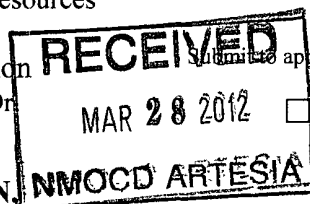


District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
June 16, 2001

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



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

¹ Operator Name and Address LRE Operating, LLC 1111 Bagby St. Suite 4600 Houston, TX 77002		² OGRID Number 281994
³ Property Code 309887	⁵ Property Name Marathon "25" State	³ API Number 30 - 015 - 40124
⁹ Proposed Pool 1 Artesia; Glorieta-Yeso (96830)		⁶ Well No. 34
¹⁰ Proposed Pool 2		

⁷ Surface Location									
UL or lot no D	Section 25	Township 17-S	Range 28-E	Lot Idn	Feet from the 790	North/South line North	Feet from the 990	East/West line West	County Eddy

⁸ Proposed Bottom Hole Location If Different From Surface									
UL or lot no D	Section 25	Township 17-S	Range 28-E	Lot Idn	Feet from the 968	North/South line North	Feet from the 948	East/West line West	County Eddy

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3683.0
¹⁶ Multiple N	¹⁷ Proposed Depth 3,370'	¹⁸ Formation Glorieta	¹⁹ Contractor United Drilling	²⁰ Spud Date 05/30/12

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	8 5/8"	24#	450'	300 sx "C" + add	Surface
7 7/8"	5 1/2"	17#	3,370'	250 sx-35/65 Poz	Lead to surface
				325 sx "C" + add	Tail to surface

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.
LRE Operating, LLC. proposes to drill/test the Glorieta formation. Approximately 450' will be drilled with fresh water, then set and cement 8 5/8" surface casing. Drill 7 7/8" hole to T.D. at approx. 3,370'. Run OH logs. Set 5 1/2" casing to T.D. and cement will be circulated back to surface TOC. Will perforate the Glorieta formation and stimulate as necessary for optimum production. Produce well by flowing or pumping.

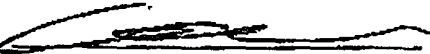
H2S levels are not expected to be high enough to require an H2 S program.

See Exhibit "A" for BOP

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: <i>George R. Smith</i>		Approved by: <i>T. C. Shepard</i>	
Printed name: George R. Smith		Title: Geologist	
Title POA agent for LRE Operating, LLC.		Approval Date: 3/28/2012	Expiration Date: 3/28/2014
E-mail Address gr.smith1@hotmail.com			
Date: 03/21/12	Phone 575-623-4940	Conditions of Approval Attached ☐	

SIGNATURE AND ACKNOWLEDGMENT

LIME ROCK RESOURCES A, L.P.

By: 

Name: Charles Adcock

Title: Managing Director = Lime Rock Resources, G.P.

Date: 10/27/2008

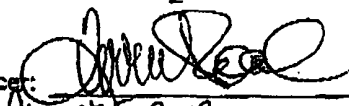
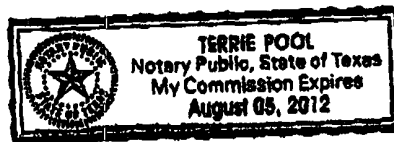
Address: 1111 Bagby Street, Suite 4600, Houston, TX 77002

Telephone Number: (713) 292-9512

State of TEXAS

County of HARRIS

This instrument was acknowledged before me on October 27, 2008 by Charles Adcock,
Managing Director of LIME ROCK RESOURCES A, L.P. acting on behalf of said limited
partnership.

Signature of notarial officer: My commission expires: August 05, 2012

POWER OF ATTORNEY**DESIGNATION OF AGENT**

LIME ROCK RESOURCES A, L.P. hereby names the following person as its agent:

Name of Agent: George R. Smith d/b/a/ Energy Administrative Services Company

Agent's Address: P.O. Box 458, Roswell, NM 88202

Agent's Telephone Number: (575) 623-4940

GRANT OF SPECIAL AUTHORITY

LIME ROCK RESOURCES A, L.P. grants its agent the authority to act for it with respect to the following only:

1. Executing forms required to be filed with the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department.
2. Executive forms required to be filed with the Bureau of Land Management of the Department of Interior of the United States of America.

EFFECTIVE DATE

This power of attorney is effective immediately.

