

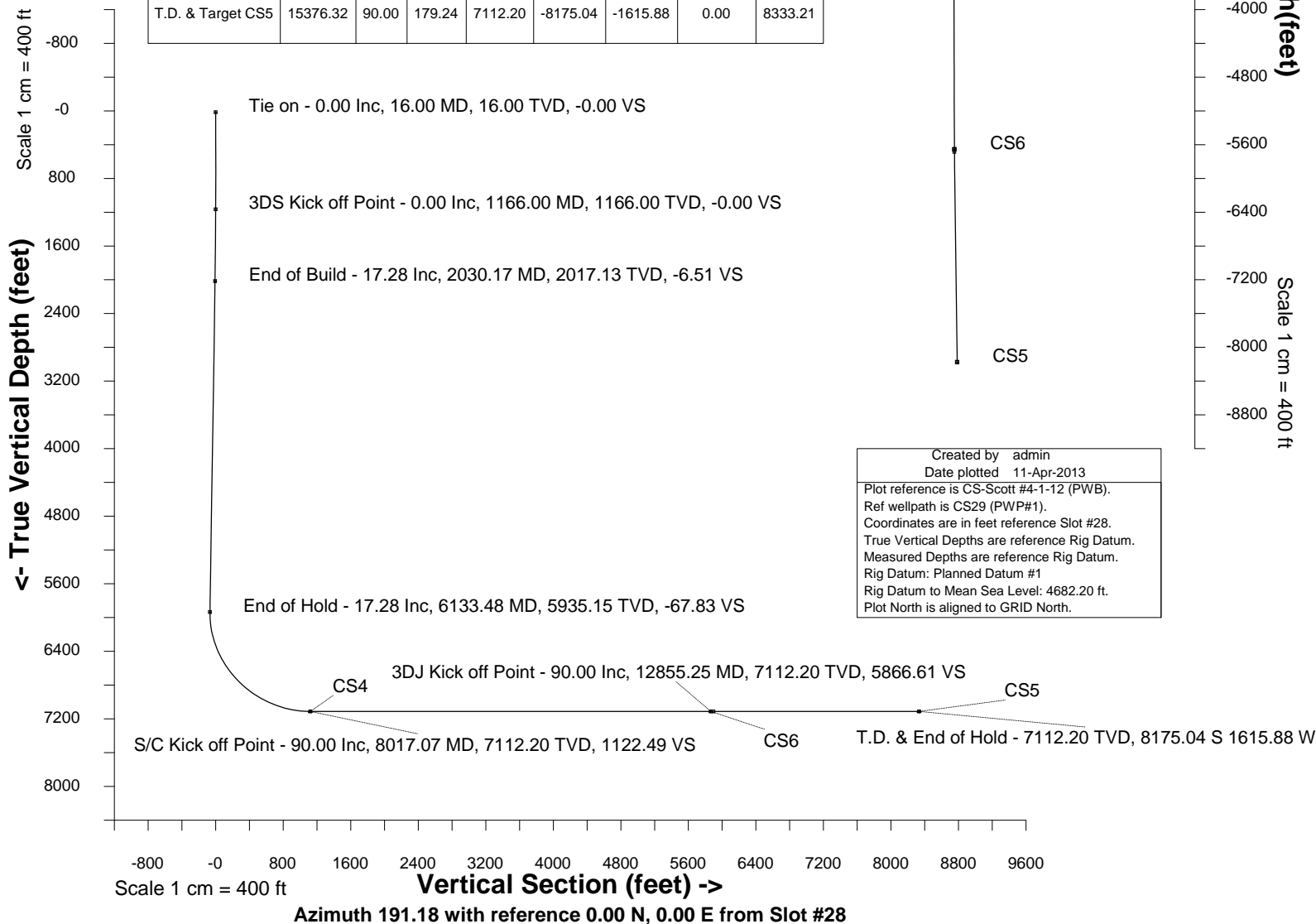
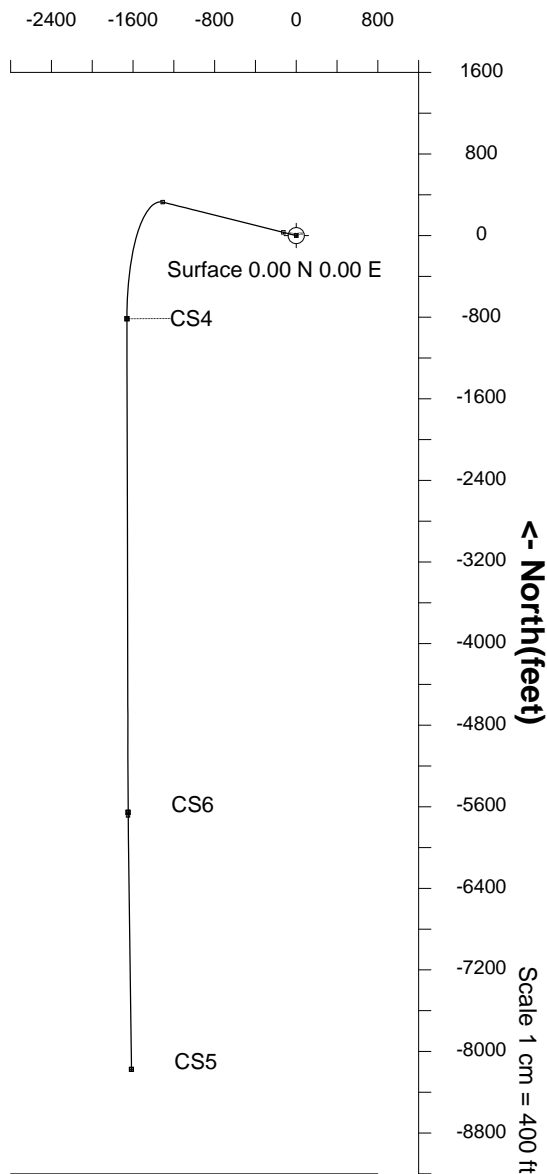
# MINERAL RESOURCES, INC.

