



Job Number: SVGJ-131382
 Company: PDC
 Lease/Well: Paxton 12-33
 Location: Weld County, CO
 Rig Name: MS Energy Wireline
 RKB: 0'
 G.L. or M.S.L.: GL

State/Country: Colorado/USA
 Declination: 8.48°
 Grid: East To True North
 File name: S:\2013SU~1\PDC\GJ\PAXTON\1233.SVY
 Date/Time: 30-Dec-13 / 12:38
 Curve Name: Surface - 7100' M.D. (Rate Gyro)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

<i>Measured Depth FT</i>	<i>Incl Angle Deg</i>	<i>Drift Direction Deg</i>	<i>True Vertical Depth</i>	<i>N-S FT</i>	<i>E-W FT</i>	<i>Vertical Section FT</i>	<i>C L O S U R E</i>		<i>Dogleg Severity Deg/100</i>
							<i>Distance FT</i>	<i>Direction Deg</i>	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.55	301.40	100.00	.25	-.41	.25	.48	301.40	.55
200.00	.37	173.99	200.00	.18	-.79	.18	.81	282.84	.83
300.00	.47	156.87	299.99	-.52	-.59	-.52	.79	228.68	.16
400.00	.45	130.93	399.99	-1.15	-.13	-1.15	1.16	186.57	.21
500.00	.79	109.36	499.99	-1.64	.81	-1.64	1.83	153.59	.41
600.00	.83	87.89	599.98	-1.84	2.19	-1.84	2.86	130.08	.30
700.00	.88	84.85	699.96	-1.75	3.68	-1.75	4.07	115.40	.07
800.00	.69	76.48	799.95	-1.54	5.03	-1.54	5.26	106.99	.22
900.00	.60	90.93	899.95	-1.40	6.14	-1.40	6.29	102.89	.19

