



Scientific Drilling
Directional Drilling Operations

Samson Resources Company

La Plata County, C.O.

SEC 03-T32N-R7W

Southern Ute 32-7-3 #3

Original Hole

Design: As Drilled

Standard Survey Report

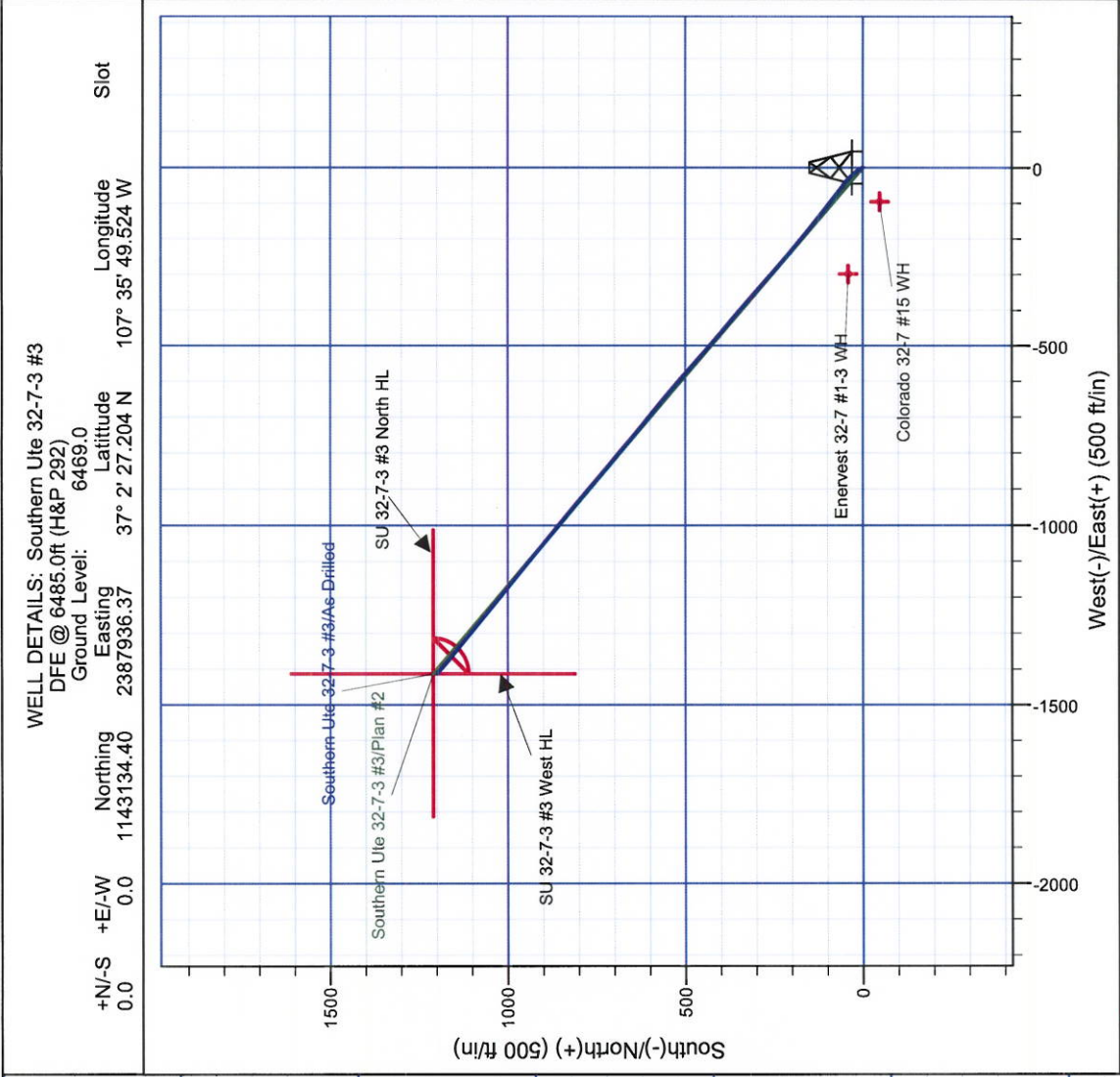
