



Samson Resources Company

La Plata County, C.O.

SEC 11-T32N-R7W

Indian Mesa 32-7-11 #1

Lateral #2

Design: As Drilled

Standard Survey Report

16 January, 2012



WELL DETAILS: Indian Mesa 32-7-11 #1

AWS 507 @ 6318.4ft (12' DF + 6306.4' GL)

Ground Level: 6306.4

Northing
1137161.83

Easting
2393949.37

Latitude
37° 1' 29.496 N

Longitude
107° 34' 33.744 W

REFERENCE INFORMATION

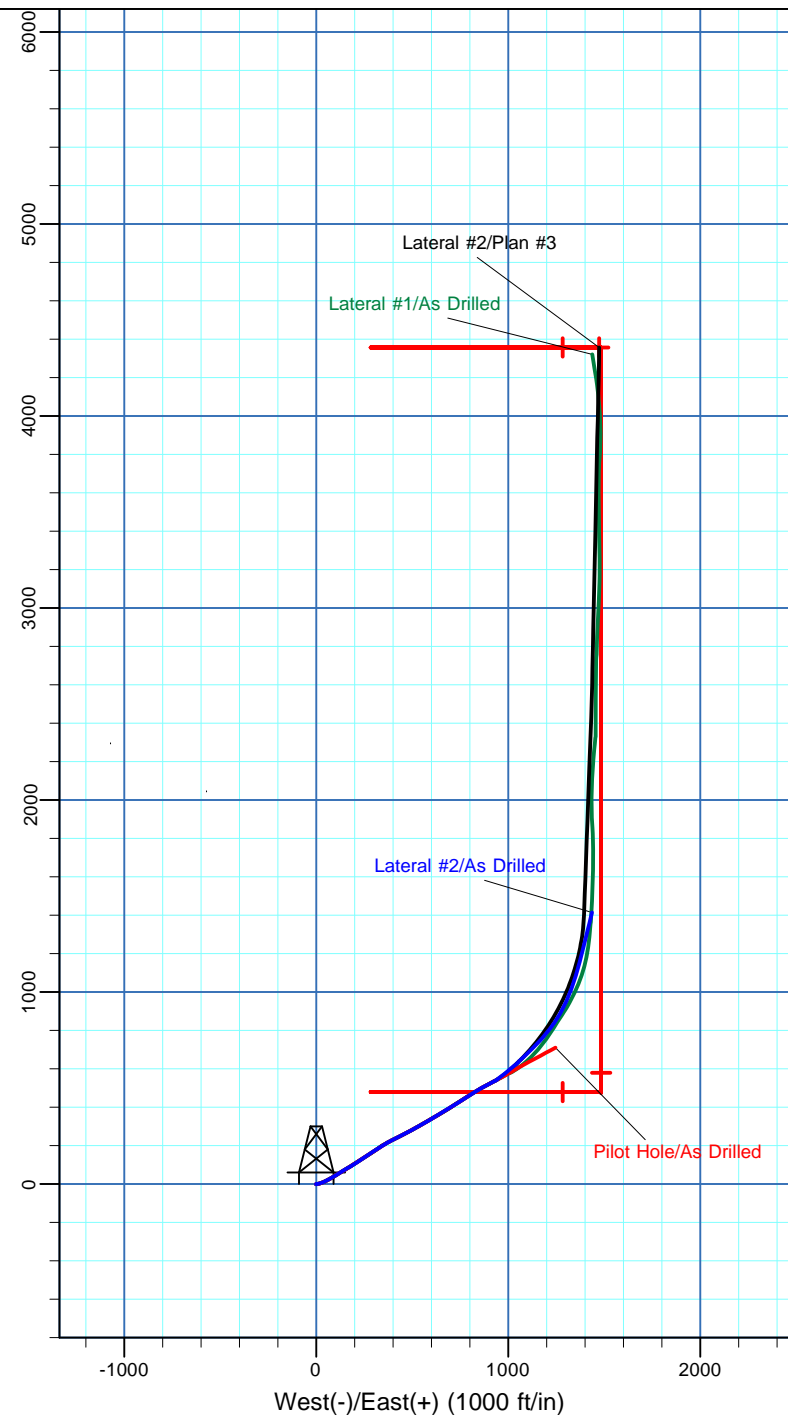
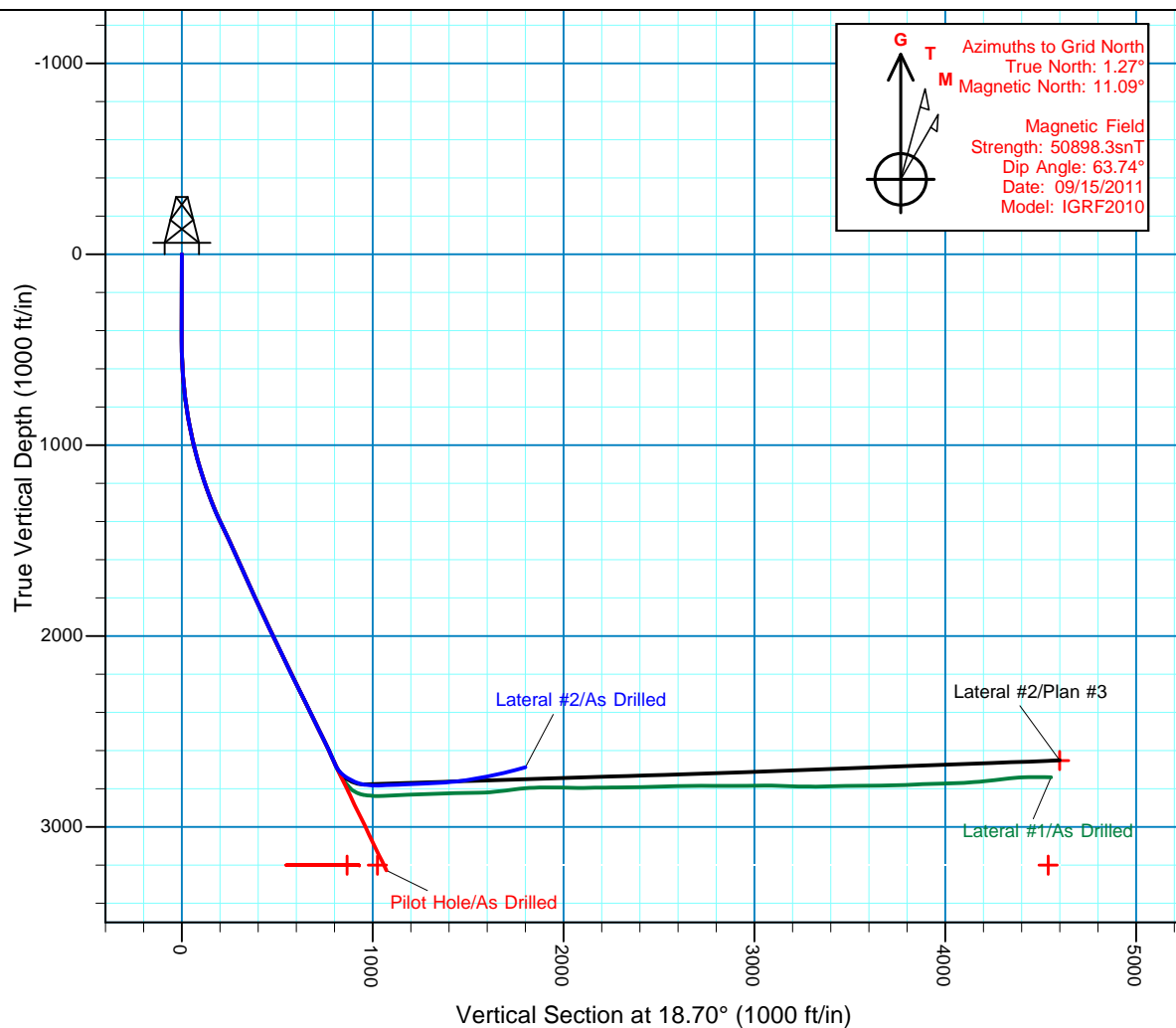
Co-ordinate (N/E) Reference: Well Indian Mesa 32-7-11 #1, Grid North

