

District I
1625 N French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax (575) 393-0720

District II
8-1 S First St., Artesia, NM 88210
Phone (575) 748-1283 Fax (575) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone (505) 334-6178 Fax (505) 334-6170

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised December 16, 2011

Permit

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 API Number 30-015-40461
⁴ Property Code 309887	⁵ Property Name Marathon "25" State	
		Well No 32

⁷ Surface Location

UL - Lot D	Section 25	Township 17-S	Range 28-E	Lot Idn	Feet fro 480	N/S Line NORTH	Feet From 1710	E/W Line WEST	County EDDY
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⁸ Pool Information

<u>Red Lake, Queen-Grayburg-SA</u>						RECEIVED JUL 11 2012 NMOC D ARTESIA		51300	
Additional Well Information									
⁹ Work Type N	¹⁰ Well Type O	¹¹ Cable/Rotary R	¹² Lease Type S	¹³ Ground Level Elevation 5680 7					
¹⁴ Multiple	¹⁵ Proposed Depth 3266'	¹⁶ Formation Red Lake, Queen-Grayburg-SA	¹⁷ Contractor United Drilling	¹⁸ Spud Date 8/12/12					
Depth to Ground water		Distance from nearest fresh water well			Distance to nearest surface water				

¹⁹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
new	12 1/4"	8 5/8"	24	350'	250 sx Cl "C"	Surface
new	7 7/8"	5 1/2"	17	3276'	250sx c/noz	Circ to Surface
					325 sx "C"	"

Casing/Cement Program: Additional Comments

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Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Pipe ram & Blind ram	2 M	2M	Shaeffer

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

I further certify that the drilling pit will be constructed according to NMOC D guidelines ☐, a general permit, or an (attached) alternative OCD-approved plan X

Using a closed Loop System

Signature George R. Smith

Printed name: George R. Smith

Title POA agent

E-mail Address gr.smith1@hotmail.com

Date. Phone

OIL CONSERVATION DIVISION

Approved By.

Title.

Approved Date:

Expiration Date:

Conditions of Approval Attached

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

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 30-015-40461		² Pool Code 51300 ✓		Red Lake, Queen Grayburg SA ✓	
⁴ Property Code 309887		⁵ Property Name MARATHON "25" STATE			⁶ Well Number 32
⁷ OGRID No. 25333 281994		⁸ Operator Name LIME ROCK RESOURCES A.L.P.			⁹ Elevation 3681.7

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
C	25	17 S	28 E		480	NORTH	1710	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
C	25	17 S	28 E		360	NORTH	1680	WEST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

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.

		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> 7/10/12 Signature Date Printed Name George R. Smith, POA agent
NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1927 (NAD27), AND ARE IN DECIMAL DEGREE FORMAT.		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. SEPTEMBER 27, 2011 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor Certificate Number 1279 ARMILO, PLS 12797 SURVEY NO 611