<b>Location</b>	Weld County, CO, USA(Imported)	<b>Slot</b>	Slot #28
<b>Field</b>	Wattenberg	<b>Well</b>	CS-Scott #4-1-12
<b>Installation</b>	C Street Pad	<b>Wellbore</b>	CS-Scott #4-1-12 (PWB)

Scale 1 cm = 400 ft **East (feet) ->**

## WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	16.00	0.00	0.00	16.00	0.00	0.00	0.00	-0.00
KOP	1166.00	0.00	0.00	1166.00	0.00	0.00	0.00	-0.00
End of Build	2030.17	17.28	284.06	2017.13	31.44	-125.48	2.00	-6.51
End of Hold	6133.48	17.28	284.06	5935.15	327.69	-1308.02	0.00	-67.83
Target CS4	8017.07	90.00	179.86	7112.20	-816.01	-1660.37	5.00	1122.49
Target CS6	12855.25	90.00	179.86	7112.20	-5654.18	-1648.93	0.00	5866.61
End of Turn	12886.23	90.00	179.24	7112.20	-5685.16	-1648.69	2.00	5896.95
T.D. & Target CS5	15376.32	90.00	179.24	7112.20	-8175.04	-1615.88	0.00	8333.21





INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
Slot #28	1403485.9300	3216260.5974	N40 26 18.1320	W104 43 23.0160	17.73S	55.83E	0.20

Declination			
Date	Source	Time	
17-Jan-2013	IGRF Model [1900.0-2015.0]		11:43

Site Details				
Name	Northing	Easting	Coord System Name	North Alignment
C Street Pad	1403503.6566	3216204.7695	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Summary Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
16.00	0.00	0.000	16.00	0.00N	0.00E		0.00	1403485.93	3216260.60
1166.00	0.00	0.000	1166.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
2030.17	17.28	284.060	2017.13	31.44N	125.48W	2.00	-6.51	1403517.36	3216135.12
6133.48	17.28	284.060	5935.15	327.69N	1308.02W	==>	-67.83	1403813.61	3214952.63
8017.07	90.00	179.860	7112.20	816.01S	1660.37W	5.00	1122.49	1402669.95	3214600.30
12855.25	90.00	179.860	7112.20	5654.18S	1648.93W	==>	5866.61	1397831.97	3214611.73
12886.23	90.00	179.240	7112.20	5685.16S	1648.69W	2.00	5896.95	1397800.99	3214611.97
15376.32	90.00	179.240	7112.20	8175.04S	1615.88W	==>	8333.21	1395311.22	3214644.78

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	1403485.93	3216260.60
16.00	0.00	0.000	16.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
1150.00	0.00	0.000	1150.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
1166.00	0.00	0.000	1166.00	0.00N	0.00E	==>	0.00	1403485.93	3216260.60
1250.00	1.68	284.060	1249.99	0.30N	1.19W	2.00	-0.06	1403486.23	3216259.40
1350.00	3.68	284.060	1349.87	1.44N	5.73W	2.00	-0.30	1403487.37	3216254.87
1450.00	5.68	284.060	1449.54	3.42N	13.64W	2.00	-0.71	1403489.35	3216246.95
1550.00	7.68	284.060	1548.85	6.24N	24.93W	2.00	-1.29	1403492.17	3216235.67
1650.00	9.68	284.060	1647.70	9.91N	39.57W	2.00	-2.05	1403495.84	3216221.03
1750.00	11.68	284.060	1745.96	14.42N	57.54W	2.00	-2.98	1403500.34	3216203.06
1850.00	13.68	284.060	1843.52	19.75N	78.83W	2.00	-4.09	1403505.68	3216181.77
1950.00	15.68	284.060	1940.25	25.91N	103.41W	2.00	-5.36	1403511.84	3216157.19
2030.17	17.28	284.060	2017.13	31.44N	125.48W	2.00	-6.51	1403517.36	3216135.12
2100.00	17.28	284.060	2083.80	36.48N	145.60W	==>	-7.55	1403522.40	3216115.00
2200.00	17.28	284.060	2179.29	43.70N	174.42W	==>	-9.05	1403529.62	3216086.18
2300.00	17.28	284.060	2274.77	50.92N	203.24W	==>	-10.54	1403536.84	3216057.37
2400.00	17.28	284.060	2370.25	58.14N	232.06W	==>	-12.03	1403544.06	3216028.55
2500.00	17.28	284.060	2465.74	65.36N	260.88W	==>	-13.53	1403551.28	3215999.73
2600.00	17.28	284.060	2561.22	72.58N	289.70W	==>	-15.02	1403558.50	3215970.91
2700.00	17.28	284.060	2656.71	79.80N	318.52W	==>	-16.52	1403565.72	3215942.09
2800.00	17.28	284.060	2752.19	87.02N	347.34W	==>	-18.01	1403572.94	3215913.27
2900.00	17.28	284.060	2847.68	94.24N	376.16W	==>	-19.51	1403580.16	3215884.46
3000.00	17.28	284.060	2943.16	101.46N	404.98W	==>	-21.00	1403587.38	3215855.64
3100.00	17.28	284.060	3038.65	108.68N	433.79W	==>	-22.50	1403594.60	3215826.82

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4682.2ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 191.180 degrees  
Bottom hole distance is 8333.21 Feet on azimuth 191.18 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Peterson Energy  
Date Printed: 21-May-2013



