

Phone: (575) 393-6161 Fax: (575) 393-7220
District II
11 S First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
606 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
220 S. St. Francis Dr., Santa Fe, NM 87505

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

☐ AMENDED Report

NM OIL CONSERVATION

ARTESIA DISTRICT

OCT. 18 2017

RECEIVED

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

¹ Operator Name and Address Lime Rock Resources II-A, L.P. 1111 Bagby Street, Suite 4600 Houston, Texas 77002		² OGRID Number 277558
⁴ Property Code 315090	³ Property Name Terry 14G	⁵ API Number 30-015- 44495
		⁶ Well No #7

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
G	14	18S	26E		2510	N	2035	E	Eddy

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
G	14	18S	26E		2310	N	2310	E	Eddy

⁹ Pool Information

Utoka; Glorieta-Yeso	3250
----------------------	------

Additional Well Information

⁹ Work Type N	¹⁰ Well Type O	¹¹ Cable/Rotary R	¹² Lease Type P	¹³ Ground Level Elevation 3312
¹⁴ Multiple N	¹⁵ Proposed Depth 4334' MD / 4300' TVD	¹⁶ Formation Yeso	¹⁷ Contractor United Drilling, Inc	¹⁸ Soud Date After 11/1/2017
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

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"	8-5/8"	24	1230	600	Surface
Production	7-7/8"	5-1/2"	17	4334	800	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.

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

Signature: *Eric P. McClusky*
Printed Name: Eric McClusky

Title: Operations Engineer

E-mail Address: emcclusky@limerockresources.com

Date: 10/17/2017

Phone: 713-360-5714

OIL CONSERVATION DIVISION

Approved By

Title

Approved Date: 10-24-17

Expiration Date: 10-24-19

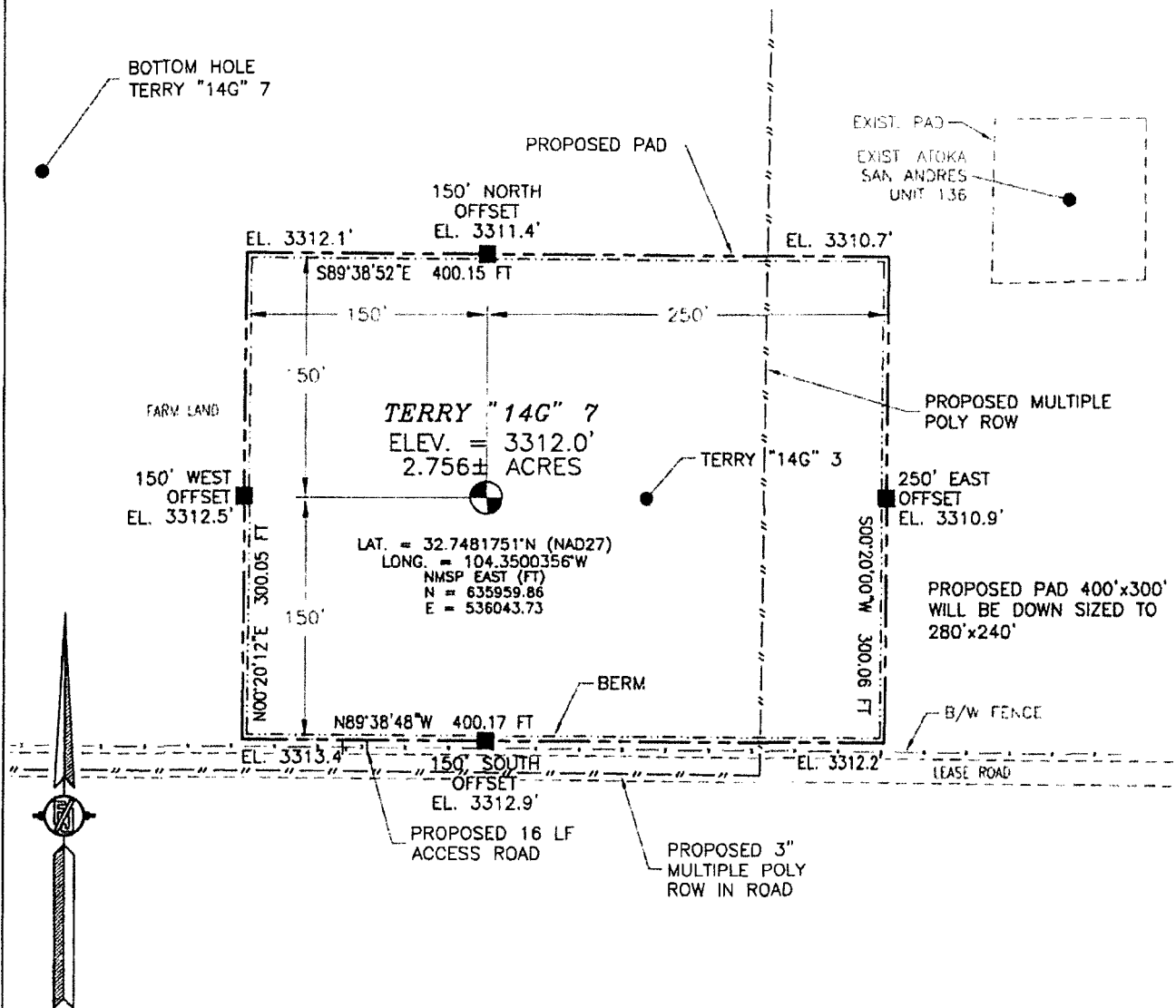
Conditions of Approval Attached

NAD 1983 Required:

SECTION 14, 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 1927 (NAD27). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD27). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES (NAD 83) MODIFIED TO THE SURFACE.