2000 psi System

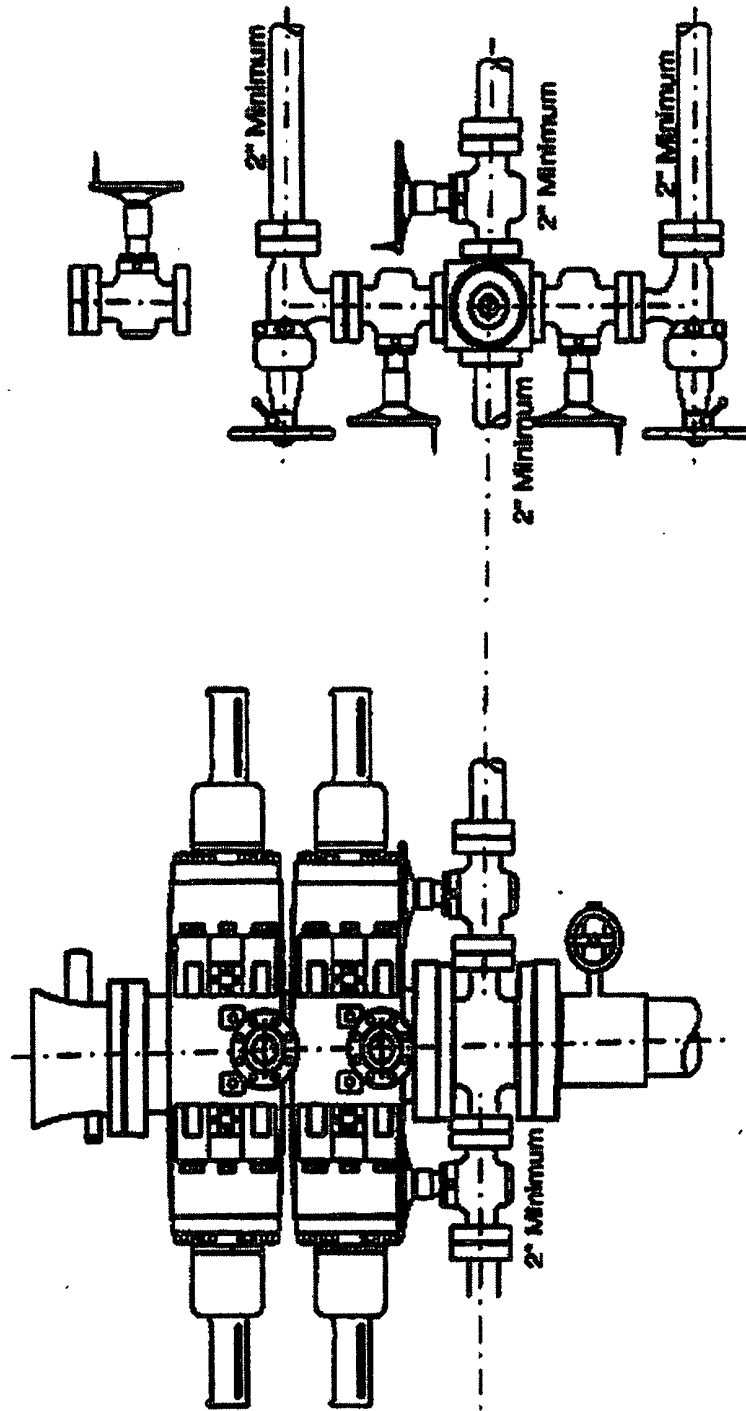


Figure 3-1

EXHIBIT "A"
LRE Operating, LLC
BOP Specifications

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

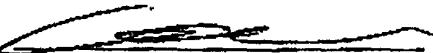
This power of attorney is effective immediately.

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.

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

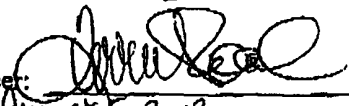
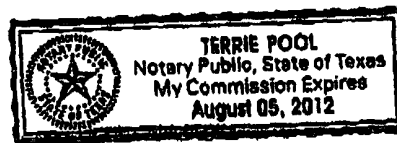
Address: 1111 Bagby Street, Suite 4600, Houston, TX 77002

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 5, 2012

LIME ROCK RESOURCES

EDDY COUNTY, NM (NAD 27)

