



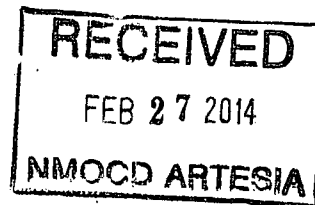
A GYRO TECHNOLOGIES INC. COMPANY

P.O. Box 261021
Corpus Christi, Texas 78426
(361) 767-0602 • (800) 606-GYRO • Fax (361) 767-0612

December 27, 2013

30-015-41650

Devon Energy Production Co., L. P.
333 West Sheridan Ave
Oklahoma City, Oklahoma 73102-5010



Attn: David Cook

Re: **Lone Tree Draw 13 State No. 007H**

Please find enclosed a copy of the survey from 0.00' to 2775.00' ran on the above referenced well.

If I can be of any further service please do not hesitate to call me at 800-606-4976.

Sincerely,

Keith Havelka
Operations

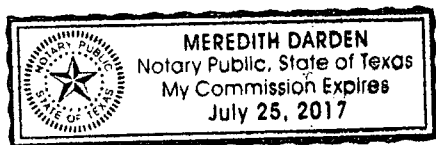
STATE OF TEXAS §

§

COUNTY OF NUECES §

This instrument was acknowledged before me on the 27th day of December
A.D., 2013, by Keith Havelka.

Meredith Darden
Notary Public, State of Texas





Company: Devon Energy
 Lease/Well: LONE TREE DRAW 13 STATE /NO. 007H
 Location: Sec 13 T21S R27E
 Rig Name: Cactus 126
 State/County: New Mexico/Eddy
 Latitude: 32.49; Longitude: -104.15
 GRID North is 0.10 Degrees East of True North
 VS-Azi: 0.00 Degrees



RECEIVED
 FEB 27 2014
 MINOCOD ARTESIA

Depth Reference : RKB = 25Ft.

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...ee draw 13 state #7h-de_01.ut

