

"As Drilled"

DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-8181 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

JAN 02 2013

Farmington Field Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-043-21138	Pool Code 39189	LINDRITH GALLUP-DAKOTA, WEST
Property Code 27875	Property Name BONANZA	Well Number 10
OGRI No. 149052	Operator Name ELM RIDGE EXPLORATION COMPANY, LLC	Elevation 7180

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	12	22 N	3 W	700	660	NORTH	1650	WEST	SANDOVAL

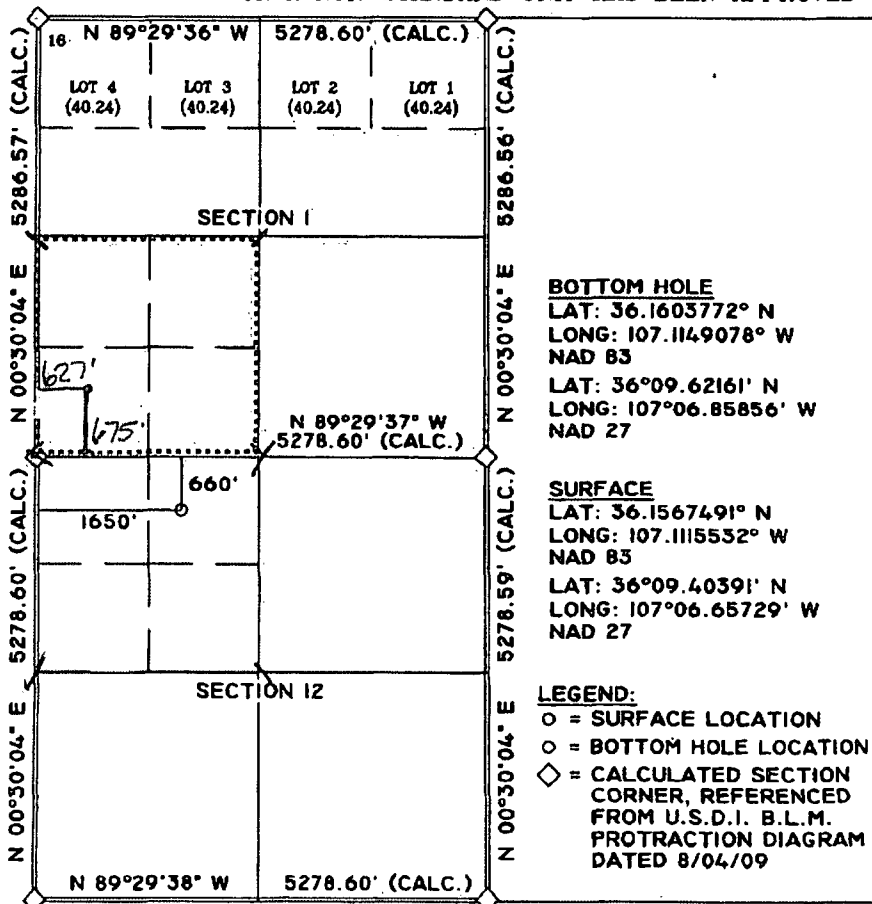
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	1	22 N	3 W	700	675'	SOUTH	627'	WEST	SANDOVAL

Dedicated Acres 160.304	Joint or Infill	Consolidation Code	Order No.	RCVD SEP 18 '13 OIL CONS. DIV.
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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

DIST. 3



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

Date

Elm Ridge Exploration

amackey1@elmridge.com

E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same are true and correct to the best of my knowledge and belief.

09/26/12

Date of Survey

Signature and Seal of



Certificate Number

10-29-2012

Elm Ridge Exploration Company.

Sandoval County, NM (Nad 83)

Sec 12 T-22-N,R-3-W

Bonanza #10

DD

UWI:

WL:

Survey: Final

Standard Survey Report

30 July, 2013



RCVD SEP 17 '13

OIL CONS. DIV.

DIST. 3

Elm Ridge Exploration Company.

