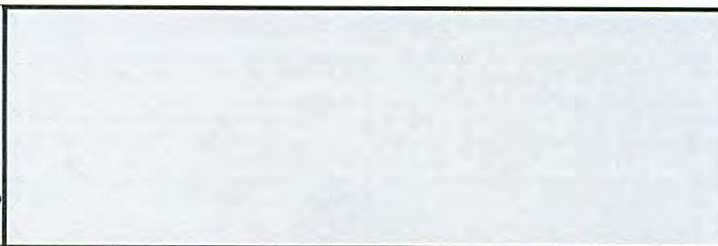


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**Field:**

Map Units:	usFt
Vertical Reference Datum (VRD):	Mean Sea Level
Projected Coordinate System:	Zone 17N (84 W to 78 W)

**Section:**

Company Name:	Southwestern Energy Company
Units:	Feet
TVD Reference:	Rotary Table

**Position:**

	Northing:	14,546,367.140
	Easting:	1,758,769.009

**North Reference:**

	Grid	Grid Cor
--	------	----------

**Comment :**

**Slot:**

**Position (Relative to SW Corner Of Section)**

N/S	8.447999999	Northing:	14,546,375.588
E/W	-10.797	Easting:	1,758,758.212

**Ground Level Elevation (usft):**

Ground Level:	
---------------	--

**Comment :**

**Well:**

Type:	Main well	
KB Elevation	RKB @ 1294.00usft (SDC 40)	
Closure Distance:	6173.11	Closure Azimut

**Comment:**

**Vertical Section:**

Position of Origin (Relative to Slot centre)	N/S	0
Vertical Section Azimuth:	148.37	

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**Survey**

Name	Definitive Survey	Company	SWN
------	-------------------	---------	-----

**Magnetic Parameters:**

Model:	BGGM2014	Field Strength:	52,524	Declination:	-8.76	Dip:
--------	----------	-----------------	--------	--------------	-------	------

**Survey Tool Ranges:**

Survey Tool	Start MD ( ft )	End MD ( ft )
MS-SRG-WLINE	100.00	725.00
MWD	887.00	12865.00

**Survey Points:** (Relative to Slot Centre, TVD Relative to Slot TVD Reference)

MD (Ft)	Inc	Az	TVD (Ft)	+N/-S (Ft)	+E/-W (Ft)	V Sec (Ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.07	191.52	100.00	-0.06	-0.01	0.04
200.00	0.05	39.96	200.00	-0.09	0.00	0.08
300.00	0.07	135.34	300.00	-0.10	0.07	0.12
400.00	0.06	6.74	400.00	-0.09	0.12	0.14
500.00	0.19	177.83	500.00	-0.20	0.14	0.24
600.00	0.20	279.84	600.00	-0.34	-0.03	0.27
700.00	0.12	194.73	700.00	-0.41	-0.23	0.23
725.00	0.44	274.93	725.00	-0.43	-0.33	0.19
887.00	0.60	313.02	886.99	0.21	-1.57	-1.00
980.00	1.58	330.03	979.97	1.65	-2.57	-2.75
1073.00	3.09	335.10	1072.89	5.03	-4.26	-6.52
1166.00	4.63	342.18	1165.68	10.88	-6.47	-12.66
1258.00	6.08	339.61	1257.28	18.98	-9.30	-21.04
1351.00	6.66	326.94	1349.71	28.12	-13.96	-31.26
1444.00	7.62	311.91	1441.99	36.76	-21.49	-42.57
1537.00	8.00	303.70	1534.13	44.47	-31.46	-54.36
1629.00	7.54	296.97	1625.29	50.76	-42.17	-65.33
1722.00	6.64	293.21	1717.58	55.65	-52.55	-74.94
1815.00	6.11	298.10	1810.00	60.10	-61.86	-83.61
1908.00	6.20	302.93	1902.47	65.16	-70.44	-92.42
2000.00	6.10	300.28	1993.94	70.32	-78.83	-101.22
2093.00	5.17	296.03	2086.49	74.65	-86.86	-109.12
2177.00	4.84	301.14	2170.17	78.15	-93.30	-115.47
2279.00	4.84	307.12	2271.81	82.97	-100.41	-123.30
2372.00	5.25	285.89	2364.45	86.50	-107.63	-130.10
2464.00	5.23	299.14	2456.07	89.70	-115.34	-136.86
2557.00	5.98	302.79	2548.63	94.38	-123.12	-144.93
2650.00	6.09	298.99	2641.11	99.40	-131.50	-153.60
2743.00	5.64	310.74	2733.63	104.77	-139.88	-162.25
2836.00	6.48	306.33	2826.11	110.86	-146.97	-171.47