Minimum Curvature Method

Report Date/Time: 12/27/2013 / 15:53

Vaughn Energy Services

West, Texas

432-563-5444

Surveyor: Chris Bankson

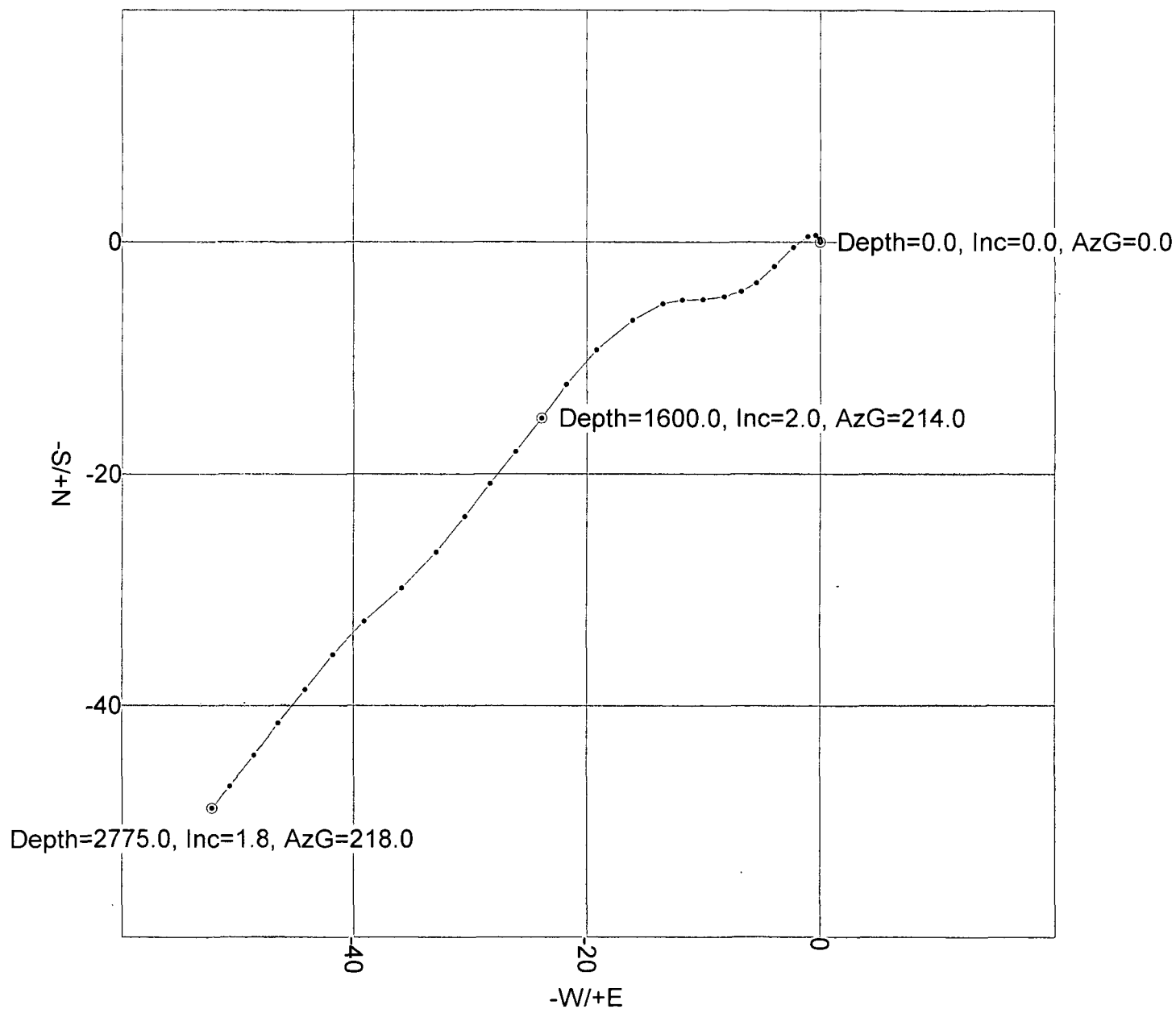
Lone Tree Draw 13 State No. 007H / API 30-015-41650

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.07	61.13	100.00	0.03	0.05	0.03	0.06	61.13	0.07
200.00	0.28	328.14	200.00	0.26	-0.02	0.26	0.26	355.37	0.29
300.00	0.31	298.86	300.00	0.60	-0.38	0.60	0.71	327.30	0.15
400.00	0.56	240.67	400.00	0.49	-1.05	0.49	1.16	294.99	0.48
500.00	1.21	228.62	499.98	-0.45	-2.27	-0.45	2.31	258.75	0.67
600.00	1.49	222.87	599.96	-2.10	-3.95	-2.10	4.47	241.94	0.31
700.00	0.94	235.77	699.93	-3.52	-5.51	-3.52	6.54	237.43	0.62
800.00	0.78	245.98	799.92	-4.26	-6.81	-4.26	8.03	237.99	0.22
900.00	0.97	258.83	899.91	-4.70	-8.26	-4.70	9.51	240.38	0.27
1000.00	1.15	264.07	999.89	-4.97	-10.09	-4.97	11.25	243.79	0.20
1100.00	0.89	275.87	1099.88	-4.99	-11.85	-4.99	12.86	247.17	0.33
1200.00	1.12	245.78	1199.86	-5.31	-13.51	-5.31	14.52	248.54	0.57
1300.00	2.29	238.55	1299.82	-6.75	-16.10	-6.75	17.46	247.25	1.19
1400.00	2.34	222.39	1399.74	-9.30	-19.18	-9.30	21.32	244.14	0.65
1500.00	2.17	218.58	1499.66	-12.28	-21.73	-12.28	24.96	240.53	0.23
1600.00	1.99	213.97	1599.59	-15.20	-23.88	-15.20	28.31	237.53	0.24
1700.00	2.15	220.66	1699.53	-18.06	-26.07	-18.06	31.72	235.29	0.29
1800.00	1.93	216.52	1799.47	-20.83	-28.30	-20.83	35.14	233.64	0.27

