

District I
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
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
Revised July 18, 2013

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION
ARTESIA DISTRICT

AMENDED Report

AUG 22 2018

RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Lime Rock Resources II-A, L.P. 1111 Bagby Street, Suite 4600 Houston, Texas 77002		OGRID Number 277558
Property Code 315090 322879		API Number 30-015- 45209
Property Name Terry 14		Well No. #3H

7 Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	13	18S	26E		1195	N	330	W	Eddy

8 Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	14	18S	26E		1325	N	100	W	Eddy

9 Pool Information

Atoka; Glorieta-Yeso	3250
----------------------	------

Additional Well Information

Work Type N	Well Type O	Cable/Rotary R	Lease Type P	Ground Level Elevation 3301.5
Multiple N	Proposed Depth 8000' MD / 2705' TVD	Formation Yeso	Contractor Trinidad Drilling, Inc.	Spud Date After 9/1/2018
Depth to Ground Water: 100 Ft		Distance from nearest fresh water well: 0.127 Miles		Distance from nearest surface water: 1.84 Miles

☒ We will be using a closed-loop system in lieu of lined pits

19 Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Conductor	26"	20"	91.5	80	80	Surface
Surface	12 25"	9 5/8"	36	1230	600	Surface
Production	8 3/4"	5 1/2"	20	8000	2300	Surface

Casing/Cement Program: Additional Comments

Artesian Aquifer Porosity 1160'-1170'.

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
XLT 11"	5000	2000	National Varco

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC 0, if applicable. ☒

Signature:

Eric P. McClusky

Printed Name: Eric McClusky

Title: Operations Engineer

E-mail Address: emcclusky@limerockresources.com

Date: 8/21/2018

Phone: 713-360-5714

OIL CONSERVATION DIVISION

Approved By:

Raymond H. Ordaz

Title:

Geologist

Approved Date:

8-24-18

Expiration Date:

8-24-20

Conditions of Approval Attached

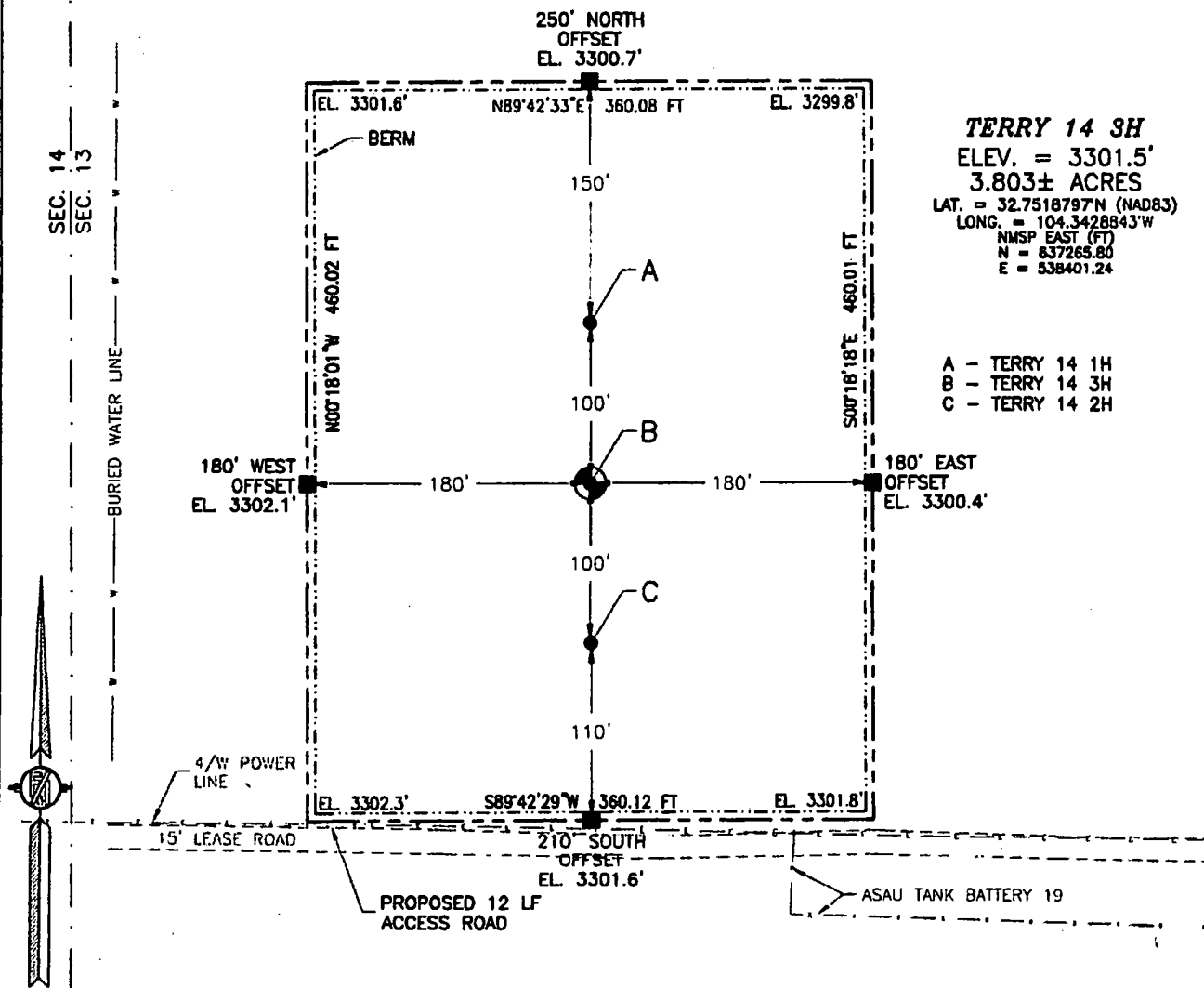
Directional Survey w/clog.