RELIANCE ON THIS POWER OF ATTORNEY

Any person, including the agent, may rely upon the validity of this power of attorney or a copy of it unless that person knows it has terminated or is invalid.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-102
Revised October 15, 2009
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 96830	³ Pool Name Artesia; Glorieta-Yeso
⁴ Property Code 309887	⁵ Property Name MARATHON "25" STATE	⁶ Well Number 34
⁷ OGRID No. 236983 281994	⁸ Operator Name LINE ROCK RESOURCES, LLP. LRE Operating, LLC	⁹ Elevation 3683.0

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	25	17 S	28 E		790	NORTH	990	WEST	EDDY

¹¹ 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
D	25	17 S	28 E		968	NORTH	948	WEST	EDDY

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

S89°14'31"W 2619.43 FT S89°23'35"W 2605.42 FT NE CORNER LAT. = 32.8137533°N LONG. = 104.1378807°W N Q CORNER LAT. = 32.8138349°N LONG. = 104.1293552°W NE CORNER LAT. = 32.8138966°N LONG. = 104.1208750°W SURFACE LOCATION ELEV = 3683.0' LAT. = 32.8116130°N (NAD 27) LONG. = 104.1346602°W BOTTOM OF HOLE LAT. = 32.8111228°N LONG. = 104.1347975°W NE CORNER LAT. = 32.8064534°N LONG. = 104.1378841°W SW CORNER LAT. = 32.7991369°N LONG. = 104.1379388°W S Q CORNER LAT. = 32.7992322°N LONG. = 104.1294337°W SE CORNER LAT. = 32.7993400°N LONG. = 104.1209310°W NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1927 (NAD27), AND ARE IN DECIMAL DEGREE FORMAT COMPUTED		¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division <i>George R. Smith</i> March 26, 2012 Signature Date Printed Name George R. Smith, POA Agent ¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. MARCH 13, 2012 Date of Survey <i>Frank Jaramillo</i> Signature and Seal of Professional Surveyor Certificate Number: FRANK JARAMILLO, PLS 12797 SURVEY NO 613A
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2000 psi System