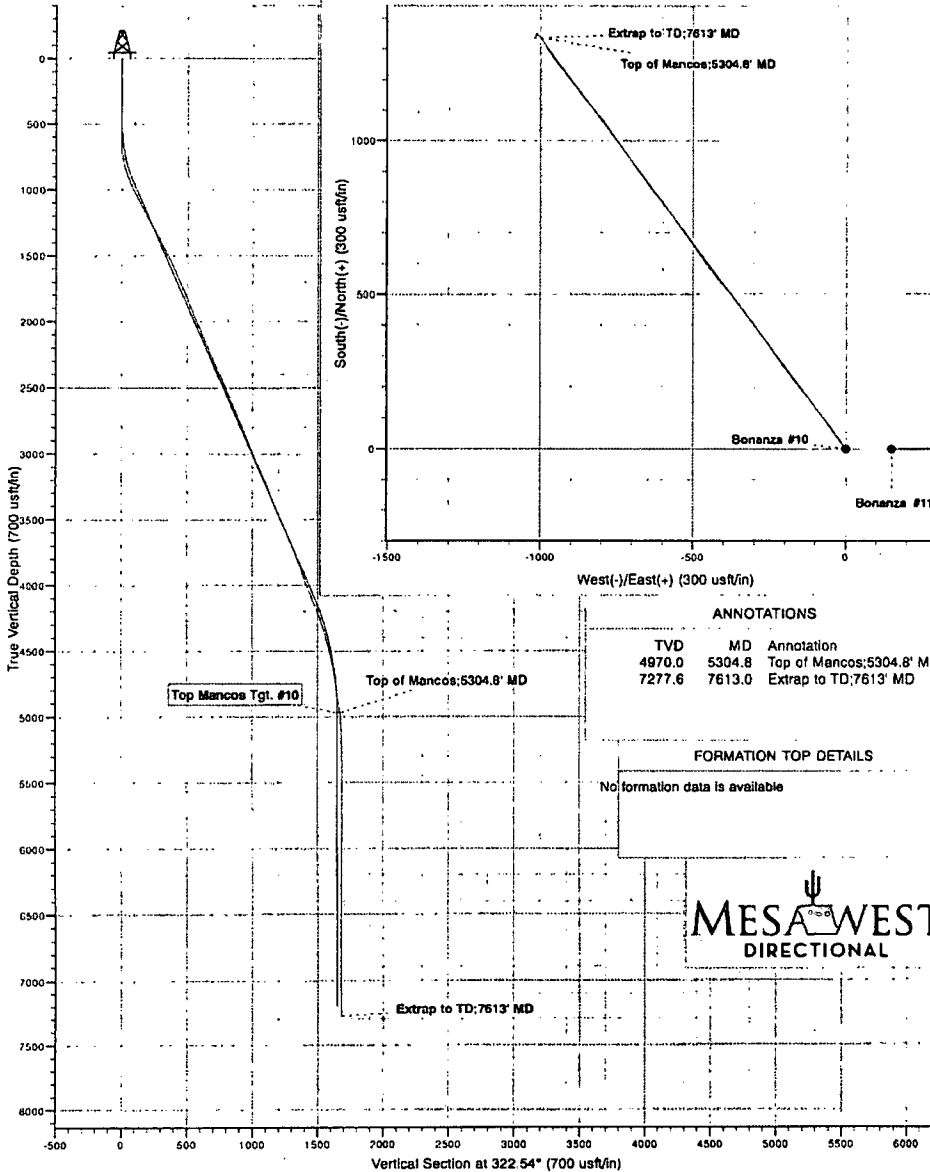
Site: Sec 12 T-22-N,R-3-W
Well: Bonanza #10
Wellbore: DD
Design: Final

Reference Details - WELL CENTRE
Geodetic System: US State Plane 1983
Ellipsoid: GRS 1980
Zone: New Mexico Central Zone
Northing: 1877450.27
Easting: 1386086.66
Latitude: 36° 9' 24.297" N
Longitude: 107° 6' 41.592" W
Grid Convergence: 0.51° East
Ground Elevation: 7180.0
KB Elevation: Est RKB @ 7192.0ust (ft) (#10)

