#### NM OIL CONSERVATION

ARTESIA DISTRICT

District J 1625 N. French Dr., Hobbs, NM 88240 Phone; (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Arresia, 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

OCT 18 2017 Revised August 1, 2011

Form C-102

Energy, Minerals & Natural Resources Department

Submit one copy to appropriate

OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

RECEIVED District Office

Santa Fe, NM 87505

☐ AMENDED REPORT

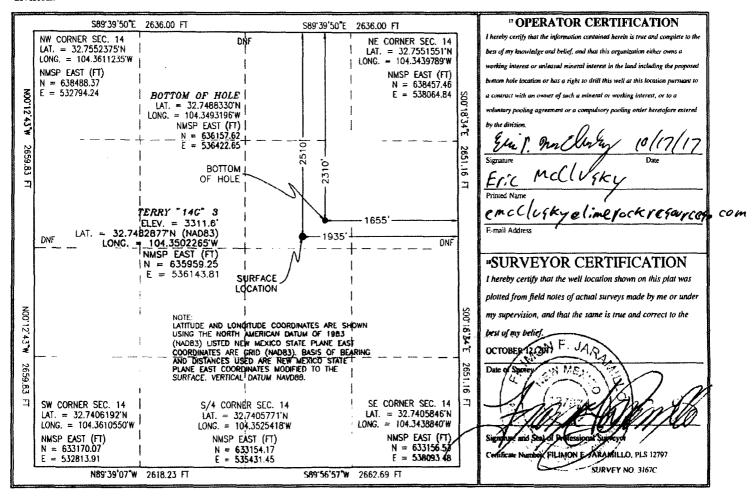
WELL LOCATION AND ACREAGE DEDICATION PLAT

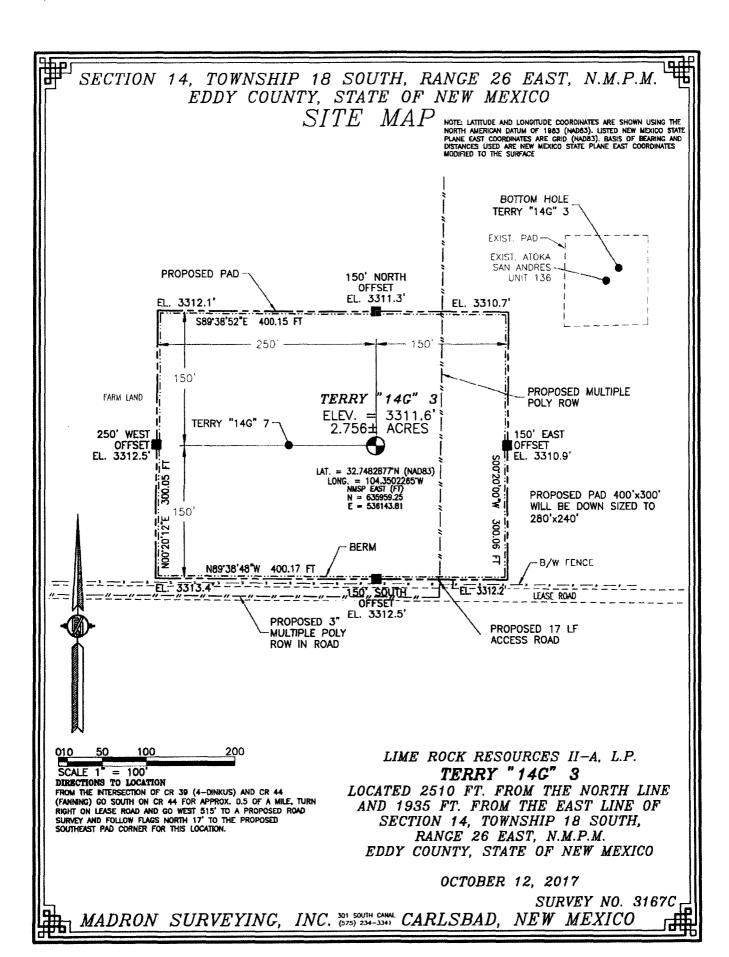
| 30 -0 (5 -                   | 44494 | 3 2 5 0                        | Atoka; Glorieta -  | yeşo |  |  |  |  |
|------------------------------|-------|--------------------------------|--------------------|------|--|--|--|--|
| 1 Property Code 3 (5 190 3 ) | 9773  | s<br>T                         | ' Well Number<br>3 |      |  |  |  |  |
| OGRID No.                    |       | Operator Name                  |                    |      |  |  |  |  |
| 277558                       |       | LIME ROCK RESOURCES II-A, L.P. |                    |      |  |  |  |  |