Circ. Cement to surf.

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

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE

FARM LAND



0 10 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM CR 39 (FOUR DINKUS) AND CR 44 (FANNING) AND CALICHE LEASE ROAD, GO SOUTH ON CR 44 0.26 OF A MILE, TURN LEFT ON LEASE ROAD AND GO EAST 0.3 OF A MILE, FOLLOW FLAGS NORTH 12' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

LIME ROCK RESOURCES II-A, L.P.

TERRY 14 3H

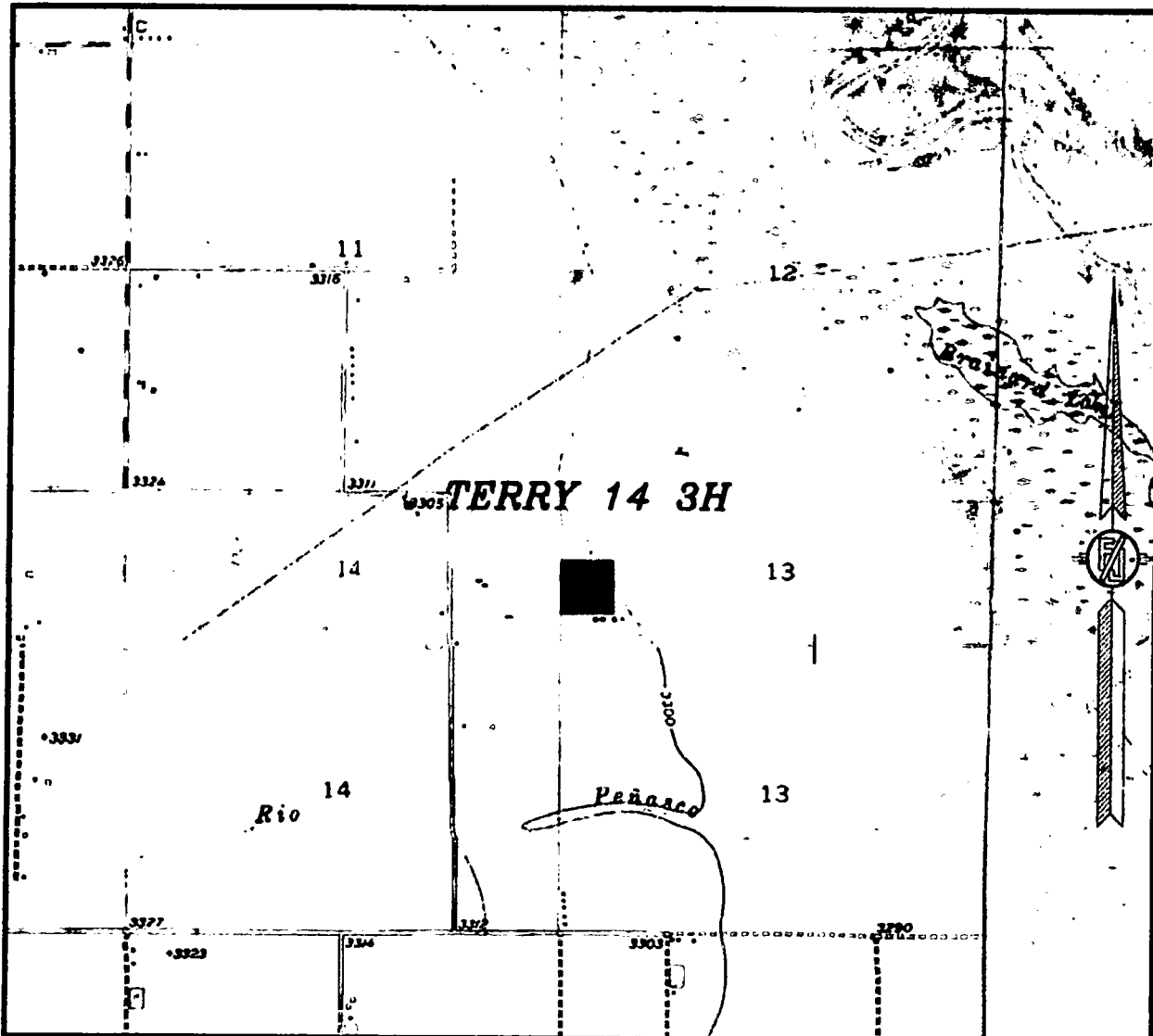
LOCATED 1195 FT. FROM THE NORTH LINE
AND 330 FT. FROM THE WEST LINE OF
SECTION 13, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JULY 30, 2018

