

30 015 41008

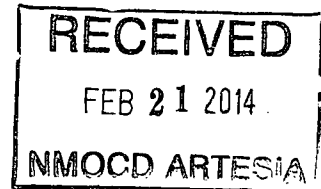


Job Number: MD-131362
 Company: Devon Energy Corp
 Lease/Well: Diamond PWU 22 6H
 Location: Eddy Co., NM
 Rig Name: Scan Texas
 RKB: 26
 G.L. or M.S.L.: 3332

State/Country: NM, USA
 Declination: 7.67
 Grid: 7.53
 File name: C:\USERS\LEAM\DESKTOP\DEVONE-1\SURVEYS\131
 Date/Time: 06-Dec-13 / 07:31
 Curve Name: ST01

LEAM Drilling Systems

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 87.37
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead



Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.83	279.27	199.99	.23	-1.43	-1.42	1.45	279.27	.41
400.00	.83	260.40	399.97	.23	-4.29	-4.27	4.29	273.01	.14
600.00	.10	269.54	599.96	-.02	-5.89	-5.89	5.89	269.83	.37
800.00	.22	23.88	799.96	.33	-5.91	-5.89	5.92	273.21	.14
1000.00	.83	47.24	999.95	1.67	-4.69	-4.61	4.98	289.56	.32
1200.00	1.26	62.79	1199.92	3.66	-1.67	-1.50	4.02	335.43	.26
1400.00	.64	85.68	1399.89	4.75	1.40	1.61	4.95	16.42	.36
1600.00	.74	26.80	1599.88	5.98	3.09	3.37	6.73	27.35	.34
1800.00	.20	36.60	1799.87	7.41	3.88	4.22	8.37	27.65	.27
2000.00	.23	3.22	1999.87	8.10	4.12	4.48	9.08	26.94	.06
2200.00	.75	322.33	2199.87	9.53	3.34	3.77	10.10	19.30	.30
2400.00	.22	322.48	2399.86	10.87	2.30	2.80	11.12	11.96	.27
2600.00	.37	311.05	2599.85	11.60	1.58	2.11	11.71	7.77	.08
2800.00	.44	288.41	2799.85	12.27	.37	.93	12.27	1.72	.09
3000.00	.32	283.96	2999.85	12.65	-.90	-.32	12.68	355.92	.06
3200.00	.52	276.37	3199.84	12.88	-2.35	-1.75	13.09	349.67	.10
3400.00	.25	258.67	3399.84	12.90	-3.68	-3.08	13.41	344.09	.15
3600.00	.54	242.85	3599.83	12.38	-4.94	-4.37	13.33	338.23	.15
3800.00	.94	269.23	3799.81	11.93	-7.42	-6.87	14.05	328.11	.26
4000.00	.86	282.66	3999.79	12.24	-10.53	-9.95	16.14	319.29	.11
4200.00	1.39	278.55	4199.75	12.93	-14.39	-13.78	19.34	311.93	.27
4400.00	2.04	260.58	4399.66	12.70	-20.30	-19.70	23.95	302.04	.42
4600.00	2.08	264.53	4599.53	11.77	-27.43	-26.86	29.85	293.24	.07
4800.00	2.36	264.56	4799.38	11.04	-35.14	-34.59	36.83	287.44	.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	
5000.00	2.22	259.73	4999.22	9.96	-43.05	-42.55	44.19	283.02	.12
5200.00	2.48	257.58	5199.05	8.34	-51.09	-50.65	51.76	279.27	.14
5400.00	2.22	264.16	5398.89	7.01	-59.17	-58.78	59.58	276.76	.19
5600.00	2.56	260.10	5598.71	5.85	-67.42	-67.08	67.67	274.96	.19
5800.00	3.13	265.32	5798.46	4.64	-77.26	-76.97	77.40	273.43	.31
6000.00	3.82	266.45	5998.10	3.78	-89.35	-89.09	89.43	272.42	.35
Tie into VES gyro surveys									
6200.00	4.34	255.88	6197.59	1.52	-103.34	-103.16	103.35	270.84	.46