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2929.00	6.38	297.93	2918.53	116.39	-155.77	-180.79
3021.00	6.25	304.95	3009.97	121.66	-164.39	-189.79
3114.00	5.88	303.12	3102.45	127.16	-172.53	-198.75
3207.00	5.35	297.06	3195.00	131.73	-180.38	-206.76
3300.00	5.80	305.29	3287.56	136.42	-188.07	-214.79
3393.00	5.71	303.50	3380.10	141.69	-195.77	-223.31
3485.00	5.55	302.48	3471.65	146.60	-203.34	-231.46
3578.00	5.25	296.30	3564.24	150.90	-210.95	-239.11
3671.00	5.55	310.94	3656.83	155.74	-218.16	-247.01
3764.00	5.17	311.64	3749.42	161.47	-224.69	-255.32
3856.00	5.61	306.67	3841.02	166.91	-231.39	-263.46
3949.00	5.34	305.78	3933.59	172.15	-238.55	-271.68
4042.00	6.59	304.69	4026.09	177.72	-246.45	-280.57
4135.00	6.41	303.39	4118.49	183.61	-255.17	-290.16
4227.00	6.23	304.56	4209.93	189.27	-263.57	-299.38
4320.00	6.03	296.11	4302.40	194.29	-272.11	-308.13
4413.00	5.93	295.64	4394.90	198.51	-280.83	-316.30
4506.00	5.38	290.90	4487.44	202.15	-289.23	-323.80
4598.00	6.33	295.04	4578.96	205.83	-297.86	-331.46
4691.00	6.47	298.70	4671.38	210.52	-307.10	-340.30
4784.00	6.63	296.86	4763.78	215.46	-316.48	-349.43
4877.00	7.05	297.97	4856.11	220.56	-326.31	-358.93
4970.00	6.17	296.77	4948.49	225.49	-335.82	-368.11
5062.00	5.83	295.66	5039.99	229.74	-344.44	-376.25
5155.00	6.09	296.20	5132.49	233.97	-353.13	-384.40
5248.00	6.13	293.51	5224.96	238.12	-362.11	-392.65
5341.00	6.40	299.46	5317.41	242.65	-371.17	-401.26
5434.00	6.29	299.08	5409.84	247.68	-380.14	-410.24
5526.00	6.56	299.51	5501.26	252.72	-389.12	-419.24
5619.00	7.36	297.08	5593.57	258.05	-399.04	-428.98
5712.00	7.22	294.50	5685.82	263.18	-409.66	-438.93
5805.00	8.85	257.94	5777.96	264.11	-421.99	-446.18
5851.00	10.29	248.36	5823.32	261.86	-429.27	-448.08
5903.00	11.26	242.96	5874.41	257.84	-438.11	-449.29
5949.00	13.28	220.19	5919.38	251.75	-445.52	-448.00
5996.00	15.92	192.98	5964.91	241.33	-450.46	-441.72
6042.00	20.05	170.30	6008.71	227.39	-450.55	-429.89
6088.00	24.53	165.27	6051.26	210.37	-446.79	-413.43
6135.00	28.31	162.45	6093.35	190.30	-440.95	-393.28
6181.00	32.71	159.87	6132.97	168.22	-433.37	-370.51
6228.00	37.46	156.83	6171.42	143.14	-423.37	-341.50
6232.00	37.75	156.66	6174.59	140.90	-422.41	-315.14
6274.00	40.80	155.05	6207.10	116.65	-411.50	-288.88
6321.00	43.79	153.51	6241.87	88.16	-397.79	-261.50