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	2.14	217.86	1899.40	-23.66	-30.45	-23.66	38.56	232.15	0.22
2000.00	2.35	218.77	1999.32	-26.74	-32.88	-26.74	42.38	230.88	0.21
2100.00	2.57	228.16	2099.23	-29.83	-35.83	-29.83	46.63	230.22	0.45
2200.00	2.39	228.19	2199.14	-32.72	-39.06	-32.72	50.95	230.05	0.17
2300.00	2.14	217.81	2299.06	-35.58	-41.76	-35.58	54.86	229.56	0.48
2400.00	2.25	218.78	2398.99	-38.59	-44.13	-38.59	58.63	228.83	0.12
2500.00	2.00	216.88	2498.92	-41.52	-46.41	-41.52	62.27	228.18	0.26
2600.00	2.01	217.63	2598.86	-44.31	-48.53	-44.31	65.71	227.61	0.03
2700.00	1.94	219.47	2698.80	-47.00	-50.68	-47.00	69.12	227.16	0.10
2775.00	1.79	217.99	2773.76	-48.90	-52.20	-48.90	71.53	226.87	0.21



Vaughn Energy Services
West, Texas
432-563-5444
Surveyor: Chris Bankson
Lone Tree Draw 13 State No. 007H / API 30-015-41650



VES Survey Date: 12/10/2013



Job Number: MD131431

Company: Devon

Lease/Well: Lone Tree Draw 13 State 7H

Location: Eddy Co. NM

Rig Name: Cactus 126

RKB: 25

G.L. or M.S.L.: ☐

State/Country: Texas

Declination: 7.59

Grid: NORTH

File name: C:\WINSERVE\131431.SVY

Date/Time: 23-Dec-13 / 17:58

Curve Name: AS DRILLED

LEAM Drilling Systems, Inc.