SEC. 25 T17S RGE. 28E

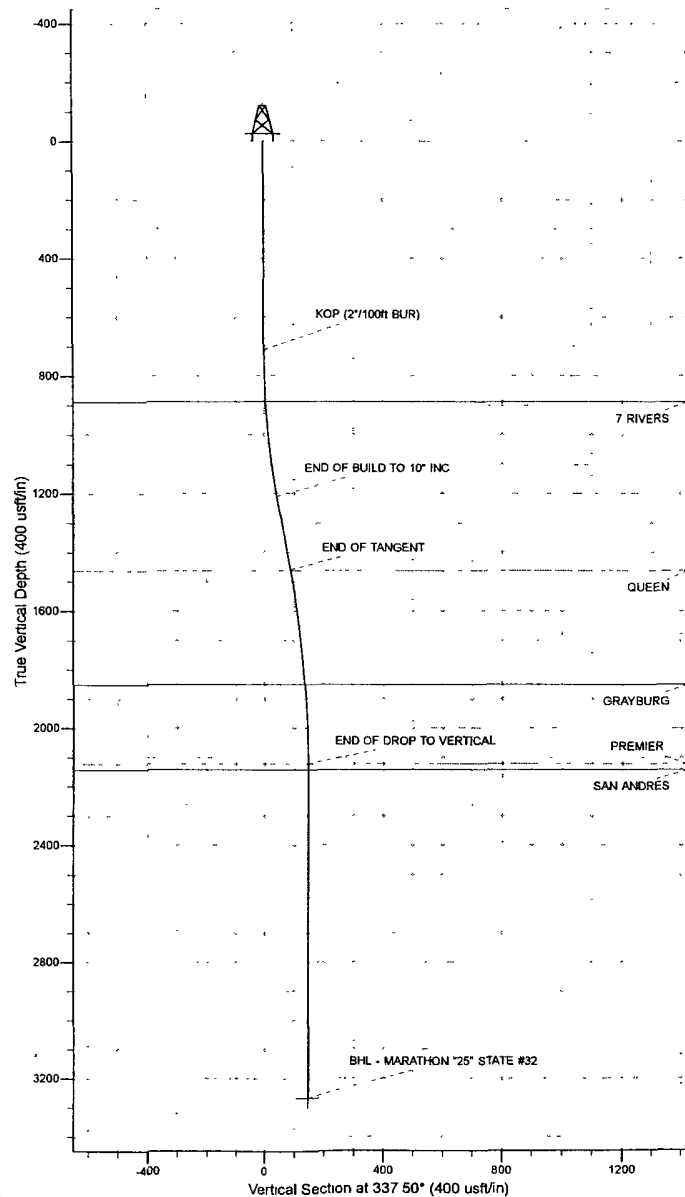
MARATHON "25" STATE #32

ORIGINAL WELLBORE

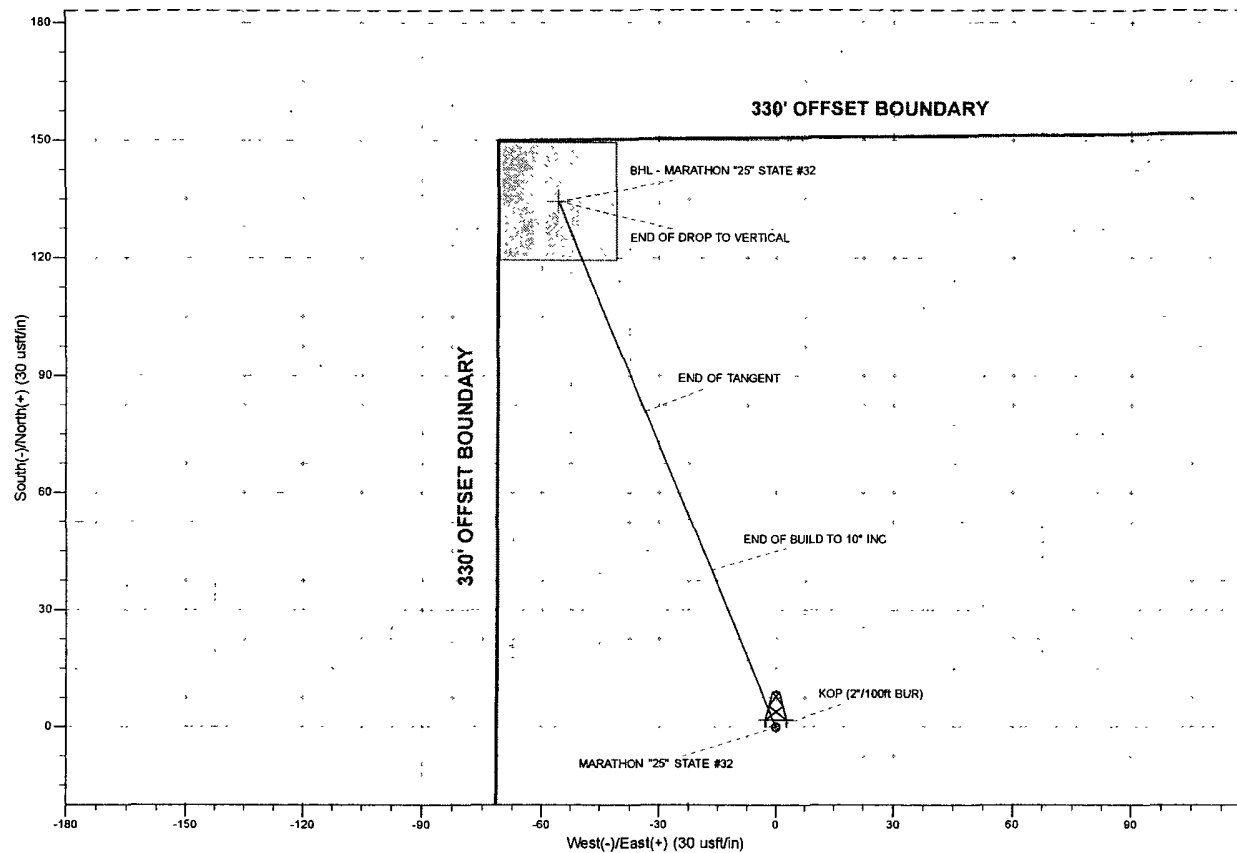
20 March, 2012

Plan: PROPOSAL #1





Project: EDDY COUNTY, NM (NAD 27)
 Site: SEC. 25 T17S RGE. 28E
 Well: MARATHON "25" STATE #32
 Wellbore: ORIGINAL WELLBORE
 Design: PROPOSAL #1



