



Job Number: SVMO-140274

Company: Yates Petroleum Corporation

Lease/Well: Southland Royalty AMP State 4H

Location: Eddy County, NM

Rig Name: McVay #8

RKB: 18.5'

G.L. or M.S.L.: GL

State/Country: New Mexico/USA

Declination: 7.63°

Grid: East To Grid North

File name: Y:\WINSER~1\2014SU~1\YATES\MOIS\OUTHL~1\4H:SVY

Date/Time: 11-Mar-14//09:57

Curve Name: Surface - 5690' M.D. (Rate: Gyro)

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 03 2014
RECEIVED

MS Survey

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane .00

Vertical Section Referenced to Wellhead

Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surface MD to 5690 MD is, to the best of
our knowledge a true and accurate account of
the well bore.

Josh Pries
MS Energy Services

3/11/14
Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.29	280.73	100.00	.05	-.25	.05	.25	280.73	.29
200.00	.53	243.60	200.00	-.11	-.91	-.11	.92	263.03	.35
300.00	.53	232.93	299.99	-.60	-1.69	-.60	1.80	250.63	.10
400.00	.35	213.86	399.99	-1.13	-2.23	-1.13	2.50	243.20	.23
500.00	.18	233.91	499.99	-1.47	-2.53	-1.47	2.93	239.78	.19
600.00	.18	28.05	599.99	-1.43	-2.58	-1.43	2.95	241.07	.35
700.00	.84	64.96	699.98	-.98	-1.85	-.98	2.09	242.05	.70
800.00	1.38	48.95	799.97	.12	-.27	.12	.30	293.93	.62
900.00	1.80	55.47	899.93	1.80	1.93	1.80	2.64	46.92	.46

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1000.00	1.81	62.90	999.88	3.41	4.63	3.41	5.75	53.60	.23
1100.00	2.08	71.51	1099.82	4.71	7.75	4.71	9.07	58.74	.40
1200.00	2.15	87.10	1199.75	5.38	11.35	5.38	12.56	64.65	.58
1300.00	2.20	98.14	1299.68	5.20	15.12	5.20	15.99	71.02	.42
1400.00	2.17	97.44	1399.61	4.68	18.90	4.68	19.47	76.08	.04
1500.00	1.65	114.00	1499.55	3.85	22.09	3.85	22.43	80.11	.75
1600.00	1.28	116.88	1599.52	2.76	24.40	2.76	24.56	83.54	.38
1700.00	.84	123.71	1699.50	1.85	26.01	1.85	26.08	85.93	.46
1800.00	.71	153.85	1799.49	.89	26.89	.89	26.91	88.11	.42
1900.00	.80	172.56	1899.49	-.36	27.26	-.36	27.26	90.76	.26
2000.00	.85	175.10	1999.48	-1.79	27.41	-1.79	27.47	93.74	.06
2100.00	.75	167.40	2099.47	-3.17	27.62	-3.17	27.80	96.55	.15
2200.00	.57	167.20	2199.46	-4.29	27.87	-4.29	28.20	98.76	.18
2300.00	.51	172.71	2299.45	-5.22	28.04	-5.22	28.52	100.55	.08
2400.00	.32	170.60	2399.45	-5.94	28.14	-5.94	28.76	101.91	.19
2500.00	.23	182.10	2499.45	-6.41	28.18	-6.41	28.90	102.82	.11
2600.00	.08	177.73	2599.45	-6.68	28.17	-6.68	28.95	103.35	.15
2700.00	.08	335.75	2699.45	-6.69	28.15	-6.69	28.93	103.37	.16
2800.00	.08	76.97	2799.45	-6.61	28.18	-6.61	28.95	103.20	.12
2900.00	.08	202.55	2899.45	-6.66	28.23	-6.66	29.00	103.27	.14
3000.00	.46	289.71	2999.45	-6.59	27.82	-6.59	28.59	103.32	.46
3100.00	.49	293.37	3099.45	-6.28	27.05	-6.28	27.77	103.08	.04
3200.00	.47	298.23	3199.44	-5.92	26.30	-5.92	26.96	102.69	.05
3300.00	.23	302.64	3299.44	-5.62	25.77	-5.62	26.37	102.30	.24
3400.00	.32	336.12	3399.44	-5.25	25.48	-5.25	26.02	101.65	.18
3500.00	.38	332.86	3499.44	-4.70	25.22	-4.70	25.66	100.56	.06
3600.00	.53	330.46	3599.43	-4.01	24.84	-4.01	25.16	99.16	.15
3700.00	.41	339.55	3699.43	-3.27	24.49	-3.27	24.71	97.60	.14
3800.00	.50	314.77	3799.43	-2.63	24.05	-2.63	24.20	96.23	.21

Measured Depth: FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
3900:00	.67	328.52	3899.42	-1.82	23.44	-1.82	23.51	94.44	.22
4000:00	.73	317.89	3999.41	-.85	22.71	-.85	22.72	92.14	.14
4100:00	.75	324.34	4099.41	.16	21.90	.16	21.90	89.59	.09
4200:00	.50	318.15	4199.40	1.01	21.22	1.01	21.25	87.27	.26
4300:00	.55	321.16	4299.40	1.71	20.63	1.71	20.70	85.26	.06
4400:00	.76	337.69	4399.39	2.70	20.08	2.70	20.26	82.34	.28
4500:00	.74	342.63	4499.38	3.93	19.63	3.93	20.02	78.68	.07
4600:00	.82	349.26	4599.37	5.25	19.31	5.25	20.01	74.79	.12
4700:00	1.16	.08	4699.36	6.96	19.18	6.96	20.40	70.04	.39
4800:00	1.62	5.94	4799.33	9.38	19.32	9.38	21.48	64.10	.48
4900:00	1.76	10.43	4899.28	12.30	19.75	12.30	23.27	58.09	.19
5000:00	2.16	15.07	4999.23	15.63	20.52	15.63	25.79	52.70	.43
5100:00	2.16	11.73	5099.15	19.29	21.39	19.29	28.81	47.95	.13
5200:00	2.25	13.09	5199.08	23.05	22.22	23.05	32.01	43.95	.10
5300:00	2.53	11.87	5298.99	27.12	23.12	27.12	35.64	40.44	.28
5400:00	2.77	12.84	5398.89	31.64	24.11	31.64	39.78	37.31	.24
5500:00	2.69	16.13	5498.77	36.25	25.30	36.25	44.20	34.91	.18
5600:00	2.60	14.40	5598.67	40.70	26.51	40.70	48.57	33.08	.12
Last Survey Depth Recorded									
5690:00	2.38	13.25	5688.58	44.50	27.45	44.50	52.28	31.67	.25