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 180.00
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>CLOSURE Distance FT</i>	<i>Direction Deg</i>	<i>Dogleg Severity Deg/100</i>
VES Gyro Survey									
2775.00	1.79	217.99	2773.76	-48.90	-52.22	48.90	71.54	226.88	.00
2922.00	1.06	252.28	2920.72	-51.12	-54.93	51.12	75.04	227.05	.74
3016.00	1.06	262.12	3014.70	-51.51	-56.62	51.51	76.54	227.71	.19
3110.00	2.20	287.43	3108.66	-51.09	-59.20	51.09	78.20	229.21	1.41
3205.00	4.31	301.14	3203.50	-48.69	-64.00	48.69	80.42	232.73	2.35
3299.00	4.92	303.61	3297.20	-44.64	-70.38	44.64	83.34	237.62	.68
3394.00	4.92	303.43	3391.85	-40.14	-77.17	40.14	86.98	242.52	.02
3488.00	4.92	303.25	3485.50	-35.71	-83.90	35.71	91.19	246.95	.02
3583.00	4.92	303.43	3580.15	-31.23	-90.71	31.23	95.94	251.00	.02
3678.00	4.92	303.61	3674.80	-26.73	-97.50	26.73	101.10	254.67	.02
3772.00	5.01	304.31	3768.45	-22.18	-104.25	22.18	106.59	257.99	.12
3867.00	5.01	304.31	3863.09	-17.51	-111.10	17.51	112.47	261.05	.00
3961.00	4.92	304.13	3956.73	-12.93	-117.83	12.93	118.54	263.74	.10
4056.00	4.57	312.75	4051.41	-8.08	-123.98	8.08	124.25	266.27	.84
4151.00	4.13	294.46	4146.14	-4.09	-129.88	4.09	129.94	268.20	1.52
4246.00	4.13	292.71	4240.89	-1.35	-136.15	1.35	136.15	269.43	.13
4340.00	3.34	310.99	4334.70	1.75	-141.34	-1.75	141.35	270.71	1.51
4435.00	3.34	313.45	4429.54	5.47	-145.43	-5.47	145.54	272.15	.15
4529.00	3.25	312.57	4523.38	9.15	-149.38	-9.15	149.66	273.51	.11
4624.00	3.25	313.45	4618.23	12.83	-153.32	-12.83	153.86	274.78	.05
4719.00	3.17	312.57	4713.08	16.46	-157.21	-16.46	158.07	275.98	.10
4814.00	3.08	313.27	4807.94	19.98	-161.00	-19.98	162.24	277.07	.10
4908.00	3.08	313.27	4901.80	23.44	-164.68	-23.44	166.34	278.10	.00
5002.00	3.08	312.39	4995.67	26.88	-168.38	-26.88	170.52	279.07	.05
5098.00	2.90	313.10	5091.53	30.28	-172.06	-30.28	174.71	279.98	.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	
5192.00	4.04	311.52	5185.36	34.10	-176.28	-34.10	179.55	280.95	1.22
5287.00	4.22	310.46	5280.11	38.58	-181.44	-38.58	185.50	282.00	.21
5382.00	4.04	310.29	5374.87	43.01	-186.66	-43.01	191.55	282.98	.19
5477.00	3.96	308.18	5469.64	47.21	-191.79	-47.21	197.51	283.83	.18
5570.00	3.52	306.77	5562.44	50.90	-196.60	-50.90	203.08	284.52	.48
5665.00	3.52	308.00	5657.26	54.44	-201.23	-54.44	208.47	285.14	.08
5760.00	3.43	306.59	5752.08	57.93	-205.81	-57.93	213.81	285.72	.13
5855.00	3.08	305.36	5846.93	61.10	-210.18	-61.10	218.88	286.21	.38
5949.00	3.87	300.09	5940.76	64.15	-214.98	-64.15	224.35	286.62	.91