SURVEY NO. 6446

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

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

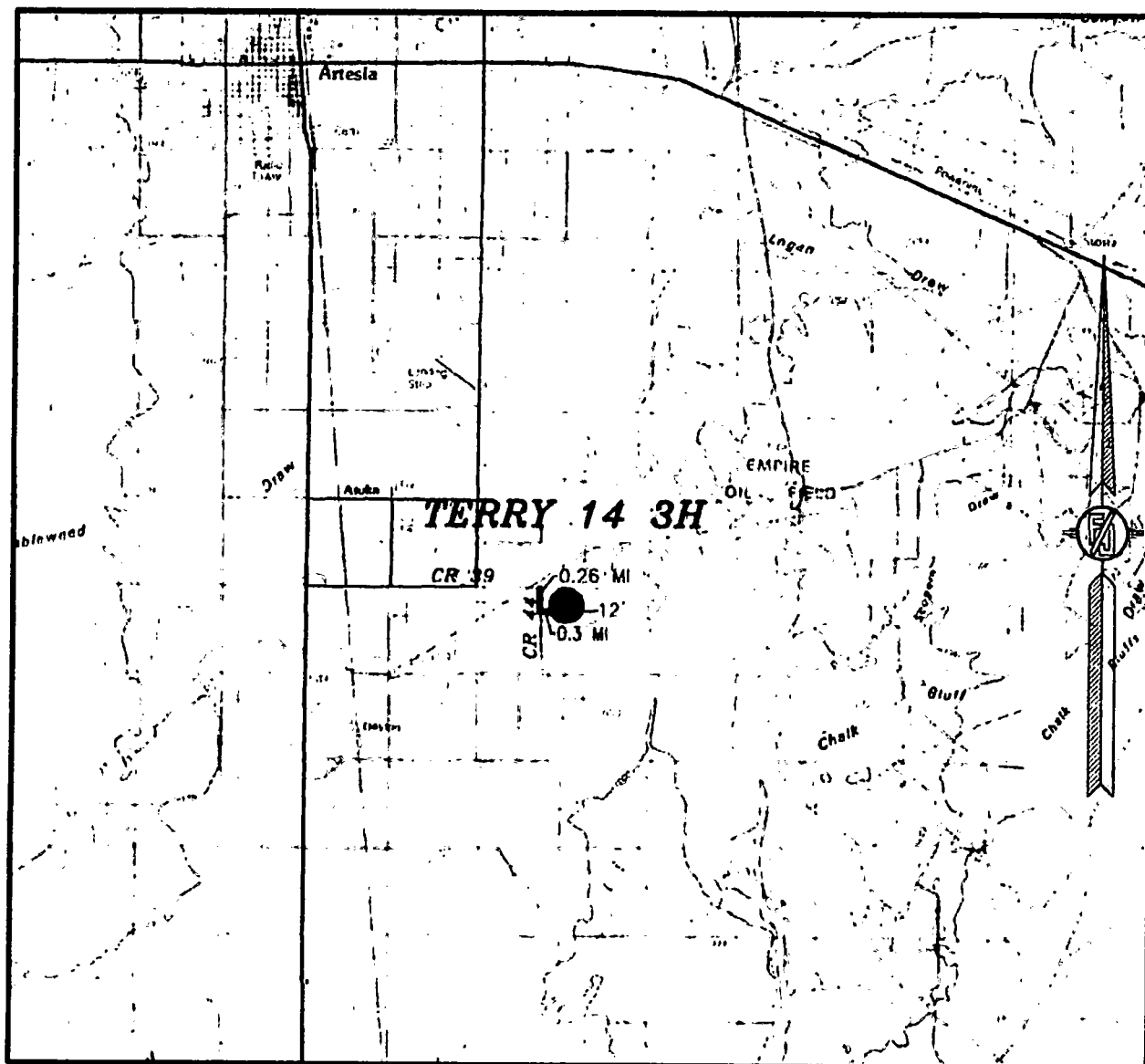
NOT TO SCALE

LIME ROCK RESOURCES II-A, L.P.
TERRY 14 3H
 LOCATED 1195 FT. FROM THE NORTH LINE
 AND 330 FT. FROM THE WEST LINE OF
 SECTION 13, TOWNSHIP 18 SOUTH,
 RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

JULY 30, 2018

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234 3341 CARLSBAD, NEW MEXICO SURVEY NO. 6446

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



DISTANCES IN MILES

NOT TO SCALE

LIME ROCK RESOURCES II-A, L.P.
TERRY 14 3H

LOCATED 1195 FT. FROM THE NORTH LINE
AND 330 FT. FROM THE WEST LINE OF
SECTION 13, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

FROM CR 39 (FOUR DINKUS) AND CR 44 (FANNING) AND CALICHE
LEASE ROAD, GO SOUTH ON CR 44 0.26 OF A MILE, TURN LEFT ON
LEASE ROAD AND GO EAST 0.3 OF A MILE, FOLLOW FLAGS NORTH 12'
TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

JULY 30, 2018

SURVEY NO. 6446

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 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
MARCH 2018

LIME ROCK RESOURCES II-A, L.P.
TERRY 14 3H
LOCATED 1195 FT. FROM THE NORTH LINE
AND 330 FT. FROM THE WEST LINE OF
SECTION 13, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JULY 30, 2018

SURVEY NO. 6446

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

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



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2016

LIME ROCK RESOURCES II-A, L.P.
TERRY 14 3H
LOCATED 1195 FT. FROM THE NORTH LINE
AND 330 FT. FROM THE WEST LINE OF
SECTION 13, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

JULY 30, 2018

SURVEY NO. 6446

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

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

**Terry 14 #3H
1195' FNL 330' FWL
(D) 13-18S-26E
Eddy County, NM**

1. The elevation of the unprepared ground is 3301.5 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 8000' MD/2705' TVD and run casing. This equipment will be down and the well will be completed with a workover rig.
4. Well will be drilled to a total proposed depth of 8000' MD/2705' TVD. The KOP for horizontal drilling will be at 2000'. See directional plan for details.

