



Scientific Drilling
Directional Drilling Operations

Samson Resources Company

La Plata County, C.O.

SEC 11-T32N-R7W

Lucero 32-7-11 #1

Lateral #2

Plan: Plan #1

Standard Planning Report

14 February, 2011



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Lucero 32-7-11 #1, Grid North
Vertical (TVD) Reference: AWS 507 @ 6255.0ft (12' DF + 6243' GL)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: AWS 507 @ 6255.0ft (12' DF + 6243' GL)
Calculation Method: Minimum Curvature

PROJECT DETAILS

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Southern Zone
System Datum: Mean Sea Level

WELL DETAILS: Lucero 32-7-11 #1

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1138081.85	2391233.66	37° 1' 37.992 N	107° 35' 7.476 W

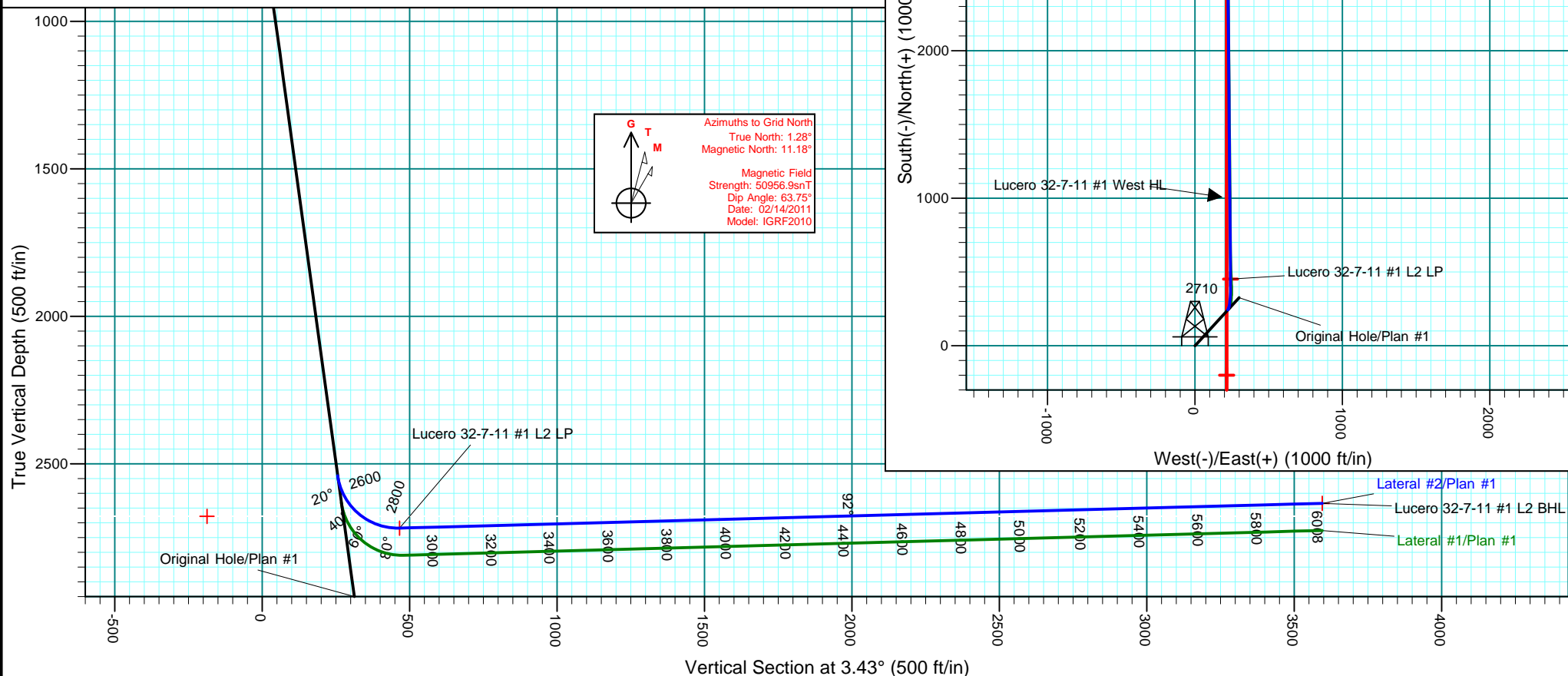
Ground Level: 6243.0

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	2568.6	10.00	42.50	2540.5	243.6	223.2	0.00	0.00	256.5	
2	2869.8	91.54	358.75	2718.0	452.5	240.9	28.00	-44.00	466.1	
3	2908.8	91.53	359.53	2717.0	491.5	240.3	2.00	90.37	505.0	
4	6007.5	91.53	359.53	2634.0	3589.0	215.0	0.00	0.00	3595.4	Lucero 32-7-11 #1 L2 BHL