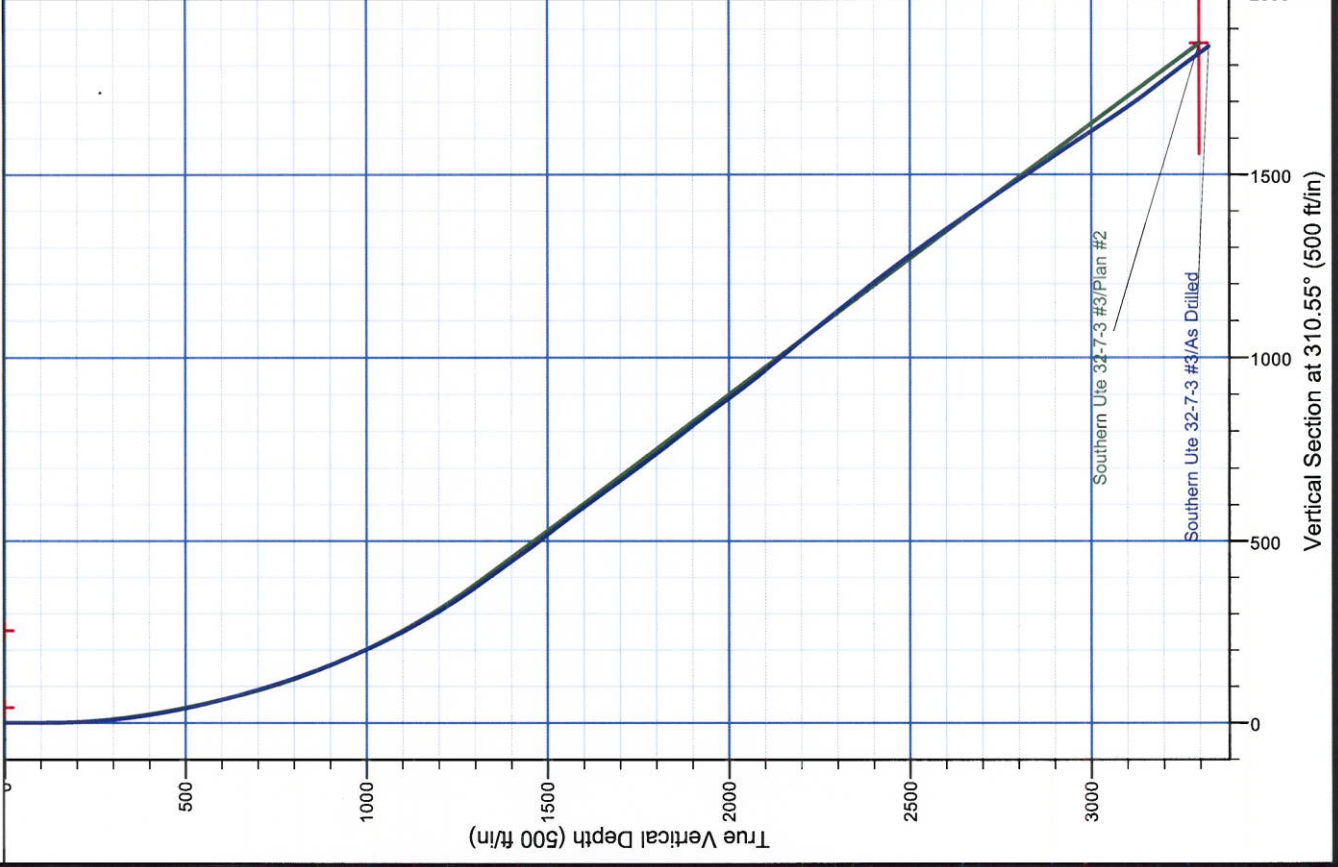
28 September, 2010

 **Samson**



Scientific Drilling
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Project: La Plata County, C.O.
Site: SEC 03-T32N-R7W
Well: Southern Ute 32-7-3 #3
Wellbore: Original Hole
Design: As Drilled