5. Estimated tops of geologic markers:

	MD	TVD
Quaternary – Alluvium	Surface	Surface
Yates	NA	NA
7 Rivers	NA	NA
Queen	244	244
Grayburg	686	686
Premier	905	905
San Andres	955	955
Glorieta	2320	2305
Yeso	2425	2395
Tubb	NA	NA
TD	8000	2705

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	NA	NA
Queen	244	244
Grayburg	686	686
Premier	905	905
San Andres	955	955
Glorieta	2320	2305
Yeso	2425	2395
Tubb	NA	NA
TD	8000	2705

7. Proposed Casing and Cement program is as follows:

Type	Hole	Casing	Wt	Grade	Thread	Depth	Sx	Density	Yield	Components
Conductor	26"	20"	91.5	B	Welded	80	80			Ready Mix
Surface	12.25"	9 5/8"	36	J55	ST&C	1230	600	14.8	1.4	Cl C Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl ₂
Intermediate										
Production	8 3/4"	5 1/2"	20	L-80	LT&C	8000	500	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
							1800	14.8	1.3	Class C w/ 0.6% R-3 and 1/4 pps cello flake

8.. Proposed Mud Program is as follows

Depth	0-1230	1230-7850	7850-8000
Mud Type	Fresh Water Mud	Brine, Salt Gel, & Starch	Brine, Salt Gel, & Starch
Properties			
MW	8.4-9.2	9.8-10.1	9.9-10.1
pH	9.0-10.5	10.0-12.0	10.0-12.0
WL	NC	NC	20-30
Vis	28-34	28-29	32-34
MC	NC	NC	<2
Solids	NC	<2%	<3%
Pump Rate	300-500 gpm	375-425 gpm	400-425 gpm
Special		Use Pymers 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 8000 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 1190 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 15 days. An additional 14 days will be needed to complete the well and to construct surface facilities.



LIME ROCK

Project: Eddy County, NM
 Site: SEC 13 T18S R26E
 Well: Terry 14-3H
 Wellbore: Original Wellbore
 Design: Plan 1

Reference Details

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Latitude: 32° 45' 8.767 N
 Longitude: 104° 20' 34.383 W
 Ground Elevation: 3301.5
 KB Elevation: KB @ 3319.0usft



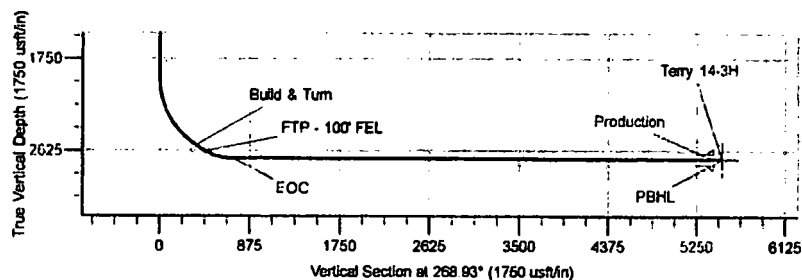
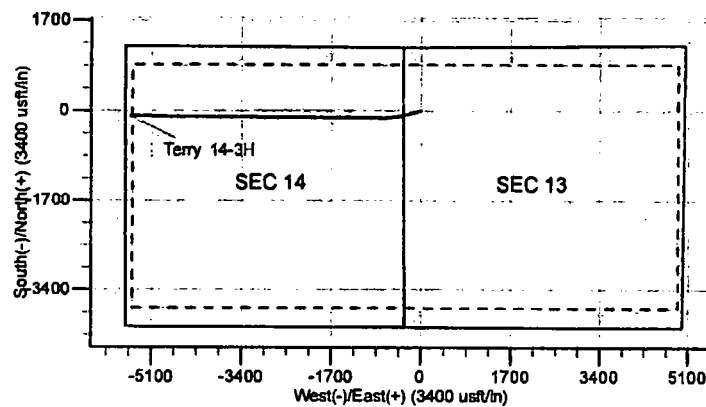
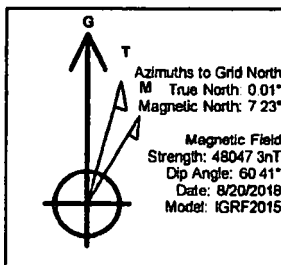
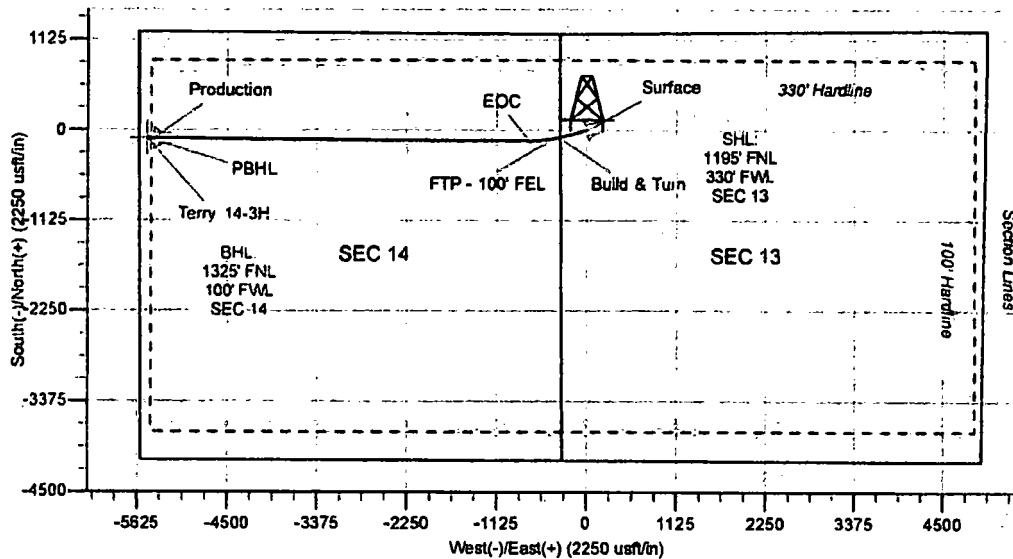
RPM Consulting, Inc.
 1600 Broadway, Suite 1610
 Denver, CO 80013
 303-595-7625

