



Samson Resources Company

La Plata County, C.O.

SEC 11-T32N-R7W

Lucero 32-7-11 #2

Original Hole

Plan: Plan #3

Standard Planning Report

24 May, 2011





Project: La Plata County, C.O.
 Site: SEC 11-T32N-R7W
 Well: Lucero 32-7-11 #2
 Wellbore: Original Hole
 Design: Plan #3



REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Lucero 32-7-11 #2, Grid North
 Vertical (TVD) Reference: AWS 507 @ 6315.3ft (12' DF + 6303.3' GL)
 Section (VS) Reference: Slot - (0.0N, 0.0E)
 Measured Depth Reference: AWS 507 @ 6315.3ft (12' DF + 6303.3' GL)
 Calculation Method: Minimum Curvature

PROJECT DETAILS: La Plata County, C.O.

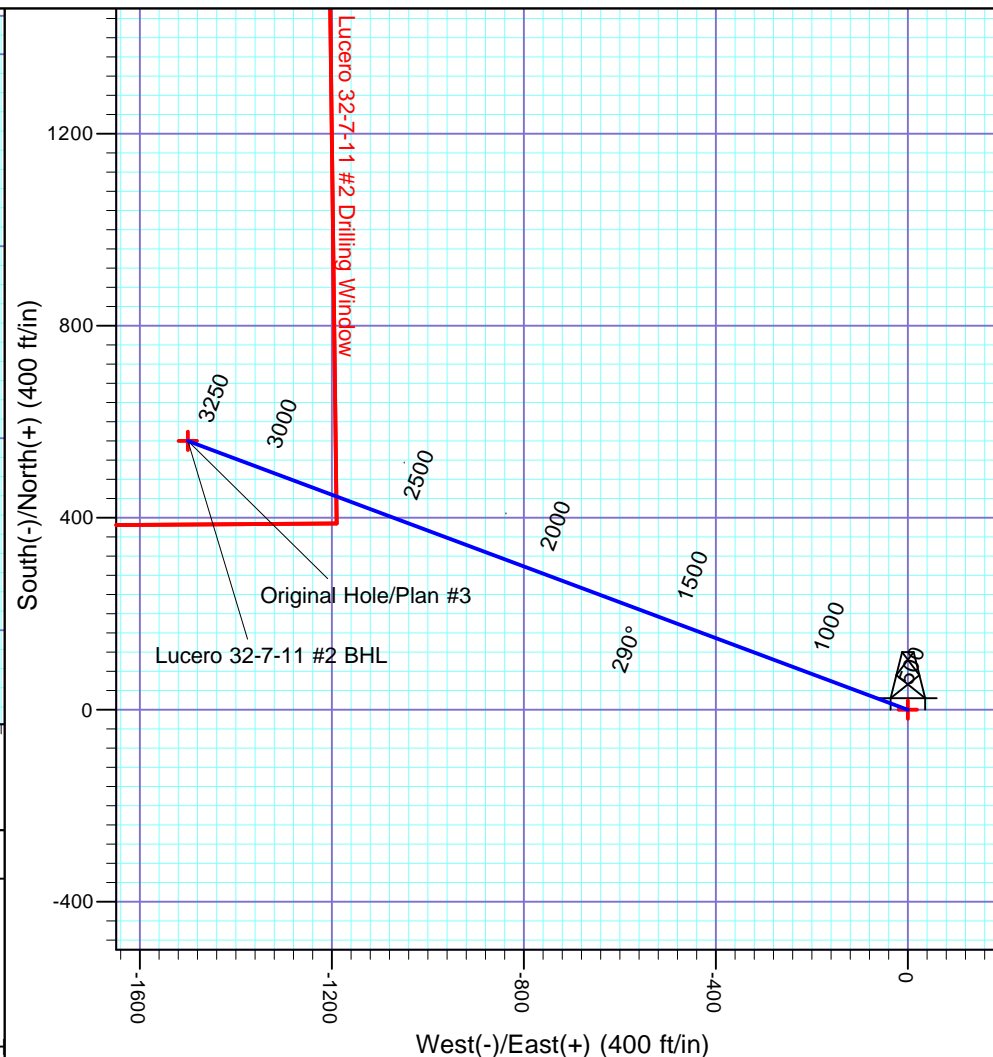
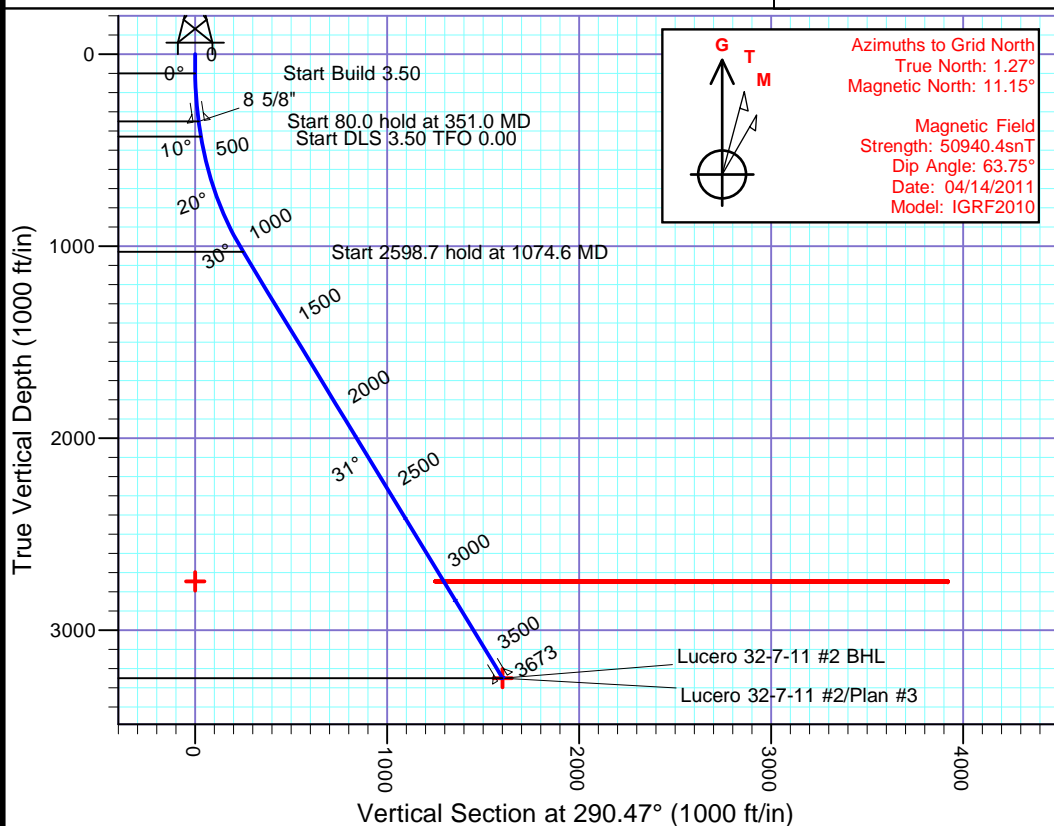
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Southern Zone
 System Datum: Mean Sea Level