0 10 50 100 200

SCALE 1" = 100'

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 780' TO A PROPOSED ROAD SURVEY AND FOLLOW FLAGS NORTH 16' TO THE PROPOSED SOUTHWEST PAD CORNER FOR THIS LOCATION.

LIME ROCK RESOURCES II-A, L.P.

TERRY "14G" 7

LOCATED 2510 FT. FROM THE NORTH LINE
AND 2035 FT. FROM THE EAST LINE OF
SECTION 14, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

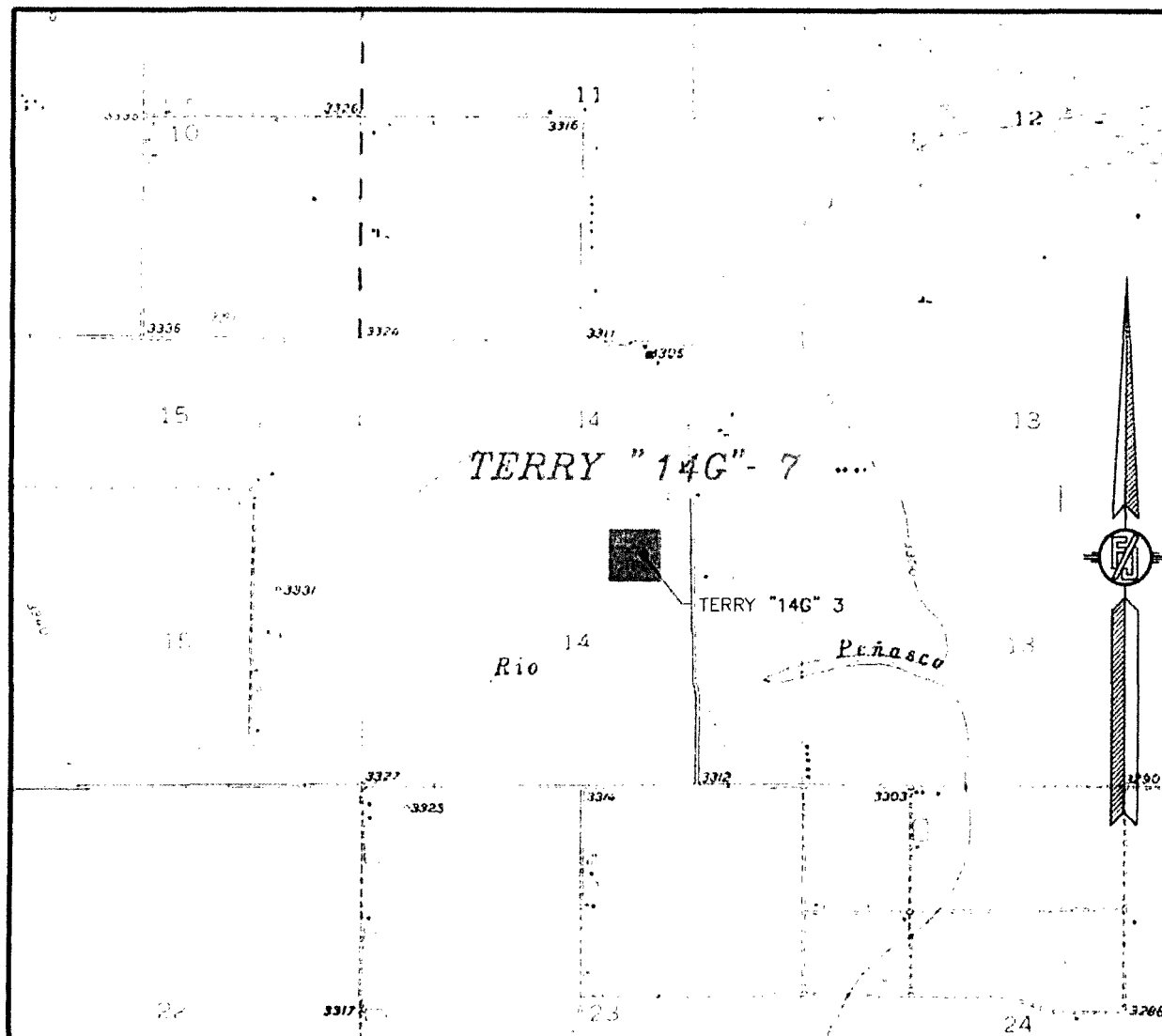
MAY 29, 2015

SURVEY NO. 3905

MADRON SURVEYING, INC. 30' SOUTH CANAL (575) 234-3341

CARLSBAD, NEW MEXICO

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



USGS QUAD MAP:
 SPRING LAKE

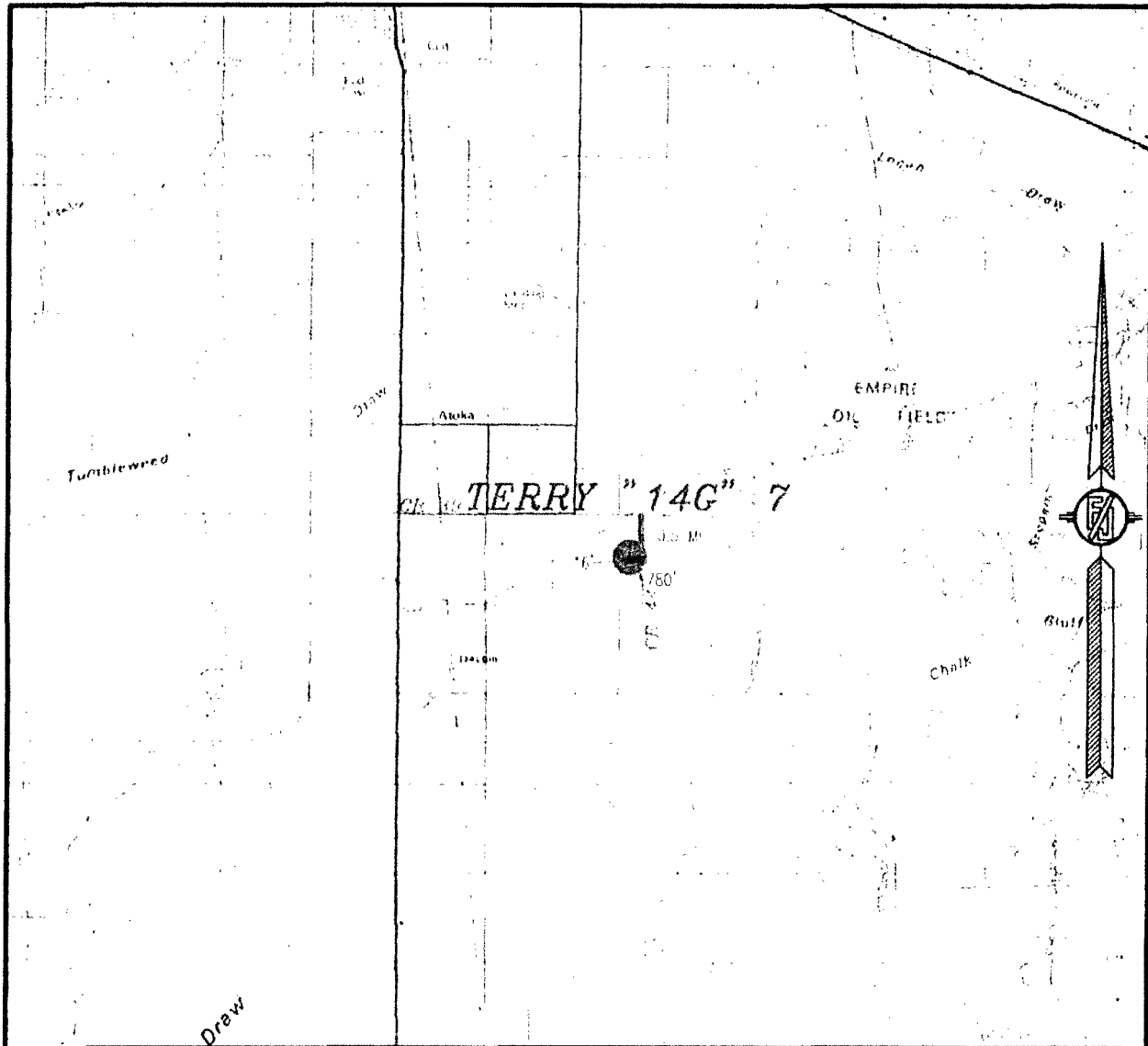
NOT TO SCALE

LIME ROCK RESOURCES II-A, L.P.
TERRY "14G" 7
 LOCATED 2510 FT. FROM THE NORTH LINE