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6367.00	47.31	150.01	6274.08	59.26	-382.24	-250.91
6413.00	48.80	148.58	6304.83	29.85	-364.76	-216.71
6460.00	52.50	147.98	6334.62	-1.06	-345.65	-180.37
6506.00	54.78	147.32	6361.89	-32.35	-325.83	-143.33
6553.00	57.42	147.96	6388.10	-65.30	-304.95	-104.33
6599.00	60.41	147.72	6411.85	-98.65	-283.99	-64.94
6645.00	63.14	147.41	6433.60	-132.85	-262.25	-24.42
6692.00	66.57	146.14	6453.57	-168.43	-238.94	18.11
6738.00	70.08	145.96	6470.56	-203.88	-215.07	60.81
6785.00	72.81	146.55	6485.51	-240.93	-190.32	105.33
6831.00	77.56	146.40	6497.27	-277.99	-165.76	149.77
6877.00	81.16	147.32	6505.77	-315.84	-141.05	194.95
6924.00	86.00	146.75	6511.02	-355.02	-115.65	241.63
6970.00	88.20	145.79	6513.35	-393.22	-90.14	287.54
7017.00	89.60	144.66	6514.25	-431.82	-63.34	334.46
7109.00	90.57	144.95	6514.11	-507.00	-10.31	426.28
7202.00	89.87	144.72	6513.76	-583.03	43.25	519.10
7295.00	86.88	146.12	6516.39	-659.55	96.00	611.93
7388.00	89.78	145.85	6519.10	-736.60	148.00	704.80
7481.00	89.25	145.57	6519.89	-813.43	200.39	797.69
7574.00	89.43	145.43	6520.96	-890.07	253.06	890.57
7666.00	89.16	146.81	6522.09	-966.44	304.35	982.49
7759.00	89.34	147.04	6523.31	-1044.37	355.09	1075.45
7852.00	89.69	146.60	6524.10	-1122.20	405.99	1168.41
7945.00	88.72	146.41	6525.39	-1199.75	457.31	1261.35
8038.00	89.60	145.52	6526.75	-1276.81	509.35	1354.26
8130.00	87.05	144.22	6529.44	-1352.01	562.26	1446.04
8223.00	87.85	144.55	6533.58	-1427.54	616.37	1538.72
8316.00	89.08	144.70	6536.07	-1503.34	670.19	1631.49
8409.00	88.37	144.98	6538.14	-1579.35	723.73	1724.29
8502.00	89.16	145.55	6540.14	-1655.76	776.70	1817.13
8594.00	89.25	149.19	6541.42	-1733.22	826.30	1909.09
8687.00	89.69	149.30	6542.28	-1813.14	873.85	2002.08
8780.00	88.20	147.50	6543.99	-1892.33	922.57	2095.05
8873.00	88.37	145.80	6546.78	-1969.98	973.67	2187.97
8965.00	88.81	145.31	6549.04	-2045.82	1025.69	2279.83
9058.00	88.99	143.86	6550.83	-2121.60	1079.58	2372.60
9151.00	88.46	142.95	6552.89	-2196.25	1135.00	2465.23
9244.00	89.43	143.46	6554.61	-2270.70	1190.70	2557.84
9337.00	89.34	143.89	6555.61	-2345.63	1245.78	2650.52
9429.00	89.16	145.11	6556.81	-2420.52	1299.20	2742.30
9522.00	89.16	146.08	6558.17	-2497.24	1351.74	2835.18
9615.00	88.55	146.19	6560.03	-2574.45	1403.56	2928.09
9708.00	88.46	145.85	6562.46	-2651.54	1455.52	3020.98