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Lucero 32-7-11 #1 L2 BHL	2634.0	3589.0	215.0	1141671.00	2391448.67	Point
Lucero 32-7-11 #1 North HL	2678.0	3589.0	215.0	1141671.00	2391448.67	Polygon
Lucero 32-7-11 #1 West HL	2678.0	-200.0	215.0	1137881.84	2391448.67	Polygon
Lucero 32-7-11 #1 L2 LP	2718.0	452.5	240.9	1138534.37	2391474.57	Point



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Lucero 32-7-11 #1
Company:	Samson Resources Company	TVD Reference:	AWS 507 @ 6255.0ft (12' DF + 6243' GL)
Project:	La Plata County, C.O.	MD Reference:	AWS 507 @ 6255.0ft (12' DF + 6243' GL)
Site:	SEC 11-T32N-R7W	North Reference:	Grid
Well:	Lucero 32-7-11 #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #2		
Design:	Plan #1		

Project	La Plata County, C.O.		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Southern Zone		Using geodetic scale factor

Site	SEC 11-T32N-R7W		
Site Position:		Northing:	1,137,161.82 usft
From:	Lat/Long	Easting:	2,393,949.37 usft
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8 "
		Latitude:	37° 1' 29.496 N
		Longitude:	107° 34' 33.744 W
		Grid Convergence:	-1.27 °

Well	Lucero 32-7-11 #1		
Well Position	+N/-S	920.0 ft	Northing: 1,138,081.85 usft
	+E/-W	-2,715.6 ft	Easting: 2,391,233.66 usft
Position Uncertainty		3.5 ft	Wellhead Elevation:
			Ground Level: 6,243.0 ft

Wellbore	Lateral #2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/14/11	9.90	63.75	50,957

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	2,568.6	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	3.43	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
2,568.6	10.00	42.50	2,540.5	243.6	223.2	0.00	0.00	0.00	0.00	
2,869.8	91.54	358.75	2,718.0	452.5	240.9	28.00	27.08	-14.53	-44.00	
2,908.8	91.53	359.53	2,717.0	491.5	240.3	2.00	-0.01	2.00	90.37	
6,007.5	91.53	359.53	2,634.0	3,589.0	215.0	0.00	0.00	0.00	0.00	Lucero 32-7-11 #1 I