WELL DETAILS: Lucero 32-7-11 #2

		Ground Level: 6303.3			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1137241.51	2393968.66	37° 1' 30.288 N	107° 34' 33.528 W

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Lucero 32-7-11 #2 Drilling Window	2746.0	0.0	0.0	37° 1' 30.288 N	107° 34' 33.528 W	Polygon
Lucero 32-7-11 #2 BHL	3250.0	560.0	-1500.0	37° 1' 35.493 N	107° 34' 52.174 W	Point



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	100.0	0.00	0.00	100.0	0.0	0.0	0.00	0.00	0.0	
3	351.0	8.78	290.47	350.0	6.7	-18.0	3.50	290.47	19.2	
4	431.0	8.78	290.47	429.1	11.0	-29.4	0.00	0.00	31.4	
5	1074.6	31.31	290.47	1029.8	87.7	-234.8	3.50	0.00	250.6	
6	3673.3	31.31	290.47	3250.0	560.0	-1500.0	0.00	0.00	1601.1	Lucero 32-7-11 #2 BHL

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Lucero 32-7-11 #2
Company:	Samson Resources Company	TVD Reference:	AWS 507 @ 6315.3ft (12' DF + 6303.3' GL)
Project:	La Plata County, C.O.	MD Reference:	AWS 507 @ 6315.3ft (12' DF + 6303.3' GL)
Site:	SEC 11-T32N-R7W	North Reference:	Grid
Well:	Lucero 32-7-11 #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan #3		

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 #2, FC HZ Well		
Well Position	+N/-S	79.7 ft	Northing: 1,137,241.51 usft
	+E/-W	19.3 ft	Easting: 2,393,968.67 usft
Position Uncertainty		3.5 ft	Wellhead Elevation:
			Ground Level: 6,303.3 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	04/14/11	9.87	63.75	50,940

Design	Plan #3				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	290.47	

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.00	0.00	0.00	0.00	
351.0	8.78	290.47	350.0	6.7	-18.0	3.50	3.50	0.00	290.47	
431.0	8.78	290.47	429.1	11.0	-29.4	0.00	0.00	0.00	0.00	
1,074.6	31.31	290.47	1,029.8	87.7	-234.8	3.50	3.50	0.00	0.00	
3,673.3	31.31	290.47	3,250.0	560.0	-1,500.0	0.00	0.00	0.00	0.00	Lucero 32-7-11 #2 I

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Lucero 32-7-11 #2
Company:	Samson Resources Company	TVD Reference:	AWS 507 @ 6315.3ft (12' DF + 6303.3' GL)
Project:	La Plata County, C.O.	MD Reference:	AWS 507 @ 6315.3ft (12' DF + 6303.3' GL)
Site:	SEC 11-T32N-R7W	North Reference:	Grid
Well:	Lucero 32-7-11 #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan #3		

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	3.50	290.47	199.9	1.1	-2.9	3.1	3.50	3.50	0.00
300.0	7.00	290.47	299.5	4.3	-11.4	12.2	3.50	3.50	0.00
351.0	8.78	290.47	350.0	6.7	-18.0	19.2	3.50	3.50	0.00