G T M A
Azimuths to Grid North
True North: 1.29°
Magnetic North: 11.23°
Magnetic Field
Strength: 51042.8nT
Dip Angle: 63.79°
Date: 8/19/2010
Model: IGRF200510

REFERENCE INFORMATION
Co-ordinate (N/E) Reference: Well Southern Ute 32-7-3 #3, Grid North
Vertical (TVD) Reference: DFE @ 6485.0ft (H&P 292)
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: DFE @ 6485.0ft (H&P 292)
Calculation Method: Minimum Curvature

Company:	Samson Resources Company	Local Co-ordinate Reference:	Well Southern Ute 32-7-3 #3
Project:	La Plata County, C.O.	TVD Reference:	DFE @ 6485.0ft (H&P 292)
Site:	SEC 03-T32N-R7W	MD Reference:	DFE @ 6485.0ft (H&P 292)
Well:	Southern Ute 32-7-3 #3	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 5000.1 Single User Db

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 03-T32N-R7W		
Site Position:		Northing:	1,143,134.40 usft
From:	Lat/Long	Easting:	2,387,936.38 usft
Position Uncertainty:	0.0 ft	Slot Radius:	6-1/8 "
		Latitude:	37° 2' 27.204 N
		Longitude:	107° 35' 49.524 W
		Grid Convergence:	-1.29 °

Well	Southern Ute 32-7-3 #3, FC Slant Well		
Well Position	+N/-S	0.0 ft	Northing: 1,143,134.40 usft
	+E/-W	0.0 ft	Easting: 2,387,936.38 usft
Position Uncertainty	3.5 ft	Wellhead Elevation:	ft
		Latitude:	37° 2' 27.204 N
		Longitude:	107° 35' 49.524 W
		Ground Level:	6,469.0 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	8/19/2010	9.95	63.79	51,043

Design	As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	310.55	

Survey Program	Date 9/28/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
154.0	3,884.0	SDI MWD (Original Hole)	MWD SDI	MWD - Standard ver 1.0.1

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	
154.0	1.05	334.03	154.0	1.3	-0.6	1.3	0.68	0.68	0.00	
190.0	1.81	334.11	190.0	2.1	-1.0	2.1	2.11	2.11	0.22	
226.0	3.17	330.11	225.9	3.5	-1.8	3.6	3.81	3.78	-11.11	
262.0	4.49	331.65	261.9	5.6	-2.9	5.8	3.68	3.67	4.28	
299.0	5.95	328.35	298.7	8.5	-4.6	9.0	4.03	3.95	-8.92	
329.0	6.93	327.36	328.5	11.3	-6.4	12.2	3.29	3.27	-3.30	
360.0	7.82	326.02	359.3	14.6	-8.6	16.0	2.92	2.87	-4.32	
391.0	8.79	323.51	389.9	18.3	-11.2	20.4	3.34	3.13	-8.10	
422.0	9.96	322.40	420.5	22.3	-14.2	25.3	3.82	3.77	-3.58	

Company: Samson Resources Company
Project: La Plata County, C.O.
Site: SEC 03-T32N-R7W
Well: Southern Ute 32-7-3 #3
Wellbore: Original Hole
Design: As Drilled

