



Job Number: SVGJ-150200
 Company: PDC
 Lease/Well: Pfeiffer 9-26
 Location: Weld County, CO
 Rig Name: MS Energy Wireline
 RKB: 0'
 G.L. or M.S.L.: GL

State/Country: Colorado/USA
 Declination: 8.39°
 Grid: East To True North
 File name: W:\WINSER~1\2015SU~1\PDC\GJ\PFEIFFER\926.SVY
 Date/Time: 09-Oct-15 / 09:49
 Curve Name: Surface - 6700' M.D. (Rate Gyro)

MS Survey

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	.26	229.56	100.00	-.15	-.17	-.15	.23	229.56	.26
200.00	.27	187.27	200.00	-.53	-.38	-.53	.65	215.39	.19
300.00	.41	186.73	300.00	-1.12	-.45	-1.12	1.20	201.80	.14
400.00	.41	181.09	399.99	-1.83	-.50	-1.83	1.90	195.15	.04
500.00	.56	178.70	499.99	-2.68	-.49	-2.68	2.72	190.40	.15
600.00	.57	177.91	599.99	-3.66	-.46	-3.66	3.69	187.19	.01
700.00	.64	168.16	699.98	-4.71	-.33	-4.71	4.72	184.00	.12
800.00	.66	162.95	799.97	-5.80	-.05	-5.80	5.80	180.45	.06
900.00	.65	156.14	899.97	-6.87	.35	-6.87	6.88	177.06	.08
1000.00	.59	144.62	999.96	-7.81	.88	-7.81	7.86	173.57	.14
1100.00	.57	112.39	1099.96	-8.42	1.64	-8.42	8.58	168.99	.32
1200.00	.58	111.16	1199.95	-8.79	2.57	-8.79	9.16	163.71	.02

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	
1300.00	.53	111.48	1299.95	-9.14	3.47	-9.14	9.78	159.21	.05
1400.00	.38	113.21	1399.94	-9.44	4.21	-9.44	10.34	155.99	.15
1500.00	.47	114.06	1499.94	-9.74	4.89	-9.74	10.90	153.36	.09
1600.00	.41	144.05	1599.94	-10.20	5.47	-10.20	11.57	151.79	.23
1700.00	.45	159.96	1699.94	-10.86	5.82	-10.86	12.32	151.82	.13
1800.00	.39	146.52	1799.93	-11.51	6.14	-11.51	13.04	151.93	.11
1900.00	.32	149.67	1899.93	-12.04	6.47	-12.04	13.66	151.75	.07
2000.00	.24	157.85	1999.93	-12.47	6.69	-12.47	14.15	151.80	.09
2100.00	.19	158.56	2099.93	-12.82	6.83	-12.82	14.52	151.96	.05
2200.00	.29	183.42	2199.93	-13.23	6.87	-13.23	14.90	152.54	.14
2300.00	.51	202.81	2299.93	-13.89	6.68	-13.89	15.41	154.30	.26
2400.00	.59	219.46	2399.92	-14.70	6.18	-14.70	15.94	157.18	.18
2500.00	.37	254.92	2499.92	-15.18	5.55	-15.18	16.16	159.93	.36
2600.00	.29	296.81	2599.92	-15.15	5.01	-15.15	15.95	161.71	.25
2700.00	.25	344.34	2699.92	-14.82	4.72	-14.82	15.56	162.33	.22
2800.00	.35	353.69	2799.91	-14.31	4.63	-14.31	15.04	162.07	.11
2900.00	.43	356.13	2899.91	-13.63	4.57	-13.63	14.38	161.46	.08
3000.00	.47	356.29	2999.91	-12.85	4.52	-12.85	13.62	160.62	.04
3100.00	.59	340.41	3099.90	-11.95	4.32	-11.95	12.71	160.13	.19
3200.00	.59	338.00	3199.90	-10.99	3.96	-10.99	11.68	160.21	.02
3300.00	.39	341.04	3299.90	-10.19	3.65	-10.19	10.83	160.29	.20
3400.00	.27	204.38	3399.89	-10.08	3.44	-10.08	10.66	161.14	.61
3500.00	.54	207.45	3499.89	-10.72	3.13	-10.72	11.17	163.72	.27
3600.00	.73	185.17	3599.89	-11.77	2.85	-11.77	12.11	166.37	.31
3700.00	.65	186.08	3699.88	-12.97	2.74	-12.97	13.25	168.08	.08
3800.00	.61	195.14	3799.87	-14.05	2.54	-14.05	14.27	169.76	.11
3900.00	.69	206.78	3899.87	-15.10	2.13	-15.10	15.25	171.98	.15
4000.00	.77	198.93	3999.86	-16.27	1.64	-16.27	16.35	174.25	.13
4100.00	.65	181.30	4099.85	-17.47	1.41	-17.47	17.53	175.39	.25
4200.00	.44	156.69	4199.85	-18.39	1.55	-18.39	18.46	175.19	.31
4300.00	.21	167.98	4299.84	-18.93	1.74	-18.93	19.00	174.76	.24
4400.00	.33	168.55	4399.84	-19.39	1.83	-19.39	19.47	174.60	.12
4500.00	.15	195.27	4499.84	-19.80	1.86	-19.80	19.88	174.65	.21
4600.00	.29	299.56	4599.84	-19.80	1.60	-19.80	19.86	175.38	.36

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	
4700.00	.46	321.12	4699.84	-19.36	1.13	-19.36	19.39	176.66	.22
4800.00	.53	290.89	4799.84	-18.88	.44	-18.88	18.89	178.65	.27
4900.00	.49	289.69	4899.83	-18.57	-.39	-18.57	18.58	181.20	.04
5000.00	.36	292.18	4999.83	-18.31	-1.08	-18.31	18.34	183.39	.13
5100.00	.14	268.65	5099.83	-18.19	-1.50	-18.19	18.26	184.70	.24
5200.00	.25	269.10	5199.83	-18.20	-1.84	-18.20	18.29	185.76	.11
5300.00	.08	148.22	5299.83	-18.26	-2.02	-18.26	18.38	186.31	.30
5400.00	.27	45.58	5399.83	-18.16	-1.81	-18.16	18.25	185.70	.30
5500.00	.23	37.97	5499.83	-17.84	-1.52	-17.84	17.90	184.88	.05
5600.00	.49	51.18	5599.82	-17.41	-1.07	-17.41	17.44	183.50	.27
5700.00	.39	337.61	5699.82	-16.83	-.86	-16.83	16.85	182.93	.53
5800.00	.21	145.29	5799.82	-16.66	-.89	-16.66	16.69	183.05	.60
5900.00	.29	299.87	5899.82	-16.69	-1.00	-16.69	16.72	183.44	.49
6000.00	.39	236.64	5999.82	-16.75	-1.51	-16.75	16.82	185.14	.37
6100.00	.32	209.51	6099.82	-17.18	-1.93	-17.18	17.29	186.40	.18
6200.00	.44	225.58	6199.82	-17.69	-2.34	-17.69	17.84	187.53	.16
6300.00	.71	218.97	6299.81	-18.44	-3.00	-18.44	18.68	189.25	.28
6400.00	.74	215.43	6399.80	-19.45	-3.77	-19.45	19.81	190.96	.05
6500.00	.81	217.59	6499.79	-20.53	-4.57	-20.53	21.04	192.55	.08
6600.00	.82	221.09	6599.78	-21.63	-5.47	-21.63	22.32	194.20	.05
Last Survey Depth Recorded									
6700.00	.67	214.00	6699.77	-22.66	-6.27	-22.66	23.51	195.47	.18