400.0	8.78	290.47	398.4	9.3	-25.0	26.7	0.00	0.00	0.00
431.0	8.78	290.47	429.1	11.0	-29.4	31.4	0.00	0.00	0.00
500.0	11.20	290.47	497.0	15.2	-40.7	43.4	3.50	3.50	0.00
600.0	14.70	290.47	594.5	23.0	-61.6	65.8	3.50	3.50	0.00
700.0	18.20	290.47	690.4	32.9	-88.2	94.1	3.50	3.50	0.00
800.0	21.70	290.47	784.3	44.8	-120.1	128.2	3.50	3.50	0.00
900.0	25.20	290.47	876.1	58.8	-157.4	168.0	3.50	3.50	0.00
1,000.0	28.70	290.47	965.2	74.6	-199.9	213.3	3.50	3.50	0.00
1,074.6	31.31	290.47	1,029.8	87.7	-234.8	250.6	3.50	3.50	0.00
1,100.0	31.31	290.47	1,051.5	92.3	-247.2	263.8	0.00	0.00	0.00
1,200.0	31.31	290.47	1,136.9	110.5	-295.9	315.8	0.00	0.00	0.00
1,300.0	31.31	290.47	1,222.4	128.6	-344.5	367.8	0.00	0.00	0.00
1,400.0	31.31	290.47	1,307.8	146.8	-393.2	419.7	0.00	0.00	0.00
1,500.0	31.31	290.47	1,393.2	165.0	-441.9	471.7	0.00	0.00	0.00
1,600.0	31.31	290.47	1,478.7	183.2	-490.6	523.7	0.00	0.00	0.00
1,700.0	31.31	290.47	1,564.1	201.3	-539.3	575.6	0.00	0.00	0.00
1,800.0	31.31	290.47	1,649.5	219.5	-588.0	627.6	0.00	0.00	0.00
1,900.0	31.31	290.47	1,735.0	237.7	-636.7	679.6	0.00	0.00	0.00
2,000.0	31.31	290.47	1,820.4	255.9	-685.3	731.5	0.00	0.00	0.00
2,100.0	31.31	290.47	1,905.9	274.0	-734.0	783.5	0.00	0.00	0.00
2,200.0	31.31	290.47	1,991.3	292.2	-782.7	835.5	0.00	0.00	0.00
2,300.0	31.31	290.47	2,076.7	310.4	-831.4	887.5	0.00	0.00	0.00
2,400.0	31.31	290.47	2,162.2	328.6	-880.1	939.4	0.00	0.00	0.00
2,410.6	31.31	290.47	2,171.2	330.5	-885.3	944.9	0.00	0.00	0.00
Lucero 32-7-11 #2 Drilling Window									
2,500.0	31.31	290.47	2,247.6	346.7	-928.8	991.4	0.00	0.00	0.00
2,600.0	31.31	290.47	2,333.0	364.9	-977.5	1,043.4	0.00	0.00	0.00
2,700.0	31.31	290.47	2,418.5	383.1	-1,026.1	1,095.3	0.00	0.00	0.00
2,800.0	31.31	290.47	2,503.9	401.3	-1,074.8	1,147.3	0.00	0.00	0.00
2,900.0	31.31	290.47	2,589.3	419.5	-1,123.5	1,199.3	0.00	0.00	0.00
3,000.0	31.31	290.47	2,674.8	437.6	-1,172.2	1,251.2	0.00	0.00	0.00
3,100.0	31.31	290.47	2,760.2	455.8	-1,220.9	1,303.2	0.00	0.00	0.00
3,200.0	31.31	290.47	2,845.6	474.0	-1,269.6	1,355.2	0.00	0.00	0.00
3,300.0	31.31	290.47	2,931.1	492.2	-1,318.3	1,407.1	0.00	0.00	0.00
3,400.0	31.31	290.47	3,016.5	510.3	-1,367.0	1,459.1	0.00	0.00	0.00
3,500.0	31.31	290.47	3,102.0	528.5	-1,415.6	1,511.1	0.00	0.00	0.00
3,600.0	31.31	290.47	3,187.4	546.7	-1,464.3	1,563.0	0.00	0.00	0.00
3,673.3	31.31	290.47	3,250.0	560.0	-1,500.0	1,601.1	0.00	0.00	0.00
Lucero 32-7-11 #2 BHL									