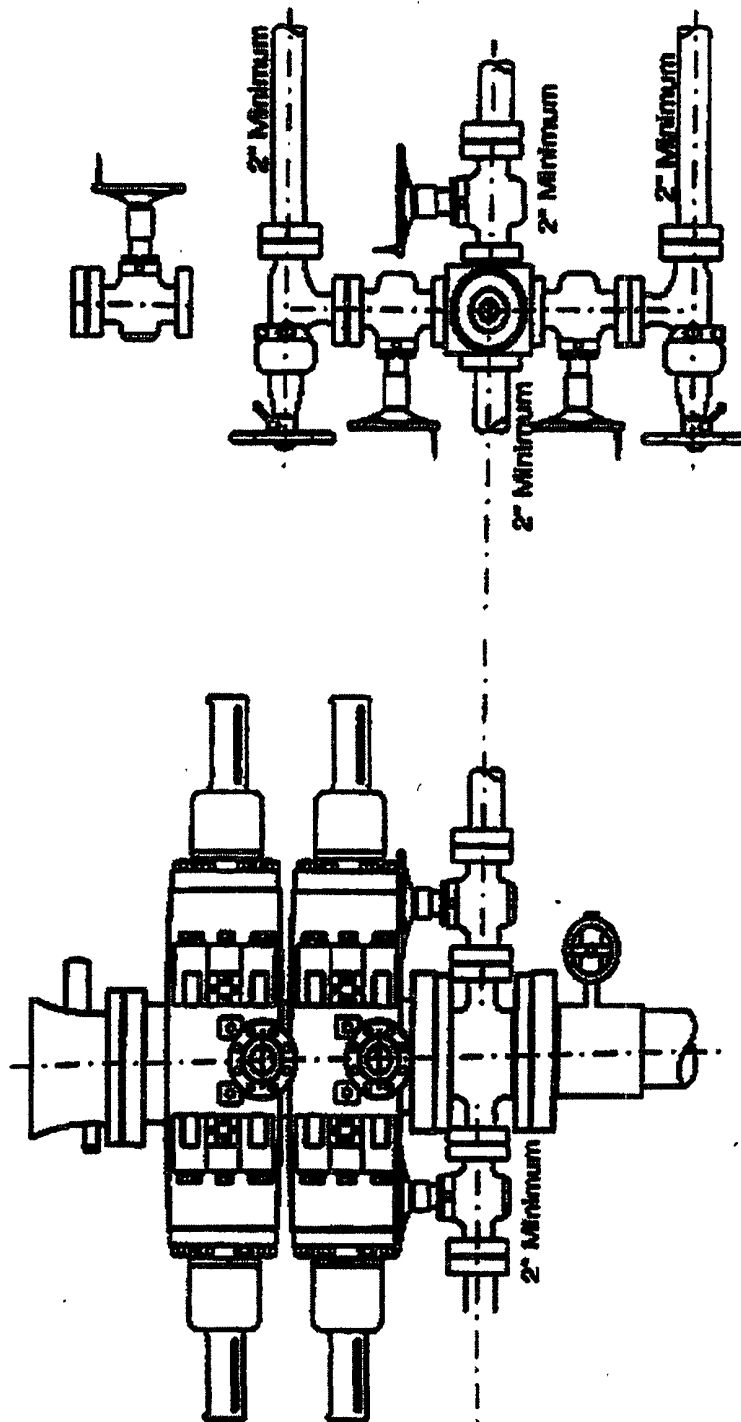


Figure 3-1

EXHIBIT "A"
LRE Operating, LLC
BOP Specifications

LIME ROCK RESOURCES

EDDY COUNTY, NM (NAD 27)

SEC. 25 T17S RGE. 28E

MARATHON "25" STATE #34

ORIGINAL WELLBORE

11 March, 2012

Plan: PROPOSAL #1



Database: EDM_5000_1.7
Company: LIME ROCK RESOURCES
Project: EDDY COUNTY, NM (NAD 27)
Site: SEC. 25 T17S RGE. 28E
Well: MARATHON "25" STATE #34
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

Local Co-ordinate Reference: Well MARATHON "25" STATE #34
TVD Reference: KB-EST @ 3697.4usft (Original Well Elev)
MD Reference: KB-EST @ 3697.4usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project: EDDY COUNTY, NM (NAD 27)
Map System: US State Plane 1927 (Exact solution) **System Datum:** Mean Sea Level
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001 **Using geodetic scale factor**

Site: SEC. 25 T17S RGE. 28E
Site Position: **From:** Lat/Long **Northing:** 659,033.21 usft **Latitude:** 32° 48' 41.807 N
Position Uncertainty: 0.0 usft **Easting:** 561,039.02 usft **Longitude:** 104° 8' 4.777 W
Slot Radius: 13-3/16" **Grid Convergence:** 0.11°

Well: MARATHON "25" STATE #34
Well Position: **+N-S:** 0.0 usft **Northing:** 659,033.21 usft **Latitude:** 32° 48' 41.807 N
+E-W: 0.0 usft **Easting:** 561,039.02 usft **Longitude:** 104° 8' 4.777 W
Position Uncertainty: 0.0 usft **Wellhead Elevation:** usft **Ground Level:** 3,683.0 usft

Wellbore: ORIGINAL WELLBORE

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/03/2012	7.80	60.61	48,831

Design: PROPOSAL #1

Audit Notes:
Version: **Phase:** PROTOTYPE **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	3,358.0	0.0	0.0	189.92