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
3200.00	17.28	284.060	3134.13	115.90N	462.61W	==>	-23.99	1403601.82	3215798.00
3300.00	17.28	284.060	3229.62	123.12N	491.43W	==>	-25.49	1403609.04	3215769.18
3400.00	17.28	284.060	3325.10	130.34N	520.25W	==>	-26.98	1403616.26	3215740.37
3500.00	17.28	284.060	3420.59	137.56N	549.07W	==>	-28.47	1403623.48	3215711.55
3600.00	17.28	284.060	3516.07	144.78N	577.89W	==>	-29.97	1403630.70	3215682.73
3700.00	17.28	284.060	3611.56	152.00N	606.71W	==>	-31.46	1403637.92	3215653.91
3800.00	17.28	284.060	3707.04	159.21N	635.53W	==>	-32.96	1403645.14	3215625.09
3900.00	17.28	284.060	3802.52	166.43N	664.35W	==>	-34.45	1403652.36	3215596.27
4000.00	17.28	284.060	3898.01	173.65N	693.17W	==>	-35.95	1403659.58	3215567.46
4100.00	17.28	284.060	3993.49	180.87N	721.99W	==>	-37.44	1403666.80	3215538.64
4200.00	17.28	284.060	4088.98	188.09N	750.81W	==>	-38.94	1403674.02	3215509.82
4300.00	17.28	284.060	4184.46	195.31N	779.63W	==>	-40.43	1403681.24	3215481.00
4400.00	17.28	284.060	4279.95	202.53N	808.45W	==>	-41.93	1403688.46	3215452.18
4500.00	17.28	284.060	4375.43	209.75N	837.27W	==>	-43.42	1403695.68	3215423.37
4600.00	17.28	284.060	4470.92	216.97N	866.08W	==>	-44.92	1403702.90	3215394.55
4700.00	17.28	284.060	4566.40	224.19N	894.90W	==>	-46.41	1403710.12	3215365.73
4800.00	17.28	284.060	4661.89	231.41N	923.72W	==>	-47.90	1403717.33	3215336.91
4900.00	17.28	284.060	4757.37	238.63N	952.54W	==>	-49.40	1403724.55	3215308.09
5000.00	17.28	284.060	4852.86	245.85N	981.36W	==>	-50.89	1403731.77	3215279.27
5100.00	17.28	284.060	4948.34	253.07N	1010.18W	==>	-52.39	1403738.99	3215250.46
5200.00	17.28	284.060	5043.82	260.29N	1039.00W	==>	-53.88	1403746.21	3215221.64
5300.00	17.28	284.060	5139.31	267.51N	1067.82W	==>	-55.38	1403753.43	3215192.82
5400.00	17.28	284.060	5234.79	274.73N	1096.64W	==>	-56.87	1403760.65	3215164.00
5500.00	17.28	284.060	5330.28	281.95N	1125.46W	==>	-58.37	1403767.87	3215135.18
5600.00	17.28	284.060	5425.76	289.17N	1154.28W	==>	-59.86	1403775.09	3215106.37
5700.00	17.28	284.060	5521.25	296.39N	1183.10W	==>	-61.36	1403782.31	3215077.55
5800.00	17.28	284.060	5616.73	303.61N	1211.92W	==>	-62.85	1403789.53	3215048.73
5900.00	17.28	284.060	5712.22	310.83N	1240.74W	==>	-64.34	1403796.75	3215019.91
6000.00	17.28	284.060	5807.70	318.05N	1269.56W	==>	-65.84	1403803.97	3214991.09
6100.00	17.28	284.060	5903.19	325.27N	1298.37W	==>	-67.33	1403811.19	3214962.27
6133.48	17.28	284.060	5935.15	327.69N	1308.02W	==>	-67.83	1403813.61	3214952.63
6200.00	16.81	272.820	5998.77	330.56N	1327.22W	5.00	-66.93	1403816.48	3214933.43
6300.00	17.28	255.770	6094.44	327.62N	1356.07W	5.00	-58.45	1403813.54	3214904.58
6400.00	19.05	240.720	6189.51	315.99N	1384.72W	5.00	-41.48	1403801.90	3214875.93
6500.00	21.82	228.750	6283.24	295.74N	1412.95W	5.00	-16.14	1403781.66	3214847.71
6600.00	25.25	219.620	6374.94	267.03N	1440.54W	5.00	17.37	1403752.95	3214820.12
6700.00	29.12	212.650	6463.90	230.09N	1467.29W	5.00	58.79	1403716.02	3214793.37
6800.00	33.26	207.240	6549.44	185.20N	1492.98W	5.00	107.82	1403671.12	3214767.67
6900.00	37.60	202.930	6630.92	132.69N	1517.44W	5.00	164.07	1403618.61	3214743.22
7000.00	42.06	199.400	6707.71	72.97N	1540.46W	5.00	227.13	1403558.89	3214720.20
7100.00	46.61	196.430	6779.23	6.48N	1561.87W	5.00	296.50	1403492.41	3214698.79
7200.00	51.23	193.890	6844.93	66.25S	1581.52W	5.00	371.67	1403419.68	3214679.14
7300.00	55.89	191.650	6904.32	144.69S	1599.25W	5.00	452.05	1403341.24	3214661.41
7400.00	60.59	189.650	6956.94	228.23S	1614.92W	5.00	537.05	1403257.71	3214645.74
7500.00	65.32	187.830	7002.40	316.24S	1628.43W	5.00	626.00	1403169.70	3214632.24
7600.00	70.07	186.140	7040.33	408.04S	1639.65W	5.00	718.24	1403077.90	3214621.01
7700.00	74.84	184.550	7070.47	502.95S	1648.52W	5.00	813.06	1402983.00	3214612.14
7800.00	79.61	183.030	7092.58	600.23S	1654.96W	5.00	909.75	1402885.72	3214605.71
7900.00	84.40	181.560	7106.48	699.15S	1658.92W	5.00	1007.56	1402786.81	3214601.75
8000.00	89.18	180.110	7112.08	798.95S	1660.37W	5.00	1105.74	1402687.01	3214600.29
8017.07	90.00	179.860	7112.20	816.01S	1660.37W	5.00	1122.49	1402669.95	3214600.30
8100.00	90.00	179.860	7112.20	898.95S	1660.17W	==>	1203.81	1402587.02	3214600.49
8200.00	90.00	179.860	7112.20	998.95S	1659.94W	==>	1301.86	1402487.02	3214600.73
8300.00	90.00	179.860	7112.20	1098.95S	1659.70W	==>	1399.92	1402387.03	3214600.96
8400.00	90.00	179.860	7112.20	1198.95S	1659.46W	==>	1497.97	1402287.03	3214601.20
8500.00	90.00	179.860	7112.20	1298.95S	1659.23W	==>	1596.03	1402187.04	3214601.44
8600.00	90.00	179.860	7112.20	1398.95S	1658.99W	==>	1694.09	1402087.04	3214601.67
8700.00	90.00	179.860	7112.20	1498.95S	1658.75W	==>	1792.14	1401987.04	3214601.91
8800.00	90.00	179.860	7112.20	1598.95S	1658.52W	==>	1890.20	1401887.05	3214602.15
8900.00	90.00	179.860	7112.20	1698.95S	1658.28W	==>	1988.25	1401787.05	3214602.38
9000.00	90.00	179.860	7112.20	1798.94S	1658.04W	==>	2086.31	1401687.06	3214602.62