The following are LEAM MWD surveys									
6325.00	4.04	258.89	6322.26	-.48	-112.25	-112.15	112.25	269.75	.30
ST01 departs original wellbore at 6351'MD									
6388.00	.70	95.59	6385.21	-.95	-114.04	-113.97	114.05	269.52	7.48
6419.00	3.96	88.56	6416.18	-.94	-112.79	-112.71	112.79	269.52	10.54
6451.00	4.84	88.03	6448.09	-.87	-110.33	-110.26	110.34	269.55	2.75
6482.00	4.75	86.62	6478.98	-.75	-107.74	-107.66	107.75	269.60	.48
6513.00	4.57	83.46	6509.88	-.53	-105.24	-105.15	105.24	269.71	1.01
6545.00	5.80	81.35	6541.74	-.14	-102.37	-102.27	102.37	269.92	3.89
6576.00	9.58	82.23	6572.46	.44	-98.26	-98.14	98.27	270.26	12.20
6608.00	13.89	81.35	6603.78	1.38	-91.83	-91.67	91.84	270.86	13.48
6639.00	17.94	82.75	6633.59	2.54	-83.41	-83.20	83.45	271.75	13.12
6670.00	20.58	85.92	6662.85	3.53	-73.23	-73.00	73.32	272.76	9.16
6702.00	22.25	88.03	6692.64	4.14	-61.57	-61.31	61.71	273.85	5.75
6734.00	22.77	89.26	6722.20	4.43	-49.32	-49.07	49.52	275.13	2.19
6765.00	25.68	92.42	6750.47	4.23	-36.61	-36.38	36.85	276.58	10.27
6797.00	29.28	92.77	6778.86	3.55	-21.86	-21.67	22.15	279.23	11.26
6828.00	32.89	92.60	6805.40	2.81	-5.88	-5.74	6.51	295.53	11.65
6859.00	35.88	92.07	6830.98	2.10	11.62	11.70	11.80	79.77	9.69
6891.00	38.43	91.19	6856.48	1.55	30.93	30.97	30.97	87.13	8.14
6922.00	41.77	92.25	6880.19	.94	50.89	50.88	50.90	88.94	11.00
6953.00	45.29	92.77	6902.67	.01	72.21	72.14	72.21	89.99	11.41
6985.00	49.07	92.77	6924.41	-1.13	95.65	95.50	95.66	90.68	11.81
7017.00	52.14	92.60	6944.72	-2.28	120.35	120.12	120.38	91.09	9.60
7048.00	54.78	92.60	6963.17	-3.41	145.23	144.92	145.27	91.35	8.52
7079.00	57.86	92.60	6980.36	-4.58	171.00	170.61	171.06	91.54	9.94
7111.00	62.34	92.60	6996.31	-5.84	198.70	198.23	198.79	91.68	14.00
7142.00	66.65	91.54	7009.66	-6.85	226.66	226.11	226.76	91.73	14.24
7174.00	70.08	91.02	7021.45	-7.51	256.39	255.78	256.50	91.68	10.82
7206.00	72.81	90.49	7031.64	-7.91	286.72	286.06	286.83	91.58	8.67
7237.00	75.45	89.43	7040.11	-7.89	316.54	315.84	316.64	91.43	9.13
7269.00	77.73	89.43	7047.53	-7.58	347.66	346.95	347.74	91.25	7.12
7320.00	82.13	88.91	7056.45	-6.85	397.86	397.13	397.92	90.99	8.69
7351.00	83.71	88.73	7060.27	-6.22	428.62	427.88	428.66	90.83	5.13
7382.00	84.59	88.38	7063.43	-5.44	459.44	458.71	459.48	90.68	3.05
7414.00	86.17	87.85	7066.01	-4.39	491.32	490.60	491.34	90.51	5.21
7477.00	88.90	88.03	7068.72	-2.13	554.22	553.53	554.22	90.22	4.34
7572.00	89.87	87.85	7069.73	1.29	649.15	648.52	649.15	89.89	1.04
7665.00	89.87	87.85	7069.95	4.78	742.08	741.52	742.10	89.63	.00

