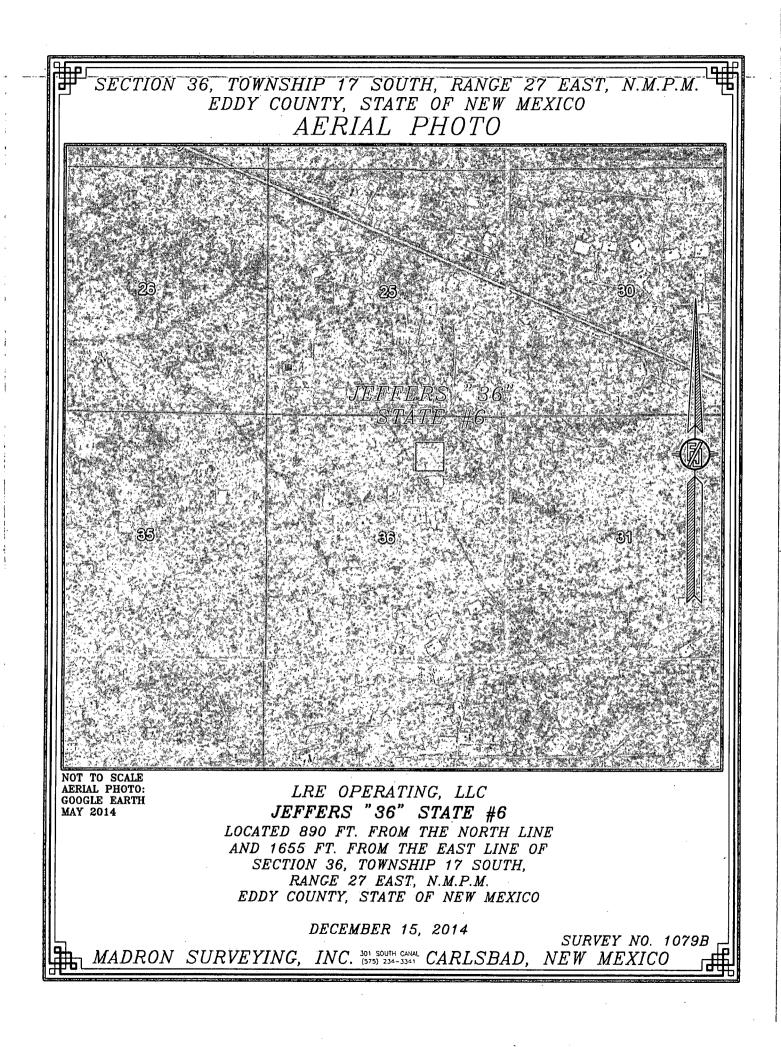
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