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4682.2ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 191.180 degrees  
Bottom hole distance is 8333.21 Feet on azimuth 191.18 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Peterson Energy  
Date Printed: 21-May-2013



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
9100.00	90.00	179.860	7112.20	1898.94S	1657.81W	==>	2184.36	1401587.06	3214602.86
9200.00	90.00	179.860	7112.20	1998.94S	1657.57W	==>	2282.42	1401487.07	3214603.09
9300.00	90.00	179.860	7112.20	2098.94S	1657.33W	==>	2380.48	1401387.07	3214603.33
9400.00	90.00	179.860	7112.20	2198.94S	1657.10W	==>	2478.53	1401287.07	3214603.56
9500.00	90.00	179.860	7112.20	2298.94S	1656.86W	==>	2576.59	1401187.08	3214603.80
9600.00	90.00	179.860	7112.20	2398.94S	1656.63W	==>	2674.64	1401087.08	3214604.04
9700.00	90.00	179.860	7112.20	2498.94S	1656.39W	==>	2772.70	1400987.09	3214604.27
9800.00	90.00	179.860	7112.20	2598.94S	1656.15W	==>	2870.76	1400887.09	3214604.51
9900.00	90.00	179.860	7112.20	2698.94S	1655.92W	==>	2968.81	1400787.09	3214604.75
10000.00	90.00	179.860	7112.20	2798.94S	1655.68W	==>	3066.87	1400687.10	3214604.98
10100.00	90.00	179.860	7112.20	2898.94S	1655.44W	==>	3164.92	1400587.10	3214605.22
10200.00	90.00	179.860	7112.20	2998.94S	1655.21W	==>	3262.98	1400487.11	3214605.46
10300.00	90.00	179.860	7112.20	3098.94S	1654.97W	==>	3361.04	1400387.11	3214605.69
10400.00	90.00	179.860	7112.20	3198.94S	1654.73W	==>	3459.09	1400287.12	3214605.93
10500.00	90.00	179.860	7112.20	3298.94S	1654.50W	==>	3557.15	1400187.12	3214606.16
10600.00	90.00	179.860	7112.20	3398.94S	1654.26W	==>	3655.20	1400087.12	3214606.40
10700.00	90.00	179.860	7112.20	3498.94S	1654.03W	==>	3753.26	1399987.13	3214606.64
10800.00	90.00	179.860	7112.20	3598.94S	1653.79W	==>	3851.31	1399887.13	3214606.87
10900.00	90.00	179.860	7112.20	3698.94S	1653.55W	==>	3949.37	1399787.14	3214607.11
11000.00	90.00	179.860	7112.20	3798.94S	1653.32W	==>	4047.43	1399687.14	3214607.35
11100.00	90.00	179.860	7112.20	3898.94S	1653.08W	==>	4145.48	1399587.15	3214607.58
11200.00	90.00	179.860	7112.20	3998.94S	1652.84W	==>	4243.54	1399487.15	3214607.82
11300.00	90.00	179.860	7112.20	4098.94S	1652.61W	==>	4341.59	1399387.15	3214608.06
11400.00	90.00	179.860	7112.20	4198.94S	1652.37W	==>	4439.65	1399287.16	3214608.29
11500.00	90.00	179.860	7112.20	4298.94S	1652.13W	==>	4537.71	1399187.16	3214608.53
11600.00	90.00	179.860	7112.20	4398.94S	1651.90W	==>	4635.76	1399087.17	3214608.77
11700.00	90.00	179.860	7112.20	4498.94S	1651.66W	==>	4733.82	1398987.17	3214609.00
11800.00	90.00	179.860	7112.20	4598.94S	1651.43W	==>	4831.87	1398887.18	3214609.24
11900.00	90.00	179.860	7112.20	4698.94S	1651.19W	==>	4929.93	1398787.18	3214609.47
12000.00	90.00	179.860	7112.20	4798.94S	1650.95W	==>	5027.98	1398687.18	3214609.71
12100.00	90.00	179.860	7112.20	4898.94S	1650.72W	==>	5126.04	1398587.19	3214609.95
12200.00	90.00	179.860	7112.20	4998.94S	1650.48W	==>	5224.10	1398487.19	3214610.18
12300.00	90.00	179.860	7112.20	5098.94S	1650.24W	==>	5322.15	1398387.20	3214610.42
12400.00	90.00	179.860	7112.20	5198.94S	1650.01W	==>	5420.21	1398287.20	3214610.66
12500.00	90.00	179.860	7112.20	5298.94S	1649.77W	==>	5518.26	1398187.21	3214610.89
12600.00	90.00	179.860	7112.20	5398.93S	1649.53W	==>	5616.32	1398087.21	3214611.13