T Azimuths to True North
Magnetic North: 9.32°
Magnetic Field
Strength: 50292.9snT
Dip Angle: 63.04°
Date: 5/6/2013
Model: IGRF2010

PLAN DETAILS

Sec	MD	Inc	Asi	TVD	+N/-S	-E/+W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	975.6	23.78	323.14	982.1	77.8	-58.4	5.00	323.14	97.3	
4	4345.5	23.78	323.14	4045.8	1165.1	-873.8	0.00	0.00	1456.2	
5	5296.8	0.00	0.00	4970.0	1320.8	-990.3	2.50	190.00	1650.6	Top Mancos Tgt. #10
6	7526.8	0.00	0.00	7200.0	1320.8	-990.3	0.00	0.00	1650.6	



Mesa West Directional
Survey Report



Company:	Elm Ridge Exploration Company.	Local Co-ordinate Reference:	Well Bonanza #10
Project:	Sandoval County, NM (Nad 83)	TVD Reference:	Est RKB @ 7192.0usft (#10)
Site:	Sec 12 T-22-N, R-3-W	MD Reference:	Est RKB @ 7192.0usft (#10)
Well:	Bonanza #10	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	Final	Database:	EDM 5000.1 Single User Db

Project:	Sandoval 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 Central Zone		

Site:		Sec 12 T-22-N,R-3-W			
Site Position:		Northing:	1,877,448.88 usft	Latitude:	38° 9' 24.296 N
From:	Lat/Long	Easting:	1,388,238.69 usft	Longitude:	107° 8' 39.762 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.51 "

Well:	Bonanza #10					
Well Position	+N/-S	0.0 usft	Northing:	1,877,450.27 usft	Latitude:	38° 8' 24.297 N
	+E/-W	0.0 usft	Easting:	1,388,088.66 usft	Longitude:	107° 8' 41.592 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	7,180.0 usft	

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/6/2013	9.32	63.04	50,293

Design:	Final				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	322.54	

Survey Program		Date: 7/30/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
570.0	7,613.0 Final (DD)		MWD	MWD - Standard

Measured	Inclination	Azimuth	Vertical	Subsea	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)				(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	-7,192.0	0.0	0.0	0.0	0.00	0.00	0.00
570.0	0.90	146.80	570.0	-6,622.0	-3.7	2.5	-4.5	0.18	0.16	0.00
601.0	0.90	152.90	601.0	-6,591.0	-4.2	2.7	-4.9	0.31	0.00	19.68
631.0	1.10	284.50	631.0	-6,561.0	-4.3	2.5	-5.0	6.09	0.67	438.67
662.0	2.90	318.30	662.0	-6,530.0	-3.6	1.7	-3.9	8.70	5.81	109.03
692.0	5.40	325.50	691.9	-6,500.1	-1.9	0.4	-1.8	8.50	8.33	24.00
723.0	8.00	331.40	722.7	-6,469.3	1.2	-1.4	1.8	8.67	8.39	19.03
752.0	10.60	333.30	751.3	-6,440.7	5.3	-3.6	6.4	9.03	8.97	6.55
784.0	12.60	330.00	782.6	-6,409.4	11.0	-8.7	12.8	6.58	6.25	-10.31
814.0	14.40	327.20	811.8	-6,380.2	17.0	-10.3	19.8	6.38	6.00	-9.33

Mesa West Directional
Survey Report



Company:	Elm Ridge Exploration Company.	Local Co-ordinate Reference:	Well Bonanza #10
Project:	Sandoval County, NM (Nad 83)	TVD Reference:	Est RKB @ 7192.0uoft (#10)
Site:	Sec 12 T-22-N-R-3-W	MD Reference:	Est RKB @ 7192.0uoft (#10)
Well:	Bonanza #10	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	Final	Database:	EDM 6000.1 Single User Db