Vertical (TVD) Reference: AWS 507 @ 6318.4ft (12' DF + 6306.4' GL)

Section (VS) Reference: Slot - (0.0N, 0.0E)

Measured Depth Reference: AWS 507 @ 6318.4ft (12' DF + 6306.4' GL)

Calculation Method: Minimum Curvature



Company:	Samson Resources Company	Local Co-ordinate Reference:	Well Indian Mesa 32-7-11 #1
Project:	La Plata County, C.O.	TVD Reference:	AWS 507 @ 6318.4ft (12' DF + 6306.4' GL)
Site:	SEC 11-T32N-R7W	MD Reference:	AWS 507 @ 6318.4ft (12' DF + 6306.4' GL)
Well:	Indian Mesa 32-7-11 #1	North Reference:	Grid
Wellbore:	Lateral #2	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 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	Indian Mesa 32-7-11 #1, FC Slant Well		
Well Position	+N-S	0.0 ft	Northing: 1,137,161.82 usft
	+E-W	0.0 ft	Easting: 2,393,949.37 usft
Position Uncertainty		3.5 ft	Wellhead Elevation: ft
			Latitude: 37° 1' 29.496 N
			Longitude: 107° 34' 33.744 W
			Ground Level: 6,306.4 ft

Wellbore	Lateral #2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/15/11	9.82	63.74	50,898

Design	As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	2,959.0
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)	
	0.0	0.0	0.0	18.70	

Survey Program	Date	01/16/12			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
393.0	2,959.0	SDI MWD (Pilot Hole)	MWD SDI	MWD - Standard ver 1.0.1	
3,001.0	4,046.0	SDI MWD (Lateral #2)	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
393.0	0.17	247.87	393.0	-0.2	-0.5	-0.4	0.04	0.04	0.00
424.0	0.18	240.93	424.0	-0.3	-0.6	-0.4	0.08	0.03	-22.39
454.0	0.93	92.97	454.0	-0.3	-0.4	-0.4	3.62	2.50	-493.20
484.0	2.16	82.58	484.0	-0.2	0.4	-0.1	4.19	4.10	-34.63
514.0	3.56	82.51	513.9	0.0	1.9	0.6	4.67	4.67	-0.23
546.0	4.57	79.09	545.9	0.3	4.1	1.6	3.24	3.16	-10.69
577.0	6.05	75.89	576.7	1.0	6.9	3.1	4.87	4.77	-10.32
606.0	7.09	77.44	605.5	1.7	10.1	4.9	3.64	3.59	5.34
637.0	7.81	78.34	636.3	2.6	14.1	6.9	2.35	2.32	2.90

Company:	Samson Resources Company	Local Co-ordinate Reference:	Well Indian Mesa 32-7-11 #1
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Site:	SEC 11-T32N-R7W	MD Reference:	AWS 507 @ 6318.4ft (12' DF + 6306.4' GL)
Well:	Indian Mesa 32-7-11 #1	North Reference:	Grid
Wellbore:	Lateral #2	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	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)
668.0	8.67	76.85	667.0	3.5	18.4	9.2	2.86	2.77	-4.81
699.0	9.44	72.27	697.6	4.8	23.1	12.0	3.40	2.48	-14.77
729.0	9.93	69.70	727.1	6.5	27.9	15.1	2.18	1.63	-8.57
759.0	10.90	68.98	756.7	8.4	32.9	18.5	3.26	3.23	-2.40
789.0	11.63	67.36	786.1	10.6	38.4	22.3	2.65	2.43	-5.40
819.0	12.34	64.62	815.4	13.1	44.1	26.5	3.03	2.37	-9.13
851.0	13.17	62.11	846.6	16.3	50.4	31.6	3.12	2.59	-7.84
882.0	14.23	61.99	876.7	19.7	56.9	36.9	3.42	3.42	-0.39
945.0	16.18	60.05	937.5	27.7	71.3	49.1	3.20	3.10	-3.08
1,007.0	17.51	60.61	996.9	36.6	86.9	62.6	2.16	2.15	0.90
1,071.0	19.50	58.42	1,057.6	47.0	104.4	77.9	3.29	3.11	-3.42
1,133.0	21.60	57.22	1,115.6	58.6	122.8	94.8	3.45	3.39	-1.94
1,196.0	23.23	59.50	1,173.9	71.1	143.3	113.3	2.93	2.59	3.62
1,259.0	24.44	59.47	1,231.5	84.1	165.2	132.6	1.92	1.92	-0.05
1,322.0	26.21	57.30	1,288.4	98.2	188.1	153.3	3.17	2.81	-3.44
1,385.0	28.49	57.07	1,344.4	113.9	212.5	176.0	3.62	3.62	-0.37
1,447.0	31.42	57.19	1,398.1	130.7	238.5	200.2	4.73	4.73	0.19
1,509.0	31.79	56.94	1,450.9	148.4	265.7	225.7	0.63	0.60	-0.40
1,572.0	30.89	56.54	1,504.7	166.3	293.1	251.5	1.47	-1.43	-0.63
1,634.0	29.63	56.52	1,558.3	183.6	319.2	276.2	2.03	-2.03	-0.03
1,696.0	29.67	57.79	1,612.1	200.2	345.0	300.2	1.02	0.06	2.05
1,759.0	30.26	59.81	1,666.7	216.5	371.9	324.3	1.86	0.94	3.21
1,822.0	31.53	63.89	1,720.8	231.7	400.4	347.9	3.89	2.02	6.48
1,884.0	33.79	63.58	1,773.0	246.5	430.4	371.5	3.66	3.65	-0.50
1,947.0	33.78	61.69	1,825.3	262.6	461.5	396.7	1.67	-0.02	-3.00
2,010.0	32.78	63.00	1,878.0	278.7	492.1	421.8	1.95	-1.59	2.08
2,073.0	31.99	60.87	1,931.2	294.5	521.9	446.3	2.20	-1.25	-3.38
2,136.0	33.14	59.46	1,984.3	311.4	551.3	471.7	2.19	1.83	-2.24
2,199.0	32.55	59.65	2,037.2	328.7	580.8	497.6	0.95	-0.94	0.30
2,261.0	32.54	60.29	2,089.5	345.4	609.6	522.7	0.56	-0.02	1.03
2,324.0	32.26	60.24	2,142.7	362.2	638.9	547.9	0.45	-0.44	-0.08
2,388.0	31.53	58.55	2,197.0	379.4	668.1	573.6	1.80	-1.14	-2.64
2,451.0	31.74	57.41	2,250.7	396.9	696.1	599.1	1.01	0.33	-1.81
2,513.0	33.41	56.78	2,302.9	415.0	724.1	625.3	2.75	2.69	-1.02
2,577.0	32.79	57.50	2,356.5	434.0	753.4	652.7	1.15	-0.97	1.13
2,639.0	32.05	57.53	2,408.9	451.8	781.5	678.6	1.19	-1.19	0.05
2,702.0	31.94	58.01	2,462.3	469.6	809.7	704.5	0.44	-0.17	0.76
2,766.0	33.13	59.56	2,516.3	487.5	839.2	730.8	2.27	1.86	2.42
2,829.0	33.27	61.60	2,569.0	504.4	869.2	756.5	1.79	0.22	3.24
2,893.0	31.59	62.35	2,623.0	520.6	899.5	781.5	2.70	-2.63	1.17
2,956.0	32.16	61.69	2,676.5	536.2	928.9	805.7	1.06	0.90	-1.05
2,959.0	32.30	61.71	2,679.0	536.9	930.3	806.9	4.70	4.69	0.57
3,001.0	47.02	49.98	2,711.3	552.2	952.1	828.4	39.19	35.05	-27.92