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Lucero 32-7-11 #1
Company:	Samson Resources Company	TVD Reference:	AWS 507 @ 6255.0ft (12' DF + 6243' GL)
Project:	La Plata County, C.O.	MD Reference:	AWS 507 @ 6255.0ft (12' DF + 6243' GL)
Site:	SEC 11-T32N-R7W	North Reference:	Grid
Well:	Lucero 32-7-11 #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #2		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	3.00	42.50	600.0	1.9	1.8	2.0	3.00	3.00	0.00
700.0	6.00	42.50	699.6	7.7	7.1	8.1	3.00	3.00	0.00
800.0	9.00	42.50	798.8	17.3	15.9	18.3	3.00	3.00	0.00
833.3	10.00	42.50	831.6	21.4	19.6	22.5	3.00	3.00	0.00
900.0	10.00	42.50	897.3	29.9	27.4	31.5	0.00	0.00	0.00
1,000.0	10.00	42.50	995.8	42.7	39.2	45.0	0.00	0.00	0.00
1,100.0	10.00	42.50	1,094.3	55.5	50.9	58.5	0.00	0.00	0.00
1,200.0	10.00	42.50	1,192.7	68.3	62.6	72.0	0.00	0.00	0.00
1,300.0	10.00	42.50	1,291.2	81.1	74.3	85.4	0.00	0.00	0.00
1,400.0	10.00	42.50	1,389.7	93.9	86.1	98.9	0.00	0.00	0.00
1,500.0	10.00	42.50	1,488.2	106.7	97.8	112.4	0.00	0.00	0.00
1,600.0	10.00	42.50	1,586.7	119.5	109.5	125.9	0.00	0.00	0.00
1,700.0	10.00	42.50	1,685.1	132.3	121.3	139.4	0.00	0.00	0.00
1,800.0	10.00	42.50	1,783.6	145.2	133.0	152.8	0.00	0.00	0.00
1,900.0	10.00	42.50	1,882.1	158.0	144.7	166.3	0.00	0.00	0.00
2,000.0	10.00	42.50	1,980.6	170.8	156.5	179.8	0.00	0.00	0.00
2,100.0	10.00	42.50	2,079.1	183.6	168.2	193.3	0.00	0.00	0.00
2,200.0	10.00	42.50	2,177.5	196.4	179.9	206.8	0.00	0.00	0.00
2,300.0	10.00	42.50	2,276.0	209.2	191.7	220.3	0.00	0.00	0.00
2,400.0	10.00	42.50	2,374.5	222.0	203.4	233.7	0.00	0.00	0.00
2,500.0	10.00	42.50	2,473.0	234.8	215.1	247.2	0.00	0.00	0.00
2,568.6	10.00	42.50	2,540.5	243.6	223.2	256.5	0.00	0.00	0.00
2,580.0	12.49	32.20	2,551.7	245.3	224.5	258.3	28.00	21.86	-90.36
2,598.2	16.95	22.44	2,569.3	249.4	226.6	262.5	28.00	24.54	-53.75
Lucero 32-7-11 #1 West HL									
2,600.0	17.42	21.73	2,571.0	249.9	226.8	263.1	28.00	25.56	-38.71
2,620.0	22.65	15.87	2,589.8	256.4	228.9	269.7	28.00	26.17	-29.30
2,640.0	28.02	12.14	2,607.9	264.7	231.0	278.1	28.00	26.85	-18.65
2,660.0	33.46	9.53	2,625.1	274.8	232.9	288.2	28.00	27.20	-13.02
2,680.0	38.95	7.59	2,641.2	286.5	234.6	300.0	28.00	27.41	-9.73
2,700.0	44.45	6.05	2,656.1	299.7	236.2	313.2	28.00	27.53	-7.66
2,720.0	49.98	4.80	2,669.7	314.3	237.6	327.9	28.00	27.62	-6.29
2,740.0	55.51	3.73	2,681.8	330.1	238.7	343.8	28.00	27.68	-5.34
2,760.0	61.05	2.79	2,692.3	347.1	239.7	360.8	28.00	27.72	-4.68
2,780.0	66.60	1.95	2,701.2	365.0	240.4	378.8	28.00	27.75	-4.20
2,800.0	72.16	1.18	2,708.2	383.7	241.0	397.5	28.00	27.77	-3.86
2,820.0	77.71	0.45	2,713.4	403.0	241.2	416.8	28.00	27.78	-3.63
2,840.0	83.27	359.76	2,716.7	422.8	241.3	436.4	28.00	27.79	-3.48
2,860.0	88.83	359.08	2,718.1	442.7	241.1	456.3	28.00	27.79	-3.40
2,869.8	91.54	358.75	2,718.0	452.5	240.9	466.1	27.88	27.67	-3.36
Lucero 32-7-11 #1 L2 LP									
2,908.8	91.53	359.53	2,717.0	491.5	240.3	505.0	2.00	-0.01	2.00
3,000.0	91.53	359.53	2,714.6	582.7	239.5	595.9	0.00	0.00	0.00
3,100.0	91.53	359.53	2,711.9	682.6	238.7	695.7	0.00	0.00	0.00
3,200.0	91.53	359.53	2,709.2	782.6	237.9	795.4	0.00	0.00	0.00
3,300.0	91.53	359.53	2,706.5	882.5	237.1	895.1	0.00	0.00	0.00
3,400.0	91.53	359.53	2,703.8	982.5	236.3	994.9	0.00	0.00	0.00
3,500.0	91.53	359.53	2,701.2	1,082.5	235.5	1,094.6	0.00	0.00	0.00