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9800.00	88.46	145.39	6564.93	-2727.44	1507.45	3112.84
9893.00	88.37	146.79	6567.50	-2804.59	1559.31	3205.73
9986.00	87.76	147.38	6570.64	-2882.62	1609.82	3298.65
10079.00	89.16	147.64	6573.14	-2961.03	1659.75	3391.60
10172.00	89.52	146.48	6574.21	-3039.07	1710.32	3484.57
10264.00	89.96	145.18	6574.63	-3115.19	1761.99	3576.48
10357.00	89.08	143.30	6575.41	-3190.65	1816.33	3669.23
10450.00	88.81	142.04	6577.12	-3264.58	1872.72	3761.75
10543.00	88.90	142.62	6578.98	-3338.18	1929.54	3854.22
10636.00	88.29	143.61	6581.26	-3412.54	1985.34	3946.80
10728.00	88.90	144.20	6583.52	-3486.86	2039.52	4038.49
10821.00	88.99	144.09	6585.23	-3562.23	2093.99	4131.22
10914.00	89.25	145.71	6586.66	-3638.30	2147.46	4224.04
11007.00	89.69	146.33	6587.52	-3715.42	2199.43	4316.95
11099.00	89.69	146.72	6588.02	-3792.16	2250.18	4408.90
11192.00	89.69	146.43	6588.52	-3869.77	2301.40	4501.86
11285.00	89.87	145.93	6588.88	-3947.04	2353.16	4594.79
11378.00	89.87	145.77	6589.09	-4024.00	2405.37	4687.70
11470.00	88.72	144.66	6590.22	-4099.55	2457.85	4779.55
11563.00	89.16	145.16	6591.94	-4175.63	2511.30	4872.36
11656.00	88.81	146.38	6593.59	-4252.51	2563.61	4965.25
11749.00	89.25	146.41	6595.16	-4329.96	2615.07	5058.18
11841.00	90.22	146.92	6595.59	-4406.82	2665.63	5150.14
11934.00	90.04	146.84	6595.38	-4484.71	2716.44	5243.11
12027.00	89.25	146.54	6595.95	-4562.43	2767.51	5336.06
12120.00	88.90	146.52	6597.45	-4640.00	2818.80	5429.00
12213.00	88.37	146.26	6599.67	-4717.43	2870.26	5521.92
12305.00	87.93	147.52	6602.64	-4794.45	2920.49	5613.84
12398.00	88.46	145.78	6605.57	-4872.09	2971.59	5706.75
12491.00	88.46	144.65	6608.07	-4948.44	3024.63	5799.57
12584.00	88.90	145.67	6610.21	-5024.75	3077.74	5892.40
12677.00	88.81	145.67	6612.07	-5101.53	3130.18	5985.28
12769.00	88.90	145.34	6613.91	-5177.34	3182.27	6077.14
12814.00	90.13	147.52	6614.29	-5214.83	3207.15	6122.11
12865.00	90.13	147.52	6614.17	-5257.86	3234.54	6173.11

Wellpath created using minimum curvature

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# CHARLES FRYE OHI 8H

Ohio Co. WV

PANHANDLE (CHARLES FRYE)

Latitude: 40.0531456600

Longitude: -80.5770625600

Divergence: 0.27

CHARLES FRYE OHI 8H

Latitude: 40.0531690000

Longitude: -80.5771010000

CHARLES FRYE OHI 8H

Rig Height ( Drill Floor): 26

h: 148.401

0.00 E/W 0.00

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67.37      Date:    2/21/2015

Source Survey

GYRO/MS/SDC40 (WB#1)

MWD/SLB/SDC40 (WB#1)

DLS (deg/ 100ft)	Build Rate (deg/ 100ft)	Turn Rate (deg/ 100ft)	
0.00	0.00	0.00	
0.07	0.07	0.00	G
0.12	-0.02	-151.56	G
0.09	0.02	95.38	G
0.12	-0.01	-128.60	G
0.25	0.13	171.09	G
0.30	0.01	102.01	G
0.22	-0.08	-85.11	G
1.74	1.28	320.80	G
0.23	0.10	23.51	N
1.10	1.05	18.29	N
1.64	1.62	5.45	N
1.73	1.66	7.61	N
1.60	1.58	-2.79	N
1.63	0.62	-13.62	N
2.25	1.03	-16.16	N
1.27	0.41	-8.83	N
1.11	-0.50	-7.32	N
1.09	-0.97	-4.04	N
0.82	-0.57	5.26	N
0.57	0.10	5.19	N
0.33	-0.11	-2.88	N
1.10	-1.00	-4.57	N
0.66	-0.39	6.08	N
0.49	0.00	5.86	N
2.04	0.44	-22.83	N
1.31	-0.02	14.40	N
0.89	0.81	3.92	N
0.45	0.12	-4.09	N
1.38	-0.48	12.63	N
1.03	0.90	-4.74	N