 AND 2035 FT. FROM THE EAST LINE OF
 SECTION 14, TOWNSHIP 18 SOUTH,
 RANGE 26 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

MAY 29, 2015

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234 3341 CARLSBAD, NEW MEXICO SURVEY NO. 3905

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



DISTANCES IN MILES

NOT TO SCALE

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 780' TO A PROPOSED ROAD SURVEY AND FOLLOW FLAGS NORTH 16' TO THE PROPOSED SOUTHWEST PAD CORNER FOR THIS LOCATION.

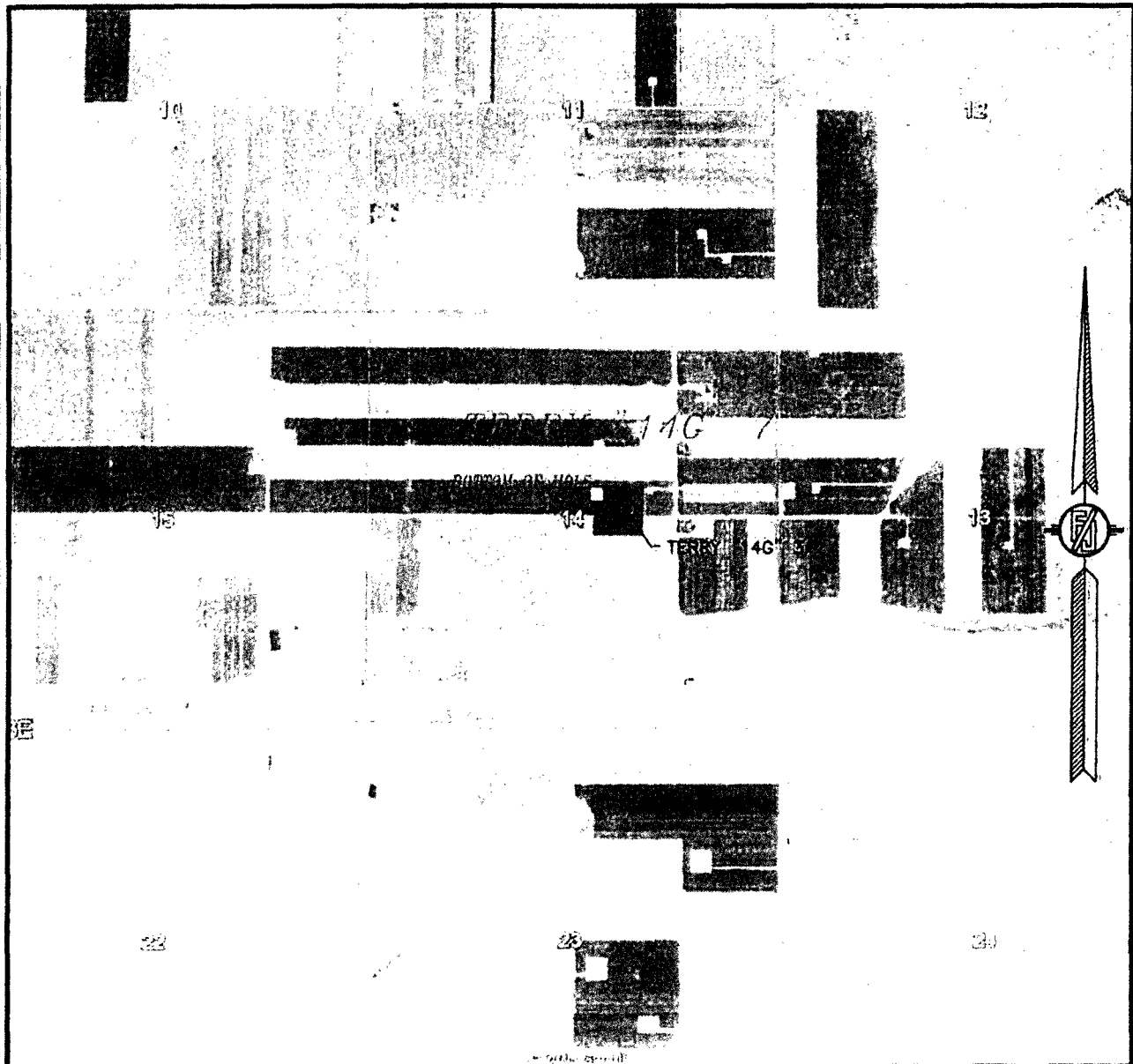
LIME ROCK RESOURCES II-A, L.P.
TERRY "14G" 7
LOCATED 2510 FT. FROM THE NORTH LINE
AND 2035 FT. FROM THE EAST LINE OF
SECTION 14, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 29, 2015

