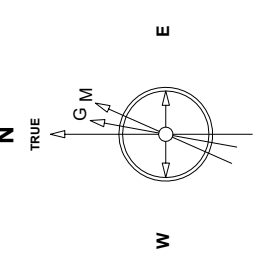


Great Western Operating Company, LLC

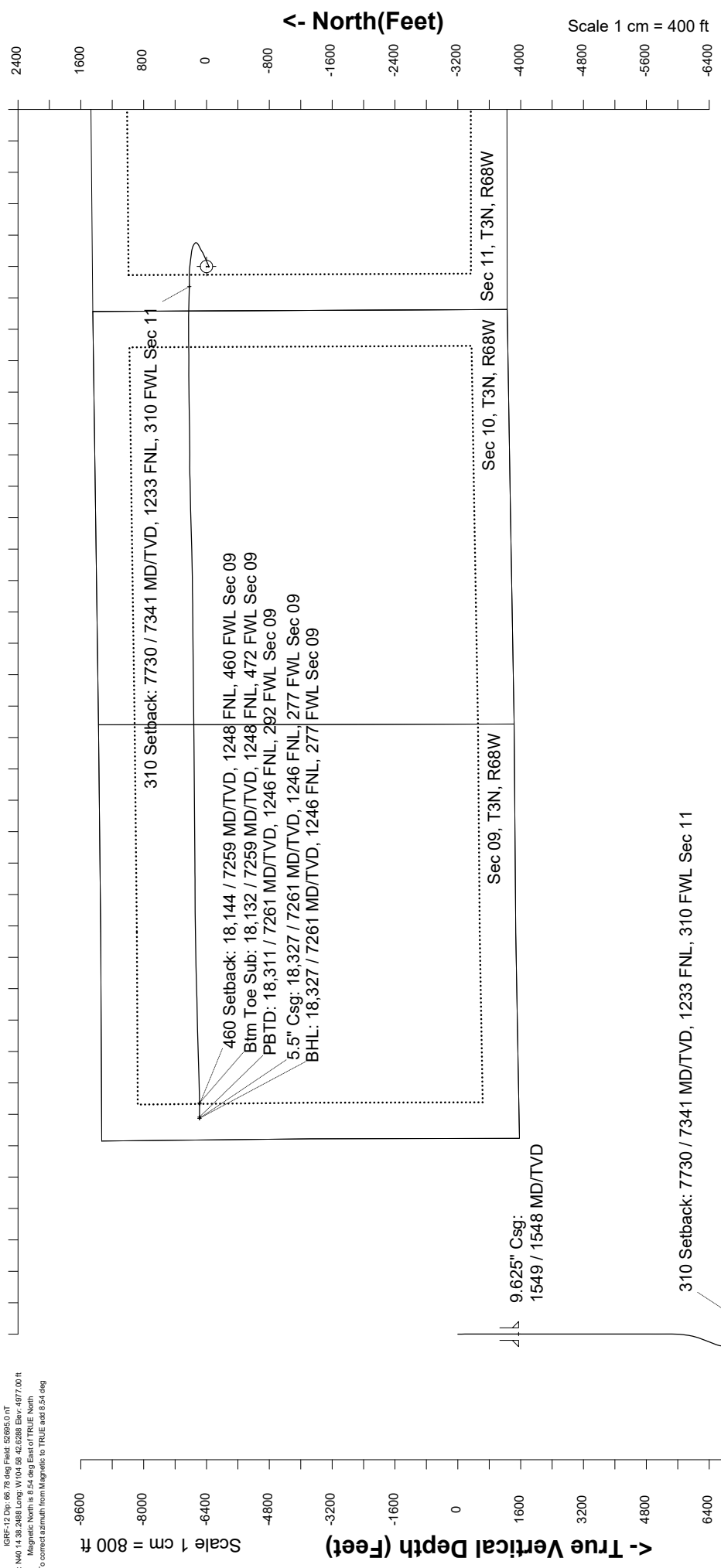
Location	Colorado	Slot	N15 - Postle IC 09-099HC
Field	Wattenburg	Well	Postle IC 09-099HC
Installation	Postle West	Wellbore	Postle IC 09-099HC (AWB)

