



Job Number: SVGJ-131141

Company: PDC

Lease/Well: Floyd 1

Location: Weld County, CO

Rig Name: Production

RKB: 0'

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

State/Country: Colorado/USA

Declination: 8.55°

Grid: East To True North

File name: S:\2013SU-1\PDC\GJ\FLOYD\1.SVY

Date/Time: 04-Nov-13 / 11:58

Curve Name: Surface - 7265' 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	.23	91.70	100.00	-.01	.20	-.01	.20	91.70	.23
200.00	.26	125.44	200.00	-.14	.59	-.14	.60	103.75	.15
300.00	.21	214.36	300.00	-.43	.67	-.43	.79	122.56	.33
400.00	.21	282.57	400.00	-.54	.39	-.54	.66	144.38	.24
500.00	.18	197.03	500.00	-.65	.16	-.65	.67	166.10	.27
600.00	.04	271.95	600.00	-.80	.08	-.80	.80	174.31	.17
700.00	.05	264.54	700.00	-.80	.00	-.80	.80	179.92	.01
800.00	.21	265.41	800.00	-.82	-.22	-.82	.85	195.36	.16
900.00	.21	230.96	900.00	-.95	-.55	-.95	1.10	210.10	.12

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	.18	155.69	1000.00	-1.21	-.63	-1.21	1.36	207.46	.24
1100.00	.15	150.81	1100.00	-1.46	-.50	-1.46	1.55	198.82	.03
1200.00	.19	184.47	1199.99	-1.74	-.45	-1.74	1.80	194.41	.11
1300.00	.16	152.65	1299.99	-2.03	-.40	-2.03	2.07	191.04	.10
1400.00	.17	133.02	1399.99	-2.26	-.22	-2.26	2.27	185.67	.06
1500.00	.16	122.63	1499.99	-2.44	.00	-2.44	2.44	179.96	.03
1600.00	.16	183.30	1599.99	-2.65	.11	-2.65	2.65	177.60	.16
1700.00	.15	252.96	1699.99	-2.83	-.02	-2.83	2.83	180.44	.18
1800.00	.40	159.91	1799.99	-3.19	-.03	-3.19	3.19	180.49	.43
1900.00	.45	155.04	1899.99	-3.88	.26	-3.88	3.89	176.19	.06
2000.00	.28	177.18	1999.99	-4.48	.44	-4.48	4.50	174.44	.22
2100.00	.56	208.58	2099.98	-5.15	.21	-5.15	5.16	177.62	.35
2200.00	.62	220.38	2199.98	-5.99	-.37	-5.99	6.00	183.53	.14
2300.00	.71	212.78	2299.97	-6.93	-1.06	-6.93	7.01	188.67	.13
2400.00	.65	211.18	2399.97	-7.93	-1.68	-7.93	8.11	191.99	.06
2500.00	.52	226.82	2499.96	-8.73	-2.31	-8.73	9.03	194.82	.20
2600.00	.27	238.57	2599.96	-9.16	-2.84	-9.16	9.59	197.23	.26
2700.00	.49	224.55	2699.96	-9.59	-3.34	-9.59	10.15	199.22	.24
2800.00	.47	224.87	2799.95	-10.18	-3.93	-10.18	10.92	201.11	.02
2900.00	.18	113.15	2899.95	-10.54	-4.08	-10.54	11.30	201.15	.56
3000.00	.27	194.69	2999.95	-10.83	-3.99	-10.83	11.54	200.24	.30
3100.00	.12	195.26	3099.95	-11.16	-4.08	-11.16	11.88	200.09	.15
3200.00	.32	166.56	3199.95	-11.53	-4.04	-11.53	12.22	199.32	.22
3300.00	.50	211.05	3299.95	-12.17	-4.20	-12.17	12.88	199.05	.35
3400.00	.71	250.53	3399.94	-12.75	-5.01	-12.75	13.70	201.45	.45
3500.00	.82	237.93	3499.93	-13.34	-6.20	-13.34	14.71	204.93	.20
3600.00	1.11	244.56	3599.92	-14.14	-7.68	-14.14	16.09	208.52	.31
3700.00	1.12	242.63	3699.90	-15.00	-9.43	-15.00	17.72	212.14	.04
3800.00	1.15	241.56	3799.88	-15.93	-11.18	-15.93	19.46	215.05	.04