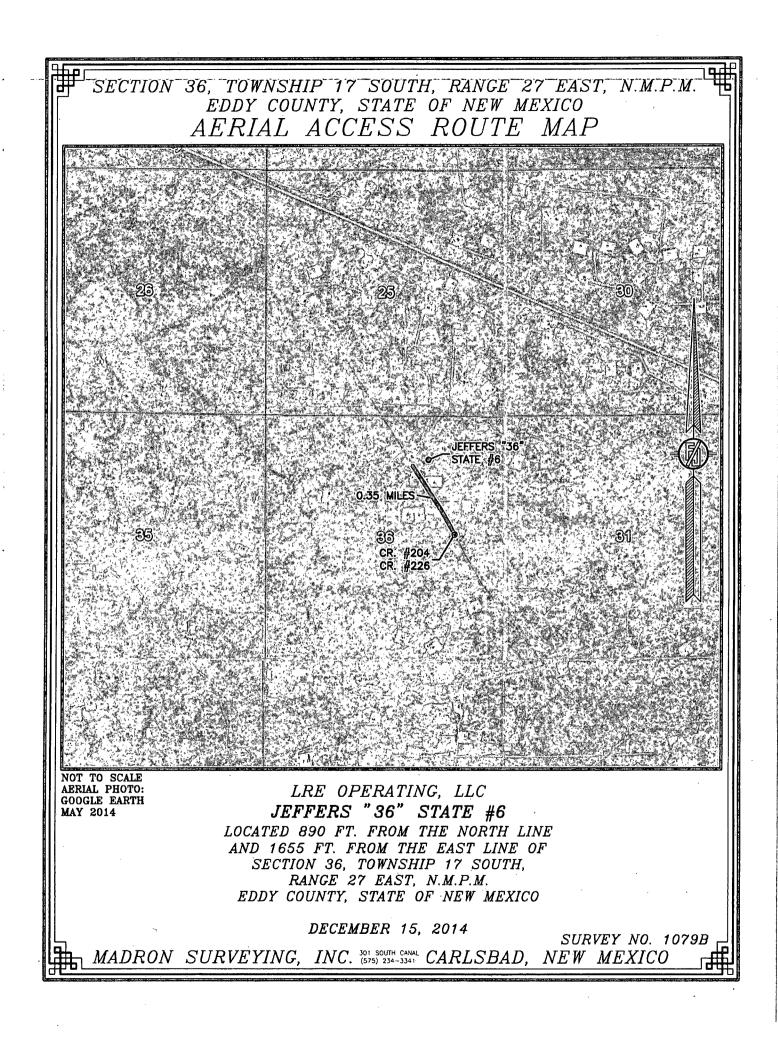
	N89'34'18"	N 2648.54 FT N89'36'04"W 2648.01 FT	" OPERATOR CERTIFICATION
	NW CORNER SEC. 36 LAT. = 32.7977882'N	N/4. CORNER SEC. 36 LAT. = 32/7977271'N	Thereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either
	LONG. = 104.2403104 W	LAI. = 32!/9//2/I'N   LAT. = 32.7976691'N LONC. = 104.2316937'W O LONG. = 104.2230786'W	owns a working interest or unleased mineral interest in the land including
		σ	the proposed bottom hole location or has a right to drill this well at this
200.02			location persuant to a contract with an owner of such a mineral or working
70			interest, or to a voluntary pooling agreement or a compulsory pooling
80		SURFACE _/ LOCATION JEFFERS "36" STATE #6	order heretofore entered by the división.
m N		+	Exit McChulin 1/15/15
2633		i LONG. = $104.2284487'$ (NAD27) N	Signature Date
5.52		2.59	E. M. Clukky
E			Eric McClu4Ky Printed Name
	~		Emac ( 14ky @ / merockreiovices. Com E-mail Address
	W/4 CORNER SEC. 36	E/4 CORNER SEC. 36	
	LAT. = 32.7905514'N LONG. = 104.2403002'W	NOTE: LAT. = 32.7904074 N LATTUDE AND LONGTUDE LONG. = 104.2230347 W	*SURVEYOR CERTIFICATION
		USING THE NORTH	I hereby certify that the well location shown on this
ം		AMERICAN DATUM OF 1927 (NAD27), AND ARE IN	plat was plotted from field notes of actual surveys
00.0		DECIMAL DEGREE FORMAT.	made by me or under my supervision, and that the
06'S		02'	same is one and convert to the best of any belief.
Ξ.E		o5 w	DECENTIBER 15, 2014
26	ويتعاديهم المتعامل المتراطفة المتعاملين المتعادي المعادي		127071
34.		2637	Date of Survey
60			The IPA IA
그		· · · · · · · · · · · · · · · · · · ·	
	SW CORNER SEC. 36		X-1007 HSS WALKINGO
	LAT. = 32.7833115N	SE CORNER SEC. 36 LAT. = 32.7831594'N	Signature and Seal of Professional Surveyor:
	LONG = 104.2402905'W	LONG. = 104.2228888'W	Certificate Number: FILIMONF, JARAMILLO, PLS 12797
	-303 27 47 1	2674.87 FT	SURVEN NO. 1079B











### LRE Operating, LLC Drilling Plan

### Jeffers 36 State #6 890' FNL 1655' FEL (B) 36-17S-27E Eddy County, NM

- 1. The elevation of the unprepared ground is 3624.2 feet above sea level.
- 2. The geologic name of the surface formation is Quaternary Alluvium.
- 3. A rotary rig will be utilized to drill the well to 3600' and run casing. This equipment will be rigged down and the well will be completed with a workover rig.
- 4. Well will be drilled to a total proposed depth of 3600' MD.
- 5. Estimated tops of geologic markers:

	MD	TVD
Quaternary – Alluvium	Surface	Surface
Yates	NA	NA
7 Rivers	439	439
Queen	961	961
Grayburg	1369	1369
Premier	NA	NA
San Andres	1731	1731
Glorieta	3087	3087
Yeso	3182	3182
Tubb	NA	NA
TD	3600	3600

7. Proposed Casing and Cement program is as follows:

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

	MD	TVD
Yates	NA	NA
7 Rivers	439	439
Queen	961	961
Grayburg	1369	1369
Premier	NA	NA
San Andres	1731	1731
Glorieta	3087	3087
Yeso	3182	3182
Tubb	NA	NA
TD	3600	3600