6044.00	5.01	294.82	6035.47	67.50	-221.52	-67.50	231.58	286.95	1.27
6137.00	5.01	290.60	6128.12	70.64	-229.01	-70.64	239.65	287.14	.40
6231.00	4.57	303.96	6221.79	74.17	-235.95	-74.17	247.34	287.45	1.27
6325.00	4.40	296.40	6315.50	77.87	-242.29	-77.87	254.50	287.82	.65
6420.00	4.75	303.43	6410.20	81.65	-248.84	-81.65	261.89	288.17	.70
6514.00	4.40	316.79	6503.90	86.43	-254.55	-86.43	268.83	288.75	1.19
6608.00	3.61	317.49	6597.67	91.24	-259.02	-91.24	274.62	289.40	.84
6703.00	3.34	316.61	6692.50	95.45	-262.94	-95.45	279.73	289.95	.29
6798.00	3.25	315.73	6787.34	99.39	-266.73	-99.39	284.64	290.44	.11
6892.00	3.08	317.49	6881.20	103.16	-270.29	-103.16	289.31	290.89	.21
6987.00	2.73	313.10	6976.08	106.59	-273.67	-106.59	293.69	291.28	.44
7082.00	2.20	316.96	7070.99	109.47	-276.56	-109.47	297.44	291.59	.58
7177.00	1.67	321.71	7165.93	111.89	-278.67	-111.89	300.29	291.88	.58
7224.00	1.58	321.36	7212.91	112.93	-279.50	-112.93	301.45	292.00	.19
7319.00	9.32	173.35	7307.54	106.29	-279.42	-106.29	298.96	290.83	11.26
7350.00	14.16	173.18	7337.89	100.03	-278.68	-100.03	296.09	289.75	15.61
7381.00	18.73	174.05	7367.61	91.31	-277.71	-91.31	292.34	288.20	14.76
7413.00	22.95	175.81	7397.51	79.97	-276.73	-79.97	288.05	286.12	13.33
7444.00	26.38	178.27	7425.68	67.06	-276.08	-67.06	284.10	283.65	11.55
7476.00	29.02	179.50	7454.01	52.19	-275.79	-52.19	280.69	280.72	8.44
7508.00	31.04	179.86	7481.71	36.17	-275.71	-36.17	278.07	277.47	6.34
7539.00	34.38	180.38	7507.79	19.42	-275.74	-19.42	276.43	274.03	10.81
7571.00	37.64	180.73	7533.67	.61	-275.93	-.61	275.93	270.13	10.21
7603.00	41.42	180.73	7558.35	-19.75	-276.19	19.75	276.89	265.91	11.81
7634.00	45.64	181.61	7580.82	-41.09	-276.63	41.09	279.67	261.55	13.75
7665.00	49.51	181.09	7601.73	-63.96	-277.17	63.96	284.45	257.01	12.55
7697.00	51.79	181.09	7622.02	-88.70	-277.64	88.70	291.46	252.28	7.13
7728.00	53.99	180.56	7640.72	-113.42	-277.99	113.42	300.24	247.81	7.23
7760.00	57.07	180.91	7658.83	-139.79	-278.33	139.79	311.47	243.33	9.67
7791.00	60.59	181.61	7674.87	-166.31	-278.92	166.31	324.74	239.19	11.52
7823.00	61.91	183.02	7690.27	-194.34	-280.05	194.34	340.88	235.24	5.65
7854.00	63.31	184.43	7704.53	-221.80	-281.84	221.80	358.65	231.80	6.06
7887.00	66.04	184.60	7718.64	-251.54	-284.19	251.54	379.52	228.49	8.29
7918.00	70.26	184.60	7730.18	-280.21	-286.50	280.21	400.75	225.64	13.61
7950.00	75.45	184.07	7739.61	-310.69	-288.81	310.69	424.19	222.91	16.30
7981.00	80.46	182.84	7746.07	-340.94	-290.63	340.94	448.00	220.45	16.62