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1.02	-0.11	-9.03	N
0.85	-0.14	7.63	N
0.45	-0.40	-1.97	N
0.85	-0.57	-6.52	N
0.99	0.48	8.85	N
0.22	-0.10	-1.92	N
0.21	-0.17	-1.11	N
0.70	-0.32	-6.65	N
1.51	0.32	15.74	N
0.41	-0.41	0.75	N
0.70	0.48	-5.40	N
0.30	-0.29	-0.96	N
1.35	1.34	-1.17	N
0.25	-0.19	-1.40	N
0.24	-0.20	1.27	N
0.99	-0.22	-9.09	N
0.12	-0.11	-0.51	N
0.78	-0.59	-5.10	N
1.13	1.03	4.50	N
0.46	0.15	3.94	N
0.28	0.17	-1.98	N
0.47	0.45	1.19	N
0.96	-0.95	-1.29	N
0.39	-0.37	-1.21	N
0.29	0.28	0.58	N
0.31	0.04	-2.89	N
0.76	0.29	6.40	N
0.13	-0.12	-0.41	N
0.30	0.29	0.47	N
0.92	0.86	-2.61	N
0.38	-0.15	-2.77	N
5.65	1.75	-39.31	N
4.66	3.13	-20.83	N
2.69	1.87	-10.38	N
11.31	4.39	-49.50	N
15.46	5.62	-57.89	N
17.51	8.98	-49.30	N
10.58	9.74	-10.93	N
8.47	8.04	-6.00	N
9.98	9.57	-5.61	N
10.77	10.11	-6.47	N
7.66	7.23	-4.13	N
7.66	7.26	-3.84	N
6.73	6.36	-3.28	N

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9.38	7.65	-7.61	N
3.98	3.24	-3.11	N
7.93	7.87	-1.28	N
5.09	4.96	-1.43	N
5.73	5.62	1.36	N
6.52	6.50	-0.52	N
5.96	5.93	-0.67	N
7.70	7.30	-2.70	N
7.64	7.63	-0.39	N
5.93	5.81	1.26	N
10.33	10.33	-0.33	N
8.07	7.83	2.00	N
10.37	10.30	-1.21	N
5.22	4.78	-2.09	N
3.83	2.98	-2.40	N
1.10	1.05	0.32	N
0.79	-0.75	-0.25	N
3.55	-3.22	1.51	N
3.13	3.12	-0.29	N
0.64	-0.57	-0.30	N
0.25	0.19	-0.15	N
1.53	-0.29	1.50	N
0.31	0.19	0.25	N
0.60	0.38	-0.47	N
1.06	-1.04	-0.20	N
1.35	0.95	-0.96	N
3.11	-2.77	-1.41	N
0.93	0.86	0.35	N
1.33	1.32	0.16	N
0.82	-0.76	0.30	N
1.05	0.85	0.61	N
3.96	0.10	3.96	N
0.49	0.47	0.12	N
2.51	-1.60	-1.94	N
1.84	0.18	-1.83	N
0.72	0.48	-0.53	N
1.57	0.19	-1.56	N
1.13	-0.57	-0.98	N
1.18	1.04	0.55	N
0.47	-0.10	0.46	N
1.34	-0.20	1.33	N
1.04	0.00	1.04	N
0.67	-0.66	0.12	N
0.38	-0.10	-0.37	N

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0.50	0.00	-0.50	N
1.51	-0.10	1.51	N
0.91	-0.66	0.63	N
1.53	1.51	0.28	N
1.31	0.39	-1.25	N
1.49	0.48	-1.41	N
2.23	-0.95	-2.02	N
1.39	-0.29	-1.35	N
0.63	0.10	0.62	N
1.25	-0.66	1.06	N
0.92	0.66	0.64	N
0.15	0.10	-0.12	N
1.76	0.28	1.74	N
0.82	0.47	0.67	N
0.42	0.00	0.42	N
0.31	0.00	-0.31	N
0.57	0.19	-0.54	N
0.17	0.00	-0.17	N
1.74	-1.25	-1.21	N
0.72	0.47	0.54	N
1.36	-0.38	1.31	N
0.47	0.47	0.03	N
1.19	1.05	0.55	N
0.21	-0.19	-0.09	N
0.91	-0.85	-0.32	N
0.38	-0.38	-0.02	N
0.63	-0.57	-0.28	N
1.45	-0.48	1.37	N
1.95	0.57	-1.87	N
1.21	0.00	-1.22	N
1.19	0.47	1.10	N
0.10	-0.10	0.00	N
0.37	0.10	-0.36	N
5.56	2.73	4.84	N
0.00	0.00	0.00	N