Туре	Hole	Casing	Ŵt	Grade	Thread	Depth	Sx	Density	Yield	Components
Conductor	20"	14"	68.7	В	Welded	40	40			Ready Mix
Surface	11"	8-5/8"	24	J-55	ST&C	425	250	14.8	1.35	CI C Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl2
Intermediate										
Production	7-7/8"	5-1/2"	17	J-55	LT&C	3600	300	12.8	1.903	(35:65) Poz/Cl C Cmt + 5% NaCl + 0.25 lbs/sk Cello Flake + 5 lbs/sk LCM-1 +0.2% R-3 + 6% Gel
							375	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	0-435	435-3450	3450-3600
Mud Type	Fresh Water Mud	Brine	Brine, Salt Gel, & Starch
Properties			
MW	8.4-9.2	9.8-10.1	9.9-10.1
pН	9.0-10.5	10.0-12.0	10.0-12.0
WL	NC	NC	20-30
Vis	28-34	28-29	32-34
мс	NC	NC	<2
Solids	NC	<2%	<3%
Pump Rate	300-500 gpm	375-425 gpm	400-425 gpm
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 3600 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 1584 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.

### Hydrogen Sulfide Drilling Plan Summary

A. All personnel shall receive proper H2S training in accordance with Onshore Order 6 III.C.3.a.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment:

- Well control equipment
  - a. Flare line 150' from wellhead to be ignited by flare gun.
  - b. Choke manifold with a remotely operated choke.
  - c. Mud/gas separator

Protective equipment for essential personnel.

Breathing apparatus:

a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.

b. Work/Escape packs —4 packs shall be stored on the rig floor and contain sufficiently long air hoses as to not to restrict work activity.

c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

H2S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

Visual warning systems:

a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.

b. A colored condition flag will be on display, reflecting the current condition at the site at the time.

c. Two wind socks will be placed in strategic locations, visible from all angles.

Mud program:

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

#### Metallurgy:

L

a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

b. All elastomers used for packing and seals shall be H2S trim.

#### Communication:

Communication will be via two way radio in emergency and company vehicles. Cell phones and land lines where available.

## H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

Company Offices - Lime Rock Houston Office Answering Service (After Hours) Artesia, NM Office Roswell, NM

713-292-9510 713-292-9555 575-748-9724 575-623-8424

#### **KEY PERSONNEL**

Name	Title	Location	Office #	Cell #	Home #
Mike Loudermilk	Operations Manager	Houston	713-292-9526	832-331-7367	Same as Cell
Spencer Cox	Production Engineer	Houston	713-292-9528	432-254-5140	Same as Cell
Eric McClusky	Production Engineer	Houston	713-360-5714	405-821-0534	832-491-3079
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
Dalw Kennard	Well Site Supervisor	Rotates on Site	NA	575-420-1651	NA
Gary McCelland	Well Site Supervisor	Rotates on Site	NA	903-503-8997	ŅA
Brad Tate	Well Site Supervisor	Rotates on Site	NA	575-441-1966	NA
Dave Williamson	Well Site Supervisor	Rotates on Site	NA	575-308-9980	ŅA

Agency Call List						
City	Agency or Office					
Artesia	Ambulance	911				
Artesia	State Police	575-746-2703				
Artesia	Sherriff'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	575-885-3137				
Carlsbad	Sherriff'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 Commisssion ("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				

	Emerge	ency 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 Hughes Inc.	Pumping Services	Artesia, Hobbs & Odessa	575-746-2757	Same	
Total Safety	Safety Equipment & Personnel	Artesia	575-746-2847	Same	
Cutter Oilfirld Services	Drilling Systems Equipment	Midland	432-488-6707	Same	
Safety Dog	Safety Equipment & Personnel	Artesia	575-748-5847	575-441-1370	
Fighting 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 13th Street	