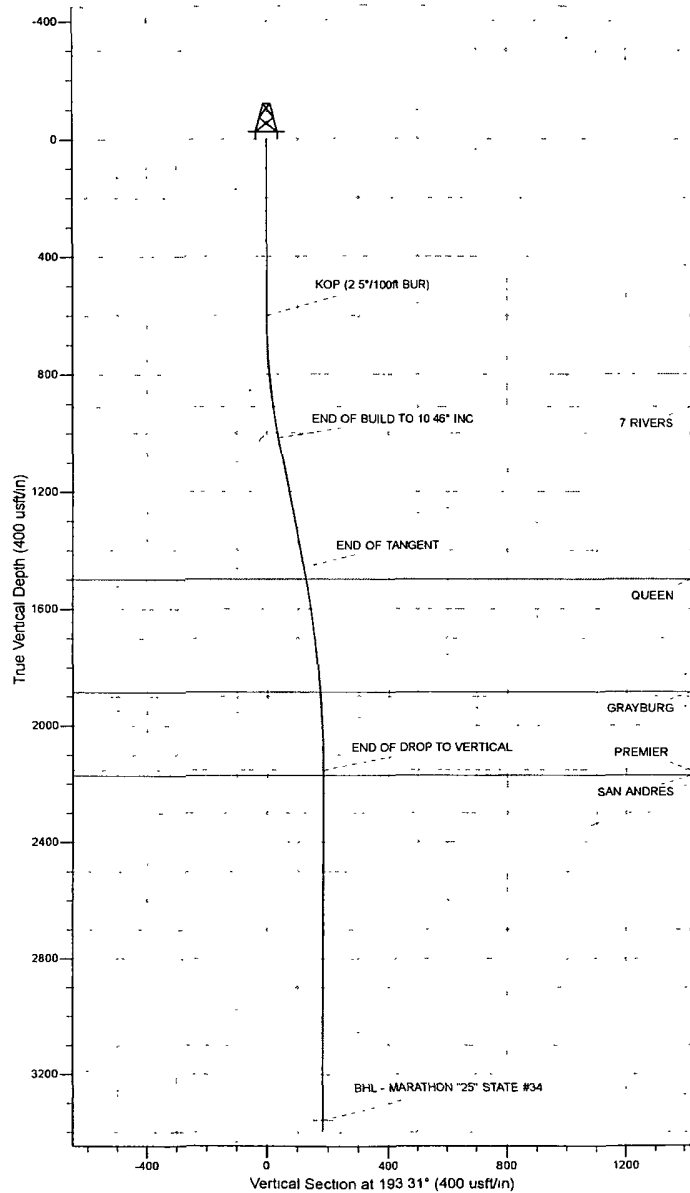
Plan Sections											
MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	-3,697.4	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	-3,097.4	0.0	0.0	0.00	0.00	0.00	0.00	
1,119.4	10.39	189.92	1,116.6	-2,580.8	-46.3	-8.1	2.00	2.00	0.00	189.92	
1,471.9	10.39	189.92	1,463.2	-2,234.2	-108.9	-19.0	0.00	0.00	0.00	0.00	
2,164.4	0.00	0.00	2,152.0	-1,545.4	-170.5	-29.8	1.50	-1.50	0.00	180.00	
3,370.4	0.00	0.00	3,358.0	-339.4	-170.5	-29.8	0.00	0.00	0.00	0.00	BHL - MARATHON

Database: EDM_5000_1_7
Company: LIME ROCK RESOURCES
Project: EDDY COUNTY, NM (NAD 27)
Site: SEC. 25 T17S RGE. 28E
Well: MARATHON "25" STATE #34
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

