

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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 and Natural Resources

Form C-103
June 19, 2008

HOBBS OGD

CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505
JUL 05 2012

WELL API NO. 30-025-31244
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name NOWATA AGR STATE
8. Well Number #1
9. OGRID Number 281994
10. Pool name or Wildcat Vacuum, Bone Spring, Mid (46195)
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3920' GL

SUNDRY NOT RECEIVED REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator LRE OPERATING, LLC	
3. Address of Operator c/o Mike Pippin LLC, 3104 N. Sullivan, Farmington, NM 87401	
4. Well Location Unit Letter P : 860 feet from the SOUTH line and 990 feet from the EAST line Section 9 Township 18-S Range 35-E NMPM Leay County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3920' GL	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☒

OTHER: Sidetrack Around Fish & Cmt 4.5" Csg ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The fish @ MD8381' along with the entire 6-1/8" hole to MD8835' was plugged back & a new hole sidetracked as follows:
On 6/15/12, spotted a balanced cmt plug @ MD8378' w/75 sx (70 cf) CI "H" cmt. WOC. On 6/17/12, tagged hard cmt @ MD8096' & initiated sidetrack. Directionally drilled 6-1/8" hole to MDTD8735' on 6/27/12. Ran 4-1/2" 11.6# L-80 & P-110 csg from MD8723' to surface. Cmted lead w/150 sx (424 cf) CI 50/50 POZ H cmt w/5% PF-44, 10% PF-20, 3# PF-42, 0.6% PF-79, 1/8# PF-29 & 1/4# PF-46. Tailed w/200 sx (294 cf) PVL cmt w/1.3% PF-44, 5% PF-174, 0.5% PF-606, 0.3% PF-13, 0.2% PF-153 & 1/4# PF-46. Released drilling rig on 6/30/12. The Bone Springs will now be evaluated for completion.

*The bottom hole location of this sidetracked hole is 1838' FSL & 2286' FEL, Sec. 9 T18S R35E. * Kz

Spud Date: 2/2/93

Drilling Rig Release Date: 3/23/93

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

SIGNATURE Mike Pippin TITLE Petroleum Engineer - Agent DATE 7/3/12

Type or print name Mike Pippin E-mail address: mike@pippinllc.com PHONE: 505-327-4573

For State Use Only

APPROVED BY: [Signature] TITLE PETROLEUM ENGINEER DATE JUL 05 2012

Conditions of Approval (if any):

District I

1625 N. French Dr., Hobbs, NM 88240

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State of New Mexico

HOBBS OCD

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

JUL 05 2012

RECEIVED

SIDETRACK AS DRILLED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-31244	² Pool Code 46195	³ Pool Name Vacuum, Bone Spring, Mid
⁴ Property Code 309787	⁵ Property Name NOWATA AGR STATE	⁶ Well Number 1
⁷ OGRID No. 281994	⁸ Operator Name LRE OPERATING, LLC.	⁹ Elevation 3920' GL

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
P	9	18-S	35-E		860	SOUTH	990	EAST	LEA

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
J	9	18-S	35-E		1838	SOUTH	2286	EAST	EDDY

¹² Dedicated Acres 40	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. Signature: <u>Mike Pippin</u> Date: <u>7/3/12</u> Mike-Pippin Printed Name
	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. 5/2/91 Date of Survey Signature and Seal of Professional Surveyor:
	Certificate Number

HOBBS OCD

JUL 05 2012

RECEIVED

LIME ROCK RESOURCES

LEA COUNTY, NM (NAD 83)