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	.98	246.37	3899.86	-16.75	-12.84	-16.75	21.11	217.48	.19
4000.00	1.02	235.06	3999.85	-17.60	-14.35	-17.60	22.71	219.20	.20
4100.00	1.49	228.11	4099.82	-18.98	-16.05	-18.98	24.86	220.22	.49
4200.00	1.65	227.07	4199.79	-20.83	-18.07	-20.83	27.58	220.95	.16
4300.00	1.86	225.41	4299.74	-22.95	-20.28	-22.95	30.63	221.47	.22
4400.00	1.90	231.50	4399.69	-25.12	-22.74	-25.12	33.88	222.15	.20
4500.00	1.85	240.80	4499.63	-26.94	-25.44	-26.94	37.06	223.37	.31
4600.00	1.78	258.52	4599.58	-28.04	-28.37	-28.04	39.89	225.34	.56
4700.00	1.86	262.11	4699.53	-28.57	-31.50	-28.57	42.53	227.80	.14
4800.00	2.14	265.64	4799.47	-28.93	-34.97	-28.93	45.39	230.40	.31
4900.00	1.98	275.11	4899.41	-28.92	-38.56	-28.92	48.20	233.13	.38
5000.00	1.95	274.50	4999.35	-28.63	-41.97	-28.63	50.81	235.70	.04
5100.00	1.89	288.32	5099.29	-27.98	-45.23	-27.98	53.19	238.26	.47
5200.00	1.52	290.96	5199.25	-26.99	-48.04	-26.99	55.10	240.67	.38
5300.00	1.39	291.11	5299.22	-26.08	-50.41	-26.08	56.75	242.65	.13
5400.00	1.26	290.25	5399.19	-25.26	-52.57	-25.26	58.32	244.34	.13
5500.00	1.35	291.36	5499.16	-24.45	-54.70	-24.45	59.92	245.92	.09
5600.00	.89	266.07	5599.14	-24.07	-56.57	-24.07	61.48	246.95	.66
5700.00	.60	258.60	5699.14	-24.23	-57.86	-24.23	62.73	247.28	.31
5800.00	.60	263.46	5799.13	-24.39	-58.89	-24.39	63.75	247.50	.05
5900.00	.17	336.91	5899.13	-24.32	-59.47	-24.32	64.25	247.76	.58
6000.00	.25	40.53	5999.13	-24.01	-59.39	-24.01	64.06	247.98	.23
6100.00	.32	48.16	6099.13	-23.66	-59.04	-23.66	63.60	248.16	.08
6200.00	.40	29.89	6199.12	-23.17	-58.66	-23.17	63.07	248.44	.14
6300.00	.48	19.22	6299.12	-22.48	-58.34	-22.48	62.52	248.93	.11
6400.00	.41	35.19	6399.12	-21.79	-58.00	-21.79	61.96	249.41	.14
6500.00	.32	6.02	6499.12	-21.22	-57.76	-21.22	61.54	249.83	.20
6600.00	.22	34.58	6599.12	-20.78	-57.63	-20.78	61.26	250.17	.16
6700.00	.33	51.97	6699.11	-20.45	-57.29	-20.45	60.83	250.36	.14

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	.22	51.45	6799.11	-20.15	-56.91	-20.15	60.38	250.50	.11
6900.00	.26	353.05	6899.11	-19.80	-56.79	-19.80	60.15	250.78	.24
7000.00	.24	357.62	6999.11	-19.37	-56.83	-19.37	60.04	251.18	.03
7100.00	.57	358.56	7099.11	-18.66	-56.85	-18.66	59.83	251.82	.33
7200.00	.56	7.83	7199.10	-17.68	-56.79	-17.68	59.48	252.71	.09

Last Survey Depth Recorded									
7265.00	.31	45.68	7264.10	-17.24	-56.63	-17.24	59.19	253.06	.57