Measured Depth (uoft)	Inclination (°)	Azimuth (°)	Vertical Depth (uoft)	Subsea (uoft)	N-E (uoft)	E-W (uoft)	Vertical Section (uoft)	Dogleg Rate (°/100uoft)	Build Rate (°/100uoft)	Turn Rate (°/100uoft)
844.0	16.40	324.80	840.7	-6,351.3	23.6	-14.8	27.7	7.00	6.67	-8.00
875.0	18.50	324.50	870.3	-6,321.7	31.1	-20.2	37.0	6.78	6.77	-0.97
905.0	20.40	323.40	898.6	-6,283.4	39.2	-26.1	47.0	6.45	6.33	-3.67
936.0	22.00	322.80	927.5	-6,264.5	48.2	-32.8	58.2	5.21	5.16	-1.94
967.0	23.60	322.60	956.0	-6,236.0	57.7	-40.1	70.2	5.17	5.16	-0.65
997.0	25.10	322.40	983.4	-6,208.6	67.5	-47.6	82.6	5.01	5.00	-0.87
1,028.0	26.60	322.00	1,011.3	-6,180.7	78.2	-55.9	96.1	4.87	4.84	-1.29
1,089.0	27.30	322.20	1,065.6	-6,128.4	100.0	-72.9	123.7	1.16	1.15	0.33
1,152.0	27.90	323.00	1,121.5	-6,070.5	123.2	-90.6	152.9	1.12	0.95	1.27
1,216.0	28.00	321.40	1,178.0	-6,014.0	146.9	-109.0	182.9	1.18	0.16	-2.50
1,279.0	28.40	321.40	1,233.5	-5,958.5	170.2	-127.6	212.7	0.63	0.63	0.00
1,343.0	28.80	320.90	1,289.7	-5,902.3	194.0	-146.8	243.3	0.73	0.63	-0.78
1,406.0	29.30	320.70	1,344.8	-5,847.2	217.8	-166.1	273.9	0.81	0.79	-0.32
1,469.0	27.60	322.90	1,400.2	-5,791.8	241.3	-184.7	303.9	3.17	-2.70	3.49
1,532.0	27.70	323.30	1,456.0	-5,736.0	264.7	-202.2	333.1	0.33	0.16	0.63
1,596.0	26.90	324.10	1,512.9	-5,679.1	288.4	-219.6	362.5	1.38	-1.25	1.25
1,659.0	25.50	325.50	1,569.4	-5,622.6	311.1	-235.6	390.3	2.43	-2.22	2.22
1,723.0	23.80	325.80	1,627.6	-5,564.4	333.1	-250.7	418.9	2.68	-2.68	0.47
1,786.0	22.90	325.10	1,685.4	-5,506.6	353.7	-264.9	441.8	1.49	-1.43	-1.11
1,850.0	23.10	324.60	1,744.3	-5,447.7	374.1	-279.3	466.8	0.44	0.31	-0.78
1,913.0	22.50	324.50	1,802.4	-5,389.6	394.0	-293.4	491.2	0.95	-0.95	-0.16
1,977.0	22.50	323.30	1,861.5	-5,330.5	413.8	-307.9	515.7	0.72	0.00	-1.88
2,040.0	22.50	323.20	1,919.7	-5,272.3	433.1	-322.3	539.8	0.06	0.00	-0.16
2,103.0	22.60	322.00	1,977.9	-5,214.1	452.3	-337.0	564.0	0.75	0.16	-1.90
2,167.0	23.00	320.80	2,036.9	-5,155.1	471.7	-352.4	588.8	0.96	0.63	-1.88
2,230.0	23.30	320.90	2,094.8	-5,097.2	490.9	-368.1	613.5	0.48	0.48	0.16
2,294.0	23.90	321.10	2,153.5	-5,038.5	510.8	-384.2	639.1	0.95	0.94	0.31
2,357.0	24.00	320.20	2,211.1	-4,980.9	530.6	-400.4	664.7	0.60	0.16	-1.43
2,421.0	23.30	321.00	2,269.7	-4,922.3	550.4	-416.7	690.4	1.20	-1.09	1.25
2,484.0	23.20	320.60	2,327.6	-4,864.4	569.7	-432.4	715.2	0.30	-0.16	-0.63
2,546.0	23.70	322.40	2,384.4	-4,807.6	589.0	-447.8	739.9	1.41	0.81	2.90
2,599.0	23.50	324.10	2,433.0	-4,759.0	606.0	-460.5	761.1	1.34	-0.38	3.21
2,662.0	23.50	325.40	2,490.8	-4,701.2	626.5	-475.0	786.2	0.82	0.00	2.06
2,725.0	24.00	324.00	2,548.4	-4,643.6	647.2	-489.6	811.6	1.20	0.79	-2.22
2,789.0	23.40	323.90	2,607.1	-4,584.9	668.0	-504.8	837.3	0.94	-0.94	-0.16
2,852.0	23.30	324.90	2,664.9	-4,527.1	688.3	-519.3	862.2	0.65	-0.16	1.59
2,915.0	23.10	325.20	2,722.8	-4,469.2	708.7	-533.5	887.0	0.37	-0.32	0.48
2,979.0	23.20	323.80	2,781.6	-4,410.4	729.2	-548.1	912.2	0.87	0.16	-2.19
3,042.0	23.00	324.60	2,839.6	-4,352.4	749.2	-562.6	936.9	0.59	-0.32	1.27
3,107.0	22.30	324.00	2,899.6	-4,292.4	769.5	-577.2	961.9	1.13	-1.08	-0.92
3,169.0	23.10	322.40	2,956.8	-4,235.2	788.7	-591.5	985.8	1.63	1.28	-2.58
3,233.0	23.00	321.20	3,015.7	-4,176.3	808.4	-607.0	1,010.9	0.75	-0.16	-1.88
3,296.0	22.30	319.60	3,073.8	-4,118.2	827.1	-622.5	1,035.1	1.48	-1.11	-2.54
3,359.0	23.00	321.40	3,131.9	-4,060.0	845.8	-637.9	1,059.4	1.56	1.11	2.88