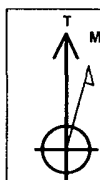
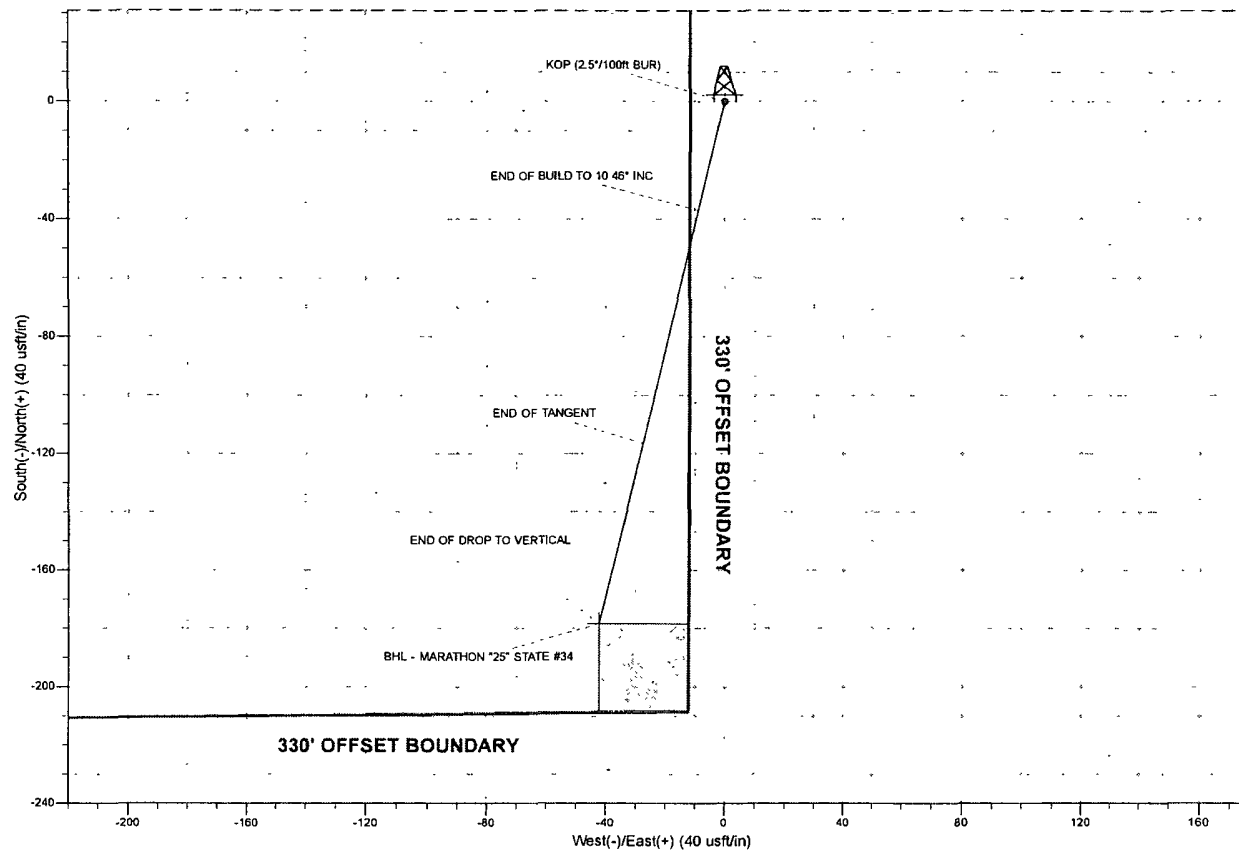
Local Co-ordinate Reference: Well MARATHON "25" STATE #34
TVD Reference: KB-EST @ 3697.4usft (Original Well Elev)
MD Reference: KB-EST @ 3697.4usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	SS (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	3,697.40	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	3,597.40	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	3,497.40	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	3,397.40	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	3,297.40	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	3,197.40	0.0	0.0	0.0	0.00	0.00	0.00
KOP (2°/100ft BUR)										
600.0	0.00	0.00	600.0	3,097.40	0.0	0.0	0.0	0.00	0.00	0.00
700.0	2.00	189.92	700.0	2,997.42	-1.7	-0.3	1.7	2.00	2.00	0.00
800.0	4.00	189.92	799.8	2,897.56	-6.9	-1.2	7.0	2.00	2.00	0.00
900.0	6.00	189.92	899.5	2,797.95	-15.5	-2.7	15.7	2.00	2.00	0.00
7 RIVERS										
911.6	6.23	189.92	911.0	2,786.40	-16.7	-2.9	16.9	2.00	2.00	0.00
1,000.0	8.00	189.92	998.7	2,698.70	-27.5	-4.8	27.9	2.00	2.00	0.00
1,100.0	10.00	189.92	1,097.5	2,599.93	-42.9	-7.5	43.5	2.00	2.00	0.00
END OF BUILD TO 10.39° INC										
1,119.4	10.39	189.92	1,116.6	2,580.83	-46.3	-8.1	47.0	2.00	2.00	0.00
1,200.0	10.39	189.92	1,195.8	2,501.56	-60.6	-10.6	61.5	0.00	0.00	0.00
1,300.0	10.39	189.92	1,294.2	2,403.20	-78.3	-13.7	79.5	0.00	0.00	0.00
1,400.0	10.39	189.92	1,392.6	2,304.84	-96.1	-16.8	97.6	0.00	0.00	0.00
END OF TANGENT										
1,471.9	10.39	189.92	1,463.2	2,234.16	-108.9	-19.0	110.5	0.00	0.00	0.00
1,500.0	9.97	189.92	1,490.9	2,206.46	-113.8	-19.9	115.5	1.50	-1.50	0.00
QUEEN										
1,508.2	9.84	189.92	1,499.0	2,198.40	-115.1	-20.1	116.9	1.50	-1.50	0.00
1,600.0	8.47	189.92	1,589.6	2,107.75	-129.5	-22.7	131.5	1.50	-1.50	0.00
1,700.0	6.97	189.92	1,688.7	2,008.66	-142.8	-25.0	144.9	1.50	-1.50	0.00
1,800.0	5.47	189.92	1,788.1	1,909.25	-153.4	-26.8	155.8	1.50	-1.50	0.00
GRAYBURG										
1,897.2	4.01	189.92	1,885.0	1,812.40	-161.3	-28.2	163.8	1.50	-1.50	0.00
1,900.0	3.97	189.92	1,887.8	1,809.60	-161.5	-28.3	164.0	1.50	-1.50	0.00
2,000.0	2.47	189.92	1,987.6	1,709.76	-167.0	-29.2	169.6	1.50	-1.50	0.00
2,100.0	0.97	189.92	2,087.6	1,609.80	-170.0	-29.7	172.6	1.50	-1.50	0.00
END OF DROP TO VERTICAL - PREMIER										
2,164.4	0.00	0.00	2,152.0	1,545.40	-170.5	-29.8	173.1	1.50	-1.50	264.07
SAN ANDRES										
2,184.4	0.00	0.00	2,172.0	1,525.40	-170.5	-29.8	173.1	0.00	0.00	0.00
2,200.0	0.00	0.00	2,187.6	1,509.81	-170.5	-29.8	173.1	0.00	0.00	0.00
2,300.0	0.00	0.00	2,287.6	1,409.81	-170.5	-29.8	173.1	0.00	0.00	0.00
2,400.0	0.00	0.00	2,387.6	1,309.81	-170.5	-29.8	173.1	0.00	0.00	0.00
2,500.0	0.00	0.00	2,487.6	1,209.81	-170.5	-29.8	173.1	0.00	0.00	0.00
2,600.0	0.00	0.00	2,587.6	1,109.81	-170.5	-29.8	173.1	0.00	0.00	0.00
2,700.0	0.00	0.00	2,687.6	1,009.81	-170.5	-29.8	173.1	0.00	0.00	0.00
2,800.0	0.00	0.00	2,787.6	909.81	-170.5	-29.8	173.1	0.00	0.00	0.00
2,900.0	0.00	0.00	2,887.6	809.81	-170.5	-29.8	173.1	0.00	0.00	0.00
3,000.0	0.00	0.00	2,987.6	709.81	-170.5	-29.8	173.1	0.00	0.00	0.00
3,100.0	0.00	0.00	3,087.6	609.81	-170.5	-29.8	173.1	0.00	0.00	0.00
3,200.0	0.00	0.00	3,187.6	509.81	-170.5	-29.8	173.1	0.00	0.00	0.00
3,300.0	0.00	0.00	3,287.6	409.81	-170.5	-29.8	173.1	0.00	0.00	0.00
BHL - MARATHON "25" STATE #34										
3,370.4	0.00	0.00	3,358.0	339.40	-170.5	-29.8	173.1	0.00	0.00	0.00