SECTION DETAILS

CASING DETAILS

MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1942.0	0.00	0.00	1942.0	0.0	0.0	0.00	0.00	0.0
2597.9	52.47	255.00	2510.0	-72.4	-270.4	8.00	255.00	271.7
2697.9	52.47	255.00	2570.9	-93.0	-347.0	0.00	0.00	348.6
3097.6	89.92	270.15	2698.1	-135.2	-715.0	10.00	24.00	717.4
7884.9	89.92	270.63	2705.0	-102.7	-5502.1	0.01	90.54	5503.1

TVD	MD	Name	Size
1230.0	1230.0	Surface	9-5/8
2704.9	7800.0	Production	5-1/2



Lime Rock Resources

**Eddy County, NM
SEC 13 T18S R26E
Terry 14-3H**

Original Wellbore

Plan: Plan 1

Standard Planning Report

20 August, 2018

Planning Report

Database:	EDM Server Database	Local Co-ordinate Reference:	Well Terry 14-3H
Company:	Lime Rock Resources	TVD Reference:	KB @ 3319.0usft
Project:	Eddy County, NM	MD Reference:	KB @ 3319.0usft
Site:	SEC 13 T18S R26E	North Reference:	Grid
Well:	Terry 14-3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	Plan 1		

Project	Eddy County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site SEC 13 T18S R26E

Site Position:		Northing:	637,265.79 usft	Latitude:	32° 45' 6.767 N
From:	Lat/Long	Easting:	538,401.23 usft	Longitude:	104° 20' 34.383 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.01 °

Well Terry 14-3H

Well Position	+N/-S	0.0 usft	Northing:	637,265.79 usft	Latitude:	32° 45' 6.767 N
	+E/-W	0.0 usft	Easting:	538,401.23 usft	Longitude:	104° 20' 34.383 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,301.5 usft

Wellbore Original Wellbore

Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2015	8/20/2018	(°)	(°)	(nT)
			7.23	60.41	48,047.33270158

Design Plan 1

Audit Notes:

Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
-----------------	---------------	-----------	----------------------	-----

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	268.93

Plan Survey Tool Program Date 8/20/2018

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	7,884.9 Plan 1 (Original Wellbore)	MWD	
			OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,942.0	0.00	0.00	1,942.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,597.9	52.47	255.00	2,510.0	-72.4	-270.4	8.00	8.00	0.00	255.00	
2,697.9	52.47	255.00	2,570.9	-93.0	-347.0	0.00	0.00	0.00	0.00	
3,097.6	89.92	270.15	2,898.1	-135.2	-715.0	10.00	9.37	3.79	24.00	
7,884.9	89.82	270.63	2,705.0	-102.7	-5,502.1	0.01	0.00	0.01	90.54	Terry 14-3H

Planning Report

Database: EDM Server Database
Company: Lime Rock Resources
Project: Eddy County, NM
Site: SEC 13 T18S R26E
Well: Terry 14-3H
Wellbore: Original Wellbore
Design: Plan 1