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Company:	Samson Resources Company	TVD Reference:	AWS 507 @ 6255.0ft (12' DF + 6243' GL)
Project:	La Plata County, C.O.	MD Reference:	AWS 507 @ 6255.0ft (12' DF + 6243' GL)
Site:	SEC 11-T32N-R7W	North Reference:	Grid
Well:	Lucero 32-7-11 #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral #2		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,600.0	91.53	359.53	2,698.5	1,182.4	234.6	1,194.3	0.00	0.00	0.00
3,700.0	91.53	359.53	2,695.8	1,282.4	233.8	1,294.1	0.00	0.00	0.00
3,800.0	91.53	359.53	2,693.1	1,382.3	233.0	1,393.8	0.00	0.00	0.00
3,900.0	91.53	359.53	2,690.4	1,482.3	232.2	1,493.5	0.00	0.00	0.00
4,000.0	91.53	359.53	2,687.8	1,582.3	231.4	1,593.3	0.00	0.00	0.00
4,100.0	91.53	359.53	2,685.1	1,682.2	230.6	1,693.0	0.00	0.00	0.00
4,200.0	91.53	359.53	2,682.4	1,782.2	229.8	1,792.7	0.00	0.00	0.00
4,300.0	91.53	359.53	2,679.7	1,882.1	228.9	1,892.5	0.00	0.00	0.00
4,400.0	91.53	359.53	2,677.1	1,982.1	228.1	1,992.2	0.00	0.00	0.00
4,500.0	91.53	359.53	2,674.4	2,082.1	227.3	2,091.9	0.00	0.00	0.00
4,600.0	91.53	359.53	2,671.7	2,182.0	226.5	2,191.7	0.00	0.00	0.00
4,700.0	91.53	359.53	2,669.0	2,282.0	225.7	2,291.4	0.00	0.00	0.00
4,800.0	91.53	359.53	2,666.3	2,381.9	224.9	2,391.1	0.00	0.00	0.00
4,900.0	91.53	359.53	2,663.7	2,481.9	224.0	2,490.9	0.00	0.00	0.00
5,000.0	91.53	359.53	2,661.0	2,581.9	223.2	2,590.6	0.00	0.00	0.00
5,100.0	91.53	359.53	2,658.3	2,681.8	222.4	2,690.3	0.00	0.00	0.00
5,200.0	91.53	359.53	2,655.6	2,781.8	221.6	2,790.1	0.00	0.00	0.00
5,300.0	91.53	359.53	2,653.0	2,881.7	220.8	2,889.8	0.00	0.00	0.00
5,400.0	91.53	359.53	2,650.3	2,981.7	220.0	2,989.5	0.00	0.00	0.00
5,500.0	91.53	359.53	2,647.6	3,081.7	219.1	3,089.3	0.00	0.00	0.00
5,600.0	91.53	359.53	2,644.9	3,181.6	218.3	3,189.0	0.00	0.00	0.00
5,700.0	91.53	359.53	2,642.2	3,281.6	217.5	3,288.7	0.00	0.00	0.00
5,800.0	91.53	359.53	2,639.6	3,381.6	216.7	3,388.5	0.00	0.00	0.00
5,900.0	91.53	359.53	2,636.9	3,481.5	215.9	3,488.2	0.00	0.00	0.00
6,006.3	91.53	359.53	2,634.0	3,587.8	215.0	3,594.3	0.00	0.00	0.00
Lucero 32-7-11 #1 North HL									
6,007.5	91.53	359.53	2,634.0	3,589.0	215.0	3,595.4	0.00	0.00	0.00
Lucero 32-7-11 #1 L2 BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Lucero 32-7-11 #1 L2	0.00	360.00	2,634.0	3,589.0	215.0	1,141,671.00	2,391,448.67	37° 2' 13.516 N	107° 35' 5.813 W
- hit/miss target									
- Shape									
- Point									
Lucero 32-7-11 #1 No	0.00	360.00	2,678.0	3,589.0	215.0	1,141,671.00	2,391,448.67	37° 2' 13.516 N	107° 35' 5.813 W
- plan misses target center by 44.0ft at 6006.3ft MD (2634.0 TVD, 3587.8 N, 215.0 E)									
- Polygon									
Point 1			2,678.0	0.0	0.0	1,141,671.00	2,391,448.67		
Point 2			2,678.0	0.0	800.0	1,141,671.00	2,392,248.70		
Lucero 32-7-11 #1 W€	0.00	360.00	2,678.0	-200.0	215.0	1,137,881.84	2,391,448.67	37° 1' 36.062 N	107° 35' 4.770 W
- plan misses target center by 462.5ft at 2598.2ft MD (2569.3 TVD, 249.4 N, 226.6 E)									
- Polygon									
Point 1			2,678.0	3,789.0	0.0	1,141,671.00	2,391,448.67		
Point 2			2,678.0	-400.0	0.0	1,137,481.82	2,391,448.67		
Lucero 32-7-11 #1 L2	0.00	0.00	2,718.0	452.5	240.9	1,138,534.37	2,391,474.57	37° 1' 42.518 N	107° 35' 4.631 W
- plan misses target center by 0.1ft at 2869.8ft MD (2718.0 TVD, 452.5 N, 240.9 E)									
- Point									