SEC. 9 TWP. 18S RGE, 35E

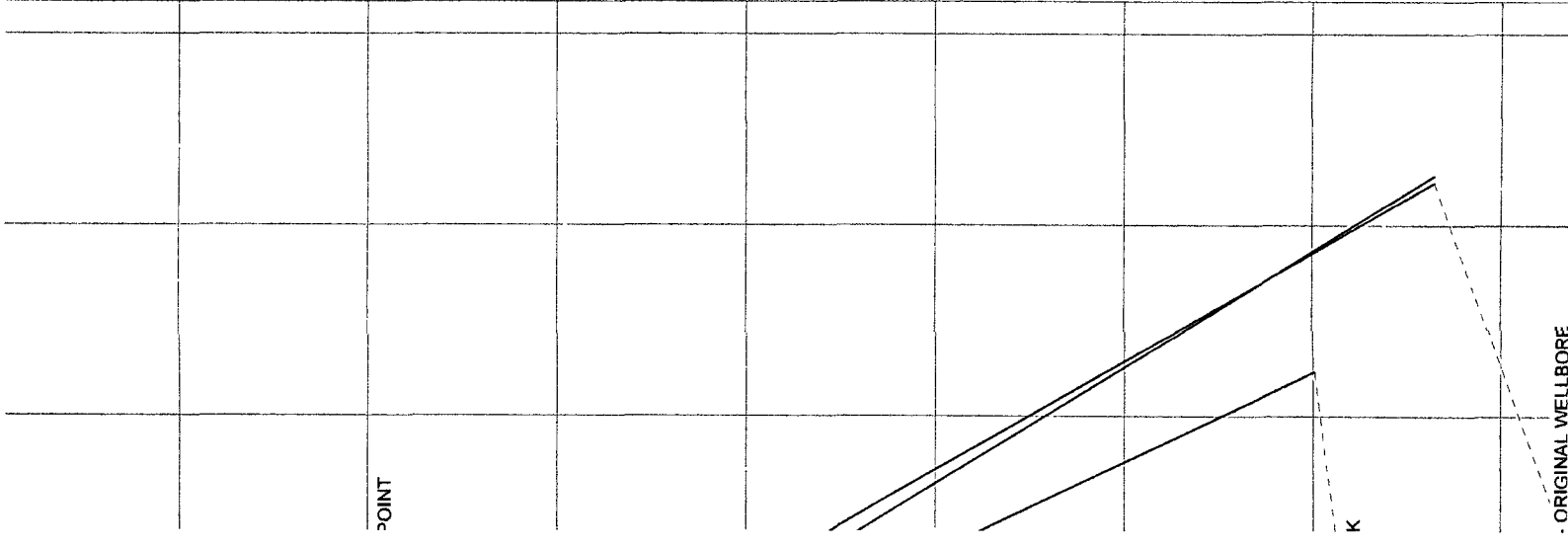
NOWATA AGR STATE #1

JOB # WPE1211ST - SIDETRACK

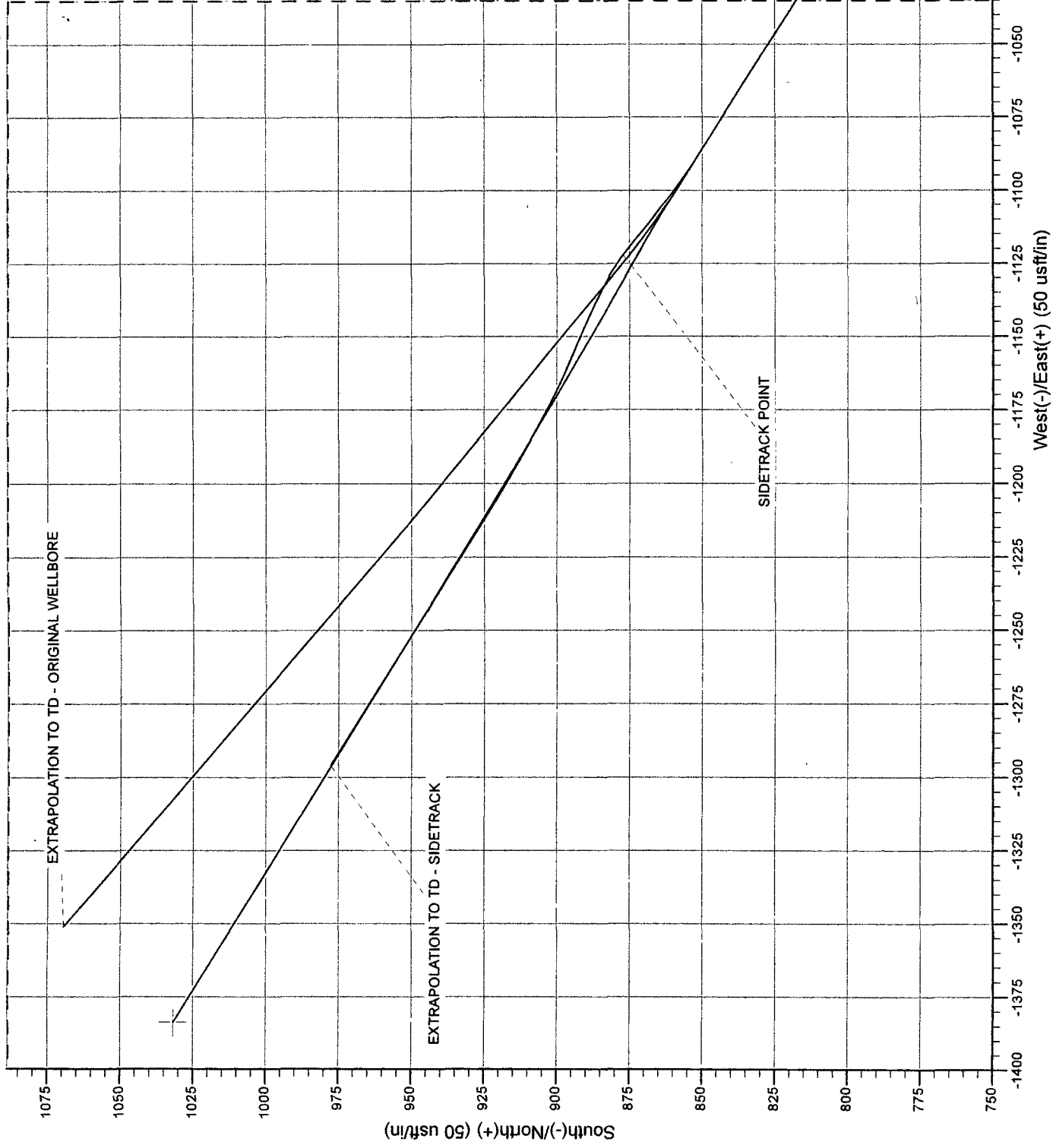
28 June, 2012

Survey: FINAL SURVEYS - SIDETRACK





Design: FINAL SURVEYS - SIDETRACK



T

M

A

Azimuths to True North
Magnetic North: 7.45°

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect
7937.9	8230.0	25.59	306.35	877.1	-1122.1	1423.8
8400.8	8735.0	25.30	307.20	877.7	-1206.0	1622.4

Survey Report

Company:	LIME ROCK RESOURCES	Local Co-ordinate Reference:	Well NOWATA AGR STATE #1
Project:	LEA COUNTY, NM (NAD 83)	TVD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Site:	SEC. 9 TWP. 18S RGE, 35E	MD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Well:	NOWATA AGR STATE #1	North Reference:	True
Wellbore:	JOB # WPE1211ST - SIDETRACK	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS - SIDETRACK	Database:	EDM_5000_1_7

Project:	LEA COUNTY, NM (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		Using geodetic scale factor

Site:	SEC. 9 TWP. 18S RGE, 35E		
Site Position:		Northing:	640,451.62 usft
From:	Lat/Long	Easting:	810,633.27 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 45' 27.270 N
		Longitude:	103° 27' 26.420 W
		Grid Convergence:	0.47 °

Well	NOWATA AGR STATE #1					
Well Position	+N/-S	0.0 usft	Northing:	640,451.62 usft	Latitude:	32° 45' 27.270 N
	+E/-W	0.0 usft	Easting:	810,633.27 usft	Longitude:	103° 27' 26.420 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	7,653.0 usft	

Wellbore	JOB # WPE1211ST - SIDETRACK				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	14/06/2012	7.45	60.67	48.819