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Site:	SEC 11-T32N-R7W	MD Reference:	AWS 507 @ 6318.4ft (12' DF + 6306.4' GL)
Well:	Indian Mesa 32-7-11 #1	North Reference:	Grid
Wellbore:	Lateral #2	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	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)	
3,021.0	53.33	52.85	2,724.1	561.8	964.1	841.3	33.41	31.55	14.35	
3,052.0	62.80	52.29	2,740.5	577.8	985.0	863.1	30.59	30.55	-1.81	
3,083.0	65.60	50.09	2,754.0	595.3	1,006.7	886.6	11.06	9.03	-7.10	
3,115.0	69.83	49.09	2,766.1	614.4	1,029.2	912.0	13.53	13.22	-3.13	
3,147.0	76.48	47.17	2,775.4	634.9	1,052.0	938.7	21.56	20.78	-6.00	
3,178.0	86.40	46.14	2,780.0	655.9	1,074.3	965.7	32.17	32.00	-3.32	
3,208.0	85.39	45.25	2,782.1	676.8	1,095.7	992.4	4.48	-3.37	-2.97	
3,238.0	90.20	45.66	2,783.3	697.8	1,117.1	1,019.2	16.09	16.03	1.37	
3,269.0	91.34	45.50	2,782.9	719.5	1,139.2	1,046.8	3.71	3.68	-0.52	
3,299.0	92.39	42.60	2,781.9	741.1	1,160.0	1,073.9	10.28	3.50	-9.67	
3,331.0	92.59	40.80	2,780.5	764.9	1,181.3	1,103.3	5.65	0.63	-5.63	
3,363.0	92.22	39.04	2,779.2	789.5	1,201.8	1,133.1	5.62	-1.16	-5.50	
3,395.0	92.49	36.97	2,777.9	814.6	1,221.5	1,163.3	6.52	0.84	-6.47	
3,426.0	92.02	35.39	2,776.6	839.6	1,239.8	1,192.9	5.31	-1.52	-5.10	
3,458.0	92.25	32.28	2,775.4	866.2	1,257.6	1,223.7	9.74	0.72	-9.72	
3,487.0	93.27	29.65	2,774.0	891.0	1,272.5	1,252.0	9.72	3.52	-9.07	
3,519.0	94.03	25.96	2,772.0	919.3	1,287.4	1,283.5	11.75	2.38	-11.53	
3,551.0	91.65	25.42	2,770.4	948.1	1,301.2	1,315.3	7.63	-7.44	-1.69	
3,582.0	92.26	22.15	2,769.4	976.4	1,313.7	1,346.1	10.72	1.97	-10.55	
3,614.0	96.17	20.49	2,767.0	1,006.1	1,325.3	1,378.0	13.27	12.22	-5.19	
3,644.0	93.26	18.53	2,764.6	1,034.3	1,335.3	1,407.9	11.68	-9.70	-6.53	
3,674.0	95.96	18.22	2,762.1	1,062.7	1,344.7	1,437.8	9.06	9.00	-1.03	
3,704.0	97.39	17.14	2,758.7	1,091.1	1,353.8	1,467.6	5.96	4.77	-3.60	
3,734.0	99.47	16.50	2,754.3	1,119.5	1,362.4	1,497.2	7.25	6.93	-2.13	
3,764.0	99.69	15.68	2,749.3	1,147.9	1,370.6	1,526.8	2.79	0.73	-2.73	
3,793.0	99.81	14.23	2,744.4	1,175.5	1,378.0	1,555.3	4.95	0.41	-5.00	
3,833.0	101.07	13.48	2,737.1	1,213.7	1,387.4	1,594.5	3.65	3.15	-1.88	
3,865.0	102.02	13.85	2,730.7	1,244.2	1,394.8	1,625.7	3.18	2.97	1.16	
3,896.0	102.62	14.20	2,724.1	1,273.6	1,402.1	1,655.9	2.23	1.94	1.13	
3,928.0	102.95	14.17	2,717.0	1,303.8	1,409.8	1,687.0	1.04	1.03	-0.09	
3,958.0	103.82	14.17	2,710.1	1,332.1	1,416.9	1,716.1	2.90	2.90	0.00	
3,989.0	104.61	13.85	2,702.4	1,361.3	1,424.2	1,746.1	2.74	2.55	-1.03	
4,008.0	105.21	13.35	2,697.6	1,379.1	1,428.5	1,764.4	4.05	3.16	-2.63	
4,046.0	105.70	13.35	2,687.4	1,414.8	1,437.0	1,800.8	1.29	1.29	0.00	