Surface Location

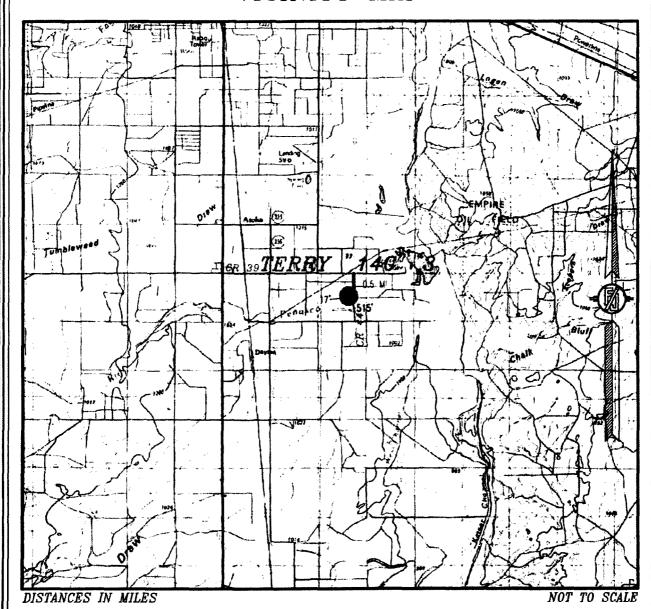
| UL or lot no.                                    | Section               | Township  | Range         | Lot Idn | Feet from the | North/South line | Feet from the | East/West line                        | County |  |  |  |
|--|-----------------------|-----------|---------------|---------|---------------|------------------|---------------|---------------------------------------|--------|--|--|--|
| G  | 14                    | 18 S      | 26 E          |         | 2510          | NORTH            | 1935          | 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 |  |  |  |
| G  | 14                    | 18 S      | 26 E          |         | 2310          | NORTH            | 1655          | EAST                                  | EDDY   |  |  |  |
| Dedicated Acre                                   | s <sup>13</sup> Joint | or Infili | Consolidation | Code    | ·             |                  | 15 Order No.  | · · · · · · · · · · · · · · · · · · · |        |  |  |  |
| 40   |                       |           |               |         |               |                  |               |                                       |        |  |  |  |

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.





# SECTION 14, 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.
TERRY "14G" 3

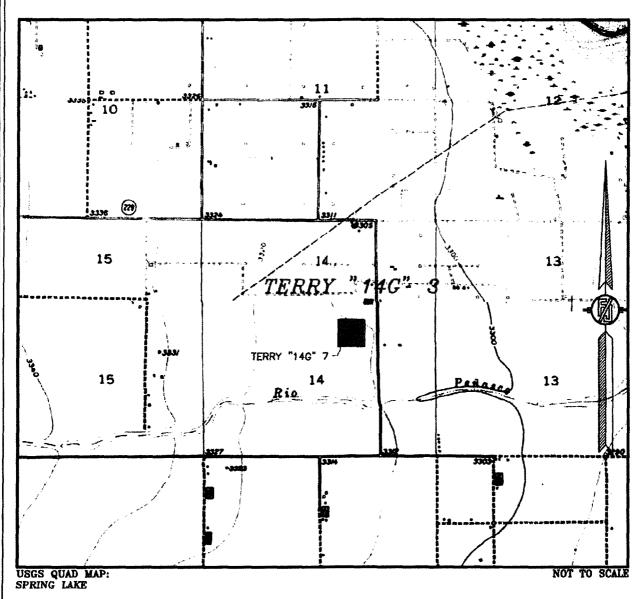
DIRECTIONS TO LOCATION FROM THE INTERSECTION OF CR 39 (4-DINKUS) AND CR 44 (FANNING) GO SOUTH ON CR 44 FOR APPROX. 0.5 OF A MILE, TURN RIGHT ON LEASE ROAD AND GO WEST 515' TO A PROPOSED ROAD SURVEY AND FOLLOW FLAGS NORTH 17' TO THE PROPOSED SOUTHEAST PAD CORNER FOR THIS LOCATION. RANCO

LOCATED 2510 FT. FROM THE NORTH LINE AND 1935 FT. FROM THE EAST LINE OF SECTION 14, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

OCTOBER 12, 2017

SURVEY NO. 3167C

# SECTION 14, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO LOCATION VERIFICATION MAP



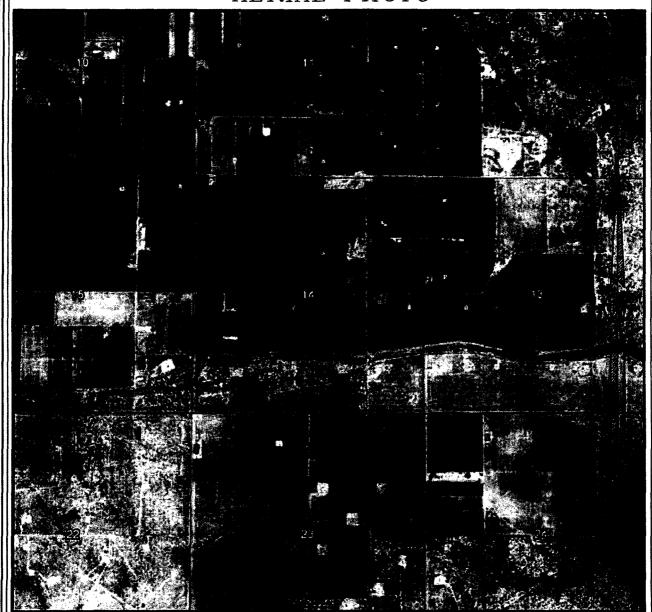
LIME ROCK RESOURCES II-A, L.P.
TERRY "14G" 3

LOCATED 2510 FT. FROM THE NORTH LINE AND 1935 FT. FROM THE EAST LINE OF SECTION 14, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

OCTOBER 12, 2017

SURVEY NO. 3167C

# SECTION 14, 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 MAY 2014

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

LOCATED 2510 FT. FROM THE NORTH LINE AND 1935 FT. FROM THE EAST LINE OF SECTION 14, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

OCTOBER 12, 2017

SURVEY NO. 3167C

# SECTION 14, 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 MAY 2014

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

LOCATED 2510 FT. FROM THE NORTH LINE AND 1935 FT. FROM THE EAST LINE OF SECTION 14, TOWNSHIP 18 SOUTH, RANGE 26 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