Azimuths to True North
 Magnetic North: 7 80°
 Magnetic Field
 Strength 48829.8snT
 Dip Angle: 60.62°
 Date 20/03/2012
 Model IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Annotation
711.6	711.6	0.00	0.00	0.0	0.0	0.0	KOP (2'100ft BUR)
1209.1	1211.6	10.00	337.50	40.2	-16.7	43.5	END OF BUILD TO 10' INC
1458.7	1465.1	10.00	337.50	80.9	-33.5	87.5	END OF TANGENT
2122.0	2131.8	0.00	0.00	134.5	-55.7	145.6	END OF DROP TO VERTICAL
3266.0	3275.8	0.00	0.00	134.5	-55.7	145.6	BHL - MARATHON '25' STATE #32

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 #32
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

Local Co-ordinate Reference: Well MARATHON "25" STATE #32
TVD Reference: KB-EST @ 3691.4usft (Original Well Elev)
MD Reference: KB-EST @ 3691.4usft (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)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level
 Using geodetic scale factor

Site: SEC. 25 T17S RGE. 28E

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

Well: MARATHON "25" STATE #32

Well Position +N/-S 318.1 usft Northing: 659,352.64 usft Latitude: 32° 48' 44.954 N
 +E/-W 720.1 usft Easting: 561,758.41 usft Longitude: 104° 7' 56.340 W
Position Uncertainty 0.0 usft Wellhead Elevation: usft Ground Level: 3,678.0 usft

Wellbore: ORIGINAL WELLBORE

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	20/03/2012	7.80	60.62	48,830

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 (°)
	0.0	0.0	0.0	337.50

Plan Sections

MD (usft)	Inc (°)	Azi (°)	Vertical Depth	SS (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Buidl Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	-3,691.4	0.0	0.0	0.00	0.00	0.00	0.00	
711.6	0.00	0.00	711.6	-2,979.8	0.0	0.0	0.00	0.00	0.00	0.00	
1,211.6	10.00	337.50	1,209.0	-2,482.4	40.2	-16.7	2.00	2.00	0.00	337.50	
1,465.1	10.00	337.50	1,458.7	-2,232.7	80.9	-33.5	0.00	0.00	0.00	0.00	
2,131.8	0.00	0.00	2,122.0	-1,569.4	134.5	-55.7	1.50	-1.50	0.00	180.00	
3,275.8	0.00	0.00	3,266.0	-425.4	134.5	-55.7	0.00	0.00	0.00	0.00	BHL - MARATHON

Planning Report



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 #32
Wellbore: ORIGINAL WELLBORE
Design: PROPOSAL #1