East (Feet) ->

Scale 1 cm = 400 ft



Aug 7, 2014
 IGRF-12 Dat: 66.78 deg Field: 52685.0 nT
 Lat: N49 14.38 2488 Long: W104 58 42.6288 Elev: 4977.00 ft
 Magnetic North is 8.54 deg East of TRUE North
 To correct azimuth from Magnetic to TRUE add 8.54 deg



← North(Feet)

Scale 1 cm = 400 ft

Scale 1 cm = 800 ft
Vertical Section (Feet) ->
 Azimuth 270.47 with reference 0.00 N, 0.00 E from N15 - Postle IC 09-099HC

Created by: rmount
 Date plotted: 16-Jun-2020
 Plot reference is Postle IC 09-099HC (AWB).
 Ref wellpath is Postle IC 09-099HC (AWP#1).
 Coordinates are in Feet reference N15 - Postle IC 09-099HC.
 True Vertical Depths are reference Rig Datum.
 Measured Depths are reference Rig Datum.
 Rig Datum: Actual Datum #1
 Rig Datum to Mean Sea Level: 4997.00 ft.
 Plot North is aligned to TRUE North.

Great Western Operating Co, LLC
 Directional Survey Report
 Wellpath: Postle IC 09-099HC
 MDs and TVDs are from Rig Floor 4997.0ft above Mean Sea Level