12700.00	90.00	179.860	7112.20	5498.93S	1649.30W	==>	5714.38	1397987.21	3214611.37
12800.00	90.00	179.860	7112.20	5598.93S	1649.06W	==>	5812.43	1397887.22	3214611.60
12855.25	90.00	179.860	7112.20	5654.18S	1648.93W	==>	5866.61	1397831.97	3214611.73
12886.23	90.00	179.240	7112.20	5685.16S	1648.69W	2.00	5896.95	1397800.99	3214611.97
12900.00	90.00	179.240	7112.20	5698.93S	1648.51W	==>	5910.42	1397787.22	3214612.15
13000.00	90.00	179.240	7112.20	5798.92S	1647.19W	==>	6008.26	1397687.24	3214613.47
13100.00	90.00	179.240	7112.20	5898.91S	1645.87W	==>	6106.10	1397587.25	3214614.79
13200.00	90.00	179.240	7112.20	5998.91S	1644.56W	==>	6203.94	1397487.26	3214616.11
13300.00	90.00	179.240	7112.20	6098.90S	1643.24W	==>	6301.78	1397387.28	3214617.42
13400.00	90.00	179.240	7112.20	6198.89S	1641.92W	==>	6399.61	1397287.29	3214618.74
13500.00	90.00	179.240	7112.20	6298.88S	1640.60W	==>	6497.45	1397187.30	3214620.06
13600.00	90.00	179.240	7112.20	6398.87S	1639.28W	==>	6595.29	1397087.31	3214621.38
13700.00	90.00	179.240	7112.20	6498.86S	1637.97W	==>	6693.13	1396987.33	3214622.70
13800.00	90.00	179.240	7112.20	6598.85S	1636.65W	==>	6790.97	1396887.34	3214624.01
13900.00	90.00	179.240	7112.20	6698.85S	1635.33W	==>	6888.80	1396787.35	3214625.33
14000.00	90.00	179.240	7112.20	6798.84S	1634.01W	==>	6986.64	1396687.36	3214626.65
14100.00	90.00	179.240	7112.20	6898.83S	1632.70W	==>	7084.48	1396587.38	3214627.97
14200.00	90.00	179.240	7112.20	6998.82S	1631.38W	==>	7182.32	1396487.39	3214629.28
14300.00	90.00	179.240	7112.20	7098.81S	1630.06W	==>	7280.15	1396387.40	3214630.60
14400.00	90.00	179.240	7112.20	7198.80S	1628.74W	==>	7377.99	1396287.41	3214631.92
14500.00	90.00	179.240	7112.20	7298.79S	1627.43W	==>	7475.83	1396187.43	3214633.24
14600.00	90.00	179.240	7112.20	7398.78S	1626.11W	==>	7573.67	1396087.44	3214634.55
14700.00	90.00	179.240	7112.20	7498.78S	1624.79W	==>	7671.51	1395987.45	3214635.87
14800.00	90.00	179.240	7112.20	7598.77S	1623.47W	==>	7769.34	1395887.47	3214637.19
14900.00	90.00	179.240	7112.20	7698.76S	1622.15W	==>	7867.18	1395787.48	3214638.51

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Vertical Section is from 0.00N 0.00E on azimuth 191.180 degrees  
Bottom hole distance is 8333.21 Feet on azimuth 191.18 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Peterson Energy  
Date Printed: 21-May-2013



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
15000.00	90.00	179.240	7112.20	7798.75S	1620.84W	==>	7965.02	1395687.49	3214639.82
15100.00	90.00	179.240	7112.20	7898.74S	1619.52W	==>	8062.86	1395587.50	3214641.14
15200.00	90.00	179.240	7112.20	7998.73S	1618.20W	==>	8160.70	1395487.52	3214642.46
15300.00	90.00	179.240	7112.20	8098.72S	1616.88W	==>	8258.53	1395387.53	3214643.78
15376.32	90.00	179.240	7112.20	8175.04S	1615.88W	==>	8333.21	1395311.22	3214644.78

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INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Hole Sections								
Diameter	Start	Start	Start	Start	End	End	End	End
[in]	MD[ft]	TVD[ft]	North[ft]	East[ft]	MD[ft]	TVD[ft]	North[ft]	East[ft]
12 1/4	16.00	16.00	0.00N	0.00E	500.00	500.00	0.00N	0.00E
8 3/4	500.00	500.00	0.00N	0.00E	8017.00	7112.20	815.95S	1660.37W
6 1/8	8017.00	7112.20	815.95S	1660.37W	15376.32	7112.20	8175.04S	1615.88W

