

15-42111



Job Number: SVMO-140743
 Company: BOPCO, LP
 Lease/Well: Poker Lane Unit CVXJV BS 027H
 Location: Eddy County, NM
 Rig Name: Latchaw #14
 RKB: 20'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 8.35°
 Grid: East To Grid North
 File name: Y:\WINSER-1\2014SU-1\BOPCO\MO\POKERL-1\CVXJV\BS027H.SVY
 Date/Time: 10-Jun-14 / 13:01
 Curve Name: Surface - 9688' M.D. (Rate Gyro)

NM OIL CONSERVATION
 ARTESIA DISTRICT

JAN 05 2015

RECEIVED

CONFIDENTIAL

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 9688' MD is to the best of
 our knowledge a true and accurate account of the
 well bore.
Clayton Turner 6/10/14
 MS Energy Services Date

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	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	28	100.56	100.00	-.04	.24	-.04	.24	100.56	28
200.00	28	82.05	200.00	-.06	.72	-.06	.72	94.41	09
300.00	48	55.88	300.00	.21	1.31	.21	1.33	80.77	26
400.00	78	36.69	399.99	.99	2.06	.99	2.29	64.30	36
500.00	75	29.02	499.98	2.11	2.79	2.11	3.50	52.86	11
600.00	62	35.73	599.97	3.12	3.42	3.12	4.63	47.61	15
700.00	24	63.99	699.97	3.65	3.93	3.65	5.36	47.05	42
800.00	14	99.83	799.97	3.73	4.24	3.73	5.64	48.66	15
900.00	16	129.55	899.97	3.62	4.46	3.62	5.74	50.99	08

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	
1000.00	.42	119.97	999.97	3.34	4.89	3.34	5.92	55.63	.26
1100.00	.80	102.87	1099.96	3.01	5.89	3.01	6.61	62.95	.42
1200.00	1.04	105.67	1199.95	2.60	7.44	2.60	7.88	70.71	.24
1300.00	1.39	106.31	1299.93	2.02	9.48	2.02	9.69	77.98	.35
1400.00	1.36	104.71	1399.90	1.38	11.79	1.38	11.87	83.34	.05
1500.00	1.43	101.25	1499.87	.83	14.16	.83	14.19	86.64	.11
1600.00	1.32	102.67	1599.84	.34	16.51	.34	16.51	88.83	.12
1700.00	1.21	98.55	1699.82	-.07	18.68	-.07	18.68	90.23	.14
1800.00	1.62	95.73	1799.79	-.37	21.13	-.37	21.13	91.01	.42
1900.00	1.76	93.71	1899.74	-.61	24.07	-.61	24.07	91.46	.15
2000.00	1.72	97.24	1999.70	-.90	27.09	-.90	27.10	91.90	.11
2100.00	1.54	110.05	2099.66	-1.55	29.84	-1.55	29.88	92.97	.41
2200.00	1.42	118.06	2199.62	-2.59	32.20	-2.59	32.30	94.61	.24
2300.00	1.45	122.92	2299.59	-3.86	34.35	-3.86	34.57	96.42	.13
2400.00	1.58	119.09	2399.56	-5.22	36.62	-5.22	36.99	98.12	.16
2500.00	1.22	135.48	2499.53	-6.65	38.57	-6.65	39.14	99.79	.54
2600.00	1.25	148.11	2599.50	-8.34	39.89	-8.34	40.75	101.80	.27
2700.00	1.38	163.55	2699.48	-10.42	40.81	-10.42	42.12	104.32	.38
2800.00	1.08	180.04	2799.45	-12.52	41.15	-12.52	43.01	106.92	.46
2900.00	.72	207.23	2899.44	-14.02	40.86	-14.02	43.20	108.93	.55
3000.00	.67	207.10	2999.44	-15.10	40.31	-15.10	43.04	110.53	.05
3100.00	.57	201.44	3099.43	-16.08	39.86	-16.08	42.98	111.97	.12
3200.00	.39	166.86	3199.43	-16.87	39.75	-16.87	43.19	113.00	.33
3300.00	.47	139.37	3299.42	-17.52	40.10	-17.52	43.76	113.60	.22
3400.00	.47	175.15	3399.42	-18.24	40.40	-18.24	44.33	114.29	.29
3500.00	.80	236.63	3499.41	-19.03	39.85	-19.03	44.16	115.52	.71
3600.00	.80	240.78	3599.40	-19.75	38.66	-19.75	43.41	117.07	.08
3700.00	.64	183.44	3699.40	-20.65	38.02	-20.65	43.26	118.51	.70
3800.00	.95	157.14	3799.39	-21.97	38.31	-21.97	44.16	119.84	.47