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	DLS [deg/100ft]	Vertical Section[ft]
0.00	0.00	0.00	0.00	0.00	0.00		0.00
14.00	0.00	265.64	14.00	0.00	0.00	==>	0.00
92.00	0.26	265.64	92.00	-0.01	-0.18	0.33	0.18
180.00	0.18	288.23	180.00	0.01	-0.51	0.13	0.51
272.00	1.01	260.63	271.99	-0.07	-1.44	0.93	1.44
364.00	1.23	203.06	363.98	-1.11	-2.63	1.19	2.62
454.00	2.55	185.74	453.93	-3.99	-3.21	1.58	3.18
544.00	2.50	170.98	543.84	-7.92	-3.10	0.72	3.04
634.00	2.29	153.40	633.76	-11.47	-1.99	0.85	1.89
724.00	1.71	148.39	723.71	-14.22	-0.48	0.67	0.36
813.00	1.67	176.52	812.67	-16.65	0.29	0.92	-0.43
903.00	2.15	188.03	902.62	-19.63	0.14	0.68	-0.30
993.00	2.24	188.21	992.56	-23.04	-0.35	0.10	0.16
1083.00	2.11	175.73	1082.49	-26.43	-0.48	0.54	0.26
1173.00	1.14	169.84	1172.45	-28.97	-0.20	1.09	-0.04
1263.00	0.04	278.03	1262.45	-29.84	-0.07	1.28	-0.18
1353.00	0.53	278.03	1352.45	-29.78	-0.51	0.54	0.27
1443.00	0.22	297.72	1442.45	-29.64	-1.08	0.37	0.83
1498.00	0.04	137.84	1497.45	-29.61	-1.16	0.47	0.91
1620.00	0.14	262.88	1619.44	-29.66	-1.28	0.14	1.03
1709.00	0.14	232.84	1708.44	-29.74	-1.47	0.08	1.23
1799.00	0.43	225.01	1798.44	-30.04	-1.80	0.32	1.55
1888.00	0.42	177.10	1887.44	-30.60	-2.02	0.39	1.77
1978.00	0.28	156.20	1977.44	-31.14	-1.91	0.21	1.66
2067.00	0.14	293.44	2066.44	-31.29	-1.92	0.44	1.67
2157.00	0.04	172.94	2156.44	-31.28	-2.02	0.18	1.76
2246.00	0.38	122.53	2245.44	-31.47	-1.77	0.40	1.51
2335.00	0.26	246.00	2334.44	-31.71	-1.70	0.64	1.44
2425.00	0.39	224.26	2424.44	-32.01	-2.10	0.20	1.84
2514.00	0.13	256.24	2513.44	-32.25	-2.41	0.32	2.15
2604.00	0.06	10.23	2603.44	-32.23	-2.50	0.18	2.24
2693.00	0.12	194.33	2692.44	-32.27	-2.52	0.20	2.25
2783.00	0.14	301.22	2782.44	-32.31	-2.64	0.23	2.37
2873.00	0.07	57.32	2872.44	-32.22	-2.68	0.20	2.42
2962.00	0.12	205.68	2961.44	-32.28	-2.68	0.21	2.41
3052.00	0.16	215.09	3051.43	-32.46	-2.79	0.05	2.53
3141.00	0.24	249.56	3140.43	-32.63	-3.04	0.16	2.77
3231.00	0.09	261.92	3230.43	-32.71	-3.29	0.17	3.02
3320.00	2.24	40.50	3319.41	-31.39	-2.22	2.59	1.97
3410.00	0.25	132.73	3409.39	-30.19	-0.94	2.52	0.69
3499.00	0.13	341.43	3498.39	-30.23	-0.83	0.41	0.58
3589.00	0.12	100.55	3588.39	-30.15	-0.77	0.24	0.52
3678.00	0.03	78.58	3677.39	-30.16	-0.65	0.10	0.40
3768.00	0.04	294.22	3767.39	-30.14	-0.66	0.07	0.41
3857.00	0.16	39.37	3856.39	-30.03	-0.61	0.20	0.36
3947.00	0.97	242.40	3946.38	-30.29	-1.20	1.24	0.95
4036.00	0.30	195.51	4035.38	-30.86	-1.93	0.89	1.68
4126.00	0.13	254.85	4125.38	-31.12	-2.09	0.29	1.84
4215.00	0.42	219.84	4214.38	-31.39	-2.40	0.36	2.14
4305.00	0.23	70.79	4304.38	-31.59	-2.44	0.70	2.18
4395.00	0.16	191.70	4394.38	-31.65	-2.30	0.38	2.04
4484.00	0.14	286.77	4483.38	-31.74	-2.43	0.25	2.17
4573.00	0.17	192.39	4572.38	-31.84	-2.56	0.26	2.30
4663.00	0.10	123.07	4662.38	-32.01	-2.52	0.18	2.26
4753.00	0.09	332.15	4752.38	-31.99	-2.49	0.20	2.23
4842.00	0.11	197.83	4841.38	-32.01	-2.55	0.21	2.28
4932.00	0.07	129.77	4931.38	-32.13	-2.53	0.12	2.27
5022.00	0.15	267.06	5021.38	-32.17	-2.61	0.23	2.34
5111.00	0.11	134.22	5110.38	-32.24	-2.66	0.27	2.40
5201.00	0.07	132.04	5200.38	-32.33	-2.56	0.04	2.29
5290.00	0.11	327.05	5289.38	-32.30	-2.57	0.20	2.30
5379.00	0.09	31.95	5378.37	-32.17	-2.57	0.12	2.31
5469.00	0.11	346.30	5468.37	-32.02	-2.56	0.09	2.29
5559.00	3.49	57.36	5558.32	-30.46	-0.27	3.84	0.02
5648.00	5.01	66.85	5647.07	-27.47	5.58	1.88	-5.81
5738.00	6.71	67.89	5736.60	-23.95	14.07	1.89	-14.27

