



Job Number: 06216

Company: Williams Exploration

Lease/Well: Rosa Unit #274-A FC

Location: San Juan County

Rig Name: ☐

RKB: 14'

G.L. or M.S.L.: ☐

State/Country: NM

Declination: ☐Grid: ☐

File name: C:\DATA\CUST06\SURVEYS\TEMP\06216.SVY

Date/Time: 05-Jul-06 / 13:41

Curve Name: As Drilled

30-045-33245

16-31N-6W
Surt 1820/N 1940/E
BHL 2544/S 1187/E
TVD 3028
Md 3361

Inwell Inc.

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 140.59
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead





Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE		Dogleg Severity Deg/100
Distance FT	Direction Deg								
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
400.00	.00	.00	400.00	.00	.00	.00	.00	.00	.00
430.00	1.00	160.30	430.00	.25	-.25	.09	.26	160.30	3.33
460.00	1.50	159.50	459.99	.86	-.86	.31	.92	159.96	1.67
490.00	2.00	157.00	489.98	1.74	-1.71	.66	1.83	159.01	1.69
520.00	2.70	149.40	519.95	2.94	-2.80	1.22	3.05	156.45	2.55
550.00	3.40	147.50	549.91	4.52	-4.16	2.06	4.64	153.67	2.36
581.00	4.20	145.00	580.84	6.56	-5.86	3.20	6.68	151.36	2.63
611.00	5.30	138.90	610.74	9.04	-7.81	4.74	9.14	148.72	4.03
640.00	6.40	140.00	639.59	12.00	-10.06	6.66	12.06	146.47	3.81
671.00	7.60	140.10	670.35	15.78	-12.95	9.09	15.82	144.94	3.87
702.00	9.10	140.30	701.02	20.28	-16.41	11.97	20.31	143.89	4.84
732.00	10.60	140.00	730.58	25.41	-20.35	15.26	25.44	143.14	5.00
763.00	12.10	140.00	760.97	31.51	-25.02	19.18	31.53	142.53	4.84
793.00	13.60	142.20	790.22	38.18	-30.22	23.36	38.20	142.29	5.26
824.00	15.20	142.90	820.25	45.89	-36.34	28.05	45.91	142.34	5.19
854.00	16.60	141.40	849.10	54.10	-42.83	33.10	54.13	142.30	4.86
885.00	17.80	141.40	878.71	63.27	-49.99	38.81	63.29	142.17	3.87
915.00	18.70	142.90	907.20	72.66	-57.41	44.58	72.68	142.17	3.38
944.00	19.40	142.40	934.62	82.12	-64.94	50.32	82.15	142.23	2.48
974.00	20.80	142.50	962.79	92.42	-73.11	56.60	92.46	142.25	4.67
1004.00	21.90	142.90	990.73	103.33	-81.80	63.22	103.38	142.30	3.70
1034.00	23.10	141.80	1018.44	114.81	-90.88	70.23	114.86	142.30	4.24
1065.00	23.60	138.30	1046.91	127.09	-100.30	78.12	127.13	142.08	4.76
1095.00	24.80	137.50	1074.27	139.37	-109.42	86.37	139.40	141.71	4.15