Local Co-ordinate Reference: Well Southern Ute 32-7-3 #3
TVD Reference: DFE @ 6485.0ft (H&P 292)
MD Reference: DFE @ 6485.0ft (H&P 292)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)
452.0	11.01	319.34	450.0	26.5	-17.7	30.7	3.96	3.50	-10.20
542.0	12.80	311.71	538.1	39.7	-30.7	49.2	2.64	1.99	-8.48
604.0	13.30	310.16	598.5	48.9	-41.3	63.1	0.98	0.81	-2.50
665.0	15.50	307.78	657.6	58.4	-53.1	78.3	3.73	3.61	-3.90
728.0	17.24	306.97	718.0	69.2	-67.2	96.0	2.79	2.76	-1.29
792.0	18.17	306.54	779.0	80.8	-82.8	115.5	1.47	1.45	-0.67
855.0	20.05	308.95	838.5	93.4	-99.1	136.1	3.24	2.98	3.83
919.0	21.46	307.25	898.4	107.4	-117.0	158.7	2.40	2.20	-2.66
982.0	23.22	307.76	956.6	122.0	-135.9	182.6	2.81	2.79	0.81
1,046.0	25.18	307.99	1,015.0	138.1	-156.7	208.8	3.07	3.06	0.36
1,109.0	26.64	309.28	1,071.7	155.3	-178.2	236.3	2.48	2.32	2.05
1,173.0	28.53	310.55	1,128.4	174.3	-200.9	266.0	3.09	2.95	1.98
1,236.0	30.56	310.23	1,183.2	194.5	-224.5	297.0	3.23	3.22	-0.51
1,300.0	32.50	310.31	1,237.7	216.1	-250.1	330.5	3.03	3.03	0.13
1,364.0	34.63	309.90	1,291.1	238.9	-277.1	365.9	3.35	3.33	-0.64
1,427.0	36.60	311.81	1,342.3	262.9	-304.9	402.6	3.59	3.13	3.03
1,491.0	35.33	311.45	1,394.1	287.9	-333.0	440.1	2.01	-1.98	-0.56
1,554.0	35.70	310.84	1,445.4	311.9	-360.5	476.7	0.81	0.59	-0.97
1,618.0	38.61	310.84	1,496.4	337.2	-389.8	515.4	4.55	4.55	0.00
1,681.0	37.44	310.23	1,546.0	362.4	-419.3	554.2	1.95	-1.86	-0.97
1,745.0	35.24	309.69	1,597.5	386.8	-448.3	592.1	3.47	-3.44	-0.84
1,808.0	35.79	311.10	1,648.8	410.5	-476.2	628.7	1.57	0.87	2.24
1,872.0	36.57	311.02	1,700.5	435.3	-504.7	666.5	1.22	1.22	-0.13
1,935.0	36.32	310.53	1,751.2	459.8	-533.0	703.9	0.61	-0.40	-0.78
1,999.0	36.13	312.16	1,802.8	484.8	-561.4	741.7	1.53	-0.30	2.55
2,062.0	37.59	310.05	1,853.2	509.6	-589.9	779.5	3.07	2.32	-3.35
2,126.0	37.37	311.59	1,904.0	535.0	-619.4	818.4	1.50	-0.34	2.41
2,189.0	36.36	310.61	1,954.4	559.9	-647.8	856.2	1.85	-1.60	-1.56
2,253.0	35.46	308.37	2,006.2	583.8	-676.8	893.8	2.49	-1.41	-3.50
2,316.0	37.62	308.61	2,056.8	607.1	-706.2	931.2	3.44	3.43	0.38
2,380.0	39.27	310.37	2,107.0	632.4	-736.8	971.0	3.09	2.58	2.75
2,443.0	39.42	310.51	2,155.7	658.3	-767.2	1,011.0	0.28	0.24	0.22
2,507.0	38.71	310.49	2,205.4	684.5	-797.9	1,051.3	1.11	-1.11	-0.03
2,571.0	38.10	310.43	2,255.5	710.3	-828.2	1,091.1	0.95	-0.95	-0.09
2,634.0	38.29	310.81	2,305.0	735.7	-857.7	1,130.0	0.48	0.30	0.60
2,698.0	37.85	310.67	2,355.4	761.4	-887.6	1,169.5	0.70	-0.69	-0.22
2,761.0	37.35	310.22	2,405.3	786.4	-916.9	1,207.9	0.91	-0.79	-0.71
2,825.0	36.79	310.69	2,456.4	811.4	-946.2	1,246.5	0.98	-0.88	0.73
2,888.0	36.35	310.40	2,507.0	835.8	-974.8	1,284.0	0.75	-0.70	-0.46
2,952.0	35.66	310.06	2,558.8	860.1	-1,003.5	1,321.7	1.12	-1.08	-0.53
3,015.0	34.69	309.96	2,610.3	883.4	-1,031.3	1,357.9	1.54	-1.54	-0.16
3,079.0	33.71	310.14	2,663.2	906.6	-1,058.8	1,393.9	1.54	-1.53	0.28
3,142.0	34.78	309.23	2,715.3	929.2	-1,086.1	1,429.4	1.88	1.70	-1.44
3,206.0	33.28	308.90	2,768.3	951.8	-1,113.9	1,465.2	2.36	-2.34	-0.52