Mesa West Directional
Survey Report



Company:	Elm Ridge Exploration Company.	Local Co-ordinate Reference:	Well Bonanza #10
Project:	Sandoval County, NM (Nad 83)	TVD Reference:	Est RKB @ 7192.0usft (#10)
Site:	Sec 12 T-22-N,R-3-W	MD Reference:	Est RKB @ 7192.0usft (#10)
Well:	Bonanza #10	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	Final	Database:	EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea (usft)	N-S (usft)	E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,422.0	23.60	324.20	3,189.8	-4,002.2	865.6	-853.0	1,084.3	2.00	0.95	4.44
3,484.0	23.00	324.90	3,246.8	-3,945.2	865.6	-867.2	1,108.8	1.07	-0.97	1.13
3,547.0	22.40	324.10	3,304.9	-3,887.1	905.4	-881.3	1,133.1	1.07	-0.95	-1.27
3,611.0	21.30	325.00	3,364.3	-3,827.7	924.8	-895.1	1,156.9	1.60	-1.72	1.41
3,674.0	23.00	324.90	3,422.6	-3,769.4	944.3	-708.8	1,180.6	2.70	2.70	-0.16
3,738.0	23.00	325.10	3,481.5	-3,710.5	964.7	-723.1	1,205.8	0.12	0.00	0.31
3,801.0	23.40	325.50	3,539.4	-3,652.6	985.1	-737.2	1,230.4	0.68	0.63	0.63
3,864.0	24.10	325.00	3,597.1	-3,594.9	1,006.0	-751.7	1,255.7	1.16	1.11	-0.79
3,928.0	23.40	326.70	3,655.7	-3,536.3	1,027.3	-766.2	1,281.5	1.53	-1.09	2.66
3,991.0	23.10	324.80	3,713.6	-3,478.4	1,047.8	-780.2	1,306.3	1.40	-0.48	-3.33
4,055.0	22.00	322.00	3,772.7	-3,419.3	1,067.5	-794.9	1,330.8	2.32	-1.72	-4.06
4,118.0	20.80	317.30	3,831.3	-3,360.7	1,085.0	-809.7	1,353.8	3.32	-1.90	-7.46
4,182.0	19.40	318.30	3,891.4	-3,300.6	1,101.3	-824.5	1,375.7	2.25	-2.19	1.56
4,214.0	19.50	319.00	3,921.6	-3,270.4	1,109.3	-831.5	1,386.3	0.79	0.31	2.19
4,245.0	19.70	319.10	3,950.8	-3,241.2	1,117.2	-838.3	1,396.7	0.65	0.65	0.32
4,277.0	20.20	319.70	3,980.9	-3,211.1	1,125.5	-845.4	1,407.6	1.69	1.56	1.88
4,309.0	21.50	320.80	4,010.8	-3,181.2	1,134.2	-852.7	1,419.0	4.24	4.06	3.44
4,341.0	23.10	322.00	4,040.4	-3,151.6	1,143.7	-860.3	1,431.1	5.20	5.00	3.75