OCTOBER 12, 2017

SURVEY NO. 3167C

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

Terry 14G #3 2510' FNL 1935' FEL (G) 14-18S-26E Eddy County, NM

- 1. The elevation of the unprepared ground is feet above sea level.
- 2. The geologic name of the surface formation is Quaternary Alluviu
- 3. A rotary rig will be utilized to drill the well to 4300' and run casing. This equipment will be rigge down and the well will be completed with a workover rig
- 4. Well will be drilled to a total proposed depth of 4334' MD./ 4300' TVD. inside a 30' X 30' square tall inside of 40 acre spacing regulatory quarter-quarter setback distan The KOP for directional drilling will be at 400'. See directional plan for deta
- 5. Estimated tops of geologic markers:

|                       | MD      | TVD     |
|-----------------------|---------|---------|
| Quaternary – Alluvium | Surface | Surface |
| Yates                 | NA      | NA      |
| 7 Rivers              | NA      | NA      |
| Queen                 | 290     | 290     |
| Grayburg              | 671     | 670     |
| Premier               | 977     | 970     |
| San Andres            | 985     | 978     |
| Glorieta              | 2361    | 2327    |
| Yeso                  | 2479    | 2445    |
| Tubb                  | 3901    | 3867    |
| TD                    | 4334    | 4300    |

 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      | 290  | 290  |
| Grayburg   | 671  | 670  |
| Premier    | 977  | 970  |
| San Andres | 985  | 978  |
| Glorieta   | 2361 | 2327 |
| Yeso       | 2479 | 2445 |
| Tubb       | 3901 | 3867 |
| TD         | 4334 | 4300 |

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

| Туре         | Hole   | Casing | Wt   | Grade | Thread | Depth | Sx  | Density | Yield | Components  |
|--------------|--------|--------|------|-------|--------|-------|-----|---------|-------|---|
| Conductor    | 26"    | 20"    | 91.5 | В     | Welded | 80    | 80  |         |       | Ready Mix   |
| Surface      | 12.25" | 8-5/8" | 24   | J-55  | ST&C   | 1230  | 600 | 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   | 4334  | 300 | 12.8    | 1.903 | (35:65) Poz/CI C Cml + 5% NaCI + 0 25 lbs/sk<br>Cello Flake + 5 lbs/sk LCM-1 +0 2% R-3 + 6% Gel |
|              |        |        |      |       |        |       | 500 | 14.8    | 1.33  | CI H w/ 0 6% R-3, 0 125% Cello Flake, 2% Gel  |

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

| Depth      | 0-1230          | 1230-4130  | 4130-4334  |
|------------|-----------------|--|--|
| Mud Type   | Fresh Water Mud | Brine, Salt Gel, & Starch                                      | Brine, Salt Gel, & Starch  |
| Properties |                 |  | <u> </u>   |
| 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-<br>55 Hi-Vis Sweeps as<br>necessary | Hi Vis Sweeps, add acid and starch as req. Raise Vis to 35 fo 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 4334 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 H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. personnel will be familiar with all aspects of safe operation of equipment being used to drill this well Estimated BHP 1906.96 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 complet well and to construct surface facilities.



Limerock Resources Terry 14G No 3 Eddy County, New Mexico NAD 83 Wellbore: Orig Hole Plan: Plan 0

Plan: Plan 0 Rig: United 33



1 450 Queen Start Build 3 00 **623** 6% Grayburg .. Hold, 12.61° 900 634 <sup>1</sup> Premier San Andres 1000 8 5/8" 12 61 1400 1600 1600 (IISP) Start Drop -3 00 1600 · 1892 (200 200 Vertical Depth Vertical @ 2350' TVD 2200 Glorieta 2400 2400 Veso True 2600 2600 2800 301.1 3200 18400 3400 3500 Section 1 36UL -Tubb 4000 BHL @ 4334 MD 4200 4400 4400 800 1000 1200 600 Vertical Section at 54 56° (200 usft/in)

 SURFACE LOCATION
 Ground Elevation:
 3311 60
 11 8' KB @ 3323.40usit (United 33)

 +N/-S
 +E/-W
 Northing 635959.37
 Easting 536143 95
 Latitude 327482880
 Longitude -104 3502260

 TARGET LOCATIONS

 Name
 TVD
 +N/-S
 +E/-W
 Northing
 Easting

 BHL (Terry 14G No 3 )
 4300 00
 198.23
 278.57
 636157 60
 536422 52

CASING DETAILS

TVD MD Name Size
80 00 80 00 20" 20 000
1230 00 1243.60 8 5/8" 8 625

 Well Offset Distances

 Slot Name
 +N/-S
 +E/-W

 Terry 14 G No 3
 0.00
 0.00

 Terry 14G No 7
 0.38
 -100 23

West(-)/East(+) (40 usft/in) -320 -280 -240 -200 -160 -120 -80 -40 D 40 120 160 200 240 260 320 360 480 486 440 440 400 -400 360 361 320 BHL @ 4334' MD 280 Vertical @ 2350' TVD 280 ₹ ३40 240 South(-)/North(+) Start Drop -3 00 200 160 120 40 Terry 1,45 NO 31Prien' Hold 12:61 (u)Jsn 80 e.c 46 46 Start Build 5 00 ¢ ----0 -40 Terry 14 G No 5 -40 Terry 14G No 7 -80 -66 -320 -250 -240 -200 -160 -120 -50 -40 0 40 60 120 160 200 240 280 270 360

West(-)/East(+) (40 usft/in)