Local Co-ordinate Reference: Well Terry 14-3H
TVD Reference: KB @ 3319.0usft
MD Reference: KB @ 3319.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,230.0	0.00	0.00	1,230.0	0.0	0.0	0.0	0.00	0.00	0.00
Surface									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,942.0	0.00	0.00	1,942.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	4.64	255.00	1,999.9	-0.8	-2.3	2.3	8.00	8.00	0.00
2,100.0	12.64	255.00	2,098.7	-4.5	-16.8	16.8	8.00	8.00	0.00
2,200.0	20.64	255.00	2,184.5	-11.9	-44.4	44.6	8.00	8.00	0.00
2,300.0	28.64	255.00	2,285.3	-22.7	-84.6	85.0	8.00	8.00	0.00
2,400.0	36.64	255.00	2,369.4	-38.6	-136.7	137.4	8.00	8.00	0.00
2,500.0	44.64	255.00	2,445.2	-53.5	-199.6	200.5	8.00	8.00	0.00
2,597.9	52.47	255.00	2,510.0	-72.4	-270.4	271.7	8.00	8.00	0.00
2,600.0	52.47	255.00	2,511.3	-72.9	-272.0	273.3	0.00	0.00	0.00
2,697.9	52.47	255.00	2,570.9	-93.0	-347.0	348.7	0.00	0.00	0.00
Build & Turn									
2,700.0	52.66	255.11	2,572.2	-93.4	-348.6	350.3	10.12	9.25	5.18
2,800.0	61.80	259.69	2,626.2	-111.6	-430.6	432.6	10.00	9.23	4.58
FTP - 100' FEL									
2,900.0	71.25	263.53	2,665.9	-124.8	-521.3	523.5	10.00	9.36	3.84
3,000.0	80.68	266.97	2,690.1	-132.8	-617.8	620.2	10.00	9.43	3.44
3,097.6	89.92	270.15	2,698.1	-135.2	-715.0	717.4	10.00	9.46	3.25
EOC									
3,100.0	89.92	270.15	2,698.1	-135.2	-717.4	719.8	0.08	0.08	0.03
3,200.0	89.92	270.16	2,698.3	-134.9	-817.4	819.7	0.01	0.00	0.01
3,300.0	89.92	270.17	2,698.4	-134.6	-917.4	919.7	0.01	0.00	0.01
3,400.0	89.92	270.18	2,698.6	-134.3	-1,017.4	1,019.7	0.01	0.00	0.01
3,500.0	89.92	270.19	2,698.7	-134.0	-1,117.4	1,119.7	0.01	0.00	0.01
3,600.0	89.92	270.20	2,698.8	-133.7	-1,217.4	1,219.7	0.01	0.00	0.01
3,700.0	89.92	270.21	2,699.0	-133.3	-1,317.4	1,319.6	0.01	0.00	0.01
3,800.0	89.92	270.22	2,699.1	-133.0	-1,417.4	1,419.6	0.01	0.00	0.01
3,900.0	89.92	270.23	2,699.3	-132.6	-1,517.4	1,519.6	0.01	0.00	0.01
4,000.0	89.92	270.24	2,699.4	-132.2	-1,617.4	1,619.5	0.01	0.00	0.01
4,100.0	89.92	270.25	2,699.5	-131.7	-1,717.4	1,719.5	0.01	0.00	0.01
4,200.0	89.92	270.26	2,699.7	-131.3	-1,817.4	1,819.5	0.01	0.00	0.01
4,300.0	89.92	270.27	2,699.8	-130.8	-1,917.4	1,919.5	0.01	0.00	0.01

Planning Report

Database: EDM Server Database
Company: Lime Rock Resources
Project: Eddy County, NM
Site: SEC 13 T18S R26E
Well: Terry 14-3H
Wellbore: Original Wellbore
Design: Plan 1

Local Co-ordinate Reference: Well Terry 14-3H
TVD Reference: KB @ 3319.0usft
MD Reference: KB @ 3319.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.0	89.92	270.28	2,700.0	-130.4	-2,017.4	2,019.4	0.01	0.00	0.01
4,500.0	89.92	270.29	2,700.1	-129.9	-2,117.4	2,119.4	0.01	0.00	0.01
4,600.0	89.92	270.30	2,700.2	-129.3	-2,217.4	2,219.4	0.01	0.00	0.01
4,700.0	89.92	270.31	2,700.4	-128.8	-2,317.4	2,319.4	0.01	0.00	0.01
4,800.0	89.92	270.32	2,700.5	-128.3	-2,417.4	2,419.3	0.01	0.00	0.01
4,900.0	89.92	270.33	2,700.7	-127.7	-2,517.3	2,519.3	0.01	0.00	0.01
5,000.0	89.92	270.34	2,700.8	-127.1	-2,617.3	2,619.3	0.01	0.00	0.01
5,100.0	89.92	270.35	2,701.0	-126.5	-2,717.3	2,719.2	0.01	0.00	0.01
5,200.0	89.92	270.36	2,701.1	-125.9	-2,817.3	2,819.2	0.01	0.00	0.01
5,300.0	89.92	270.37	2,701.2	-125.3	-2,917.3	2,919.2	0.01	0.00	0.01
5,400.0	89.92	270.38	2,701.4	-124.6	-3,017.3	3,019.1	0.01	0.00	0.01
5,500.0	89.92	270.39	2,701.5	-123.9	-3,117.3	3,119.1	0.01	0.00	0.01
5,600.0	89.92	270.40	2,701.7	-123.2	-3,217.3	3,219.1	0.01	0.00	0.01
5,700.0	89.92	270.41	2,701.8	-122.5	-3,317.3	3,319.0	0.01	0.00	0.01
5,800.0	89.92	270.42	2,702.0	-121.8	-3,417.3	3,419.0	0.01	0.00	0.01
5,900.0	89.92	270.43	2,702.1	-121.1	-3,517.3	3,519.0	0.01	0.00	0.01
6,000.0	89.92	270.44	2,702.2	-120.3	-3,617.3	3,618.9	0.01	0.00	0.01
6,100.0	89.92	270.45	2,702.4	-119.5	-3,717.3	3,718.9	0.01	0.00	0.01
6,200.0	89.92	270.46	2,702.5	-118.7	-3,817.3	3,818.9	0.01	0.00	0.01
6,300.0	89.92	270.47	2,702.7	-117.9	-3,917.3	3,918.8	0.01	0.00	0.01
6,400.0	89.92	270.48	2,702.8	-117.1	-4,017.3	4,018.8	0.01	0.00	0.01
6,500.0	89.92	270.49	2,703.0	-116.2	-4,117.3	4,118.8	0.01	0.00	0.01
6,600.0	89.92	270.50	2,703.1	-115.4	-4,217.3	4,218.7	0.01	0.00	0.01
6,700.0	89.92	270.51	2,703.3	-114.5	-4,317.3	4,318.7	0.01	0.00	0.01
6,800.0	89.92	270.52	2,703.4	-113.6	-4,417.3	4,418.6	0.01	0.00	0.01
6,900.0	89.92	270.53	2,703.6	-112.7	-4,517.3	4,518.6	0.01	0.00	0.01
7,000.0	89.92	270.54	2,703.7	-111.7	-4,617.3	4,618.6	0.01	0.00	0.01
7,100.0	89.92	270.55	2,703.8	-110.8	-4,717.3	4,718.5	0.01	0.00	0.01
7,200.0	89.92	270.56	2,704.0	-109.8	-4,817.3	4,818.5	0.01	0.00	0.01
7,300.0	89.92	270.57	2,704.1	-108.8	-4,917.3	4,918.4	0.01	0.00	0.01
7,400.0	89.92	270.58	2,704.3	-107.8	-5,017.3	5,018.4	0.01	0.00	0.01
7,500.0	89.92	270.59	2,704.4	-106.8	-5,117.3	5,118.4	0.01	0.00	0.01
7,600.0	89.92	270.60	2,704.6	-105.8	-5,217.2	5,218.3	0.01	0.00	0.01
7,700.0	89.92	270.61	2,704.7	-104.7	-5,317.2	5,318.3	0.01	0.00	0.01
7,800.0	89.92	270.62	2,704.9	-103.6	-5,417.3	5,418.2	0.01	0.00	0.01
Production									
7,864.9	89.92	270.63	2,705.0	-102.7	-5,502.1	5,503.1	0.01	0.00	0.01