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

SURVEY NO. 3905

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

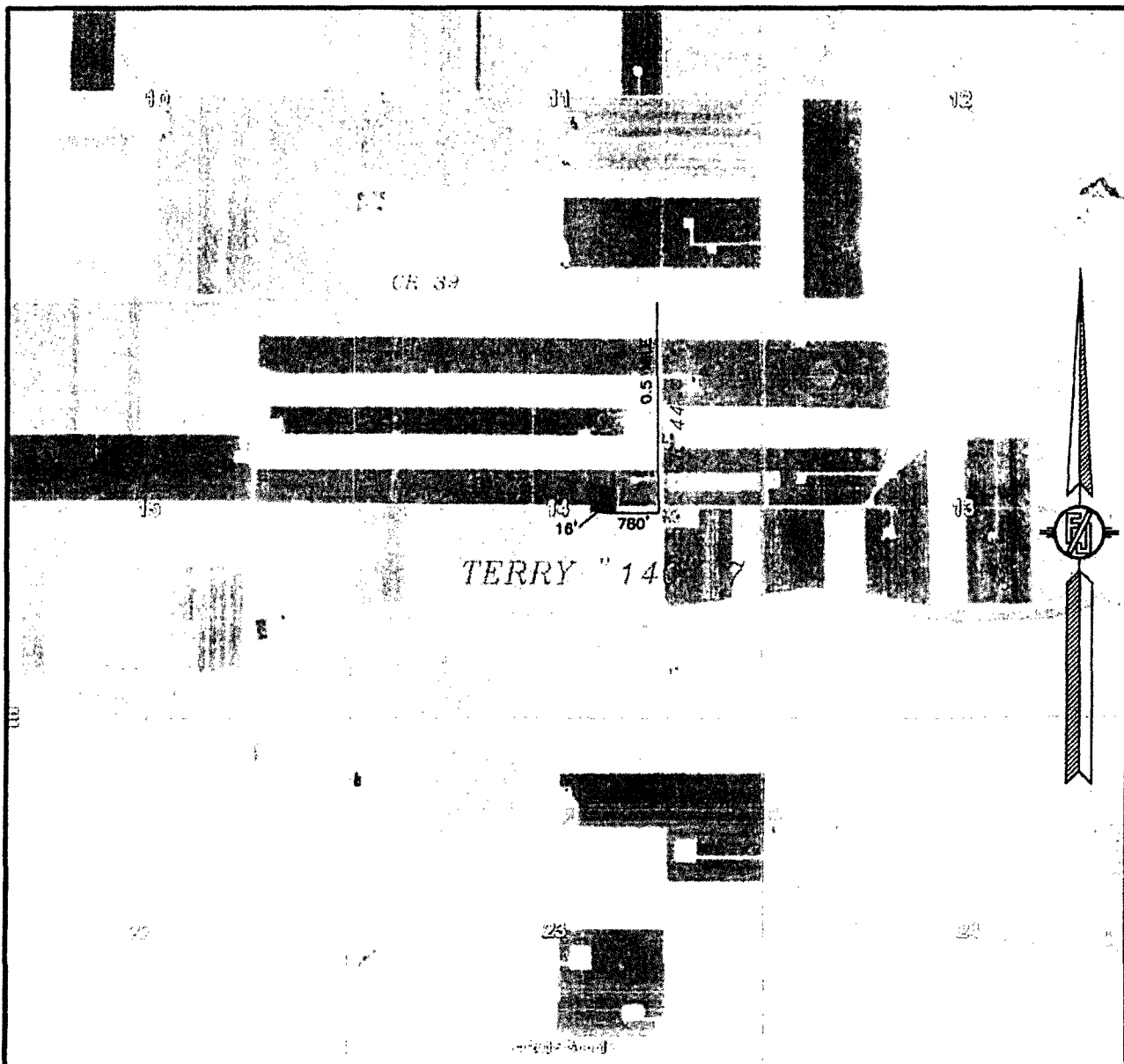
LIME ROCK RESOURCES II-A, L.P.
TERRY "14G" 7
LOCATED 2510 FT. FROM THE NORTH LINE
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SECTION 14, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 29, 2015