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Site:	SEC 11-T32N-R7W	MD Reference:	AWS 507 @ 6318.4ft (12' DF + 6306.4' GL)
Well:	Indian Mesa 32-7-11 #1	North Reference:	Grid
Wellbore:	Lateral #2	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	EDM 5000.1 Single User Db

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
I.M. 32-7-11 #1 Lat #2 - actual wellpath misses target center by 2942.8ft at 4046.0ft MD (2687.4 TVD, 1414.8 N, 1437.0 E) - Point	0.00	360.00	2,652.0	4,357.1	1,475.0	1,141,519.11	2,395,424.44	37° 2' 12.889 N	107° 34' 16.751 W
I.M. 32-7-11 #1 East #1 - actual wellpath misses target center by 548.8ft at 3363.0ft MD (2779.2 TVD, 789.5 N, 1201.8 E) - Polygon	0.00	360.00	3,200.0	580.0	1,485.0	1,137,741.85	2,395,434.44	37° 1' 35.555 N	107° 34' 15.595 W
Point 1			3,200.0	3,777.1	0.0	1,141,519.11	2,395,434.43		
Point 2			3,200.0	-100.0	0.0	1,137,641.85	2,395,434.43		
I.M. 32-7-11 #1 North - actual wellpath misses target center by 2990.5ft at 4046.0ft MD (2687.4 TVD, 1414.8 N, 1437.0 E) - Polygon	0.00	360.00	3,200.0	4,357.1	1,285.0	1,141,519.11	2,395,234.43	37° 2' 12.848 N	107° 34' 19.094 W
Point 1			3,200.0	0.0	-1,000.0	1,141,519.11	2,394,234.38		
Point 2			3,200.0	0.0	200.0	1,141,519.11	2,395,434.43		
I.M. 32-7-11 #1 South - actual wellpath misses target center by 498.8ft at 3221.0ft MD (2783.0 TVD, 685.9 N, 1104.9 E) - Polygon	0.00	360.00	3,200.0	480.0	1,285.0	1,137,641.85	2,395,234.43	37° 1' 34.523 N	107° 34' 18.033 W
Point 1			3,200.0	0.0	-1,000.0	1,137,641.85	2,394,234.38		
Point 2			3,200.0	0.0	200.0	1,137,641.85	2,395,434.43		

Checked By: _____	Approved By: _____	Date: _____
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