Design:	FINAL SURVEYS - SIDETRACK				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(")	
	0.0	0.0	0.0	306.71	

Survey Program	Date:	28/06/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,735.0	FINAL SURVEYS - SIDETRACK (JOB # V MWD)		MWD - Standard

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	7,670.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.17	295.74	100.0	7,570.0	0.1	-0.1	0.1	0.17	0.17	0.00
200.0	0.20	270.86	200.0	7,470.0	0.1	-0.4	0.4	0.08	0.03	-24.88
300.0	0.16	274.02	300.0	7,370.0	0.1	-0.8	0.7	0.04	-0.04	3.16
400.0	0.24	273.10	400.0	7,270.0	0.2	-1.1	1.0	0.08	0.08	-0.92
500.0	0.28	276.25	500.0	7,170.0	0.2	-1.6	1.4	0.04	0.04	3.15
600.0	0.27	283.65	600.0	7,070.0	0.3	-2.0	1.8	0.04	-0.01	7.40
700.0	0.28	286.96	700.0	6,970.0	0.4	-2.5	2.2	0.02	0.01	3.31
800.0	0.16	300.07	800.0	6,870.0	0.6	-2.8	2.6	0.13	-0.12	13.11
900.0	0.20	324.33	900.0	6,770.0	0.8	-3.1	2.9	0.09	0.04	24.26
1,000.0	0.07	355.47	1,000.0	6,670.0	1.0	-3.2	3.1	0.14	-0.13	31.14
1,100.0	0.06	266.64	1,100.0	6,570.0	1.0	-3.2	3.2	0.09	-0.01	-88.83
1,200.0	0.24	215.39	1,200.0	6,470.0	0.9	-3.4	3.2	0.21	0.18	-51.25

Survey Report



Company:	LIME ROCK RESOURCES	Local Co-ordinate Reference:	Well NOWATA AGR STATE #1
Project:	LEA COUNTY, NM (NAD 83)	TVD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Site:	SEC. 9 TWP. 18S RGE, 35E	MD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Well:	NOWATA AGR STATE #1	North Reference:	True
Wellbore:	JOB # WPE1211ST - SIDETRACK	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS - SIDETRACK	Database:	EDM_5000_1_7