SURVEY NO. 3905

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

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" 7
LOCATED 2510 FT. FROM THE NORTH LINE
AND 2035 FT. FROM THE EAST LINE OF
SECTION 14, TOWNSHIP 18 SOUTH,
RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 29, 2015

SURVEY NO. 3905

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

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

**Terry 14G #7
2510' FNL 2035' 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 – Alluvial
3. A rotary rig will be utilized to drill the well to 4300' 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 4334' MD./ 4300' TVD. inside a 30' X 30' square tail inside of 40 acre spacing regulatory quarter-quarter setback distance. The KOP for directional drilling will be at 400'. See directional plan for details.
5. Estimated tops of geologic markers:
6. Estimated depths at which anticipated oil, gas, or other mineral bearing formations are expected to be encountered:

	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

	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

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"	8-5/8"	24	J-55	ST&C	1230	600	14.8	1.35	Cl C Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl ₂
Intermediate										
Production	7-7/8"	5-1/2"	17	J-55	LT&C	4334	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
							500	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	0-1230	1230-4130	4130-4334
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 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 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.

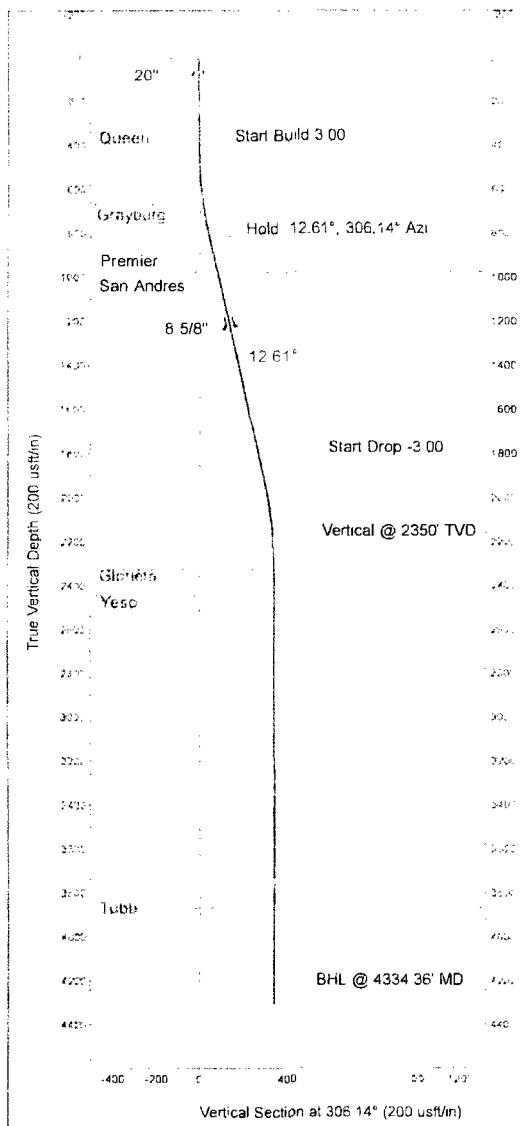
12. **Duration of Operations:**

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 to complete well and to construct surface facilities.



Limerock Resources
Terry 14G No 7
Eddy County, New Mexico NAD 83
Wellbore: Orig Hole
Plan: Plan 0
Rig: United 33

Rig: United 33



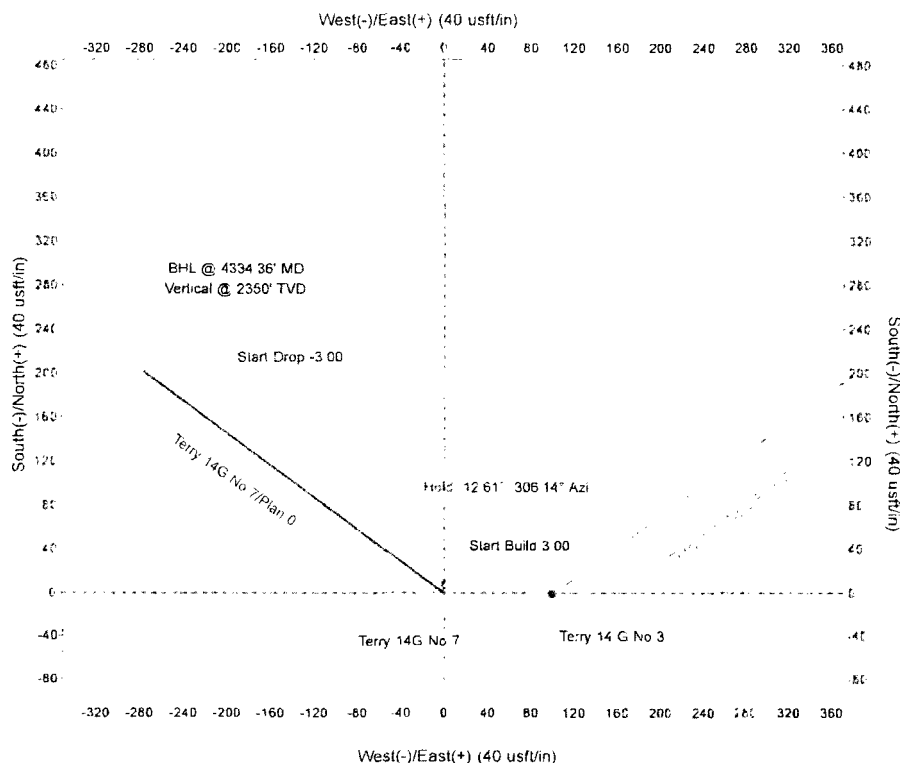
SURFACE LOCATION			Ground Elevation	3312 00	11 8' KB @ 3323 80usft (United 33)
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0 00	0 00	635659 75	536043 72	32 7482890	-104 3505520