Casings								
Name	Top	Top	Top	Top	Shoe	Shoe	Shoe	Shoe
	MD[ft]	TVD[ft]	North[ft]	East[ft]	MD[ft]	TVD[ft]	North[ft]	East[ft]
9 5/8in Surface Casing	0.00				500.00	500.00	0.00N	0.00E
7.0in Intermediate Casing	0.00				8017.00	7112.20	815.95S	1660.37W
4 1/2in Production Liner	6200.00	5998.77	330.56N	1327.22W	15376.32	7112.20	8175.04S	1615.88W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
CS4	816.01S	1660.37W	7112.20	N40 26 10.2120	W104 43 44.5800	1402669.95	3214600.30	15-Mar-2013
CS5	8175.04S	1615.88W	7112.20	N40 24 57.4920	W104 43 44.8320	1395311.22	3214644.78	15-Mar-2013
CS6	5654.18S	1648.93W	7112.20	N40 25 22.4040	W104 43 44.9760	1397831.97	3214611.73	15-Mar-2013

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
33055	Planned	15376.32	7112.20	WdW Rate Gyro	Standard	

Notes

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Ellipse separations are reported ONLY if BOTH wells have uncertainty data  
Only Depth and Magnetic Reference Field error terms are correlated across tie points  
Cutoff is calculated on CENTRE to CENTRE distance

Summary data uses Closest Approach clearance calculation for all minima  
Hole size/Casings ARE included  
Hole size/Casings are NOT subtracted from Centre-Centre distance  
Confidence limit of 95.00% / 2.80 SD.

Wellbore		
Name	Created	Last Revised
CS-Scott #4-1-12 (PWB)	8-Apr-2013	11-Apr-2013

Well		
Name	Government ID	Last Revised
CS-Scott #4-1-12		8-Apr-2013

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #28	1403485.9300	3216260.5974	N40 26 18.1320	W104 43 23.0160	17.73S	55.83E

Installation					
Name	Easting	Northing	Coord System Name	North Alignment	
C Street Pad	3216204.7695	1403503.6566	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid	

Field					
Name	Easting	Northing	Coord System Name	North Alignment	
Wattenberg	3211772.6087	1400656.3763	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid	

Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
CS-Scott #3-1-12	CS-Scott #3-1-12 (PWB)	Slot #29	C Street Pad	13.92	1065.87	12860.49	11.55	1082.27	2.77	15376.32
CS-Scott #5-1-12	CS-Scott #5-1-12 (PWB)	Slot #27	C Street Pad	16.70	1166.00	7894.47	14.19	1166.00	2.84	15376.32
CS-Scott #2-1-12	CS-Scott #2-1-12 (PWB)	Slot #30	C Street Pad	30.62	983.85	15376.32	28.41	983.85	4.59	15376.32
CS-Sherwood #1-1-12	CS-Sherwood #1-1-12 (PWB)	Slot #26	C Street Pad	33.40	1166.00	15376.32	30.90	1166.00	4.60	15376.32
CS-Scott #1-1-12	CS-Scott #1-1-12 (PWB)	Slot #31	C Street Pad	47.32	852.61	852.61	45.31	869.02	7.03	15376.32
CS-Sherwood #2-1-12	CS-Sherwood #2-1-12 (PWB)	Slot #25	C Street Pad	50.11	1166.00	1166.00	47.60	1166.00	7.09	15376.32
CS-Bestway #1-1-2	CS-Bestway #1-1-2 (PWB)	Slot #8	C Street Pad	58.58	1166.00	7516.04	43.27	7496.31	2.67	7479.91
CS-Bittersweet #3-1-12	CS-Bittersweet #3-1-12 (PWB)	Slot #32	C Street Pad	61.35	754.19	754.19	59.50	770.59	9.18	15376.32
CS-Sherwood #3-1-12	CS-Sherwood #3-1-12 (PWB)	Slot #24	C Street Pad	64.02	1166.00	15376.32	61.52	1166.00	9.14	15370.33
CS-Kinkadee #1-1-12	CS-Kinkadee #1-1-12	Slot #23	C Street Pad	80.73	1166.00	15376.32	78.22	1166.00	11.54	15370.33

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
	(PWB)									
CS-Kinkade #2-1-12	CS-Kinkade #2-1-12 (PWB)	Slot #22	C Street Pad	97.43	1065.87	15376.32	95.06	1098.68	13.72	15376.32
CS-Kinkade #3-1-12	CS-Kinkade #3-1-12 (PWB)	Slot #21	C Street Pad	114.13	967.44	15376.32	111.94	967.44	16.10	15376.32
CS-Kinkade #4-1-12	CS-Kinkade #4-1-12 (PWB)	Slot #20	C Street Pad	128.05	852.61	15376.32	126.02	869.02	18.32	15376.32
CS-Kinkade #5-1-12	CS-Kinkade #5-1-12 (PWB)	Slot #19	C Street Pad	144.75	754.19	15376.32	142.89	770.59	20.67	15376.32
CS-Longmeadow #1-1-12	CS-Longmeadow #1-1-12 (PWB)	Slot #18	C Street Pad	161.45	655.76	15376.32	159.77	672.17	22.92	15376.32
CS-Longmeadow #2-1-12	CS-Longmeadow #2-1-12 (PWB)	Slot #17	C Street Pad	178.15	557.34	15376.32	176.47	491.72	25.27	15376.32
GG-Centennial #2-13-12	GG-Centennial #2-13-12 (PWB)	Slot #51	Gallery Green	341.32	15376.32	15376.32	300.82	15376.32	8.43	15376.32
Franklin Park 2-6-1	Franklin Park 2-6-1 (AWB)	Franklin Park 2-6-1	Bestway Pad Offsets	423.93	11673.17	11673.17	326.27	11646.58	4.25	11597.36
GG-Centennial #1-13-12	GG-Centennial #1-13-12 (PWB)	Slot #50	Gallery Green	455.54	15376.32	15376.32	341.94	15376.32	4.01	15376.32
GG-Centennial #3-13-12	GG-Centennial #3-13-12 (PWB)	Slot #52	Gallery Green	487.02	15376.32	15376.32	367.66	15376.32	4.08	15376.32
Poudre Trail 5 2-2-1	Poudre Trail 5 2-2-1 (AWB)	Poudre Trail 5 2-2-1	Bestway Pad Offsets	607.73	8777.93	8777.93	548.60	8825.06	8.52	9087.52
GG-Mariner #3-13-12	GG-Mariner #3-13-12 (PWB)	Slot #49	Gallery Green	722.66	15376.32	15376.32	577.32	15376.32	4.97	15376.32
GG-Centennial #4-13-12	GG-Centennial #4-13-12 (PWB)	Slot #53	Gallery Green	762.61	15376.32	15376.32	615.51	15376.32	5.18	15376.32
GG-Mariner #2-13-12	GG-Mariner #2-13-12 (PWB)	Slot #48	Gallery Green	1062.58	15376.32	15376.32	906.49	15376.32	6.81	15376.32
GG-Centennial #5-13-12	GG-Centennial #5-13-12 (PWB)	Slot #54	Gallery Green	1066.62	15376.32	15376.32	911.15	15376.32	6.86	15376.32
GG-Mariner #1-13-12	GG-Mariner #1-13-12 (PWB)	Slot #47	Gallery Green	1384.52	15376.32	15376.32	1225.42	15376.32	8.70	15376.32
GG-Rangeview #1-13-12	GG-Rangeview #1-13-12 (PWB)	Slot #55	Gallery Green	1384.73	15376.32	15376.32	1225.63	15376.32	8.70	15376.32
Bestway 12-2	Bestway 12-2 (AWB)	Bestway 12-2	Bestway Pad Offsets	1702.46	8907.08	8907.08	1654.35	8956.29	28.50	9760.09
GG-Cottonwood	GG-Cottonwood #5-13-12	Slot #46	Gallery Green	1709.28	15376.32	15376.32	1548.31	15376.32	10.62	15376.32