Map System: US State Plane 1983 Dalum: North American Dalum 1983 Ellipsoid: GRS 1980 Zone Name: New Mexico Eastern Zone

Latitude 32 7482880 Longitude -104 3502260

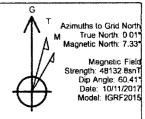
Grid Easl 536143.95 Grid North 635959.37 Scale Factor 1.000

Geomagnetic Model GRF2015 Sample Date 11-Oct-17 Magnetic Decination 7.32\* Dip Angle from Horizontal 60.41° Magnetic Field Strength 48132 75474640nT

To convert a Magnetic Direction to a Grid Direction, Add 7.33°

Well Planning Phil Lyons 13 37, October 12 2017

| Sec | MD      | Inc   | Azi   | TVD     | +N/-S  | +E/-W  | Dleg | TFace  | VSect  | Annotation           |
|-----|---------|-------|-------|---------|--------|--------|------|--------|--------|----------------------|
| 1   | 0.00    | 0.00  | 0.00  | 0.00    | 0.00   | 0 00   | 0.00 | 0,00   | 0 00   |                      |
| 2   | 400.00  | 0.00  | 0.00  | 400 00  | 0.00   | 0.00   | 0.00 | 0.00   | 0.00   | Start Build 3.00     |
| 3   | 820.48  | 12.61 | 54.56 | 817.09  | 26 73  | 37.56  | 3.00 | 54.56  | 46 10  | Hold, 12.61°         |
| 4   | 1963 90 | 12 61 | 54 56 | 1932.91 | 171 51 | 241 01 | 0,00 | 0.00   | 295.81 | Start Drop -3 00     |
| 5   | 2384.38 | 0.00  | 0.00  | 2350 00 | 198 23 | 278 57 | 3.00 | 180.00 | 341,91 | Vertical @ 2350' TVD |
| 6   | 4334 38 | 0.00  | 0.00  | 4300 00 | 198.23 | 278 57 | 0.00 | 0.00   | 341,91 | BHL @ 4334' MD       |



#### NM OIL CONSERVATION

ARTESIA DISTRICT

OCT 18 2017

RECEIVED

## **Limerock Resources**

Eddy County, New Mexico NAD 83 Terry - (NAD 83) Terry 14G No 3

**Orig Hole** 

, , ,

Plan: Plan 0

## **Standard Planning Report**

12 October, 2017

#### Planning Report

Database:

Accel Server EDM

Company:

Limerock Resources

Project:

Eddy County, New Mexico NAD 83

Site:

. . .

Terry - (NAD 83)

Well: Wellbore: Design:

Terry 14G No 3 Orig Hole Plan 0

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference: Well Terry 14G No 3

11 8' KB @ 3323 40usft (United 33) 11 8' KB @ 3323 40usft (United 33)

Grid

Survey Calculation Method:

Minimum Curvature

Project

Eddy County, New Mexico NAD 83

Map System:

US State Plane 1983

Geo Datum: Map Zone:

North American Datum 1983

New Mexico Eastern Zone

System Datum:

Mean Sea Level

Site

Well

Terry - (NAD 83)

Site Position:

Northing:

638,291.64 usft

Latitude:

32 7546980

From:

Lat/Long

Easting:

534,804 58 usft

Longitude:

**Position Uncertainty:** 

0 00 usft

Slot Radius:

13 200 in

Grid Convergence:

-104.3545840

-0.01°

Terry 14G No 3

**Well Position** 

+N/-S -2,332.27 usft

1,339.37 usft

Northing: Easting:

635,959.37 usft 536,143 95 usft Latitude: Longitude:

32.7482880 -104 3502260

**Position Uncertainty** 

0 00 usft

Wellhead Elevation:

Ground Level:

3,311.60 usft

Wellbore

Orig Hole

+E/-W

Magnetics

**Model Name** 

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2015

10/11/2017

7.32

60.41

48,132.75474640

Design

Plan 0

**Audit Notes:** 

Version:

Phase:

**PROTOTYPE** 

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD) (usft)

0.00

+N/-S (usft)

0.00

+E/-W (usft)

0 00

Direction (°)

54.56

Date 10/12/2017

Depth From

**Plan Survey Tool Program** 

Depth To

Survey (Wellbore)

**Tool Name** 

Remarks

(usft) 0.00 (usft)

4,334.38 Plan 0 (Orig Hole)

MWD+IGRF

OWSG MWD + IGRF or WMM

#### Plan Sections

| Measured<br>Depth<br>(usft) | Inclination (°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) | TFO<br>(°) | Target |
|-----------------------------|-----------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|------------------------------|-----------------------------|------------|--------|
| 0.00                        | 0.00            | 0 00           | 0.00                        | 0 00            | 0.00            | 0.00                          | 0.00                         | 0.00                        | 0 00       |        |
| 400 00                      | 0 00            | 0 00           | 400.00                      | 0 00            | 0 00            | 0.00                          | 0.00                         | 0.00                        | 0.00       |        |
| 820.48                      | 12 61           | 54.56          | 817.09                      | 26 73           | 37 56           | 3,00                          | 3 00                         | 0 00                        | 54 56      |        |
| 1,963.90                    | 12 61           | 54.56          | 1,932.91                    | 171.51          | 241.01          | 0.00                          | 0 00                         | 0.00                        | 0.00       |        |
| 2,384.38                    | 0.00            | 0 00           | 2,350.00                    | 198 23          | 278.57          | 3.00                          | -3,00                        | 0.00                        | 180.00     |        |
| 4,334.38                    | 0 00            | 0 00           | 4,300.00                    | 198 23          | 278 57          | 0.00                          | 0 00                         | 0.00                        | 0.00       |        |

