

30-015-37427



A Schlumberger Company

Job Number: 700000326-WT-WT
 Company: Marbob
 Lease/Well: SRO State Unit Com # 13H
 Location: □
 Rig Name: Patriot # 2
 RKB: 17.5
 G.L. or M.S.L.: □

State/Country: New Mexico / USA
 Declination: 7.76
 Grid: .13
 File name: C:\DOCUME~1\ADMINIDESTOP\700000~1\SRO13H.SVY
 Date/Time: 08-Oct-10 / 03:30
 Curve Name: working curve

Pathfinder

WINSERVE PROPOSAL REPORT
 Minimum Curvature Method
 Vertical Section Plane 89.38
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
gyro tie-in									
6300.00	2.09	256.59	6298.60	-11.34	25.51	25.39	27.92	113.97	.00
6323.00	.26	35.75	6321.60	-11.39	25.13	25.01	27.60	114.39	9.97
6355.00	6.16	78.18	6353.53	-10.98	26.86	26.74	29.02	112.24	18.66
6386.00	10.73	80.72	6384.19	-10.18	31.34	31.22	32.95	107.99	14.79
6417.00	14.77	81.10	6414.42	-9.10	38.09	37.99	39.16	103.44	13.03
6449.00	16.71	80.07	6445.22	-7.68	46.65	46.57	47.28	99.34	6.12
6480.00	17.85	79.20	6474.82	-6.02	55.71	55.64	56.03	96.16	3.77
6512.00	20.22	80.45	6505.06	-4.18	65.98	65.93	66.11	93.63	7.51
6543.00	23.39	83.22	6533.84	-2.56	77.38	77.35	77.42	91.90	10.75
6574.00	26.56	85.04	6561.94	-1.24	90.40	90.38	90.41	90.78	10.52
6606.00	29.99	85.69	6590.12	-.02	105.50	105.50	105.50	90.01	10.76

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	CLOSURE Direction Deg	Dogleg Severity Deg/100
6637.00	32.98	86.31	6616.55	1.11	121.65	121.66	121.66	89.48	9.70
6669.00	35.88	86.55	6642.94	2.23	139.71	139.72	139.73	89.08	9.07
6700.00	38.95	87.79	6667.56	3.15	158.52	158.54	158.55	88.86	10.20
6732.00	41.68	88.18	6691.96	3.88	179.21	179.24	179.25	88.76	8.57
6764.00	44.58	88.59	6715.31	4.50	201.07	201.11	201.12	88.72	9.10
6796.00	47.31	88.22	6737.56	5.14	224.06	224.10	224.12	88.69	8.57
6827.00	50.39	88.56	6757.96	5.79	247.39	247.44	247.46	88.66	9.97
6858.00	53.82	88.16	6777.00	6.49	271.84	271.89	271.92	88.63	11.11
6890.00	58.56	88.24	6794.80	7.33	298.41	298.47	298.50	88.59	14.81
6922.00	64.28	88.31	6810.10	8.17	326.48	326.55	326.59	88.57	17.88
6954.00	70.08	88.76	6822.50	8.92	355.96	356.03	356.07	88.56	18.17
6985.00	75.45	90.93	6831.69	9.00	385.55	385.63	385.66	88.66	18.57
7010.00	79.58	92.57	6837.09	8.25	409.94	410.01	410.03	88.85	17.72
7047.00	86.88	93.78	6841.45	6.21	446.60	446.64	446.65	89.20	19.99
7110.00	88.46	93.83	6844.01	2.03	509.41	509.40	509.41	89.77	2.51
7172.00	88.02	93.34	6845.91	-1.84	571.26	571.21	571.26	90.18	1.06
7268.00	89.69	93.32	6847.83	-7.42	667.07	666.96	667.12	90.64	1.74
7330.00	90.04	93.08	6847.98	-10.88	728.98	728.82	729.06	90.85	.68
7393.00	89.87	92.99	6848.03	-14.21	791.89	791.69	792.02	91.03	.31
7487.00	90.48	92.39	6847.74	-18.62	885.78	885.53	885.98	91.20	.91
7581.00	91.36	91.77	6846.23	-22.04	979.71	979.41	979.96	91.29	1.15
7676.00	90.31	90.74	6844.85	-24.12	1074.67	1074.35	1074.94	91.29	1.55
7770.00	89.96	90.39	6844.63	-25.04	1168.67	1168.33	1168.94	91.23	.53
7833.00	90.22	90.72	6844.53	-25.65	1231.67	1231.32	1231.93	91.19	.67
7927.00	89.08	89.98	6845.10	-26.23	1325.66	1325.30	1325.92	91.13	1.45
7990.00	87.93	89.25	6846.75	-25.80	1388.63	1388.27	1388.87	91.06	2.16
8053.00	88.72	89.86	6848.59	-25.31	1451.61	1451.25	1451.83	91.00	1.58
8084.00	89.34	89.96	6849.11	-25.27	1482.60	1482.24	1482.82	90.98	2.03
8147.00	90.04	89.39	6849.45	-24.91	1545.60	1545.24	1545.80	90.92	1.43
8211.00	89.96	88.87	6849.45	-23.94	1609.59	1609.24	1609.77	90.85	.82
8306.00	89.52	88.29	6849.88	-21.58	1704.56	1704.23	1704.70	90.73	.77
8399.00	88.72	88.69	6851.31	-19.13	1797.52	1797.20	1797.62	90.61	.96
8494.00	89.52	87.84	6852.77	-16.26	1892.46	1892.17	1892.53	90.49	1.23
8589.00	89.34	86.76	6853.72	-11.78	1987.35	1987.10	1987.38	90.34	1.15