TARGET LOCATIONS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
BHL (Terry 14G No 7)	4300 00	201 60	-276 05	636161 34	536767 67

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

Spot Name	+N/-S	+E/-W
Terry 14 G No 3	-0 38	100 23
Terry 14G No 7	0 00	0 00



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

Latitude: 32 7482890
Longitude: -104.3505520

Grid East: 536043 72
Grid North: 635959 75
Scale Factor: 1 000

Geomagnetic Model: IGRF2015
Sample Date: 11-Oct-17
Magnetic Declination: 7.32°
Dip Angle from Horizontal: 60.41°
Magnetic Field Strength: 48132.71618644nT

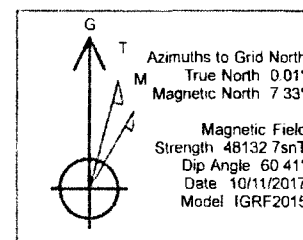
To convert a Magnetic Direction to a Grid Direction, Add 7.33°

Well Planning: Phil Lyons

13.35, October 12 2017

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Annotation
1	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2	409 00	0 00	0 00	409 00	0 00	0 00	0 00	0 00	0 00	Start Build 3 00
3	820 34	12 61	306 14	816 95	27 17	-37.21	3 00	306 14	46 07	Hold, 12.61°, 306.14° Azi
4	1954 02	12.61	306 14	1933 04	174 43	-238.84	0 00	0 00	295 76	Start Drop -3 00
5	2384 36	0 00	0 00	2350 00	201 60	-276 05	3 00	180 00	341.83	Vertical @ 2350' TVD
6	4334 35	0 00	0 00	4300 00	201 60	-276.05	0 00	0 00	341 83	BHL @ 4334.35' MD



NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 18 2017

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Limerock Resources

Eddy County, New Mexico NAD 83

Terry - (NAD 83)

Terry 14G No 7

Orig Hole

Plan: Plan 0

Standard Planning Report

12 October, 2017

Windows User

Planning Report

Database: Accel Server EDM
Company: Limerock Resources
Project: Eddy County, New Mexico NAD 83
Site: Terry - (NAD 83)
Well: Terry 14G No 7
Wellbore: Orig Hole
Design: Plan 0

Local Co-ordinate Reference: Well Terry 14G No 7
TVD Reference: 11.8' KB @ 3323 80usft (United 33)
MD Reference: 11.8' KB @ 3323 80usft (United 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County, New Mexico NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Terry - (NAD 83)

Site Position: **Northing:** 638,291.64 usft **Latitude:** 32.7546980
From: Lat/Long **Easting:** 534,804.58 usft **Longitude:** -104.3545840
Position Uncertainty: 0.00 usft **Slot Radius:** 13.200 in **Grid Convergence:** -0.01 °

Well Terry 14G No 7

Well Position **+N/-S** -2,331.89 usft **Northing:** 635,959.75 usft **Latitude:** 32.7482890
+E/-W 1,239.15 usft **Easting:** 536,043.72 usft **Longitude:** -104.3505520
Position Uncertainty 0.00 usft **Wellhead Elevation:** **Ground Level:** 3,312.00 usft

Wellbore Orig Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/11/2017	7.32	60.41	48,132.71618644

Design Plan 0

Audit Notes:

Version: **Phase:** PROTOTYPE **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	306.14

Plan Survey Tool Program **Date** 10/12/2017

Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	4,334.36	Plan 0 (Orig Hole)	MWD+IGRF OWSG MWD + IGRF or WMM

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
0.00	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	
820.34	12.61	306.14	816.96	27.17	-37.21	3.00	3.00	0.00	306.14	
1,964.02	12.61	306.14	1,933.04	174.43	-238.84	0.00	0.00	0.00	0.00	
2,384.36	0.00	0.00	2,350.00	201.60	-276.05	3.00	-3.00	0.00	180.00	
4,334.36	0.00	0.00	4,300.00	201.60	-276.05	0.00	0.00	0.00	0.00	

Windows User

Planning Report

Database: Accel Server EDM
Company: Limerock Resources
Project: Eddy County, New Mexico NAD 83
Site: Terry - (NAD 83)
Well: Terry 14G No 7
Wellbore: Orig Hole
Design: Plan 0