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
5-13-12	(PWB)									
GG-Cottonwood #4-13-12	GG-Cottonwood #4-13-12 (PWB)	Slot #45	Gallery Green	2038.48	15376.32	15376.32	1876.77	15376.32	12.61	15376.32
LUNDVALL #5	LUNDVALL #5 (AWB)	LUNDVALL #5	Bestway Pad Offsets	2301.83	8253.77	8253.77	2266.64	8283.72	53.29	9464.82
Stoney 7-1-2	Stoney 7-1-2 (AWB)	Stoney 7-1-2	Bestway Pad Offsets	2322.66	8105.33	8105.33	2269.21	8136.08	38.04	9054.71
Ruyle 7-3-2	Ruyle 7-3-2 (AWB)	Ruyle 7-3-2	Bestway Pad Offsets	2339.53	9442.39	9442.39	2295.71	9481.22	45.07	10531.09
GG-Cottonwood #3-13-12	GG-Cottonwood #3-13-12 (PWB)	Slot #44	Gallery Green	2367.73	15376.32	15376.32	2205.33	15376.32	14.58	15376.32
GG-Cottonwood #2-13-12	GG-Cottonwood #2-13-12 (PWB)	Slot #43	Gallery Green	2699.24	15376.32	15376.32	2536.55	15376.32	16.59	15376.32
GG-Cottonwood #1-13-12	GG-Cottonwood #1-13-12 (PWB)	Slot #25	Gallery Green	3030.30	15376.32	15376.32	2867.38	15376.32	18.60	15376.32
Bestway 6-11	Bestway 6-11 (AWB)	Bestway 6-11	Bestway Pad Offsets	3117.05	10809.96	10809.96	3002.68	15376.32	15.52	15376.32
GG-Toddys #2-13-12	GG-Toddys #2-13-12 (PWB)	Slot #27	Gallery Green	3362.81	15376.32	15376.32	3199.76	15376.32	20.62	15376.32
Ditch 5-1-2	Ditch 5-1-2 (AWB)	Ditch 5-1-2	Bestway Pad Offsets	3678.24	8123.95	8123.95	3623.57	8152.48	63.03	9284.37
GG-Toddys #1-13-12	GG-Toddys #1-13-12 (PWB)	Slot #28	Gallery Green	3701.08	15376.32	15376.32	3537.81	15376.32	22.67	15376.32
Johnson 5-3-2	Johnson 5-3-2 (AWB)	Johnson 5-3-2	Bestway Pad Offsets	3764.55	9579.65	9579.65	3718.75	9628.86	63.89	11695.79
DT-Lopez #1-5-6	DT-Lopez #1-5-6 (PWB)	Slot #3	Downtown	4002.33	6036.34	6036.34	3978.82	6036.34	75.89	11302.09
DT-Lopez #2-5-6	DT-Lopez #2-5-6 (PWB)	Slot #5	Downtown	4117.72	6453.58	6453.58	4088.78	6346.29	75.64	11630.17
DT-Habitat #2-5-6	DT-Habitat #2-5-6 (PWB)	Slot #7	Downtown	4132.58	8588.05	8588.05	4105.24	8588.05	75.44	12253.53
DT-Martinez #1-5-6	DT-Martinez #1-5-6 (PWB)	Slot #11	Downtown	4132.61	9877.75	9877.75	4087.80	9842.12	74.59	13533.06
DT-Habitat #1-5-6	DT-Habitat #1-5-6 (PWB)	Slot #6	Downtown	4133.62	8267.31	8267.31	4109.65	8283.72	75.69	11958.26
DT-Habitat #5-5-6	DT-Habitat #5-5-6 (PWB)	Slot #10	Downtown	4133.65	9553.50	9553.50	4093.93	9516.00	75.04	13237.78
DT-Habitat #4-5-6	DT-Habitat #4-5-6 (PWB)	Slot #9	Downtown	4133.98	9235.16	9235.16	4098.63	9202.35	75.15	12926.10
DT-Habitat #3-5-6	DT-Habitat #3-5-6 (PWB)	Slot #8	Downtown	4135.02	8908.64	8908.64	4104.27	8890.67	75.51	12581.62
DT-Martinez #2-5-6	DT-Martinez #2-5-6 (PWB)	Slot #19	Downtown	4135.07	10203.01	10203.01	4086.30	10170.20	70.83	8349.33
DT-Martinez #3-5-6	DT-Martinez #3-5-6 (PWB)	Slot #20	Downtown	4136.77	10518.93	10518.93	4082.81	10481.88	65.83	8792.25
DT-Forbes	DT-Forbes	Slot #21	Downtown	4139.29	10850.45	10850.45	4080.15	10809.96	61.26	9267.97