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,300.0	0.32	199.92	1,300.0	6,370.0	0.4	-3.6	3.2	0.11	0.08	-15.47
1,400.0	0.29	179.96	1,400.0	6,270.0	-0.1	-3.7	2.9	0.11	-0.03	-19.96
1,500.0	0.23	176.76	1,500.0	6,170.0	-0.6	-3.7	2.6	0.06	-0.06	-3.20
1,600.0	0.32	221.81	1,600.0	6,070.0	-1.0	-3.9	2.5	0.23	0.09	45.05
1,700.0	0.42	233.51	1,700.0	5,970.0	-1.4	-4.4	2.7	0.12	0.10	11.70
1,800.0	0.37	238.35	1,800.0	5,870.0	-1.8	-4.9	2.9	0.06	-0.05	4.84
1,900.0	0.40	264.38	1,900.0	5,770.0	-2.0	-5.6	3.3	0.18	0.03	26.03
2,000.0	0.42	262.81	2,000.0	5,670.0	-2.1	-6.3	3.8	0.02	0.02	-1.57
2,100.0	0.49	254.05	2,100.0	5,570.0	-2.2	-7.0	4.3	0.10	0.07	-8.76
2,200.0	0.50	270.55	2,200.0	5,470.0	-2.3	-7.9	4.9	0.14	0.01	16.50
2,300.0	0.39	291.40	2,300.0	5,370.0	-2.2	-8.6	5.6	0.19	-0.11	20.85
2,400.0	0.23	331.83	2,400.0	5,270.0	-1.9	-9.1	6.1	0.26	-0.16	40.43
2,500.0	0.19	342.94	2,500.0	5,170.0	-1.6	-9.2	6.4	0.06	-0.04	11.11
2,600.0	0.21	353.46	2,600.0	5,070.0	-1.2	-9.3	6.7	0.04	0.02	10.52
2,700.0	0.34	11.74	2,700.0	4,970.0	-0.8	-9.2	6.9	0.16	0.13	18.28
2,800.0	0.48	22.40	2,800.0	4,870.0	-0.1	-9.0	7.2	0.16	0.14	10.66
2,900.0	0.61	27.12	2,900.0	4,770.0	0.8	-8.6	7.4	0.14	0.13	4.72
3,000.0	0.89	47.02	2,999.9	4,670.1	1.8	-7.8	7.3	0.38	0.28	19.90
3,100.0	1.05	55.60	3,099.9	4,570.1	2.8	-6.5	6.9	0.22	0.16	8.58
3,200.0	1.06	57.85	3,199.9	4,470.1	3.8	-4.9	6.2	0.04	0.01	2.25
3,300.0	1.19	63.93	3,299.9	4,370.1	4.8	-3.2	5.4	0.18	0.13	6.08
3,400.0	1.16	64.04	3,399.9	4,270.1	5.7	-1.4	4.5	0.03	-0.03	0.11
3,500.0	0.91	73.17	3,499.9	4,170.1	6.4	0.3	3.6	0.30	-0.25	9.13
3,600.0	0.56	77.50	3,599.9	4,070.1	6.7	1.5	2.8	0.35	-0.35	4.33
3,700.0	0.37	87.31	3,699.9	3,970.1	6.8	2.3	2.2	0.21	-0.19	9.81
3,800.0	0.25	22.03	3,799.8	3,870.2	7.0	2.7	2.0	0.35	-0.12	-65.28
3,900.0	0.52	46.17	3,899.8	3,770.2	7.6	3.2	2.0	0.31	0.27	24.14
4,000.0	0.30	33.33	3,999.8	3,670.2	8.1	3.6	1.9	0.24	-0.22	-12.84
4,100.0	0.30	8.88	4,099.8	3,570.2	8.6	3.8	2.1	0.13	0.00	-24.45
4,165.0	0.48	22.51	4,164.8	3,505.2	9.0	3.9	2.2	0.31	0.28	20.97
4,259.0	3.00	313.30	4,258.8	3,411.2	11.0	2.3	4.8	3.05	2.68	-73.63
4,290.0	3.30	322.30	4,289.7	3,380.3	12.3	1.2	6.4	1.86	0.97	29.03
4,321.0	3.40	322.90	4,320.7	3,349.3	13.7	0.1	8.2	0.34	0.32	1.94
4,352.0	3.80	316.90	4,351.6	3,318.4	15.2	-1.2	10.1	1.77	1.29	-19.35
4,383.0	3.90	310.60	4,382.6	3,287.4	16.7	-2.7	12.1	1.40	0.32	-20.32
4,414.0	4.00	310.40	4,413.5	3,256.5	18.0	-4.3	14.2	0.33	0.32	-0.65
4,446.0	4.20	307.60	4,445.4	3,224.6	19.5	-6.1	16.5	0.88	0.62	-8.75
4,476.0	4.60	307.60	4,475.3	3,194.7	20.9	-7.9	18.8	1.33	1.33	0.00
4,507.0	4.90	309.10	4,506.2	3,163.8	22.5	-9.9	21.4	1.05	0.97	4.84
4,539.0	5.40	313.30	4,538.1	3,131.9	24.4	-12.1	24.3	1.96	1.56	13.12
4,570.0	6.00	316.00	4,568.9	3,101.1	26.5	-14.3	27.3	2.12	1.94	8.71
4,601.0	6.60	316.70	4,599.7	3,070.3	29.0	-16.6	30.7	1.95	1.94	2.26
4,632.0	7.30	312.80	4,630.5	3,039.5	31.6	-19.3	34.4	2.72	2.26	-12.58
4,663.0	7.90	311.10	4,661.2	3,008.8	34.4	-22.3	38.5	2.07	1.94	-5.48
4,694.0	8.40	310.10	4,691.9	2,978.1	37.2	-25.7	42.8	1.68	1.61	-3.23
4,724.0	9.30	308.20	4,721.6	2,948.4	40.1	-29.3	47.5	3.15	3.00	-6.33
4,756.0	10.10	306.20	4,753.1	2,916.9	43.4	-33.6	52.8	2.71	2.50	-6.25
4,788.0	10.80	305.30	4,784.6	2,885.4	46.8	-38.3	58.6	2.25	2.19	-2.81
4,819.0	11.90	306.10	4,815.0	2,855.0	50.4	-43.2	64.7	3.58	3.55	2.58
4,851.0	12.80	307.20	4,846.2	2,823.8	54.4	-48.7	71.6	2.91	2.81	3.44
4,881.0	13.50	308.30	4,875.5	2,794.5	58.6	-54.1	78.4	2.48	2.33	3.67
4,912.0	14.10	308.70	4,905.6	2,764.4	63.2	-59.9	85.8	1.96	1.94	1.29
4,944.0	14.70	308.60	4,936.5	2,733.5	68.2	-66.1	93.8	1.88	1.87	-0.31