4,372.0	23.50	322.60	4,068.9	-3,123.1	1,153.4	-867.8	1,443.4	1.50	1.29	1.94
4,404.0	22.80	323.10	4,098.3	-3,093.7	1,163.5	-875.4	1,455.9	2.27	-2.19	1.56
4,436.0	22.40	323.10	4,127.8	-3,064.2	1,173.3	-882.8	1,468.2	1.25	-1.25	0.00
4,467.0	21.40	324.40	4,156.6	-3,035.4	1,182.6	-889.6	1,479.8	3.58	-3.23	4.19
4,498.0	20.70	323.80	4,185.5	-3,006.5	1,191.6	-896.1	1,490.9	2.36	-2.25	-1.94
4,530.0	19.80	322.20	4,215.6	-2,976.4	1,200.5	-902.8	1,502.0	3.30	-2.81	-5.00
4,562.0	19.10	322.00	4,245.7	-2,946.3	1,208.9	-909.4	1,512.7	2.20	-2.19	-0.63
4,593.0	18.60	321.20	4,275.1	-2,916.9	1,216.7	-915.6	1,522.7	1.82	-1.61	-2.58
4,625.0	17.90	321.60	4,305.5	-2,886.5	1,224.6	-921.8	1,532.7	2.22	-2.19	1.25
4,657.0	17.10	320.00	4,336.0	-2,856.0	1,232.0	-927.9	1,542.3	2.82	-2.50	-5.00
4,689.0	16.40	321.40	4,366.6	-2,825.4	1,239.2	-933.7	1,551.5	2.52	-2.19	4.38
4,721.0	15.70	322.70	4,397.4	-2,794.6	1,246.1	-939.2	1,560.4	2.46	-2.19	4.06
4,752.0	16.30	323.30	4,427.2	-2,764.8	1,253.0	-944.3	1,568.9	2.01	1.94	1.94
4,775.0	16.10	321.60	4,449.3	-2,742.7	1,258.0	-948.2	1,575.3	2.24	-0.87	-7.39
4,816.0	15.20	321.60	4,486.7	-2,703.3	1,266.7	-955.1	1,586.4	2.20	-2.20	0.00
4,847.0	13.60	323.90	4,518.8	-2,673.2	1,272.8	-959.8	1,594.1	5.48	-5.16	7.42
4,879.0	13.70	325.60	4,549.9	-2,642.1	1,279.0	-964.1	1,601.6	1.29	0.31	5.31
4,911.0	13.50	325.30	4,581.0	-2,611.0	1,285.2	-968.4	1,609.2	0.68	-0.63	-0.94
4,942.0	12.10	325.50	4,611.2	-2,580.8	1,290.9	-972.3	1,616.0	4.52	-4.52	0.65
4,974.0	10.50	324.90	4,642.6	-2,549.4	1,296.0	-975.9	1,622.3	5.01	-5.00	-1.88
5,005.0	9.60	331.00	4,673.1	-2,518.9	1,300.6	-978.8	1,627.7	4.49	-2.90	19.68
5,037.0	8.50	334.60	4,704.7	-2,487.3	1,305.1	-981.1	1,632.6	3.86	-3.44	11.25
5,069.0	7.80	334.00	4,736.4	-2,455.6	1,309.1	-983.0	1,637.1	2.20	-2.19	-1.88
5,100.0	8.30	331.30	4,767.1	-2,424.9	1,313.0	-985.0	1,641.3	2.02	1.61	-6.71
5,164.0	8.10	332.00	4,830.4	-2,361.6	1,321.0	-989.4	1,650.3	0.35	-0.31	1.09