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	DLS [deg/100ft]	Vertical Section[ft]
5828.00	8.95	67.57	5825.75	-19.30	25.41	2.49	-25.57
5917.00	11.96	65.56	5913.27	-12.84	40.21	3.41	-40.32
6007.00	15.00	65.73	6000.78	-4.19	59.32	3.38	-59.36
6097.00	17.78	65.90	6087.11	6.21	82.49	3.09	-82.43
6186.00	20.71	66.11	6171.13	18.13	109.29	3.29	-109.13
6276.00	23.60	68.92	6254.48	31.06	140.65	3.42	-140.40
6365.00	24.75	59.69	6335.70	46.88	173.37	4.43	-172.98
6455.00	25.29	58.29	6417.25	66.49	205.99	0.89	-205.44
6545.00	24.43	66.18	6498.94	84.12	239.38	3.80	-238.69
6634.00	22.49	60.47	6580.59	99.94	271.04	3.36	-270.21
6724.00	14.40	46.66	6665.93	116.14	294.20	10.16	-293.24
6813.00	9.29	13.50	6753.10	130.75	303.95	9.34	-302.86
6903.00	11.83	315.11	6841.81	144.39	299.12	11.66	-297.92
6992.00	18.39	306.66	6927.69	159.25	281.40	7.76	-280.08
7082.00	23.33	289.16	7011.85	173.60	253.13	8.78	-251.70
7171.00	32.22	282.86	7090.53	184.69	213.26	10.51	-211.74
7260.00	41.95	275.73	7161.48	192.96	160.38	11.94	-158.79
7350.00	51.30	278.10	7223.22	200.93	95.53	10.56	-93.88
7439.00	61.24	277.40	7272.58	210.88	22.28	11.19	-20.55
7529.00	70.36	271.70	7309.46	217.23	-59.43	11.66	61.21
7618.00	79.73	269.42	7332.41	218.03	-145.31	10.81	147.10
7708.00	89.82	270.14	7340.59	217.69	-234.82	11.24	236.60
7797.00	89.72	272.41	7340.95	219.67	-323.79	2.55	325.59
7887.00	89.88	272.03	7341.26	223.16	-413.72	0.46	415.54
7976.00	89.75	270.71	7341.55	225.29	-502.70	1.49	504.53
8066.00	90.09	271.38	7341.68	226.93	-592.68	0.83	594.52
8155.00	89.91	270.05	7341.68	228.04	-681.67	1.51	683.52
8245.00	89.88	270.12	7341.84	228.17	-771.67	0.08	773.52
8334.00	89.91	269.95	7342.00	228.23	-860.67	0.19	862.52
8424.00	89.75	269.19	7342.27	227.55	-950.67	0.86	952.50
8513.00	89.60	269.42	7342.78	226.47	-1039.66	0.31	1041.48
8603.00	89.48	269.10	7343.50	225.31	-1129.65	0.38	1131.46
8692.00	89.60	269.48	7344.21	224.21	-1218.64	0.45	1220.44
8782.00	88.95	270.33	7345.35	224.06	-1308.63	1.19	1310.43
8871.00	89.78	270.64	7346.34	224.81	-1397.62	1.00	1399.42
8961.00	89.45	270.35	7346.94	225.59	-1487.62	0.49	1489.42
9051.00	89.29	268.46	7347.93	224.66	-1577.60	2.11	1579.39