Survey Report



Company:	LIME ROCK RESOURCES	Local Co-ordinate Reference:	Well NOWATA AGR STATE #1
Project:	LEA COUNTY, NM (NAD 83)	TVD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Site:	SEC. 9 TWP. 18S RGE, 35E	MD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
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Wellbore:	JOB # WPE1211ST - SIDETRACK	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS - SIDETRACK	Database:	EDM_5000_1_7

Survey											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,975.0	15.20	308.50	4,966.5	2,703.5	73.2	-72.4	101.8	1.62	1.61	-0.32	
5,006.0	15.80	307.40	4,996.4	2,673.6	78.3	-78.9	110.0	2.16	1.94	-3.55	
5,037.0	16.70	306.30	5,026.1	2,643.9	83.5	-85.8	118.7	3.07	2.90	-3.55	
5,069.0	17.50	304.70	5,056.7	2,613.3	88.9	-93.5	128.1	2.90	2.50	-5.00	
5,100.0	18.30	304.00	5,086.2	2,583.8	94.3	-101.4	137.6	2.67	2.58	-2.26	
5,131.0	18.80	303.90	5,115.6	2,554.4	99.8	-109.5	147.5	1.62	1.61	-0.32	
5,162.0	19.30	304.70	5,144.9	2,525.1	105.5	-117.9	157.6	1.82	1.61	2.58	
5,194.0	20.20	304.40	5,175.0	2,495.0	111.6	-126.8	168.4	2.83	2.81	-0.94	
5,225.0	21.00	304.50	5,204.0	2,466.0	117.8	-135.8	179.3	2.58	2.58	0.32	
5,256.0	21.70	304.20	5,232.9	2,437.1	124.2	-145.1	190.6	2.29	2.26	-0.97	
5,288.0	22.60	303.20	5,262.6	2,407.4	130.9	-155.2	202.6	3.05	2.81	-3.12	
5,320.0	23.50	302.90	5,292.0	2,378.0	137.7	-165.7	215.1	2.84	2.81	-0.94	
5,351.0	24.40	302.80	5,320.3	2,349.7	144.5	-176.2	227.7	2.91	2.90	-0.32	
5,382.0	24.50	303.10	5,348.6	2,321.4	151.5	-187.0	240.5	0.51	0.32	0.97	
5,414.0	24.70	303.40	5,377.6	2,292.4	158.8	-198.1	253.8	0.74	0.62	0.94	
5,445.0	24.70	303.80	5,405.8	2,264.2	166.0	-208.9	266.7	0.54	0.00	1.29	
5,477.0	24.90	303.80	5,434.9	2,235.1	173.5	-220.1	280.1	0.62	0.62	0.00	
5,507.0	25.10	303.80	5,462.0	2,208.0	180.5	-230.6	292.8	0.67	0.67	0.00	
5,538.0	25.30	303.20	5,490.1	2,179.9	187.8	-241.6	306.0	1.05	0.65	-1.94	
5,569.0	25.50	303.70	5,518.1	2,151.9	195.1	-252.7	319.2	0.95	0.65	1.61	
5,598.0	25.10	304.00	5,544.3	2,125.7	202.0	-263.0	331.6	1.45	-1.38	1.03	
5,628.0	25.00	304.50	5,571.5	2,098.5	209.2	-273.5	344.3	0.78	-0.33	1.67	
5,660.0	24.90	304.70	5,600.5	2,069.5	216.8	-284.6	357.8	0.41	-0.31	0.62	
5,692.0	24.80	305.00	5,629.5	2,040.5	224.5	-295.7	371.2	0.50	-0.31	0.94	
5,723.0	24.50	304.90	5,657.7	2,012.3	231.9	-306.3	384.2	0.98	-0.97	-0.32	
5,755.0	24.20	304.90	5,686.9	1,983.1	239.5	-317.1	397.3	0.94	-0.94	0.00	