#### Planning Report

Database: Company: Accel Server EDM

Limerock Resources

Project:

Eddy County, New Mexico NAD 83

Site:

Terry - (NAD 83)

Well: Wellbore:

Orig Hole

Design:

Plan 0

Terry 14G No 3

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

**Survey Calculation Method:** 

Well Terry 14G No 3

11 8' KB @ 3323 40usft (United 33) 11 8' KB @ 3323 40usft (United 33)

Grid

Minimum Curvature

#### Planned Survey

| Measured<br>Depth<br>(usft) | inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft)  | +E/-W<br>(usft)  | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft)            | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|------------------|------------------|-------------------------------|-------------------------------|---|-----------------------------|
| 0.00                        | 0 00               | 0 00           | 0 00                        | 0 00             | 0 00             | 0.00                          | 0 00                          | 0 00                                    | 0.00                        |
| 80.00                       | 0 00               | 0 00           | 80 00                       | 0 00             | 0 00             | 0.00                          | 0 00                          | 0 00                                    | 0.00                        |
| 20"                         | 0.00               | 0 00           | 00 00                       | 0.00             | 0.00             |                               | 0.00                          | • |                             |
| 100.00                      | 0.00               | 0.00           | 100 00                      | 0 00             | 0 00             | 0 00                          | 0 00                          | 0 00                                    | 0.00                        |
| 200.00                      | 0,00               | 0.00           | 200.00                      | 0.00             | 0 00             | 0 00                          | 0 00                          | 0.00                                    | 0.00                        |
| 290.00                      | 0.00               | 0 00           | 290.00                      | 0.00             | 0.00             | 0 00                          | 0.00                          | 0.00                                    | 0.00                        |
| Queen                       | 0 00               | 000            | 290 00                      | 0.00             | 0.00             | 0 00                          | 0.00                          | 0.00                                    | 0.00                        |
|                             |                    |                | 200.00                      |                  | 0.00             | 0.00                          | 2.00                          | • • • •                                 | 0.00                        |
| 300.00                      | 0 00               | 0 00           | 300.00                      | 0 00             | 0.00             | 0 00                          | 0 00                          | 0 00                                    | 0.00                        |
| 400.00                      | 0 00               | 0 00           | 400.00                      | 0 00             | 0,00             | 0 00                          | 0 00                          | 0 00                                    | 0.00                        |
| Start Build 3               |                    |                |                             |                  |                  |                               |                               |   |                             |
| 500,00                      | 3.00               | 54 56          | 499.95                      | 1.52             | 2 13             | 2 62                          | 3 00                          | 3.00                                    | 0.00                        |
| 600.00                      | 6 00               | 54 56          | 599 63                      | 6.07             | 8.52             | 10 46                         | 3 00                          | 3.00                                    | 0.00                        |
| 670.91                      | 8.13               | 54.56          | 670 00                      | 11.12            | 15 63            | 19 18                         | 3.00                          | 3.00                                    | 0.00                        |
| Grayburg                    |                    |                |                             |                  |                  |                               |                               |   |                             |
| 700,00                      | 9.00               | 54.56          | 698.77                      | 13.63            | 19.16            | 23 51                         | 3 00                          | 3.00                                    | 0.00                        |
| 800.00                      | 12.00              | 54.56          | 797 08                      | 24.20            | 34.00            | 41 74                         | 3 00                          | 3,00                                    | 0 00                        |
| 820.48                      | 12 61              | 54 56          | 817 09                      | 26.73            | 37 56            | 46.10                         | 3 00                          | 3 00                                    | 0 00                        |
| Hold, 12.61°                |                    |                |                             |                  |                  |                               |                               |   |                             |
| 900.00                      | 12 61              | 54 56          | 894 69                      | 36 80            | 51.71            | 63 47                         | 0 00                          | 0.00                                    | 0.00                        |
| 977.17                      | 12 61              | 54.56          | 970 00                      | 46.57            | 65.44            | 80.32                         | 0 00                          | 0.00                                    | 0.00                        |
| Premier                     |                    |                |                             |                  |                  |                               |                               |   |                             |
| 985.37                      | 12 61              | 54.56          | 978.00                      | 47.61            | 66.90            | 82.11                         | 0 00                          | 0.00                                    | 0.00                        |
| San Andres                  |                    |                |                             |                  |                  |                               |                               |   |                             |
| 1,000.00                    | 12.61              | 54.56          | 992.28                      | 49.46            | 69.50            | 85 31                         | 0 00                          | 0.00                                    | 0.00                        |
| 1,100,00                    | 12 61              | 54.56          | 1,089.86                    | 62.12            | 87.30            | 107.14                        | 0.00                          | 0.00                                    | 0 00                        |