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1126.00	25.90	137.40	1102.28	152.63	-119.20	95.34	152.64	141.34	3.55
1156.00	26.10	138.20	1129.25	165.76	-128.94	104.18	165.77	141.06	1.35
1186.00	27.20	136.80	1156.06	179.20	-138.86	113.27	179.20	140.79	4.22
1217.00	28.20	136.80	1183.51	193.58	-149.36	123.14	193.58	140.50	3.23
1247.00	29.30	137.00	1209.81	207.97	-159.90	132.99	207.98	140.25	3.68
1280.00	30.20	138.50	1238.46	224.33	-172.02	144.00	224.34	140.07	3.54
1312.00	31.20	139.00	1265.97	240.66	-184.30	154.77	240.67	139.98	3.23
1342.00	32.00	139.30	1291.53	256.37	-196.20	165.05	256.39	139.93	2.72
1373.00	33.30	140.50	1317.63	273.09	-208.99	175.82	273.11	139.93	4.68
1405.00	34.40	141.10	1344.20	290.92	-222.80	187.09	290.93	139.98	3.59
1437.00	35.80	142.00	1370.38	309.31	-237.21	198.53	309.33	140.07	4.66
1468.00	37.30	142.60	1395.29	327.77	-251.82	209.81	327.77	140.20	4.97
1500.00	39.10	143.50	1420.43	347.54	-267.64	221.71	347.54	140.36	5.89
1531.00	40.10	144.00	1444.32	367.27	-283.57	233.39	367.27	140.54	3.39
1563.00	41.10	143.30	1468.61	388.06	-300.34	245.73	388.06	140.71	3.43
1594.00	41.00	143.30	1491.99	408.40	-316.67	257.90	408.40	140.84	.32
1626.00	41.30	143.10	1516.09	429.43	-333.53	270.51	429.44	140.96	1.02
1657.00	41.50	142.50	1539.34	449.92	-349.86	282.91	449.93	141.04	1.43
1721.00	40.90	140.80	1587.50	492.06	-382.92	309.06	492.08	141.09	1.98
1752.00	41.00	140.00	1610.91	512.38	-398.57	322.01	512.40	141.06	1.72
1784.00	40.80	139.50	1635.10	533.33	-414.56	335.55	533.34	141.01	1.20
1814.00	40.30	139.80	1657.89	552.83	-429.43	348.18	552.84	140.97	1.79
1845.00	40.50	139.90	1681.50	572.92	-444.78	361.13	572.93	140.93	.68
1877.00	40.90	140.10	1705.76	593.78	-460.77	374.54	593.79	140.89	1.31
1909.00	41.00	140.80	1729.93	614.76	-476.94	387.90	614.77	140.88	1.47
1940.00	40.40	140.50	1753.43	634.97	-492.57	400.72	634.98	140.87	2.04
1972.00	40.90	141.00	1777.71	655.82	-508.71	413.90	655.83	140.87	1.86
2003.00	40.80	140.80	1801.16	676.09	-524.45	426.69	676.10	140.87	.53
2035.00	41.40	141.60	1825.28	697.13	-540.84	439.87	697.14	140.88	2.49
2066.00	41.40	141.30	1848.53	717.63	-556.88	452.65	717.64	140.89	.64
2098.00	41.10	140.80	1872.59	738.72	-573.29	465.91	738.74	140.90	1.39
2130.00	39.90	140.80	1896.92	759.51	-589.39	479.05	759.52	140.90	3.75
2161.00	38.40	140.80	1920.96	779.08	-604.56	491.42	779.09	140.89	4.84
2193.00	37.40	140.90	1946.21	798.73	-619.80	503.83	798.75	140.89	3.13
2224.00	36.30	141.30	1971.02	817.32	-634.27	515.50	817.34	140.90	3.63
2255.00	35.00	141.90	1996.21	835.39	-648.43	526.73	835.40	140.91	4.34
2287.00	33.90	141.90	2022.59	853.49	-662.67	537.89	853.50	140.93	3.44
2318.00	32.60	141.30	2048.52	870.48	-675.99	548.45	870.50	140.95	4.33
2350.00	31.20	140.80	2075.68	887.39	-689.14	559.08	887.41	140.95	4.45
2381.00	30.60	139.50	2102.28	903.31	-701.37	569.28	903.32	140.93	2.90
2413.00	29.90	139.20	2129.93	919.42	-713.60	579.78	919.44	140.91	2.24
2444.00	29.60	138.90	2156.84	934.80	-725.22	589.86	934.81	140.88	1.08
2475.00	29.30	138.90	2183.84	950.04	-736.70	599.88	950.05	140.84	.97
2538.00	27.70	140.50	2239.20	980.09	-759.62	619.33	980.10	140.81	2.81
2570.00	26.10	141.00	2267.74	994.57	-770.83	628.49	994.57	140.81	5.05

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
2602.00	25.60	140.90	2296.54	1008.52	-781.66	637.28	1008.53	140.81	1.57
2633.00	25.80	139.90	2324.47	1021.96	-792.02	645.85	1021.97	140.80	1.54
2665.00	25.90	139.30	2353.27	1035.91	-802.65	654.89	1035.92	140.79	.88
2696.00	24.60	138.30	2381.30	1049.13	-812.60	663.60	1049.13	140.76	4.41
2728.00	23.00	138.00	2410.58	1062.03	-822.22	672.22	1062.03	140.73	5.01
2759.00	21.40	137.90	2439.28	1073.73	-830.92	680.06	1073.73	140.70	5.16
2791.00	19.50	138.80	2469.27	1084.90	-839.27	687.49	1084.90	140.68	6.02
2822.00	17.70	138.50	2498.64	1094.78	-846.69	694.02	1094.78	140.66	5.81
2854.00	16.10	138.50	2529.26	1104.08	-853.66	700.19	1104.08	140.64	5.00
2885.00	14.90	139.00	2559.13	1112.36	-859.88	705.65	1112.36	140.63	3.89
2916.00	14.50	138.80	2589.12	1120.22	-865.81	710.82	1120.22	140.61	1.30
2948.00	14.40	138.80	2620.11	1128.20	-871.82	716.08	1128.20	140.60	.31
2980.00	14.40	139.10	2651.10	1136.16	-877.82	721.31	1136.16	140.59	.23
3011.00	13.30	139.00	2681.20	1143.58	-883.43	726.17	1143.58	140.58	3.55
3043.00	12.00	137.80	2712.42	1150.58	-888.67	730.82	1150.58	140.57	4.14
3074.00	10.70	139.40	2742.82	1156.68	-893.24	734.86	1156.68	140.56	4.31
3106.00	9.90	139.00	2774.30	1162.40	-897.57	738.60	1162.40	140.55	2.51
3137.00	8.60	138.80	2804.90	1167.38	-901.33	741.87	1167.38	140.54	4.19
3169.00	7.30	139.10	2836.59	1171.80	-904.67	744.78	1171.80	140.54	4.06
3200.00	5.90	143.00	2867.38	1175.36	-907.43	747.03	1175.36	140.54	4.74
3232.00	4.90	143.50	2899.24	1178.37	-909.84	748.83	1178.37	140.54	3.13
3263.00	4.30	143.00	2930.14	1180.85	-911.83	750.32	1180.85	140.55	1.94
3295.00	2.90	147.80	2962.08	1182.85	-913.47	751.47	1182.85	140.56	4.47
Projected to TD(2545' FSL, 1187' FEL)									
3361.00	2.10	148.00	3028.01	1185.71	-915.91	753.00	1185.71	140.58	1.21

-916 753

Company: Williams Exploration
 Lease/Well: Rosa Unit #274-A FC
 Location: San Juan County
 State/Country: NM