5,785.0	24.00	305.30	5,714.3	1,955.7	246.5	-327.1	409.6	0.86	-0.67	1.33	
5,816.0	24.00	306.90	5,742.6	1,927.4	254.0	-337.3	422.2	2.10	0.00	5.16	
5,847.0	24.40	306.80	5,770.9	1,899.1	261.6	-347.5	434.9	1.30	1.29	-0.32	
5,879.0	24.30	307.60	5,800.0	1,870.0	269.5	-358.0	448.1	1.08	-0.31	2.50	
5,911.0	23.30	307.90	5,829.3	1,840.7	277.5	-368.2	461.0	3.15	-3.12	0.94	
5,941.0	23.20	308.10	5,856.9	1,813.1	284.7	-377.5	472.9	0.42	-0.33	0.67	
5,972.0	23.10	308.20	5,885.4	1,784.6	292.3	-387.1	485.0	0.35	-0.32	0.32	
6,003.0	22.90	308.90	5,913.9	1,756.1	299.8	-396.6	497.1	1.09	-0.65	2.26	
6,034.0	22.50	308.70	5,942.5	1,727.5	307.3	-405.9	509.1	1.31	-1.29	-0.65	
6,065.0	22.90	308.70	5,971.1	1,698.9	314.8	-415.2	521.1	1.29	1.29	0.00	
6,096.0	23.30	308.20	5,999.6	1,670.4	322.4	-424.8	533.2	1.44	1.29	-1.61	
6,128.0	24.10	308.30	6,028.9	1,641.1	330.3	-434.9	546.1	2.50	2.50	0.31	
6,159.0	24.30	309.00	6,057.2	1,612.8	338.3	-444.8	558.8	1.13	0.65	2.26	
6,190.0	24.10	309.00	6,085.5	1,584.5	346.3	-454.7	571.5	0.65	-0.65	0.00	
6,221.0	24.00	308.30	6,113.8	1,556.2	354.1	-464.5	584.1	0.98	-0.32	-2.26	
6,253.0	25.00	309.10	6,142.9	1,527.1	362.4	-474.9	597.4	3.29	3.12	2.50	
6,285.0	24.60	308.90	6,171.9	1,498.1	370.9	-485.3	610.8	1.28	-1.25	-0.62	
6,316.0	24.40	308.20	6,200.1	1,469.9	378.9	-495.4	623.6	1.14	-0.65	-2.26	
6,348.0	24.00	309.20	6,229.3	1,440.7	387.1	-505.6	636.7	1.79	-1.25	3.12	
6,380.0	24.00	309.00	6,258.6	1,411.4	395.3	-515.7	649.7	0.25	0.00	-0.62	
6,411.0	24.20	309.10	6,286.9	1,383.1	403.3	-525.5	662.4	0.66	0.65	0.32	
6,443.0	24.50	309.20	6,316.0	1,354.0	411.6	-535.8	675.6	0.95	0.94	0.31	
6,474.0	25.70	308.80	6,344.1	1,325.9	419.9	-546.0	688.7	3.91	3.87	-1.29	
6,505.0	25.90	311.70	6,372.0	1,298.0	428.6	-556.3	702.2	4.12	0.65	9.35	
6,537.0	26.00	311.10	6,400.8	1,269.2	437.9	-566.8	716.1	0.88	0.31	-1.87	
6,568.0	26.30	310.60	6,428.6	1,241.4	446.8	-577.1	729.7	1.20	0.97	-1.61	
6,599.0	26.10	310.40	6,456.4	1,213.6	455.7	-587.5	743.4	0.71	-0.65	-0.65	

Survey Report

Company:	LIME ROCK RESOURCES	Local Co-ordinate Reference:	Well NOWATA AGR STATE #1
Project:	LEA COUNTY, NM (NAD 83)	TVD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Site:	SEC. 9 TWP. 18S RGE, 35E	MD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Well:	NOWATA AGR STATE #1	North Reference:	True
Wellbore:	JOB # WPE1211ST - SIDETRACK	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS - SIDETRACK	Database:	EDM_5000_1_7