| 1,200.00                    | 12 61              | 54.56          | 1,187.45                    | 74 78            | 105.09           | 128 98                        | 0.00                          | 0.00                                    | 0.00                        |
| 1,243.60                    | 12 61              | 54.56          | 1,230.00                    | 80 30            | 112 85           | 138.50                        | 0.00                          | 0.00                                    | 0.00                        |
| 8 5/8"                      |                    |                |                             |                  |                  |                               |                               |   |                             |
| 1,300.00                    | 12 61              | 54.56          | 1,285 04                    | 87 44            | 122,88           | 150.82                        | 0 00                          | 0 00                                    | Ó.00                        |
| 1,400.00                    | 12 61              | 54 56          | 1,382.62                    | 100.11           | 140.68           | 172.66                        | 0.00                          | 0.00                                    | 0.00                        |
| 1,500.00                    | 12.61              | 54.56          | 1,480 21                    | 112 77           | 158.47           | 194.50                        | 0.00                          | 0.00                                    | 0.00                        |
| 1,600.00                    |                    |                | •                           | 125 43           | 176.26           | 216.34                        | 0.00                          | 0.00                                    | 0.00                        |
| 1,700.00                    | 12 61<br>12.61     | 54.56<br>54.56 | 1,577 80<br>1,675.38        | 138 09           | 194 06           | 238 18                        | 0.00                          | 0.00                                    | 0.00                        |
|                             |                    |                |                             |                  |                  | 260.01                        | 0.00                          | 0.00                                    | 0.00                        |
| 1,800 00                    | 12.61              | 54.56          | 1,772.97                    | 150.75<br>163 41 | 211,85<br>229,64 | 281 85                        | 0.00                          | 0.00                                    | 0.00                        |
| 1,900.00                    | 12 61              | 54.56          | 1,870.55                    | 171 51           | 229,64           | 295 81                        | 0.00                          | 0.00                                    | 0.00                        |
| 1,963.90                    | 12.61              | 54 56          | 1,932 91                    | 17151            | 24101            | 293 6 1                       | 0.00                          | 0.00                                    | 0.00                        |
| Start Drop -                |                    |                |                             | 475.00           | 0.47.47          | 202.22                        |                               | 0.00                                    | 0.00                        |
| 2,000.00                    | 11 53              | 54.56          | 1,968 21                    | 175 88           | 247 17           | 303 36                        | 3 00                          | -3.00                                   | 0.00                        |
| 2,100 00                    | 8 53               | 54.56          | 2,066 67                    | 185 98           | 261.36           | 320.77                        | 3 00                          | -3.00                                   | 0.00                        |
| 2,200.00                    | 5.53               | 54 56          | 2,165 91                    | 193.08           | 271.33           | 333.01                        | 3.00                          | -3.00                                   | 0.00                        |
| 2,300.00                    | 2.53               | 54 56          | 2,265 65                    | 197 15           | 277 06           | 340 04                        | 3.00                          | -3.00                                   | 0.00                        |
| 2,361.38                    | 0.69               | 54.56          | 2,327 00                    | 198 15           | 278.46           | 341.77                        | 3.00                          | -3.00                                   | 0.00                        |
| Glorieta                    |                    |                |                             |                  |                  |                               |                               |   |                             |
| 2,384.38                    | 0 00               | 0 00           | 2,350 00                    | 198 23           | 278.57           | 341.91                        | 3 00                          | -3.00                                   | 0 00                        |
| Vertical @ 2                |                    |                |                             | 100.00           | 070 57           | 044.04                        |                               | 0.00                                    | 0.00                        |
| 2,400.00                    | 0.00               | 0.00           | 2,365 62                    | 198.23           | 278 57           | 341,91                        | 0,00                          | 0 00                                    | 0.00                        |
| 2,479.38                    | 0 00               | 0.00           | 2,445.00                    | 198.23           | 278.57           | 341,91                        | 0 00                          | 0 00                                    | 0.00                        |
| Yeso                        |                    |                |                             | 400.00           | 670 57           | 044.04                        | 0.00                          | 0.00                                    | 2.22                        |
| 2,500 00                    | 0.00               | 0.00           | 2,465.62                    | 198 23           | 278.57           | 341.91                        | 0 00                          | 0 00                                    | 0.00                        |
| 2,600.00                    | 0 00               | 0.00           | 2,565.62                    | 198.23           | 278.57           | 341.91                        | 0.00                          | 0.00                                    | 0.00                        |
| 2,700.00                    | 0.00<br>0.00       | 0 00<br>0 00   | 2,665 62<br>2,765 62        | 198 23<br>198 23 | 278.57<br>278.57 | 341.91<br>341.91              | 0.00<br>0 00                  | 0 00<br>0 00                            | 0,00<br>0.00                |
| 2,800.00                    |                    |                |                             |                  |                  |                               |                               |   |                             |