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	
8013.00	84.50	180.38	7750.26	-372.65	-291.52	372.65	473.13	218.04	14.75
8044.00	87.93	179.68	7752.31	-403.57	-291.53	403.57	497.86	215.84	11.29
8076.00	90.92	179.50	7752.63	-435.57	-291.31	435.57	524.00	213.77	9.36
8171.00	91.71	180.03	7750.45	-530.54	-290.92	530.54	605.07	208.74	1.00
8265.00	89.25	178.45	7749.66	-624.52	-289.67	624.52	688.43	204.88	3.11
8360.00	89.25	178.80	7750.91	-719.48	-287.39	719.48	774.76	201.77	.37
8454.00	88.99	178.98	7752.35	-813.45	-285.57	813.45	862.12	199.34	.34
8549.00	88.64	179.68	7754.31	-908.43	-284.46	908.43	951.92	197.39	.82
8643.00	90.75	178.98	7754.81	-1002.41	-283.36	1002.41	1041.69	195.78	2.36
8738.00	89.87	178.63	7754.30	-1097.39	-281.38	1097.39	1132.89	194.38	1.00
8833.00	90.13	180.03	7754.30	-1192.38	-280.27	1192.38	1224.88	193.23	1.50
8928.00	90.04	181.44	7754.16	-1287.37	-281.49	1287.37	1317.78	192.33	1.49
9022.00	89.34	181.44	7754.67	-1381.34	-283.85	1381.34	1410.20	191.61	.74
9117.00	88.81	181.79	7756.20	-1476.29	-286.52	1476.29	1503.84	190.98	.67
9212.00	89.87	180.03	7757.30	-1571.26	-288.03	1571.26	1597.45	190.39	2.16
9306.00	89.60	178.10	7757.73	-1665.25	-286.50	1665.25	1689.71	189.76	2.07
9401.00	94.00	177.04	7754.75	-1760.09	-282.48	1760.09	1782.61	189.12	4.76
9495.00	94.53	177.04	7747.76	-1853.70	-277.63	1853.70	1874.38	188.52	.56
9590.00	90.84	177.04	7743.31	-1948.46	-272.74	1948.46	1967.45	187.97	3.88
9685.00	91.19	178.27	7741.62	-2043.36	-268.85	2043.36	2060.97	187.50	1.35
9778.00	88.29	178.80	7742.05	-2136.32	-266.47	2136.32	2152.87	187.11	3.17
9873.00	87.23	179.15	7745.76	-2231.23	-264.77	2231.23	2246.88	186.77	1.17
9967.00	88.55	179.33	7749.22	-2325.16	-263.53	2325.16	2340.04	186.47	1.42
10062.00	90.04	178.80	7750.39	-2420.13	-261.98	2420.13	2434.27	186.18	1.66
10156.00	88.90	178.45	7751.26	-2514.10	-259.72	2514.10	2527.48	185.90	1.27
10251.00	89.16	178.63	7752.87	-2609.05	-257.30	2609.05	2621.71	185.63	.33
10345.00	91.45	178.63	7752.37	-2703.02	-255.05	2703.02	2715.03	185.39	2.44
10440.00	90.84	178.63	7750.47	-2797.97	-252.78	2797.97	2809.37	185.16	.64
10534.00	89.96	177.92	7749.81	-2891.93	-249.95	2891.93	2902.71	184.94	1.20
10629.00	90.66	179.86	7749.30	-2986.90	-248.11	2986.90	2997.19	184.75	2.17
10722.00	90.31	179.68	7748.51	-3079.90	-247.74	3079.90	3089.85	184.60	.42
10817.00	92.15	181.61	7746.47	-3174.86	-248.81	3174.86	3184.60	184.48	2.81
10912.00	92.33	181.61	7742.76	-3269.75	-251.48	3269.75	3279.41	184.40	.19
11006.00	92.24	181.96	7739.01	-3363.63	-254.40	3363.63	3373.24	184.33	.38
11101.00	89.43	181.26	7737.63	-3458.57	-257.07	3458.57	3468.11	184.25	3.05
11195.00	89.52	181.09	7738.49	-3552.55	-259.00	3552.55	3561.98	184.17	.20
11290.00	90.66	181.26	7738.34	-3647.53	-260.95	3647.53	3656.85	184.09	1.21
11389.00	89.60	180.73	7738.11	-3746.51	-262.66	3746.51	3755.71	184.01	1.20
11484.00	90.40	180.91	7738.11	-3841.50	-264.02	3841.50	3850.56	183.93	.86
11579.00	87.32	181.09	7740.00	-3936.46	-265.68	3936.46	3945.41	183.86	3.25
11673.00	87.41	181.44	7744.32	-4030.33	-267.75	4030.33	4039.22	183.80	.38
11768.00	87.76	182.32	7748.33	-4125.20	-270.87	4125.20	4134.08	183.76	1.00
11862.00	86.35	180.56	7753.16	-4219.04	-273.23	4219.04	4227.88	183.71	2.40
11957.00	87.58	178.27	7758.19	-4313.89	-272.26	4313.89	4322.47	183.61	2.73
12053.00	89.52	176.52	7760.62	-4409.75	-267.90	4409.75	4417.88	183.48	2.72

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	
12147.00	91.28	176.69	7759.96	-4503.58	-262.33	4503.58	4511.22	183.33	1.88
12242.00	91.89	177.57	7757.33	-4598.43	-257.58	4598.43	4605.63	183.21	1.13
12337.00	92.68	178.63	7753.55	-4693.30	-254.43	4693.30	4700.19	183.10	1.39
12399.00	93.30	179.68	7750.31	-4755.20	-253.51	4755.20	4761.96	183.05	1.96
Pro Bit TD									
12456.00	93.30	179.68	7747.03	-4812.11	-253.20	4812.11	4818.76	183.01	.00