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
8683.00	89.43	87.90	6854.72	-7.40	2081.24	2081.04	2081.25	90.20	1.22
8778.00	89.78	87.44	6855.38	-3.54	2176.16	2175.99	2176.16	90.09	.61
8873.00	90.04	89.38	6855.53	-.91	2271.12	2270.97	2271.12	90.02	2.06
8976.00	89.96	88.40	6855.53	1.09	2374.10	2373.97	2374.10	89.97	.95
9061.00	89.08	87.62	6856.24	4.04	2459.04	2458.94	2459.04	89.91	1.38
9164.00	89.60	88.92	6857.43	7.15	2561.98	2561.91	2561.99	89.84	1.36
9258.00	89.69	88.85	6858.01	8.98	2655.96	2655.91	2655.98	89.81	.12
9322.00	89.60	89.24	6858.41	10.05	2719.95	2719.90	2719.97	89.79	.63
9416.00	90.92	89.70	6857.98	10.92	2813.95	2813.90	2813.97	89.78	1.49
9480.00	91.71	89.46	6856.51	11.38	2877.93	2877.88	2877.95	89.77	1.29
9575.00	90.66	89.72	6854.55	12.06	2972.90	2972.86	2972.93	89.77	1.14
9637.00	90.13	89.10	6854.12	12.70	3034.90	3034.86	3034.92	89.76	1.32
9701.00	90.04	88.71	6854.02	13.93	3098.89	3098.85	3098.92	89.74	.63
9763.00	90.13	88.67	6853.93	15.34	3160.87	3160.85	3160.91	89.72	.16
9859.00	89.87	90.86	6853.93	15.74	3256.86	3256.84	3256.90	89.72	2.30
9952.00	89.52	91.58	6854.43	13.76	3349.84	3349.79	3349.87	89.76	.86
10047.00	88.72	90.74	6855.89	11.83	3444.81	3444.73	3444.83	89.80	1.22
10141.00	89.16	89.79	6857.63	11.40	3538.79	3538.70	3538.81	89.82	1.11
10235.00	87.85	89.36	6860.08	12.10	3632.75	3632.67	3632.77	89.81	1.47
10329.00	86.70	88.61	6864.55	13.76	3726.63	3726.56	3726.65	89.79	1.46
10393.00	88.29	88.16	6867.34	15.56	3790.54	3790.49	3790.57	89.76	2.58
10456.00	89.52	88.22	6868.55	17.55	3853.50	3853.46	3853.54	89.74	1.95
10519.00	89.52	88.20	6869.08	19.52	3916.46	3916.44	3916.51	89.71	.03
10614.00	89.87	87.85	6869.58	22.79	4011.40	4011.42	4011.47	89.67	.52
10677.00	90.04	87.39	6869.63	25.41	4074.35	4074.39	4074.43	89.64	.78
10739.00	88.81	87.12	6870.25	28.38	4136.27	4136.34	4136.37	89.61	2.03
10834.00	88.81	86.75	6872.23	33.46	4231.12	4231.23	4231.25	89.55	.39
10928.00	89.52	86.84	6873.60	38.71	4324.96	4325.13	4325.13	89.49	.76
11051.00	88.55	85.46	6875.67	46.97	4447.66	4447.91	4447.91	89.39	1.37
Proj to Bit									
11120.00	88.55	85.46	6877.41	52.43	4516.42	4516.73	4516.73	89.33	.00

Surf: 660' FNL, 330' FNL
EOL: 608' FNL, 434' FEL