#### Planning Report

Database:

Accel Server EDM

Company:

Limerock Resources

Project:

, , , , , , •

Eddy County, New Mexico NAD 83

Site: Well: Terry - (NAD 83) Terry 14G No 3

Wellbore: Design:

Orig Hole Plan 0

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference: Survey Calculation Method: Well Terry 14G No 3

11 8' KB @ 3323 40usft (United 33) 11 8' KB @ 3323 40usft (United 33)

Grid

Minimum Curvature

#### Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 2,900 00                    | 0.00               | 0.00           | 2,865 62                    | 198 23          | 278 57          | 341 91                        | 0.00                          | 0.00                         | 0.00                        |
| 3,000.00                    | 0.00               | 0 00           | 2,965 62                    | 198.23          | 278.57          | 341.91                        | 0 00                          | 0 00                         | 0.00                        |
| 3,100 00                    | 0.00               | 0.00           | 3,065.62                    | 198.23          | 278 57          | 341 91                        | 0 00                          | 0.00                         | 0.00                        |
| 3,200 00                    | 0 00               | 0 00           | 3,165 62                    | 198.23          | 278 57          | 341 91                        | 0 00                          | 0 00                         | 0,00                        |
| 3,300.00                    | 0 00               | 0.00           | 3,265.62                    | 198.23          | 278 57          | 341.91                        | 0.00                          | 0.00                         | 0.00                        |
| 3,400 00                    | 0.00               | 0 00           | 3,365 62                    | 198 23          | 278.57          | 341 91                        | 0 00                          | 0.00                         | 0.00                        |
| 3,500.00                    | 0.00               | 0 00           | 3,465.62                    | 198 23          | 278,57          | 341 91                        | 0.00                          | 0 00                         | 0.00                        |
| 3,600 00                    | 0.00               | 0 00           | 3,565.62                    | 198.23          | 278.57          | 341 91                        | 0.00                          | 0.00                         | 0.00                        |
| 3,700.00                    | 0.00               | 0.00           | 3,665.62                    | 198 23          | 278.57          | 341 91                        | 0.00                          | 0.00                         | 0.00                        |
| 3,800.00                    | 0,00               | 0 00           | 3,765,62                    | 198 23          | 278 57          | 341 91                        | 0 00                          | 0.00                         | 0.00                        |
| 3,900 00                    | 0.00               | 0 00           | 3,865 62                    | 198 23          | 278 57          | 341 91                        | 0 00                          | 0.00                         | 0.00                        |
| 3,901.38                    | 0.00               | 0 00           | 3,867 00                    | 198 23          | 278 57          | 341 91                        | 0 00                          | 0.00                         | 0.00                        |
| Tubb                        |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 4,000 00                    | 0.00               | 0 00           | 3,965 62                    | 198 23          | 278 57          | 341 91                        | 0 00                          | 0.00                         | 0.00                        |
| 4,100.00                    | 0.00               | 0 00           | 4,065 62                    | 198 23          | 278.57          | 341.91                        | 0.00                          | 0.00                         | 0.00                        |
| 4,200.00                    | 0.00               | 0.00           | 4,165.62                    | 198 23          | 278.57          | 341.91                        | 0 00                          | 0.00                         | 0,00                        |
| 4,300 00                    | 0.00               | 0.00           | 4,265 62                    | 198 23          | 278 57          | 341 91                        | 0 00                          | 0.00                         | 0.00                        |
| 4,334.38                    | 0.00               | 0.00           | 4,300 00                    | 198.23          | 278.57          | 341.91                        | 0.00                          | 0.00                         | 0.00                        |
| BHL @ 4334' I               | MD                 |                |                             |                 |                 |                               |                               |                              |                             |

#### Design Targets

| Target | Name |
|--------|------|
|--------|------|

| - hit/miss target - Shape | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude   | Longitude    |
|---------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------|--------------|
| BHL (Terry 14G No 3)      | 0 00             | 360 00          | 4,300 00      | 198.23          | 278 57          | 636,157 60         | 536,422 53        | 32 7488330 | -104.3493200 |

<sup>-</sup> plan hits target center

#### **Casing Points**

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) |        | Name | Casing<br>Diameter<br>(in) | Hole<br>Diameter<br>(in) |
|-----------------------------|-----------------------------|--------|------|----------------------------|--------------------------|
| 80.00                       | 80.00                       | 20"    |      | 20 000                     | 26.000                   |
| 1,243 60                    | 1,230 00                    | 8 5/8" |      | 8 625                      | 11 000                   |

#### Formations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | N          | lame | Lithology | Dip<br>(°) | Dip<br>Direction<br>(°) |
|-----------------------------|-----------------------------|------------|------|-----------|------------|-------------------------|
| 290 00                      | 290.00                      | Queen      |      |           | 0 00       | 54 <b>5</b> 6           |
| 670 91                      | 670 00                      | Grayburg   |      |           | 0.00       | 54.56                   |
| 977.17                      | 970.00                      | Premier    |      |           | 0.00       | 54.56                   |
| 985.37                      | 978.00                      | San Andres |      |           | 0.00       | 54.56                   |
| 2,361.38                    | 2,327 00                    | Glorieta   |      |           | 0.00       | 54.56                   |
| 2,479 38                    | 2,445 00                    | Yeso       |      |           | 0.00       | 54 56                   |
| 3,901 38                    | 3,867 00                    | Tubb       |      |           | 0.00       | 54 56                   |

<sup>-</sup> Point

#### Planning Report

Database:

Accel Server EDM

Company:

Limerock Resources

Project:

Eddy County, New Mexico NAD 83

Site:

Terry - (NAD 83)

Well: Wellbore: Design:

Orig Hole

Terry 14G No 3

Plan 0

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

**Survey Calculation Method:** 

Well Terry 14G No 3

11.8' KB @ 3323 40usft (United 33) 11.8' KB @ 3323.40usft (United 33)

Grid

Minimum Curvature

#### Plan Annotations

| Measured        | Vertical        | Local Coon      |                 |                      |
|-----------------|-----------------|-----------------|-----------------|----------------------|
| Depth<br>(usft) | Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Comment              |
| 400 00          | 400.00          | 0 00            | 0 00            | Start Build 3 00     |
| 820 48          | 817.09          | 26.73           | 37 56           | Hold, 12.61°         |
| 1,963.90        | 1,932.91        | 171 51          | 241.01          | Start Drop -3 00     |
| 2,384.38        | 2,350 00        | 198.23          | 278 57          | Vertical @ 2350' TVD |
| 4,334.38        | 4,300 00        | 198.23          | 278 57          | BHL @ 4334' MD       |