PBHL - Terry 14-3H

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Terry 14-3H	0.00	0.00	2,705.0	-102.7	-5,502.1	637,183.10	532,889.13	32° 45' 5.741 N	104° 21' 38.812 W
- plan hits target center									
- Point									

Planning Report

Database: EDM Server Database
Company: Lime Rock Resources
Project: Eddy County, NM
Site: SEC 13 T18S R26E
Well: Terry 14-3H
Wellbore: Original Wellbore
Design: Plan 1

Local Co-ordinate Reference: Well Terry 14-3H
TVD Reference: KB @ 3319.0usft
MD Reference: KB @ 3319.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,230.0	1,230.0	Surface	9-5/8	9-5/8
7,800.0	2,704.9	Production	5-1/2	5-1/2

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,697.9	2,570.9	-93.0	-347.0	Build & Turn
2,800.0	2,628.2	-111.6	-430.6	FTP - 100' FEL
3,097.9	2,698.1	-135.2	-715.0	EOC
7,884.9	2,705.0	-102.7	-5,502.1	PBHL

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/Escapes 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:**

- 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 #
Steve Hunter	Production Manager	Houston	713-292-9516	832-330-7313	Same as Cell
Spencer Cox	Operations Engineer	Houston	713-292-9528	432-254-5140	Same as Cell
Eric McClusky	Operations Engineer	Houston	713-360-5714	832-491-3079	405-821-0534
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 McClland	Well Site Supervisor	Rotates on Site	NA	903-503-8997	NA
Dave Williamson	Well Site Supervisor	Rotates on Site	NA	575-308-9980	NA

Agency Call List		
City	Agency or Office	Telephone #
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

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 Hughes Inc.	Pumping Services	Artesia, Hobbs & Odessa	575-746-2757	Same
Total Safety	Safety Equipment & Personnel	Artesia	575-746-2847	Same
Cutter Oilfield 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	Albuquerque	505-842-4433	Same
Artesia General Hospital	Emergency Medical Care	Artesia	575-748-3333	702 North 13th Street