Local Co-ordinate Reference: Well Terry 14G No 7
TVD Reference: 11 8' KB @ 3323 80usft (United 33)
MD Reference: 11 8' KB @ 3323 80usft (United 33)
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 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"									
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									
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 3.00									
500.00	3.00	306.14	499.95	1.54	-2.11	2.62	3.00	3.00	0 00
600.00	6.00	306.14	599.63	6.17	-8.45	10.46	3.00	3.00	0 00
670.91	8.13	306.14	670.00	11.31	-15.49	19.18	3.00	3.00	0 00
Grayburg									
700 00	9.00	306.14	698.77	13.87	-18.99	23.51	3.00	3.00	0 00
800 00	12.00	306.14	797.08	24.61	-33.70	41.74	3.00	3.00	0 00
820.34	12.61	306.14	816.96	27.17	-37.21	46.07	3.00	3.00	0 00
Hold, 12.61°, 306.14° Azi									
900 00	12.61	306.14	894.69	37.43	-51.25	63.46	0 00	0 00	0 00
977.17	12.61	306.14	970.00	47.36	-64.86	80.31	0 00	0 00	0 00
Premier									
985.37	12.61	306.14	978.00	48.42	-66.30	82.10	0 00	0 00	0 00
San Andres									
1,000 00	12.61	306.14	992.28	50.30	-68.88	85.29	0 00	0 00	0 00
1,100 00	12.61	306.14	1,089.87	63.18	-86.51	107.12	0 00	0 00	0 00
1,200 00	12.61	306.14	1,187.46	76.05	-104.14	128.96	0 00	0 00	0 00
1,243.60	12.61	306.14	1,230.00	81.67	-111.83	138.47	0 00	0 00	0 00
8 5/8"									
1,300 00	12.61	306.14	1,285.04	88.93	-121.77	150.79	0 00	0 00	0 00
1,400 00	12.61	306.14	1,382.63	101.81	-139.40	172.62	0 00	0 00	0 00
1,500 00	12.61	306.14	1,480.22	114.68	-157.03	194.45	0 00	0 00	0 00
1,600 00	12.61	306.14	1,577.81	127.56	-174.67	216.28	0 00	0 00	0 00
1,700 00	12.61	306.14	1,675.40	140.43	-192.30	238.12	0 00	0 00	0 00
1,800 00	12.61	306.14	1,772.98	153.31	-209.93	259.95	0 00	0 00	0 00
1,900 00	12.61	306.14	1,870.57	166.18	-227.56	281.78	0 00	0 00	0 00
1,964.02	12.61	306.14	1,933.04	174.43	-238.84	295.76	0 00	0 00	0 00
Start Drop -3.00									
2,000 00	11.53	306.14	1,968.23	178.86	-244.92	303.28	3.00	-3.00	0 00
2,100 00	8.53	306.14	2,066.69	189.14	-258.99	320.70	3.00	-3.00	0 00
2,200 00	5.53	306.14	2,165.93	196.35	-268.87	332.94	3.00	-3.00	0 00
2,300 00	2.53	306.14	2,265.67	200.50	-274.55	339.96	3.00	-3.00	0 00
2,361.36	0.69	306.14	2,327.00	201.52	-275.94	341.69	3.00	-3.00	0 00
Glorieta									
2,384.36	0.00	0 00	2,350.00	201.60	-276.05	341.83	3.00	-3.00	0 00
Vertical @ 2350' TVD									
2,400 00	0.00	0 00	2,365.64	201.60	-276.05	341.83	0 00	0 00	0 00
2,479.36	0 00	0 00	2,445.00	201.60	-276.05	341.83	0 00	0 00	0 00
Yeso									
2,500 00	0 00	0 00	2,465.64	201.60	-276.05	341.83	0 00	0 00	0 00
2,600 00	0 00	0 00	2,565.64	201.60	-276.05	341.83	0 00	0 00	0 00
2,700 00	0 00	0 00	2,665.64	201.60	-276.05	341.83	0 00	0 00	0 00
2,800 00	0 00	0 00	2,765.64	201.60	-276.05	341.83	0 00	0 00	0 00

Windows User

Planning Report

Database: Accel Server EDM
Company: Limerock Resources
Project: Eddy County, New Mexico NAD 83
Site: Terry - (NAD 83)
Well: Terry 14G No 7
Wellbore: Orig Hole
Design: Plan 0

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MD Reference: 11 8' KB @ 3323 80usft (United 33)
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)
2,900.00	0.00	0.00	2,865.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,000.00	0.00	0.00	2,965.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,100.00	0.00	0.00	3,065.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,200.00	0.00	0.00	3,165.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,300.00	0.00	0.00	3,265.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,400.00	0.00	0.00	3,365.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,500.00	0.00	0.00	3,465.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,600.00	0.00	0.00	3,565.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,700.00	0.00	0.00	3,665.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,800.00	0.00	0.00	3,765.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,900.00	0.00	0.00	3,865.64	201.60	-276.05	341.83	0.00	0.00	0.00
3,901.36	0.00	0.00	3,867.00	201.60	-276.05	341.83	0.00	0.00	0.00
Tubb									
4,000.00	0.00	0.00	3,965.64	201.60	-276.05	341.83	0.00	0.00	0.00
4,100.00	0.00	0.00	4,065.64	201.60	-276.05	341.83	0.00	0.00	0.00
4,200.00	0.00	0.00	4,165.64	201.60	-276.05	341.83	0.00	0.00	0.00
4,300.00	0.00	0.00	4,265.64	201.60	-276.05	341.83	0.00	0.00	0.00
4,334.36	0.00	0.00	4,300.00	201.60	-276.05	341.83	0.00	0.00	0.00

BHL @ 4334.36' MD

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									
BHL (Terry 14G No 7)	0.00	0.00	4,300.00	201.60	-276.05	636,161.35	535,767.67	32 7488430	-104.3514500
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (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 Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
290.00	290.00	Queen		0.00	306.14
670.91	670.00	Grayburg		0.00	306.14
977.17	970.00	Premier		0.00	306.14
985.37	978.00	San Andres		0.00	306.14
2,361.36	2,327.00	Glorieta		0.00	306.14
2,479.36	2,445.00	Yeso		0.00	306.14
3,901.36	3,867.00	Tubb		0.00	306.14

Windows User

Planning Report

Database: Accel Server EDM
Company: Limerock Resources
Project: Eddy County, New Mexico NAD 83
Site: Terry - (NAD 83)
Well: Terry 14G No 7
Wellbore: Orig Hole
Design: Plan 0

Local Co-ordinate Reference: Well Terry 14G No 7
TVD Reference: 11.8' KB @ 3323.80usft (United 33)
MD Reference: 11.8' KB @ 3323.80usft (United 33)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
400.00	400.00	0.00	0.00	Start Build 3.00
820.34	816.96	27.17	-37.21	Hold, 12.61°, 306.14° Azi
1,964.02	1,933.04	174.43	-238.84	Start Drop -3.00
2,384.36	2,350.00	201.60	-276.05	Vertical @ 2350' TVD
4,334.36	4,300.00	201.60	-276.05	BHL @ 4334.36' 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 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

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.