Mesa West Directional
Survey Report



Company: Elm Ridge Exploration Company.
Project: Sandoval County, NM (Nad 83)
Site: Sec 12 T-22-N, R-3-W
Well: Bonanza #10
Wellbore: DD
Design: Final

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well Bonanza #10
Est RKB @ 7192.0usft (#10)
Est RKB @ 7192.0usft (#10)
True
Minimum Curvature
EDM 5000.1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea (usft)	N-S (usft)	E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,222.0	7.60	325.00	4,887.9	-2,304.1	1,327.8	-993.5	1,658.2	1.86	-0.66	-12.07
5,284.0	6.90	326.90	4,949.4	-2,242.6	1,334.3	-997.9	1,668.0	1.19	-1.13	3.06
Top of Mancos; 5304.8' MD										
5,304.8	6.40	325.76	4,970.0	-2,222.0	1,336.3	-999.2	1,668.4	2.48	-2.40	-5.49
5,347.0	5.40	322.80	5,012.0	-2,180.0	1,339.8	-1,001.7	1,672.8	2.48	-2.37	-7.01
5,410.0	2.70	317.50	5,074.8	-2,117.2	1,343.2	-1,004.6	1,677.2	4.32	-4.29	-8.41
5,474.0	2.50	308.90	5,138.8	-2,053.2	1,345.2	-1,006.6	1,680.1	0.68	-0.31	-13.44
5,537.0	1.10	333.60	5,201.8	-1,990.2	1,346.6	-1,008.0	1,682.0	2.49	-2.22	39.21
5,601.0	0.90	335.60	5,265.7	-1,926.3	1,347.6	-1,008.4	1,683.1	0.32	-0.31	3.13
5,664.0	0.60	307.40	5,328.7	-1,863.3	1,348.3	-1,008.9	1,683.9	0.74	-0.46	-44.76
5,728.0	0.50	293.50	5,392.7	-1,799.3	1,348.6	-1,009.4	1,684.4	0.28	-0.18	-21.72
5,791.0	0.50	271.10	5,455.7	-1,736.3	1,348.7	-1,010.0	1,684.9	0.31	0.00	-35.58
5,854.0	0.20	267.80	5,518.7	-1,673.3	1,348.7	-1,010.4	1,685.1	0.48	-0.48	-5.24
5,918.0	0.60	261.40	5,582.7	-1,609.3	1,348.7	-1,010.8	1,685.3	0.63	0.63	-10.00
5,981.0	0.50	264.30	5,645.7	-1,546.3	1,348.8	-1,011.4	1,685.6	0.16	-0.16	4.60
6,045.0	0.50	227.60	5,709.7	-1,482.3	1,348.4	-1,011.9	1,685.7	0.49	0.00	-57.34
6,107.0	0.40	242.60	5,771.7	-1,420.3	1,348.1	-1,012.3	1,685.8	0.25	-0.16	24.18
6,171.0	0.60	215.30	5,835.7	-1,356.3	1,347.7	-1,012.7	1,685.7	0.48	0.31	-42.66
6,234.0	0.90	219.50	5,899.7	-1,293.3	1,347.1	-1,013.2	1,685.5	0.48	0.48	6.67
6,297.0	0.90	219.70	5,961.7	-1,230.3	1,346.3	-1,013.8	1,685.3	0.00	0.00	0.32
6,361.0	0.70	220.10	6,025.7	-1,166.3	1,345.8	-1,014.4	1,685.1	0.31	-0.31	0.63
6,424.0	0.90	217.60	6,088.7	-1,103.3	1,344.9	-1,014.9	1,684.9	0.32	0.32	-3.97