#### **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 #       |
|-----------------|---------------------------------|-----------------|--------------|--------------|--------------|
| 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 McCelland  | 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                     |              |  |  |
| State Wide       | New Mexico Emergency Response Commisssion ("NMERC")  |              |  |  |
| State Wide       | NMERC 24 Hour Number                                 |              |  |  |
| State Wide       | New Mexico State Emergency Operations Center         |              |  |  |
| National         | National Emergency Response Center (Washington D.C.) |              |  |  |

| Emergency Services                          |                                    |                         |                     |                          |  |  |
|---|------------------------------------|-------------------------|---------------------|--------------------------|--|--|
| Name  | Service                            | Location                | Telephone<br>Number | Alternate<br>Number      |  |  |
| Boots & Coots International<br>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 &<br>Personnel    | Artesia                 | 575-746-2847        | Same                     |  |  |
| Cutter Oilfirld Services                    | Drilling Systems<br>Equipment      | Midland                 | 432-488-6707        | Same                     |  |  |
| Safety Dog                                  | Safety Equipment &<br>Personnel    | Artesia                 | 575-748-5847        | 575-441-1370             |  |  |
| Fighting for Life                           | Emergency Helicopter<br>Evacuation | Lubbock                 | 806-743-9911        | Same                     |  |  |
| Aerocare                                    | Emergency Helicopter<br>Evacuation | Lubbock                 | 806-747-8923        | Same                     |  |  |
| Med Flight Air Ambulance                    | Emergency Helicopter<br>Evacuation | Alburquerque            | 505-842-4433        | Same                     |  |  |
| Artesia General Hospital                    | Emergency Medical<br>Care          | Artesia                 | 575-748-3333        | 702 North 13th<br>Street |  |  |

#### 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:

. . . .

- 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.

#### **Pressure Control**

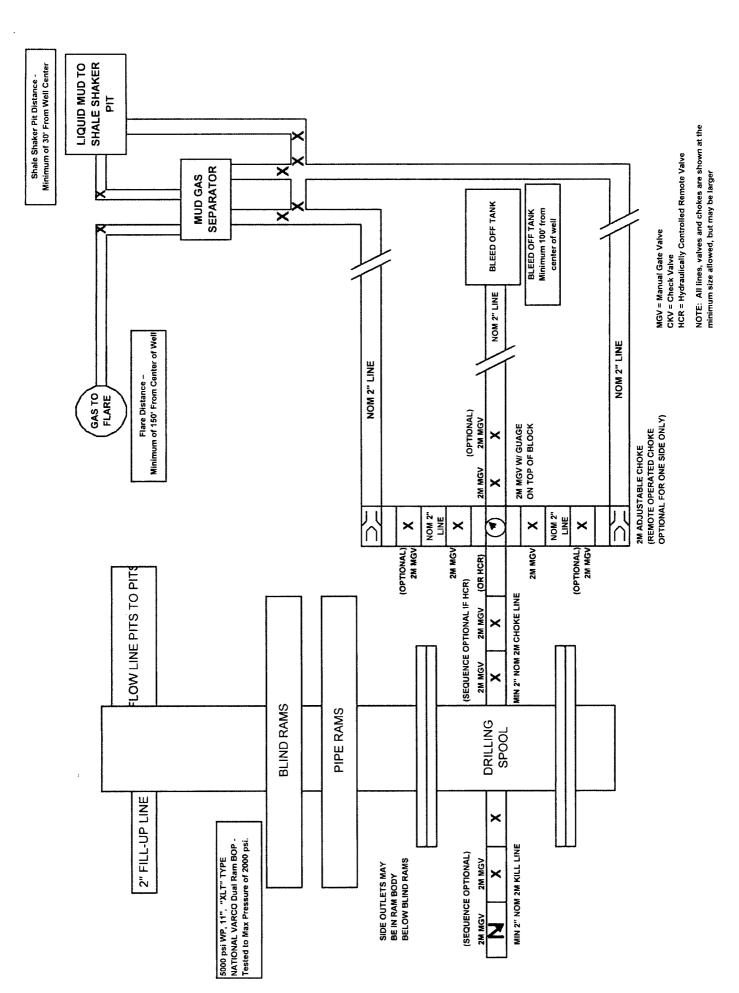
The blowout preventer equipment (BOP) will consist of a 5000 psi rated, "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams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

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 14G #3**

### Unit G, S14-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 attache

Cuttings and associated liquids will be hauled to a State regulated third party disposal site (CRI or Controlled Recc Inc.). The disposal site permit is DFP = #R916

2- (250 bbl) tanks to hold fluid 2-CRI bins with track system

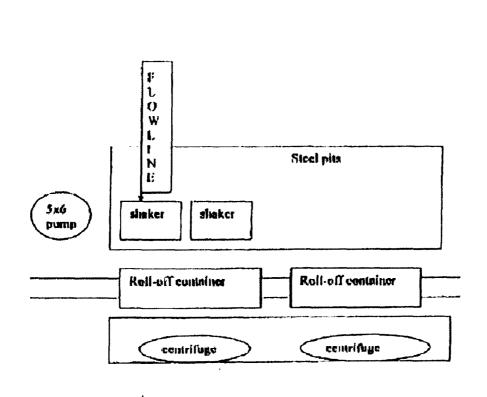
2-500 bbl frac tanks with fresh water 2-500 bbl frac tanks for brine water

#### Operations:

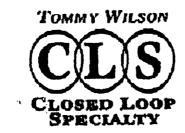
Closed Loop System equipment will be inspected daily by each tour and any necessary maintenance perfoleak in system will be repaired and/or contained immediately. OCD will be notified within 48 hours of ar Remediation process will start immediately

#### Closure:

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



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



Office: \$15,744.1689

Coll: 579,748.4347