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Database: EDM 5000.1 Single User Db

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)
3,270.0	33.20	308.82	2,821.8	973.8	-1,141.2	1,500.2	0.14	-0.13	-0.13
3,333.0	34.16	309.65	2,874.3	995.9	-1,168.3	1,535.2	1.69	1.52	1.32
3,397.0	34.66	309.55	2,927.1	1,019.0	-1,196.2	1,571.3	0.79	0.78	-0.16
3,460.0	33.33	309.82	2,979.3	1,041.4	-1,223.3	1,606.5	2.12	-2.11	0.43
3,524.0	32.61	309.71	3,033.0	1,063.7	-1,250.0	1,641.4	1.13	-1.13	-0.17
3,588.0	34.50	308.67	3,086.3	1,086.1	-1,277.5	1,676.7	3.09	2.95	-1.63
3,651.0	36.52	309.67	3,137.6	1,109.2	-1,305.8	1,713.3	3.34	3.21	1.59
3,715.0	37.01	309.84	3,188.9	1,133.7	-1,335.3	1,751.6	0.78	0.77	0.27
3,778.0	37.55	309.50	3,239.0	1,158.0	-1,364.6	1,789.8	0.92	0.86	-0.54
3,824.0	35.88	310.58	3,275.9	1,175.7	-1,385.7	1,817.3	3.89	-3.63	2.35
3,884.0	35.88	310.58	3,324.5	1,198.6	-1,412.4	1,852.4	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Colorado 32-7 #15 WI	0.00	0.00	0.0	-47.1	-96.0	1,143,087.31	2,387,840.33	37° 2' 26.717 N	107° 35' 50.695 W
- actual wellpath misses target center by 107.0ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Circle (radius 5.0)									
Enervest 32-7 #1-3 W	0.00	0.00	0.0	41.0	-299.2	1,143,175.43	2,387,637.14	37° 2' 27.543 N	107° 35' 53.225 W
- actual wellpath misses target center by 302.0ft at 1.5ft MD (1.5 TVD, 0.0 N, 0.0 E)									
- Circle (radius 5.0)									
SU 32-7-3 #3 North H	0.00	360.00	3,297.0	1,209.9	-1,414.0	1,144,344.38	2,386,522.32	37° 2' 38.850 N	107° 36' 7.296 W
- actual wellpath misses target center by 24.3ft at 3866.8ft MD (3310.5 TVD, 1192.0 N, -1404.7 E)									
- Polygon									
Point 1			3,297.0	0.0	400.0	1,144,344.38	2,386,922.34		
Point 2			3,297.0	0.0	-400.0	1,144,344.38	2,386,122.31		
SU 32-7-3 #3 BHL	0.00	360.00	3,297.0	1,209.9	-1,414.0	1,144,344.38	2,386,522.32	37° 2' 38.850 N	107° 36' 7.296 W
- actual wellpath misses target center by 24.3ft at 3866.8ft MD (3310.5 TVD, 1192.0 N, -1404.7 E)									
- Circle (radius 100.0)									
SU 32-7-3 #3 West HI	0.00	360.00	3,297.0	1,209.9	-1,414.0	1,144,344.38	2,386,522.32	37° 2' 38.850 N	107° 36' 7.296 W
- actual wellpath misses target center by 24.3ft at 3866.8ft MD (3310.5 TVD, 1192.0 N, -1404.7 E)									
- Polygon									
Point 1			3,297.0	400.0	0.0	1,144,744.40	2,386,522.32		
Point 2			3,297.0	-400.0	0.0	1,143,944.37	2,386,522.32		

Checked By: _____ Approved By: _____ Date: _____