Pressure Control

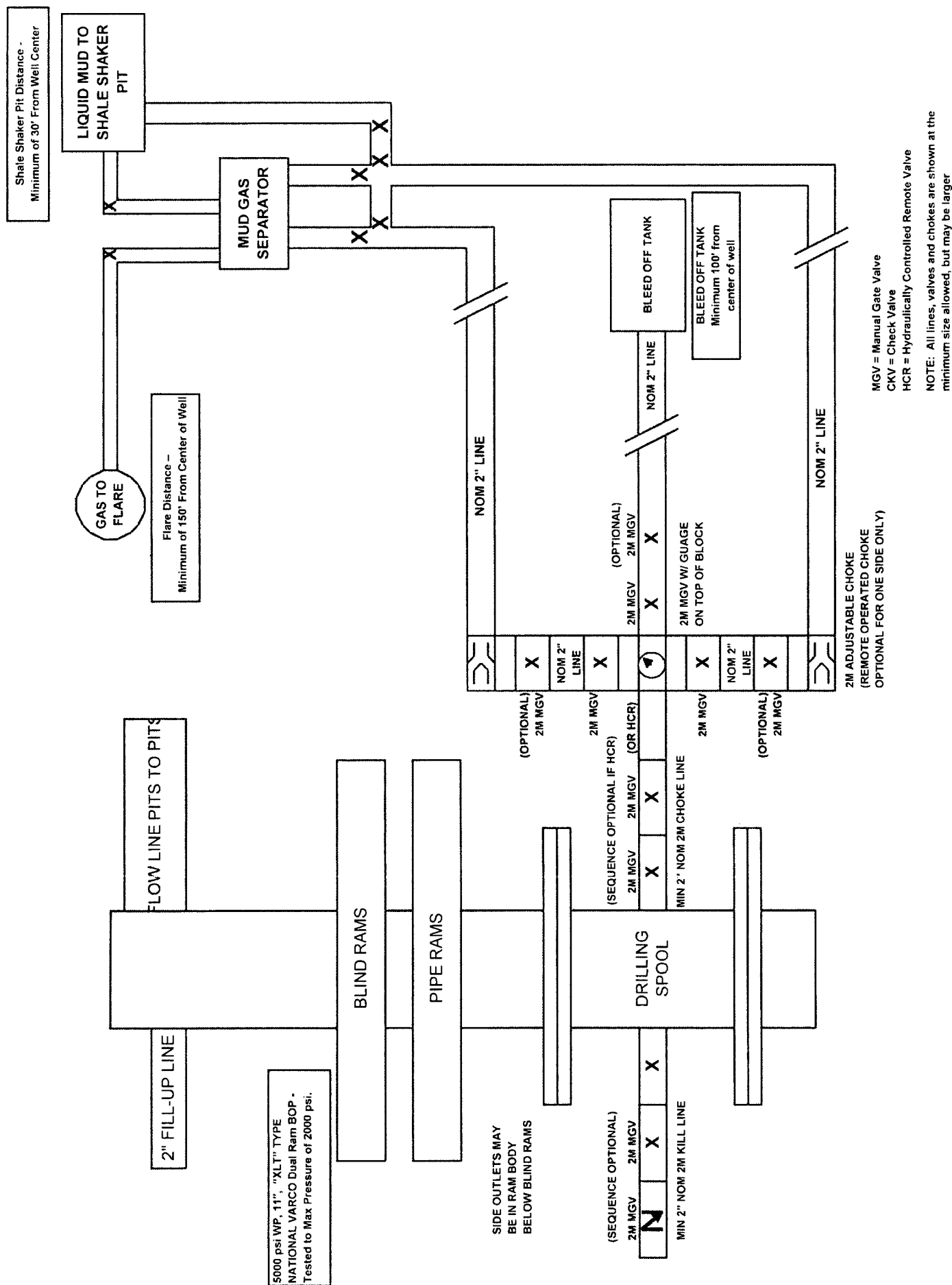
The blowout preventer equipment (BOP) will consist of a 5000 psi rated, "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams 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 #7

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

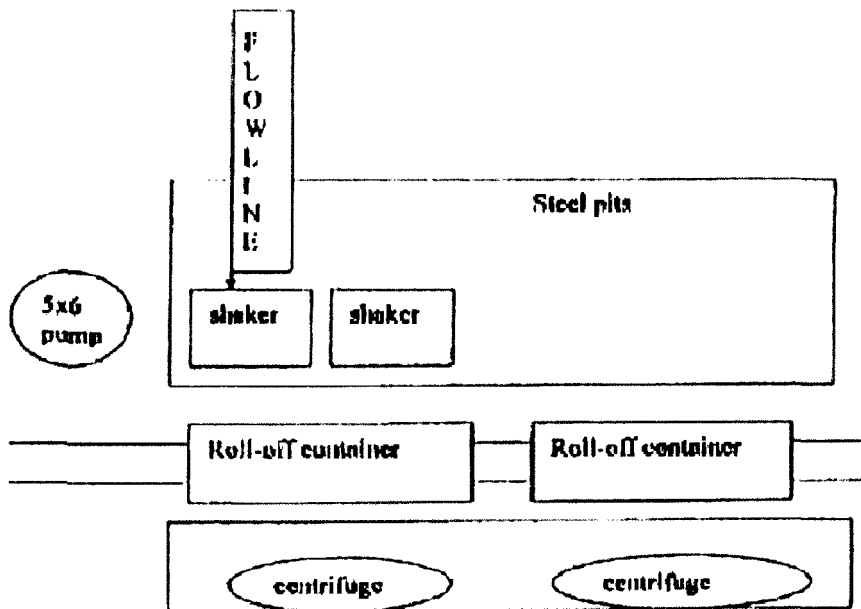
2- (250 bbl) tanks to hold fluid
2-CRI bins with track system
2-500 bbl frac tanks with fresh water
2-500 bbl frac tanks for brine water

Operations:

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

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.

TOMMY WILSON



**CLOSED LOOP
SPECIALTY**

Office: 975.744.1689

Cell: 975.748.6367