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Wellbore:	Original Hole		
Design:	Plan #3		

Design Targets
Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
Lucero 32-7-11 #2 Dri	0.00	360.00	2,746.0	0.0	0.0	1,137,241.51	2,393,968.67	37° 1' 30.288 N	107° 34' 33.528 W
- plan misses target center by 1106.0ft at 2410.6ft MD (2171.2 TVD, 330.5 N, -885.3 E)									
- Polygon									
Point 1			2,746.0	388.2	-1,189.8	1,137,629.70	2,392,778.78		
Point 2			2,746.0	377.7	-2,528.0	1,137,619.23	2,391,440.54		
Point 3			2,746.0	4,354.9	-2,558.5	1,141,596.60	2,391,410.05		
Point 4			2,746.0	4,380.3	-1,238.7	1,141,621.99	2,392,729.95		
Lucero 32-7-11 #2 BH	0.00	360.00	3,250.0	560.0	-1,500.0	1,137,801.53	2,392,468.60	37° 1' 35.493 N	107° 34' 52.174 W
- plan hits target center									
- Point									

Casing Points

Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(ft)	(ft)		(")	(")
351.0	350.0	8 5/8"	8-5/8	12-1/4
3,673.3	3,250.0	5 1/2"	5-1/2	7-7/8

Formations

Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
282.4	-6,033.3	San Jose		0.00	
1,628.5	-4,812.3	Animas		0.00	
2,055.7	-4,447.3	KS		0.00	
2,377.6	-4,172.3	Farmington SS		0.00	
2,752.1	-3,852.3	Lower KS		0.00	
3,074.0	-3,577.3	Upper FC		0.00	
3,205.1	-3,465.3	Main FC		0.00	
3,258.9	-3,419.3	Basal FC		0.00	
3,271.8	-3,408.3	IT SS		0.00	
3,414.6	-3,286.3	IT Coal		0.00	
3,420.5	-3,281.3	PC		0.00	