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,630.0	26.00	310.60	6,484.3	1,185.7	464.5	-597.9	757.0	0.43	-0.32	0.65
6,661.0	25.90	310.40	6,512.1	1,157.9	473.3	-608.2	770.5	0.43	-0.32	-0.65
6,693.0	26.00	310.20	6,540.9	1,129.1	482.4	-618.9	784.5	0.42	0.31	-0.62
6,724.0	25.80	310.00	6,568.8	1,101.2	491.1	-629.2	798.0	0.70	-0.65	-0.65
6,756.0	25.80	310.10	6,597.6	1,072.4	500.1	-639.9	811.9	0.14	0.00	0.31
6,787.0	25.70	310.00	6,625.5	1,044.5	508.8	-650.2	825.4	0.35	-0.32	-0.32
6,818.0	24.60	309.70	6,653.6	1,016.4	517.2	-660.3	838.5	3.57	-3.55	-0.97
6,849.0	24.40	309.80	6,681.8	988.2	525.4	-670.2	851.3	0.66	-0.65	0.32
6,880.0	24.40	309.90	6,710.0	960.0	533.6	-680.0	864.1	0.13	0.00	0.32
6,910.0	24.30	310.00	6,737.4	932.6	541.6	-689.5	876.5	0.36	-0.33	0.33
6,941.0	24.10	310.20	6,765.6	904.4	549.7	-699.2	889.2	0.70	-0.65	0.65
6,973.0	24.00	309.50	6,794.9	875.1	558.1	-709.2	902.2	0.94	-0.31	-2.19
7,004.0	24.00	308.50	6,823.2	846.8	566.0	-719.0	914.8	1.31	0.00	-3.23
7,035.0	24.00	308.40	6,851.5	818.5	573.9	-728.9	927.4	0.13	0.00	-0.32
7,067.0	23.10	308.30	6,880.8	789.2	581.8	-738.9	940.2	2.82	-2.81	-0.31
7,099.0	22.80	307.60	6,910.3	759.7	589.5	-748.8	952.6	1.27	-0.94	-2.19
7,130.0	23.30	307.80	6,938.8	731.2	596.9	-758.4	964.8	1.63	1.61	0.65
7,162.0	22.50	307.40	6,968.3	701.7	604.5	-768.2	977.2	2.55	-2.50	-1.25
7,193.0	23.40	307.70	6,996.9	673.1	611.9	-777.8	989.3	2.93	2.90	0.97
7,223.0	23.40	308.00	7,024.4	645.6	619.2	-787.2	1,001.2	0.40	0.00	1.00
7,254.0	24.40	308.00	7,052.7	617.3	626.9	-797.1	1,013.8	3.23	3.23	0.00
7,285.0	25.40	309.50	7,080.8	589.2	635.1	-807.3	1,026.8	3.82	3.23	4.84
7,317.0	26.20	311.00	7,109.7	560.3	644.1	-817.9	1,040.7	3.23	2.50	4.69
7,348.0	25.50	311.00	7,137.6	532.4	653.0	-828.1	1,054.2	2.26	-2.26	0.00
7,379.0	25.20	311.10	7,165.6	504.4	661.7	-838.1	1,067.4	0.98	-0.97	0.32
7,411.0	24.70	311.40	7,194.6	475.4	670.6	-848.3	1,080.9	1.61	-1.56	0.94
7,442.0	24.30	311.50	7,222.8	447.2	679.1	-857.9	1,093.7	1.30	-1.29	0.32
7,473.0	23.60	311.40	7,251.1	418.9	687.4	-867.4	1,106.2	2.26	-2.26	-0.32
7,504.0	23.60	311.20	7,279.5	390.5	695.6	-876.7	1,118.6	0.26	0.00	-0.65
7,535.0	24.00	311.30	7,307.9	362.1	703.9	-886.1	1,131.1	1.30	1.29	0.32
7,567.0	23.60	311.10	7,337.2	332.8	712.4	-895.8	1,144.0	1.28	-1.25	-0.62
7,598.0	23.20	311.00	7,365.6	304.4	720.4	-905.1	1,156.2	1.30	-1.29	-0.32
7,628.0	22.60	311.00	7,393.3	276.7	728.1	-913.9	1,167.9	2.00	-2.00	0.00
7,660.0	22.90	310.50	7,422.8	247.2	736.2	-923.3	1,180.2	1.12	0.94	-1.56
7,692.0	24.80	309.10	7,452.0	218.0	744.5	-933.2	1,193.1	6.20	5.94	-4.37
7,723.0	26.10	308.20	7,480.0	190.0	752.8	-943.6	1,206.5	4.38	4.19	-2.90
7,754.0	26.10	307.60	7,507.9	162.1	761.2	-954.4	1,220.1	0.85	0.00	-1.94
7,786.0	26.00	307.20	7,536.6	133.4	769.7	-965.6	1,234.1	0.63	-0.31	-1.25
7,817.0	25.60	306.70	7,564.5	105.5	777.8	-976.3	1,247.6	1.47	-1.29	-1.61
7,848.0	25.40	305.90	7,592.5	77.5	785.7	-987.1	1,261.0	1.28	-0.65	-2.58
7,879.0	24.90	304.40	7,620.6	49.4	793.3	-997.9	1,274.2	2.61	-1.61	-4.84
7,909.0	24.70	303.60	7,647.8	22.2	800.3	-1,008.3	1,286.7	1.30	-0.67	-2.67
7,941.0	24.90	303.10	7,676.8	-6.8	807.7	-1,019.5	1,300.1	0.91	0.62	-1.56
7,973.0	25.10	302.50	7,705.8	-35.8	815.0	-1,030.9	1,313.6	1.01	0.62	-1.87
8,005.0	25.00	302.40	7,734.8	-64.8	822.3	-1,042.3	1,327.1	0.34	-0.31	-0.31
8,036.0	24.90	302.40	7,762.9	-92.9	829.3	-1,053.3	1,340.2	0.32	-0.32	0.00
8,068.0	25.40	302.70	7,791.9	-121.9	836.6	-1,064.8	1,353.7	1.61	1.56	0.94
8,099.0	25.40	302.20	7,819.9	-149.9	843.8	-1,076.0	1,367.0	0.69	0.00	-1.61
8,131.0	25.50	302.40	7,848.8	-178.8	851.1	-1,087.7	1,380.7	0.41	0.31	0.62
8,154.0	24.90	305.60	7,869.6	-199.6	856.6	-1,095.8	1,390.5	6.47	-2.61	13.91
8,186.0	26.20	307.80	7,898.5	-228.5	864.8	-1,106.8	1,404.3	5.03	4.06	6.87
8,217.0	26.80	310.10	7,926.2	-256.2	873.5	-1,117.6	1,418.1	3.83	1.94	7.42