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: CS-Scott #4-1-12 (PWB)

Clearance Summary										
Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
#1-5-6	#1-5-6 (PWB)									
DT-Forbes #2-5-6	DT-Forbes #2-5-6 (PWB)	Slot #22	Downtown	4141.08	11181.97	11181.97	4076.40	11138.05	57.12	9727.29
DT-Forbes #3-5-6	DT-Forbes #3-5-6 (PWB)	Slot #23	Downtown	4146.40	11517.11	11517.11	4076.35	11466.13	53.51	10153.80
DT-Forbes #4-5-6	DT-Forbes #4-5-6 (PWB)	Slot #24	Downtown	4148.19	11848.63	11848.63	4072.48	11810.62	50.20	10563.90
MT-Heath #1-8-7	MT-Heath #1-8-7 (PWB)	Slot #7	Midtown	4148.95	15376.32	15376.32	4061.15	15376.32	47.25	15376.32
MT-Maplewood #5-8-7	MT-Maplewood #5-8-7 (PWB)	Slot #6	Midtown	4149.19	15116.00	15116.00	4060.14	15189.88	44.57	15376.32
MT-Maplewood #4-8-7	MT-Maplewood #4-8-7 (PWB)	Slot #5	Midtown	4150.16	14739.58	14739.58	4061.63	14828.99	42.01	15376.32
DT-Forbes #5-5-6	DT-Forbes #5-5-6 (PWB)	Slot #25	Downtown	4150.73	12187.92	12187.92	4069.58	12138.70	47.30	10974.01
MT-Maplewood #3-8-7	MT-Maplewood #3-8-7 (PWB)	Slot #4	Midtown	4151.85	14369.67	14369.67	4064.07	14451.70	40.33	15376.32
DT-Luther #1-5-6	DT-Luther #1-5-6 (PWB)	Slot #26	Downtown	4152.52	12516.00	12516.00	4065.67	12466.79	44.63	11384.11
MT-Maplewood #2-8-7	MT-Maplewood #2-8-7 (PWB)	Slot #3	Midtown	4152.82	13992.88	13992.88	4065.36	14074.40	39.29	15376.32
MT-Maplewood #1-8-7	MT-Maplewood #1-8-7 (PWB)	Slot #2	Midtown	4154.52	13619.52	13619.52	4067.60	13713.51	38.94	15376.32
MT-Luther #3-8-7	MT-Luther #3-8-7 (PWB)	Slot #1	Midtown	4155.49	13246.17	13246.17	4068.75	13336.21	38.94	15140.67
MT-Luther #2-8-7	MT-Luther #2-8-7 (PWB)	Slot #37	Midtown	4157.11	12847.82	12892.77	4070.65	12991.72	38.95	14796.18
MT-Heath #2-8-7	MT-Heath #2-8-7 (PWB)	Slot #8	Midtown	4174.59	15376.32	15376.32	4088.18	15376.32	48.31	15376.32
MT-Heath #3-8-7	MT-Heath #3-8-7 (PWB)	Slot #9	Midtown	4230.24	15376.32	15376.32	4138.78	15376.32	46.25	15376.32
MT-Glenfair #1-8-7	MT-Glenfair #1-8-7 (PWB)	Slot #10	Midtown	4319.36	15376.32	15376.32	4220.98	15376.32	43.91	15376.32
MT-Glenfair #2-8-7	MT-Glenfair #2-8-7 (PWB)	Slot #11	Midtown	4437.32	15376.32	15376.32	4331.58	15376.32	41.97	15376.32
MT-Glenfair #3-8-7	MT-Glenfair #3-8-7 (PWB)	Slot #12	Midtown	4583.18	15376.32	15376.32	4471.11	15376.32	40.90	15376.32
MT-Glenfair #4-8-7	MT-Glenfair #4-8-7 (PWB)	Slot #13	Midtown	4753.10	15376.32	15376.32	4635.22	15376.32	40.32	15376.32
MT-Glenfair #5-8-7	MT-Glenfair #5-8-7 (PWB)	Slot #14	Midtown	4945.82	15376.32	15376.32	4823.24	15376.32	40.35	15376.32
MT-Glenmere #1-8-7	MT-Glenmere #1-8-7 (PWB)	Slot #15	Midtown	5157.60	15376.32	15376.32	5030.88	15376.32	40.70	15376.32
Westmoor 5 2-6-2	Westmoor 5 2-6-2 (AWB)	Westmoor 5 2-6-2	Bestway Pad Offsets	5286.50	105.20	11066.11	5285.03	163.64	43.95	15075.06
MT-Glenmere #2-8-7	MT-Glenmere #2-8-7 (PWB)	Slot #16	Midtown	5387.30	15376.32	15376.32	5257.32	15376.32	41.45	15376.32

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4682.2ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 191.180 degrees  
Prepared by Peterson Energy  
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