Local Co-ordinate Reference: Well MARATHON "25" STATE #32
TVD Reference: KB-EST @ 3691.4usft (Original Well Elev)
MD Reference: KB-EST @ 3691.4usft (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	3,691.40	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	3,591.40	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	3,491.40	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	3,391.40	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	3,291.40	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	3,191.40	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	3,091.40	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	2,991.40	0.0	0.0	0.0	0.00	0.00	0.00
KOP (2°/100ft BUR)										
711.6	0.00	0.00	711.6	2,979.80	0.0	0.0	0.0	0.00	0.00	0.00
800.0	1.77	337.50	800.0	2,891.41	1.3	-0.5	1.4	2.00	2.00	0.00
7 RIVERS										
889.1	3.55	337.50	889.0	2,802.40	5.1	-2.1	5.5	2.00	2.00	0.00
900.0	3.77	337.50	899.9	2,791.54	5.7	-2.4	6.2	2.00	2.00	0.00
1,000.0	5.77	337.50	999.5	2,691.89	13.4	-5.6	14.5	2.00	2.00	0.00
1,100.0	7.77	337.50	1,098.8	2,592.59	24.3	-10.1	26.3	2.00	2.00	0.00
1,200.0	9.77	337.50	1,197.6	2,493.76	38.4	-15.9	41.5	2.00	2.00	0.00
END OF BUILD TO 10° INC										
1,211.6	10.00	337.50	1,209.1	2,482.34	40.2	-16.7	43.5	2.00	2.00	0.00
1,300.0	10.00	337.50	1,296.1	2,395.28	54.4	-22.5	58.9	0.00	0.00	0.00
1,400.0	10.00	337.50	1,394.6	2,296.80	70.4	-29.2	76.2	0.00	0.00	0.00
END OF TANGENT										
1,465.1	10.00	337.50	1,458.7	2,232.69	80.9	-33.5	87.5	0.00	0.00	0.00
QUEEN										
1,469.5	9.93	337.50	1,463.0	2,228.40	81.6	-33.8	88.3	1.50	-1.50	0.00
1,500.0	9.48	337.50	1,493.1	2,198.29	86.3	-35.8	93.5	1.50	-1.50	0.00
1,600.0	7.98	337.50	1,592.0	2,099.45	100.4	-41.6	108.6	1.50	-1.50	0.00
1,700.0	6.48	337.50	1,691.2	2,000.25	112.0	-46.4	121.2	1.50	-1.50	0.00
1,800.0	4.98	337.50	1,790.7	1,900.75	121.2	-50.2	131.2	1.50	-1.50	0.00
GRAYBURG										
1,861.5	4.05	337.50	1,852.0	1,839.40	125.7	-52.0	136.0	1.50	-1.50	0.00
1,900.0	3.48	337.50	1,890.4	1,801.02	128.0	-53.0	138.5	1.50	-1.50	0.00
2,000.0	1.98	337.50	1,990.3	1,701.14	132.4	-54.8	143.3	1.50	-1.50	0.00
2,100.0	0.48	337.50	2,090.2	1,601.17	134.4	-55.6	145.4	1.50	-1.50	0.00
END OF DROP TO VERTICAL - PREMIER										
2,131.8	0.00	0.00	2,122.0	1,569.40	134.5	-55.7	145.6	1.50	-1.50	0.00
SAN ANDRES										
2,151.8	0.00	0.00	2,142.0	1,549.40	134.5	-55.7	145.6	0.00	0.00	0.00
2,200.0	0.00	0.00	2,190.2	1,501.17	134.5	-55.7	145.6	0.00	0.00	0.00
2,300.0	0.00	0.00	2,290.2	1,401.17	134.5	-55.7	145.6	0.00	0.00	0.00
2,400.0	0.00	0.00	2,390.2	1,301.17	134.5	-55.7	145.6	0.00	0.00	0.00
2,500.0	0.00	0.00	2,490.2	1,201.17	134.5	-55.7	145.6	0.00	0.00	0.00
2,600.0	0.00	0.00	2,590.2	1,101.17	134.5	-55.7	145.6	0.00	0.00	0.00
2,700.0	0.00	0.00	2,690.2	1,001.17	134.5	-55.7	145.6	0.00	0.00	0.00
2,800.0	0.00	0.00	2,790.2	901.17	134.5	-55.7	145.6	0.00	0.00	0.00
2,900.0	0.00	0.00	2,890.2	801.17	134.5	-55.7	145.6	0.00	0.00	0.00
3,000.0	0.00	0.00	2,990.2	701.17	134.5	-55.7	145.6	0.00	0.00	0.00
3,100.0	0.00	0.00	3,090.2	601.17	134.5	-55.7	145.6	0.00	0.00	0.00
3,200.0	0.00	0.00	3,190.2	501.17	134.5	-55.7	145.6	0.00	0.00	0.00
3,275.8	0.00	0.00	3,266.0	425.40	134.5	-55.7	145.6	0.00	0.00	0.00

Database:	EDM_5000_1_7	Local Co-ordinate Reference:	Well MARATHON "25" STATE #32
Company:	LIME ROCK RESOURCES	TVD Reference:	KB-EST @ 3691.4usft (Original Well Elev)
Project:	EDDY COUNTY, NM (NAD 27)	MD Reference:	KB-EST @ 3691.4usft (Original Well Elev)
Site:	SEC. 25 T17S RGE. 28E	North Reference:	True
Well:	MARATHON "25" STATE #32	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL WELLBORE		
Design:	PROPOSAL #1		

Formations

MD (usft)	TVD (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
889.1	889.0	7 RIVERS		0.00	
1,469.5	1,463.0	QUEEN		0.00	
1,861.5	1,852.0	GRAYBURG		0.00	
2,131.8	2,122.0	PREMIER		0.00	
2,151.8	2,142.0	SAN ANDRES		0.00	

Plan Annotations

MD (usft)	TVD (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
711.6	711.6	0.0	0.0	KOP (2"/100ft BUR)
1,211.6	1,209.1	40.2	-16.7	END OF BUILD TO 10° INC
1,465.1	1,458.7	80.9	-33.5	END OF TANGENT
2,131.8	2,122.0	134.5	-55.7	END OF DROP TO VERTICAL
3,275.8	3,266.0	134.5	-55.7	BHL - MARATHON "25" STATE #32