Survey Report

Company:	LIME ROCK RESOURCES	Local Co-ordinate Reference:	Well NOWATA AGR STATE #1
Project:	LEA COUNTY, NM (NAD 83)	TVD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Site:	SEC. 9 TWP. 18S RGE, 35E	MD Reference:	KB-EST @ 7670.0usft (Original Well Elev)
Well:	NOWATA AGR STATE #1	North Reference:	True
Wellbore:	JOB # WPE1211ST - SIDETRACK	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS - SIDETRACK	Database:	EDM_5000_1_7

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
SIDETRACK POINT										
8,230.0	25.59	306.35	7,937.9	-267.9	877.1	-1,122.1	1,423.8	15.76	-9.28	-28.88
8,248.0	24.10	300.60	7,954.2	-284.2	881.3	-1,128.4	1,431.4	15.76	-8.30	-31.92
8,279.0	21.50	295.20	7,982.8	-312.8	886.9	-1,139.0	1,443.2	10.76	-8.39	-17.42
8,310.0	20.10	293.10	8,011.8	-341.8	891.4	-1,149.0	1,454.0	5.12	-4.52	-6.77
8,341.0	20.00	293.10	8,040.9	-370.9	895.6	-1,158.8	1,464.3	0.32	-0.32	0.00
8,372.0	20.80	296.20	8,070.0	-400.0	900.1	-1,168.6	1,474.9	4.34	2.58	10.00
8,402.0	21.50	298.50	8,098.0	-428.0	905.1	-1,178.2	1,485.6	3.62	2.33	7.67
8,434.0	22.50	299.90	8,127.6	-457.6	910.9	-1,188.7	1,497.4	3.53	3.12	4.37
8,465.0	23.50	300.40	8,156.2	-486.2	917.0	-1,199.2	1,509.5	3.29	3.23	1.61
8,496.0	24.10	302.20	8,184.5	-514.5	923.5	-1,209.8	1,521.9	3.04	1.94	5.81
8,535.0	25.30	302.20	8,220.0	-550.0	932.2	-1,223.6	1,538.2	3.08	3.08	0.00
EXTRAPOLATION TO TD - SIDETRACK										
8,735.0	25.30	302.20	8,400.8	-730.8	977.7	-1,296.0	1,623.4	0.00	0.00	0.00

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
TD - SIDETRACK	0.00	0.00	8,464.8	1,031.7	-1,383.8	641,471.83	809,240.99	32° 45' 37.478 N	103° 27' 42.624 W
- survey misses target center by 121.4usft at 8735.0usft MD (8400.8 TVD, 977.7 N, -1296.0 E)									
- Point									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
8,230.0	7,937.9	877.1	-1,122.1	SIDETRACK POINT
8,735.0	8,400.8	977.7	-1,296.0	EXTRAPOLATION TO TD - SIDETRACK

Checked By: _____ Approved By: _____ Date: _____