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	.70	133.02	999.94	-1.83	7.11	-1.83	7.34	104.43	.48
1100.00	.82	133.26	1099.93	-2.74	8.07	-2.74	8.53	108.72	.12
1200.00	1.23	123.41	1199.92	-3.82	9.49	-3.82	10.23	111.91	.44
1300.00	1.28	108.50	1299.89	-4.76	11.45	-4.76	12.40	112.59	.33
1400.00	1.11	102.07	1399.87	-5.32	13.45	-5.32	14.47	111.58	.22
1500.00	1.01	109.32	1499.86	-5.81	15.23	-5.81	16.30	110.89	.17
1600.00	1.11	122.87	1599.84	-6.63	16.88	-6.63	18.13	111.45	.27
1700.00	1.17	140.29	1699.82	-7.94	18.34	-7.94	19.99	113.41	.35
1800.00	1.27	148.82	1799.80	-9.68	19.57	-9.68	21.83	116.31	.21
1900.00	1.60	155.86	1899.76	-11.90	20.71	-11.90	23.89	119.87	.37
2000.00	1.52	150.55	1999.73	-14.33	21.94	-14.33	26.20	123.15	.17
2100.00	1.13	143.48	2099.70	-16.27	23.18	-16.27	28.32	125.08	.42
2200.00	.55	155.04	2199.69	-17.50	23.96	-17.50	29.68	126.14	.60
2300.00	.27	218.52	2299.69	-18.12	24.02	-18.12	30.09	127.03	.49
2400.00	.43	245.30	2399.69	-18.46	23.53	-18.46	29.91	128.12	.22
2500.00	.57	257.59	2499.68	-18.73	22.71	-18.73	29.43	129.51	.18
2600.00	1.01	293.69	2599.67	-18.48	21.41	-18.48	28.28	130.79	.64
2700.00	1.31	290.97	2699.65	-17.72	19.54	-17.72	26.37	132.20	.30
2800.00	1.47	280.94	2799.62	-17.06	17.21	-17.06	24.24	134.75	.29
2900.00	1.55	280.97	2899.59	-16.56	14.62	-16.56	22.10	138.56	.08
3000.00	1.64	275.37	2999.55	-16.17	11.87	-16.17	20.06	143.71	.18
3100.00	1.53	274.07	3099.51	-15.94	9.12	-15.94	18.36	150.24	.12
3200.00	1.58	281.06	3199.47	-15.58	6.43	-15.58	16.86	157.57	.20
3300.00	1.58	287.49	3299.44	-14.90	3.76	-14.90	15.37	165.83	.18
3400.00	1.51	291.82	3399.40	-14.00	1.23	-14.00	14.05	175.00	.14
3500.00	1.75	288.89	3499.36	-13.02	-1.44	-13.02	13.10	186.32	.25
3600.00	1.92	279.15	3599.31	-12.26	-4.54	-12.26	13.07	200.33	.35
3700.00	2.16	265.10	3699.25	-12.15	-8.07	-12.15	14.59	213.60	.55
3800.00	2.35	254.36	3799.17	-12.86	-11.92	-12.86	17.54	222.83	.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	
3900.00	2.29	251.32	3899.09	-14.06	-15.79	-14.06	21.14	228.33	.14
4000.00	2.30	251.34	3999.01	-15.34	-19.59	-15.34	24.88	231.93	.01
4100.00	2.34	250.87	4098.92	-16.65	-23.41	-16.65	28.73	234.58	.04
4200.00	2.17	249.82	4198.85	-17.97	-27.12	-17.97	32.53	236.47	.17
4300.00	2.01	250.31	4298.78	-19.22	-30.55	-19.22	36.09	237.83	.16
4400.00	1.84	248.01	4398.72	-20.41	-33.69	-20.41	39.39	238.79	.19
4500.00	1.44	246.58	4498.68	-21.51	-36.33	-21.51	42.22	239.37	.40
4600.00	1.69	261.85	4598.65	-22.22	-38.94	-22.22	44.83	240.30	.48
4700.00	2.09	280.80	4698.59	-22.08	-42.19	-22.08	47.62	242.37	.74
4800.00	2.46	292.78	4798.51	-20.91	-45.96	-20.91	50.50	245.54	.60
4900.00	2.86	295.81	4898.41	-18.99	-50.19	-18.99	53.66	249.27	.42
5000.00	2.93	296.65	4998.28	-16.76	-54.72	-16.76	57.23	252.97	.08
5100.00	2.92	299.53	5098.15	-14.36	-59.22	-14.36	60.94	256.37	.15
5200.00	2.76	300.78	5198.03	-11.87	-63.50	-11.87	64.60	259.41	.17
5300.00	2.36	304.20	5297.93	-9.48	-67.28	-9.48	67.94	261.98	.43
5400.00	2.09	315.27	5397.85	-7.03	-70.26	-7.03	70.61	264.29	.51
5500.00	1.94	328.63	5497.79	-4.29	-72.43	-4.29	72.55	266.61	.49
5600.00	2.14	351.29	5597.73	-1.00	-73.59	-1.00	73.60	269.22	.83
5700.00	2.33	9.97	5697.65	2.85	-73.52	2.85	73.58	272.22	.75
5800.00	2.03	30.15	5797.58	6.38	-72.28	6.38	72.56	275.05	.82
5900.00	1.95	36.89	5897.52	9.27	-70.37	9.27	70.98	277.51	.25
6000.00	1.91	38.90	5997.46	11.93	-68.30	11.93	69.33	279.91	.08
6100.00	1.52	49.87	6097.42	14.08	-66.24	14.08	67.72	282.00	.51
6200.00	1.32	63.17	6197.39	15.46	-64.20	15.46	66.03	283.54	.38
6300.00	1.12	69.81	6297.37	16.32	-62.25	16.32	64.36	284.69	.24
6400.00	.92	85.04	6397.35	16.72	-60.54	16.72	62.80	285.44	.34
6500.00	.92	99.49	6497.34	16.66	-58.94	16.66	61.25	285.78	.23
6600.00	.99	114.08	6597.32	16.18	-57.36	16.18	59.60	285.75	.25
6700.00	1.05	127.61	6697.31	15.26	-55.85	15.26	57.90	285.29	.25

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	
6800.00	1.14	129.22	6797.29	14.08	-54.35	14.08	56.15	284.52	.10
6900.00	1.15	129.36	6897.27	12.81	-52.81	12.81	54.34	283.64	.01
7000.00	1.10	121.20	6997.25	11.68	-51.21	11.68	52.52	282.84	.17
Last Survey Depth Recorded									
7100.00	.93	110.84	7097.24	10.89	-49.63	10.89	50.81	282.38	.25