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	
3900.00	1.17	154.16	3899.37	-23.66	39.07	-23.66	45.68	121.19	23
4000.00	1.77	147.72	3999.34	-25.88	40.34	-25.88	47.93	122.68	62
4100.00	1.55	138.24	4099.30	-28.20	42.07	-28.20	50.64	123.83	35
4200.00	1.50	137.09	4199.26	-30.16	43.86	-30.16	53.23	124.52	06
4300.00	1.52	135.97	4299.23	-32.07	45.67	-32.07	55.81	125.08	04
4400.00	1.41	141.72	4399.19	-33.99	47.36	-33.99	58.29	125.67	18
4500.00	1.08	149.30	4499.17	-35.77	48.60	-35.77	60.34	126.35	37
4600.00	.64	242.59	4599.16	-36.84	48.59	-36.84	60.97	127.17	1.29
4700.00	.75	260.01	4699.15	-37.21	47.45	-37.21	60.30	128.11	24
4800.00	.64	253.05	4799.15	-37.48	46.27	-37.48	59.55	129.01	14
4900.00	.55	250.22	4899.14	-37.81	45.28	-37.81	58.99	129.86	09
5000.00	.47	241.21	4999.14	-38.17	44.47	-38.17	58.60	130.64	11
5100.00	.47	243.95	5099.13	-38.55	43.74	-38.55	58.30	131.39	02
5200.00	.44	233.45	5199.13	-38.96	43.06	-38.96	58.07	132.13	09
5300.00	.64	226.48	5299.13	-39.57	42.35	-39.57	57.96	133.06	21
5400.00	.70	231.77	5399.12	-40.33	41.47	-40.33	57.85	134.21	09
5500.00	.82	238.32	5499.11	-41.09	40.38	-41.09	57.61	135.50	15
5600.00	.82	240.63	5599.10	-41.81	39.14	-41.81	57.28	136.89	03
5700.00	.89	242.93	5699.09	-42.52	37.83	-42.52	56.91	138.34	08
5800.00	.96	245.84	5799.08	-43.21	36.37	-43.21	56.48	139.91	08
5900.00	.98	252.71	5899.06	-43.81	34.79	-43.81	55.95	141.54	12
6000.00	1.03	258.94	5999.05	-44.24	33.09	-44.24	55.25	143.20	12
6100.00	.97	245.80	6099.03	-44.76	31.44	-44.76	54.70	144.91	24
6200.00	.96	243.49	6199.02	-45.48	29.92	-45.48	54.44	146.66	04
6300.00	.90	234.12	6299.01	-46.31	28.53	-46.31	54.40	148.36	16
6400.00	.90	235.04	6398.99	-47.22	27.25	-47.22	54.52	150.01	01
6500.00	1.42	266.38	6498.97	-47.75	25.37	-47.75	54.07	152.02	80
6600.00	1.44	265.85	6598.94	-47.92	22.88	-47.92	53.10	154.47	02
6700.00	1.63	307.96	6698.91	-47.14	20.51	-47.14	51.40	156.49	1.12

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	
6800.00	1.61	306.17	6798.87	-45.43	18.25	-45.43	48.96	158.11	.05
6900.00	.40	312.39	6898.85	-44.37	16.86	-44.37	47.46	159.19	1.21
7000.00	.48	284.90	6998.85	-44.02	16.20	-44.02	46.91	159.80	.22
7100.00	.71	266.40	7098.84	-43.96	15.17	-43.96	46.50	160.95	.30
7200.00	.88	257.26	7198.83	-44.16	13.81	-44.16	46.27	162.64	.21
7300.00	1.31	246.91	7298.82	-44.78	12.01	-44.78	46.36	164.99	.47
7400.00	1.13	242.20	7398.79	-45.69	10.08	-45.69	46.79	167.56	.21
7500.00	.56	234.09	7498.78	-46.44	8.81	-46.44	47.26	169.25	.58
7600.00	.58	225.22	7598.78	-47.08	8.06	-47.08	47.76	170.29	.09
7700.00	.86	192.04	7698.77	-48.17	7.54	-48.17	48.76	171.10	.49
7800.00	1.18	186.24	7798.75	-49.93	7.28	-49.93	50.45	171.71	.34
7900.00	1.23	220.29	7898.73	-51.77	6.47	-51.77	52.17	172.88	.71
8000.00	1.09	263.25	7998.71	-52.70	4.83	-52.70	52.92	174.76	.86
8100.00	1.70	321.77	8098.69	-51.65	2.97	-51.65	51.73	176.71	1.46
8200.00	1.20	326.83	8198.66	-49.60	1.48	-49.60	49.63	178.29	.52
8300.00	.90	354.66	8298.64	-47.95	.83	-47.95	47.95	179.01	.58
8400.00	.85	358.97	8398.63	-46.42	.75	-46.42	46.43	179.08	.08
8500.00	.91	352.34	8498.62	-44.89	.63	-44.89	44.90	179.20	.12
8600.00	.74	346.86	8598.61	-43.48	.37	-43.48	43.48	179.51	.19
8700.00	.52	346.16	8698.60	-42.41	.12	-42.41	42.41	179.84	.22
8800.00	.35	357.43	8798.60	-41.66	.00	-41.66	41.66	180.01	.19
8900.00	.34	78.43	8898.60	-41.30	.27	-41.30	41.30	179.62	.45
9000.00	.53	65.02	8998.59	-41.04	.98	-41.04	41.06	178.63	.21
9100.00	.83	60.94	9098.59	-40.50	2.04	-40.50	40.55	177.12	.30
9200.00	.81	68.78	9198.58	-39.89	3.33	-39.89	40.03	175.23	.11
9300.00	1.03	101.08	9298.56	-39.81	4.87	-39.81	40.10	173.03	.55
9400.00	1.24	89.70	9398.54	-39.97	6.83	-39.97	40.55	170.30	.31
9500.00	1.32	80.54	9498.52	-39.78	9.05	-39.78	40.79	167.18	.22
9600.00	1.40	71.10	9598.49	-39.19	11.34	-39.19	40.80	163.86	.24

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	
Last Survey Depth Recorded									
9688.00	.50	77.23	9686.48	-38.76	12.73	-38.76	40.80	161.81	1.03