6,488.0	0.80	188.60	6,152.7	-1,039.3	1,344.1	-1,015.3	1,684.4	0.68	-0.16	-45.31
6,551.0	1.00	203.80	6,215.7	-976.3	1,343.2	-1,015.6	1,683.9	0.49	0.32	24.13
6,614.0	1.10	185.30	6,278.7	-913.3	1,342.1	-1,015.9	1,683.1	0.58	0.16	-29.37
6,677.0	1.20	207.10	6,341.7	-850.3	1,340.9	-1,016.2	1,682.4	0.71	0.16	34.60
6,741.0	0.70	217.30	6,405.6	-788.4	1,340.0	-1,016.8	1,682.0	0.82	-0.78	15.94
6,804.0	0.80	205.30	6,468.6	-723.4	1,339.2	-1,017.2	1,681.7	0.29	0.16	-19.05
6,855.0	1.30	197.10	6,519.6	-672.4	1,338.4	-1,017.6	1,681.2	1.02	0.98	-16.08
6,926.0	1.80	205.00	6,590.6	-601.4	1,336.6	-1,018.2	1,680.2	0.76	0.70	11.13
6,984.0	1.10	181.70	6,648.6	-543.4	1,335.2	-1,018.8	1,679.4	1.55	-1.21	-40.17
7,045.0	0.70	300.10	6,709.6	-482.4	1,334.8	-1,018.9	1,679.3	2.58	-0.66	194.10
7,108.0	0.30	273.00	6,772.6	-419.4	1,335.0	-1,019.4	1,679.7	0.72	-0.63	-43.02
7,171.0	0.70	280.20	6,835.6	-356.4	1,335.1	-1,020.0	1,680.1	0.64	0.63	11.43
7,234.0	0.40	316.50	6,898.6	-293.4	1,335.3	-1,020.5	1,680.6	0.71	-0.48	57.62
7,298.0	0.60	262.40	6,962.6	-229.4	1,335.4	-1,021.0	1,681.0	0.76	0.31	-84.53
7,361.0	0.30	246.50	7,025.6	-166.4	1,335.3	-1,021.5	1,681.2	0.51	-0.48	-25.24
7,424.0	0.40	231.20	7,088.6	-103.4	1,335.1	-1,021.8	1,681.3	0.22	0.16	-24.29
7,487.0	0.50	281.10	7,151.6	-40.4	1,335.0	-1,022.2	1,681.5	0.62	0.16	79.21
7,549.0	0.50	290.20	7,213.6	21.6	1,335.2	-1,022.8	1,681.9	0.13	0.00	14.68
7,563.0	0.10	226.10	7,227.6	35.6	1,335.2	-1,022.8	1,681.9	3.32	-2.86	-457.86
Extrap to TD; 7613' MD										
7,613.0	0.10	226.10	7,277.6	85.6	1,335.1	-1,022.9	1,681.9	0.00	0.00	0.00

Mesa West Directional
Survey Report



Company:	Elm Ridge Exploration Company.	Local Co-ordinate Reference:	Well Bonanza #10
Project:	Sandoval County, NM (Nad 83)	TVD Reference:	Est RKB @ 7192.0usft (#10)
Site:	Sec 12 T-22-N,R-3-W	MD Reference:	Est RKB @ 7192.0usft (#10)
Well:	Bonanza #10	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	Final	Database:	EDM 5000.1 Single User Db

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,304.8	4,970.0	1,338.3	-999.2	Top of Mancos;5304.8' MD
7,613.0	7,277.6	1,335.1	-1,022.9	Extrap to TD:7613' MD

Checked By: _____	Approved By: _____	Date: _____
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