Pressure Control Equipment

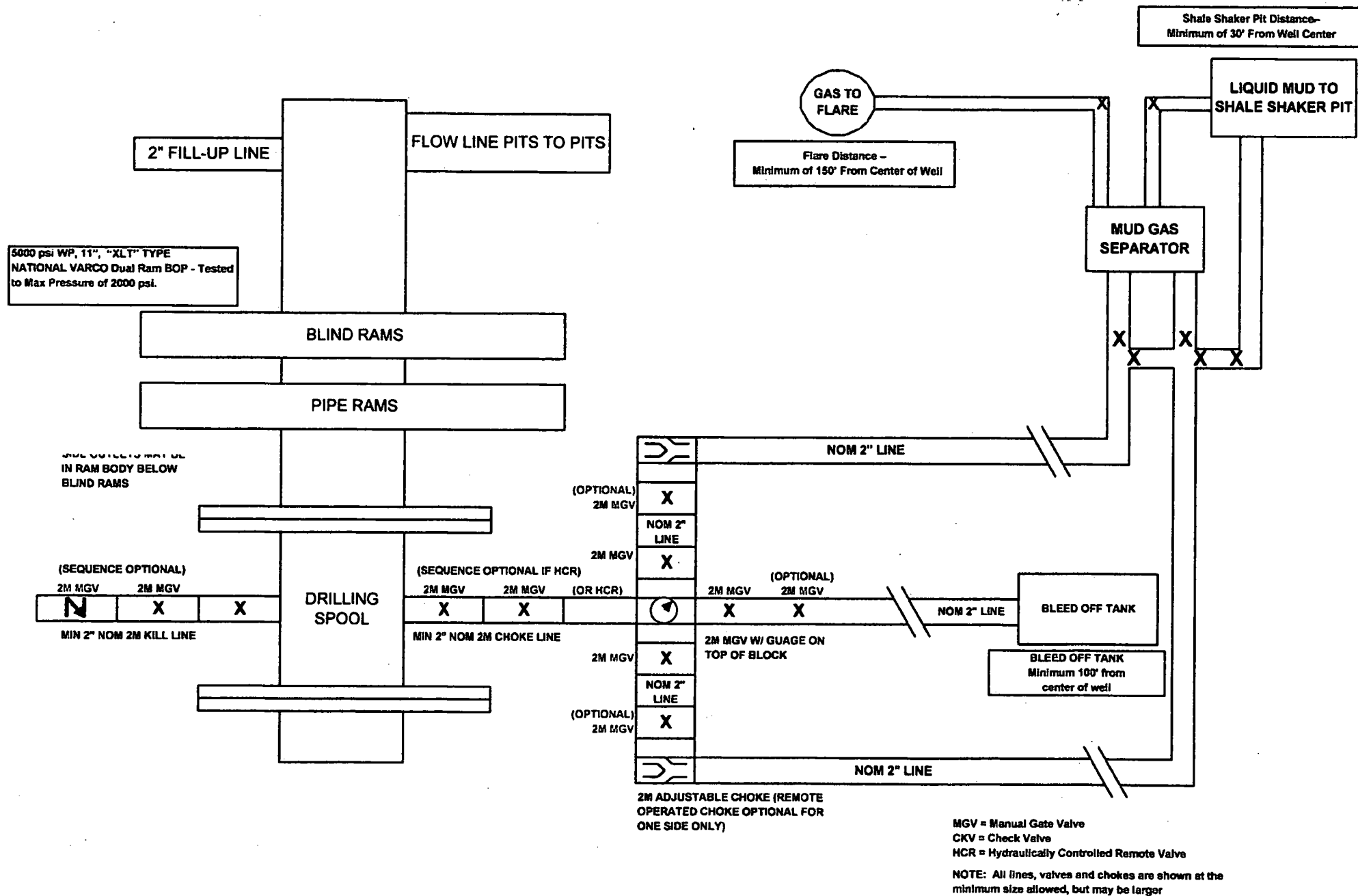
The blowout preventer equipment (BOP) will consist of a 5000 psi rated, "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. The 2M BOP will be installed on the 9 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



Lime Rock Resources II-A, L.P.

Terry 14 #3H

Unit D, S13-T18S-R26E, 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.

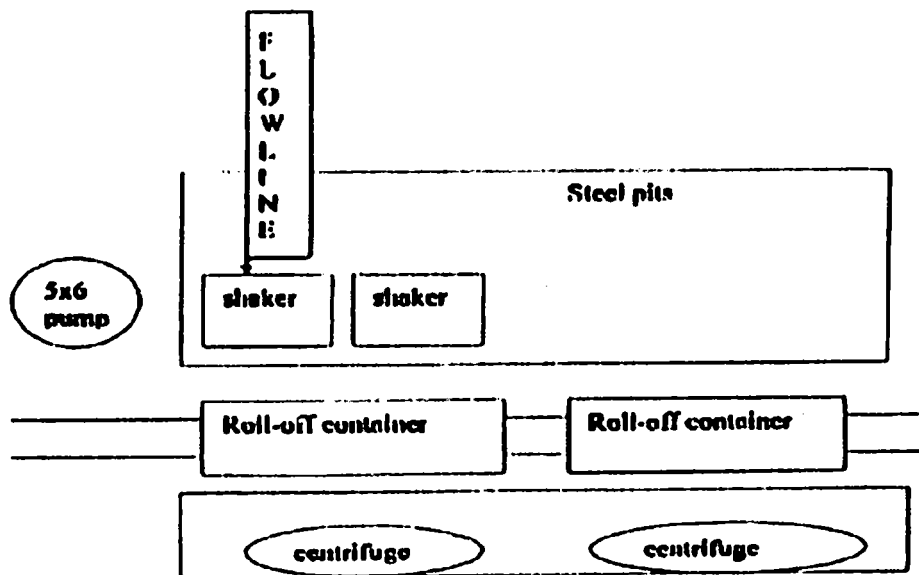
2- (250 bbl) tanks to hold fluid
2-CRI bins with track system
2-500 bbl frac tanks with fresh water
2-500 bbl frac tanks for brine water

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.

TOMMY WILSON



**CLOSED LOOP
SPECIALTY**

Office: 575.744.1689

Cell: 575.748.6367