9140.00	89.38	268.11	7348.97	221.99	-1666.55	0.41	1668.32
9229.00	90.40	269.31	7349.14	219.99	-1755.53	1.77	1757.28
9319.00	88.37	269.69	7350.10	219.20	-1845.52	2.29	1847.25
9408.00	88.46	268.54	7352.56	217.83	-1934.47	1.30	1936.19
9498.00	88.74	268.66	7354.76	215.63	-2024.42	0.34	2026.12
9588.00	89.05	269.64	7356.50	214.30	-2114.39	1.14	2116.08
9677.00	88.71	269.84	7358.24	213.89	-2203.37	0.44	2205.05
9767.00	88.31	269.85	7360.58	213.65	-2293.34	0.44	2295.02
9856.00	88.43	270.47	7363.11	213.90	-2382.30	0.71	2383.98
9946.00	90.77	270.79	7363.74	214.89	-2472.29	2.62	2473.97
10036.00	91.08	268.35	7362.29	214.21	-2562.27	2.73	2563.94
10125.00	90.46	268.28	7361.09	211.59	-2651.22	0.70	2652.87
10215.00	90.62	268.53	7360.24	209.09	-2741.18	0.33	2742.81
10304.00	90.80	269.02	7359.14	207.19	-2830.15	0.59	2831.76
10394.00	91.54	269.10	7357.30	205.71	-2920.12	0.83	2921.71
10483.00	91.54	268.79	7354.91	204.07	-3009.07	0.35	3010.65
10573.00	91.48	268.65	7352.54	202.06	-3099.02	0.17	3100.58
10662.00	91.85	268.87	7349.95	200.14	-3187.96	0.48	3189.50
10752.00	91.69	269.07	7347.17	198.52	-3277.90	0.28	3279.42
10842.00	89.88	266.59	7345.94	195.11	-3367.82	3.41	3369.31
10888.00	90.15	266.83	7345.93	192.47	-3413.75	0.79	3415.21
10977.00	89.54	268.25	7346.17	188.65	-3502.66	1.74	3504.09
11067.00	89.85	268.91	7346.65	186.42	-3592.63	0.81	3594.04
11156.00	90.03	269.44	7346.74	185.14	-3681.62	0.63	3683.02
11246.00	89.85	268.76	7346.83	183.73	-3771.61	0.78	3772.99
11336.00	90.00	269.50	7346.95	182.36	-3861.60	0.84	3862.97
11425.00	89.85	269.29	7347.07	181.42	-3950.59	0.29	3951.95
11515.00	89.69	269.24	7347.43	180.27	-4040.58	0.19	4041.93
11605.00	90.25	268.99	7347.48	178.88	-4130.57	0.68	4131.90
11695.00	90.25	269.39	7347.08	177.61	-4220.56	0.44	4221.88
11784.00	90.25	268.99	7346.69	176.35	-4309.55	0.45	4310.86
11874.00	90.92	269.76	7345.78	175.37	-4399.54	1.13	4400.83
11963.00	90.77	269.43	7344.46	174.74	-4488.53	0.41	4489.81
12053.00	90.34	268.87	7343.59	173.40	-4578.52	0.78	4579.79
12142.00	90.95	269.47	7342.59	172.11	-4667.50	0.96	4668.76
12232.00	91.14	269.41	7340.95	171.23	-4757.48	0.22	4758.73