Project: EDDY COUNTY, NM (NAD 27)
 Site: SEC. 25 T17S RGE. 28E
 Well: MARATHON "25" STATE #34
 Wellbore: ORIGINAL WELLBORE
 Design: PROPOSAL #1



Azimuths to True North
 Magnetic North 7 80°
 Magnetic Field
 Strength 48831.5snT
 Dip Angle 60.61°
 Date 11/03/2012
 Model IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Annotation
600.0	600.0	0.00	0.00	0.0	0.0	0.0	KOP (2.5'/100ft BUR)
1016.2	1018.5	10.46	193.31	-37.1	-8.8	38.1	END OF BUILD TO 10.46° INC
1458.3	1468.1	10.46	193.31	-116.5	-27.6	119.8	END OF TANGENT
2152.0	2165.7	0.00	0.00	-178.4	-42.2	183.3	END OF DROP TO VERTICAL
3358.0	3371.7	0.00	0.00	-178.4	-42.2	183.3	BHL - MARATHON "25" STATE #34

Database: EDM_5000_1_7
Company: LIME ROCK RESOURCES
Project: EDDY COUNTY, NM (NAD 27)
Site: SEC. 25 T17S RGE. 28E
Well: MARATHON "25" STATE #34
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

Local Co-ordinate Reference: Well MARATHON "25" STATE #34
TVD Reference: KB-EST @ 3697.4usft (Original Well Elev)
MD Reference: KB-EST @ 3697.4usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
911.6	911.0	7 RIVERS		0.00	
1,508.2	1,499.0	QUEEN		0.00	
1,897.2	1,885.0	GRAYBURG		0.00	
2,164.4	2,152.0	PREMIER		0.00	
2,184.4	2,172.0	SAN ANDRES		0.00	

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
600.0	600.0	0.0	0.0	KOP (2"/100ft BUR)
1,119.4	1,116.6	-46.3	-8.1	END OF BUILD TO 10 39° INC
1,471.9	1,463.2	-108.9	-19.0	END OF TANGENT
2,164.4	2,152.0	-170.5	-29.8	END OF DROP TO VERTICAL
3,370.4	3,358.0	-170.5	-29.8	BHL - MARATHON "25" STATE #34