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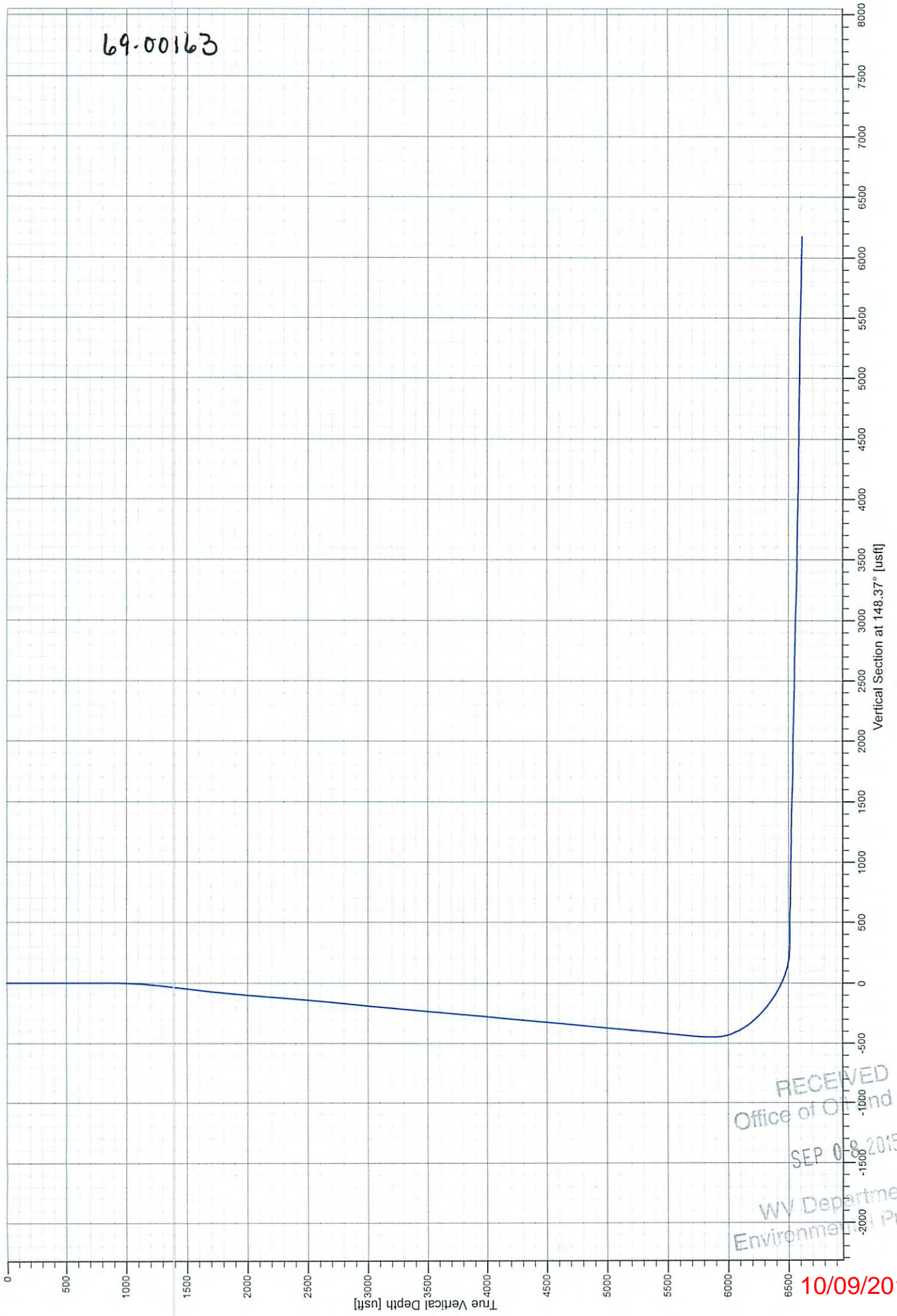