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	DLS [deg/100ft]	Vertical Section[ft]
12321.00	91.02	269.57	7339.27	170.44	-4846.46	0.22	4847.70
12411.00	90.92	269.44	7337.75	169.66	-4936.44	0.18	4937.67
12500.00	90.86	269.58	7336.36	168.90	-5025.43	0.17	5026.65
12589.00	90.65	269.44	7335.19	168.14	-5114.42	0.28	5115.63
12679.00	90.80	269.46	7334.05	167.28	-5204.41	0.17	5205.61
12769.00	90.92	269.52	7332.70	166.48	-5294.39	0.15	5295.58
12858.00	91.54	269.65	7330.79	165.83	-5383.37	0.71	5384.55
12948.00	90.86	269.31	7328.91	165.01	-5473.35	0.84	5474.52
13037.00	91.32	269.57	7327.21	164.15	-5562.33	0.59	5563.49
13127.00	91.42	269.47	7325.06	163.39	-5652.30	0.16	5653.45
13216.00	91.17	269.51	7323.05	162.60	-5741.27	0.28	5742.41
13306.00	91.17	269.70	7321.21	161.98	-5831.25	0.21	5832.38
13395.00	91.05	268.70	7319.49	160.74	-5920.22	1.13	5921.34
13485.00	91.42	270.01	7317.55	159.72	-6010.20	1.51	6011.30
13575.00	91.35	269.64	7315.37	159.45	-6100.17	0.42	6101.27
13664.00	91.08	269.46	7313.49	158.75	-6189.15	0.36	6190.24
13753.00	91.23	269.33	7311.69	157.81	-6278.12	0.22	6279.21
13843.00	91.45	269.84	7309.59	157.16	-6368.09	0.62	6369.17
13932.00	91.48	269.76	7307.31	156.85	-6457.07	0.10	6458.14
14022.00	91.51	269.89	7304.96	156.57	-6547.03	0.15	6548.10
14112.00	91.45	269.23	7302.64	155.88	-6637.00	0.74	6638.06
14201.00	91.54	270.00	7300.32	155.28	-6725.97	0.87	6727.02
14291.00	90.18	269.34	7298.97	154.77	-6815.95	1.68	6817.00
14380.00	90.25	268.51	7298.63	153.10	-6904.94	0.94	6905.96
14470.00	90.62	269.48	7297.95	151.52	-6994.92	1.15	6995.93
14559.00	90.65	269.62	7296.96	150.82	-7083.91	0.16	7084.91
14649.00	90.68	269.32	7295.92	149.99	-7173.90	0.33	7174.89
14739.00	90.71	269.75	7294.83	149.26	-7263.89	0.48	7264.87
14828.00	90.58	269.64	7293.83	148.78	-7352.88	0.19	7353.86
14918.00	90.71	269.63	7292.81	148.21	-7442.88	0.14	7443.84
15008.00	90.58	269.61	7291.80	147.61	-7532.87	0.15	7533.83
15098.00	90.62	269.68	7290.86	147.05	-7622.86	0.09	7623.81
15187.00	91.69	269.87	7289.06	146.71	-7711.84	1.22	7712.79
15277.00	90.71	269.41	7287.18	146.14	-7801.82	1.20	7802.76
15367.00	90.77	269.74	7286.02	145.47	-7891.81	0.37	7892.74
15456.00	90.89	269.54	7284.73	144.91	-7980.80	0.26	7981.72
15546.00	91.02	269.90	7283.23	144.47	-8070.78	0.43	8071.70
15636.00	91.17	269.76	7281.51	144.21	-8160.77	0.23	8161.68
15725.00	91.14	269.62	7279.71	143.73	-8249.75	0.16	8250.65
15815.00	91.05	269.60	7277.99	143.11	-8339.73	0.10	8340.62
15905.00	91.20	270.00	7276.23	142.80	-8429.71	0.47	8430.60
15994.00	91.02	268.58	7274.50	141.70	-8518.69	1.61	8519.56
16084.00	91.20	268.90	7272.76	139.72	-8608.65	0.41	8609.50
16173.00	91.05	268.64	7271.01	137.81	-8697.61	0.34	8698.45
16263.00	90.68	268.77	7269.65	135.77	-8787.58	0.44	8788.39
16352.00	90.71	268.68	7268.57	133.79	-8876.55	0.11	8877.35
16441.00	90.74	268.55	7267.45	131.64	-8965.51	0.15	8966.29
16531.00	90.77	268.44	7266.26	129.28	-9055.47	0.13	9056.23
16621.00	90.68	268.63	7265.12	126.98	-9145.44	0.23	9146.17
16710.00	90.74	268.71	7264.02	124.91	-9234.41	0.11	9235.12
16799.00	90.77	268.66	7262.85	122.87	-9323.38	0.07	9324.07
16888.00	90.52	268.44	7261.84	120.62	-9412.34	0.37	9413.02
16978.00	90.74	268.80	7260.85	118.45	-9502.31	0.47	9502.96
17068.00	90.62	268.64	7259.79	116.44	-9592.28	0.22	9592.91
17157.00	90.80	268.66	7258.68	114.34	-9681.25	0.20	9681.86
17247.00	90.89	268.71	7257.36	112.28	-9771.22	0.11	9771.81
17336.00	90.74	268.54	7256.09	110.14	-9860.18	0.25	9860.75
17426.00	90.62	268.49	7255.02	107.81	-9950.15	0.14	9950.69
17515.00	90.68	268.70	7254.01	105.63	-10039.11	0.25	10039.64
17605.00	90.43	268.55	7253.14	103.47	-10129.08	0.32	10129.59
17694.00	89.91	266.46	7252.88	99.60	-10217.99	2.42	10218.47
17784.00	89.08	268.11	7253.67	95.33	-10307.88	2.05	10308.32
17873.00	89.29	269.39	7254.94	93.39	-10396.85	1.46	10397.27
17962.00	88.77	267.92	7256.44	91.30	-10485.81	1.75	10486.21
18052.00	89.48	268.80	7257.82	88.73	-10575.76	1.26	10576.13
18142.00	89.11	270.44	7258.92	88.13	-10665.75	1.87	10666.12
18232.00	89.51	270.52	7260.01	88.88	-10755.74	0.45	10756.11
18302.00	89.08	269.94	7260.87	89.16	-10825.73	1.03	10826.10
18327.00	89.08	269.94	7261.27	89.14	-10850.73	==>	10851.10