#### Pressure Control Equipment

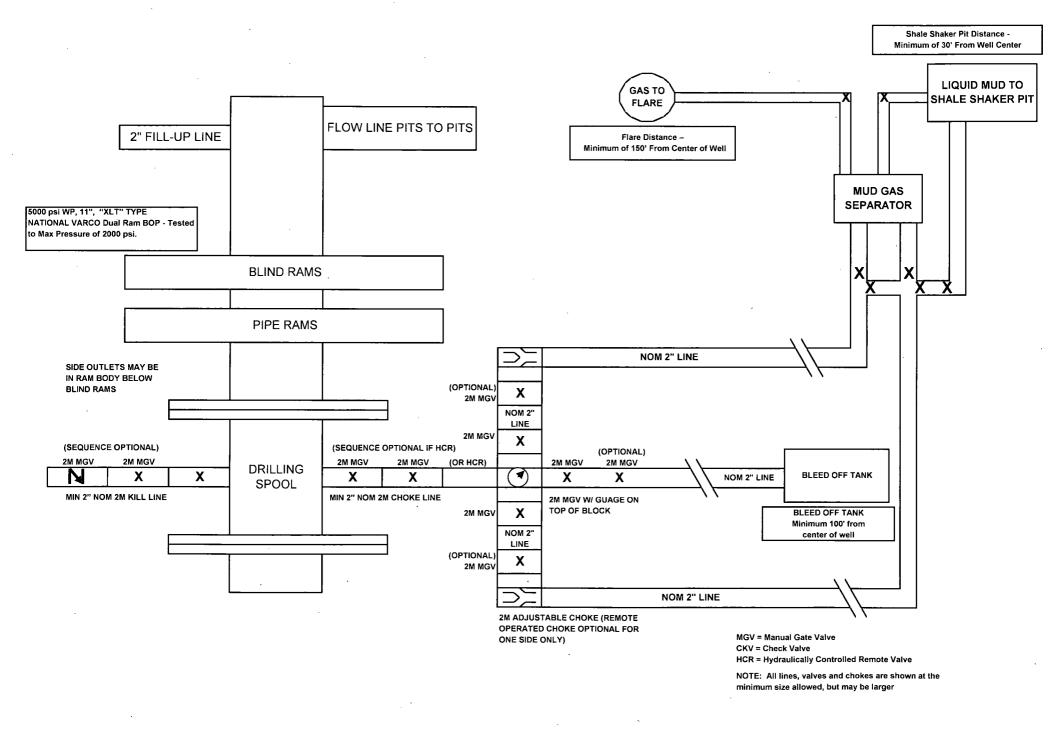
The blowout preventer equipment (BOP) will consist of a 5000 psi rated, "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams 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.

### **2M BOP SCHEMATIC**



# LRE Operating, LLC

## Jeffers 36 State #6

# Unit B, S36-T17S-R27E, Eddy County, NM

#### Design: Closed Loop System with roll-off steel bins (pits)

CRI/HOBBS will supply (2) bins (100 bbl) volume, rails and transportation relating to the Close Loop System. Specification of the Closed Loop System is attached.

Contacts: Gary Wallace (432) 638-4076 Cell (575) 393-1079 Office

#### Scomi Oil Tool: Supervisor – Armando Soto (432) 553-7979 Hobbs, NM

Monitoring 24 Hour service Equipment:

Centrifuges – Derrick Brand Rig Shakers – Brandt Brand 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 or Controlled Recovery, Inc.). The disposal site permit is DFP = #R9166.

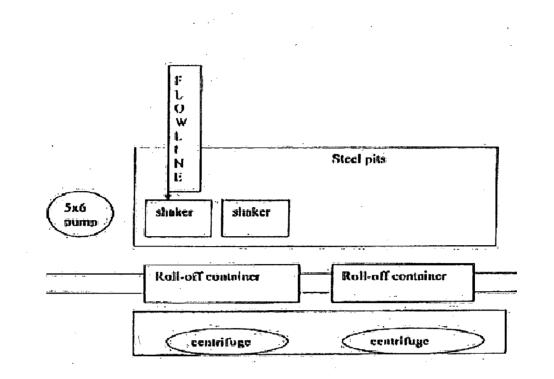
2- (250 bbl) tanks to hold fluid2-CRI bins with track system2-500 bbl frac tanks with fresh water2-500 bbl frac tanks for brine water

#### **Operations:**

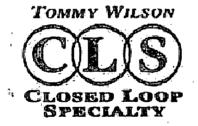
Closed Loop System equipment will be inspected daily by each tour and any necessary maintenance performed. leak in system will be repaired and/or contained immediately. OCD will be notified within 48 hours of any spill. Remediation process will start immediately.

#### **Closure:**

During drilling operations all liquids, drilling fluids and cuttings will be hauled off via CRI equipment to DFP #R9166.



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



Office: 915.746.1689

Call: 579.748.6367

# **Permit Conditions of Approval**

## API: 30-015-42899

ARK 1. 1						
OCD Reviewer	Condition					
CSHAPARD	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string					

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