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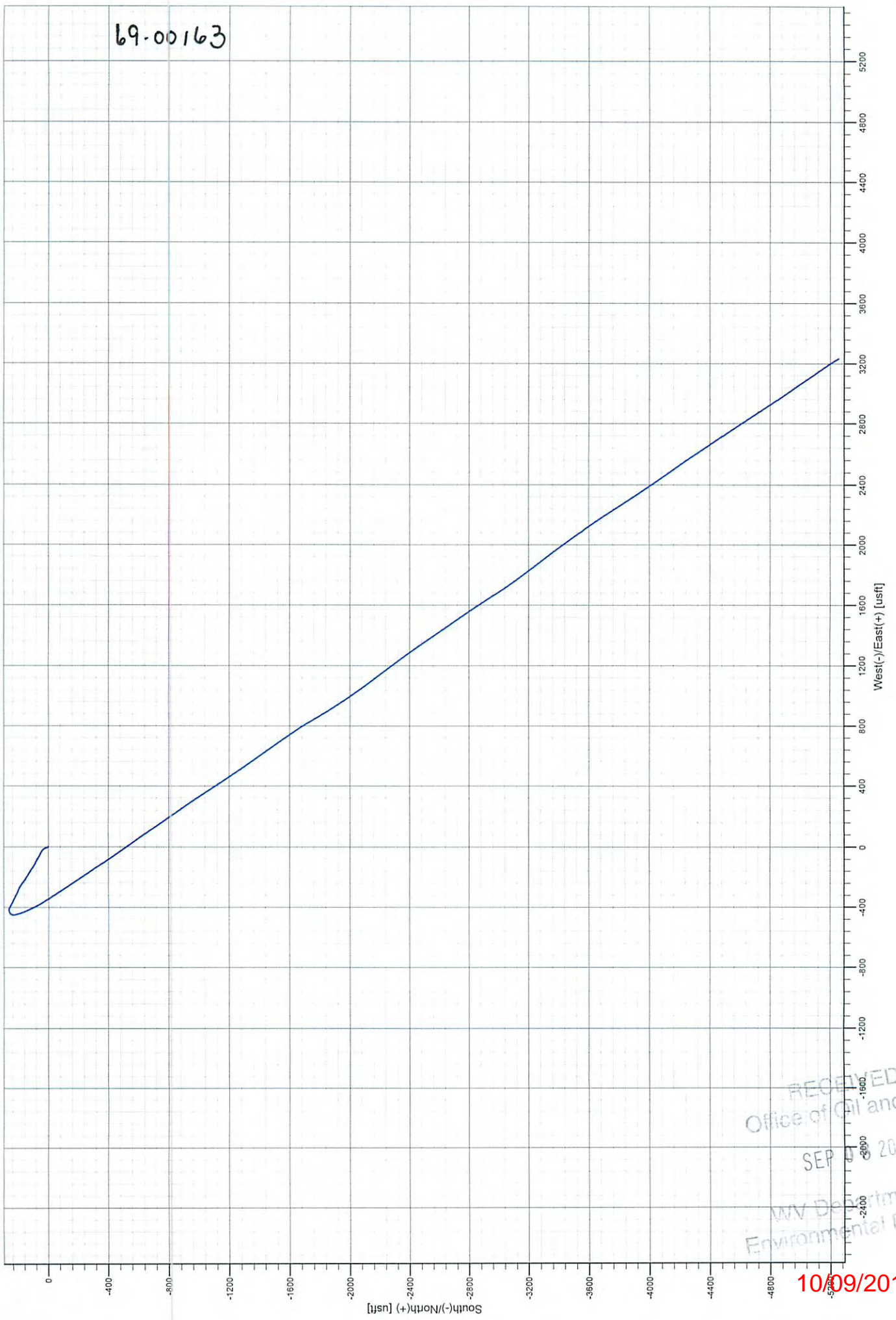
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