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	
7761.00	90.22	88.20	7069.87	8.09	838.03	837.51	838.06	89.45	.52
7855.00	87.58	87.50	7071.67	11.61	931.93	931.48	932.00	89.29	2.91
7950.00	87.93	88.38	7075.40	15.02	1026.80	1026.41	1026.91	89.16	1.00
8045.00	88.11	89.26	7078.68	16.98	1121.72	1121.32	1121.85	89.13	.94
8139.00	87.67	88.73	7082.14	18.63	1215.64	1215.21	1215.78	89.12	.73
8233.00	87.14	87.85	7086.40	21.43	1309.50	1309.11	1309.68	89.06	1.09
8328.00	87.41	87.15	7090.91	25.57	1404.30	1404.00	1404.54	88.96	.79
8422.00	88.99	85.92	7093.86	31.25	1498.08	1497.94	1498.41	88.81	2.13
8516.00	89.69	85.39	7094.95	38.37	1591.80	1591.89	1592.26	88.62	.93
8591.00	89.16	85.22	7095.70	44.51	1666.55	1666.83	1667.14	88.47	.74
8685.00	89.69	85.22	7096.64	52.34	1760.21	1760.76	1760.99	88.30	.56
8779.00	90.48	86.09	7096.50	59.46	1853.94	1854.72	1854.90	88.16	1.25
8874.00	90.31	86.62	7095.85	65.50	1948.75	1949.70	1949.85	88.07	.59
8968.00	91.36	86.45	7094.48	71.18	2042.57	2043.68	2043.80	88.00	1.13
9062.00	91.89	86.80	7091.81	76.71	2136.36	2137.63	2137.74	87.94	.68
9157.00	92.15	86.80	7088.47	82.01	2231.16	2232.57	2232.66	87.89	.27
9252.00	89.52	86.45	7087.08	87.60	2325.97	2327.54	2327.62	87.84	2.79
9346.00	89.69	86.27	7087.73	93.57	2419.78	2421.53	2421.59	87.79	.26
9440.00	88.81	86.62	7088.96	99.40	2513.59	2515.50	2515.56	87.74	1.01
9534.00	88.64	86.62	7091.05	104.94	2607.40	2609.47	2609.52	87.70	.18
9629.00	88.90	86.62	7093.09	110.54	2702.22	2704.44	2704.48	87.66	.27
9723.00	89.17	86.27	7094.67	116.37	2796.02	2798.42	2798.44	87.62	.47
9818.00	89.16	86.62	7096.06	122.26	2890.83	2893.39	2893.41	87.58	.37
9912.00	89.16	86.80	7097.44	127.65	2984.66	2987.38	2987.39	87.55	.19
10006.00	88.90	86.62	7099.03	133.04	3078.50	3081.36	3081.37	87.53	.34
10101.00	89.43	87.32	7100.41	138.07	3173.35	3176.35	3176.35	87.51	.92
10195.00	88.02	85.92	7102.50	143.61	3267.16	3270.31	3270.32	87.48	2.11
10289.00	88.46	86.80	7105.39	149.57	3360.93	3364.25	3364.25	87.45	1.05
10384.00	88.20	85.92	7108.16	155.60	3455.69	3459.19	3459.19	87.42	.97
10478.00	89.52	86.09	7110.03	162.15	3549.44	3553.15	3553.15	87.38	1.42
10572.00	89.34	86.09	7110.96	168.56	3643.22	3647.12	3647.12	87.35	.19
10667.00	89.69	86.09	7111.77	175.03	3738.00	3742.09	3742.09	87.32	.37
10761.00	89.34	86.27	7112.56	181.30	3831.78	3836.07	3836.07	87.29	.42
10855.00	89.08	86.45	7113.86	187.26	3925.58	3930.04	3930.05	87.27	.34
10950.00	88.64	85.92	7115.75	193.58	4020.36	4025.00	4025.01	87.24	.73
11045.00	88.55	86.27	7118.08	200.05	4115.11	4119.95	4119.97	87.22	.38
11139.00	87.32	85.74	7121.47	206.59	4208.81	4213.86	4213.88	87.19	1.42
11234.00	88.11	87.15	7125.25	212.48	4303.55	4308.77	4308.80	87.17	1.70
11328.00	88.55	87.50	7127.99	216.87	4397.41	4402.73	4402.75	87.18	.60
11422.00	89.08	88.38	7129.94	220.24	4491.33	4496.70	4496.73	87.19	1.09
11517.00	88.55	88.73	7131.90	222.64	4586.28	4591.66	4591.68	87.22	.67
11573.00	87.49	88.56	7133.84	223.96	4642.23	4647.61	4647.63	87.24	1.92
Straight line projection to bit at TD									
11631.00	87.49	88.56	7136.38	225.42	4700.15	4705.55	4705.56	87.25	.00