

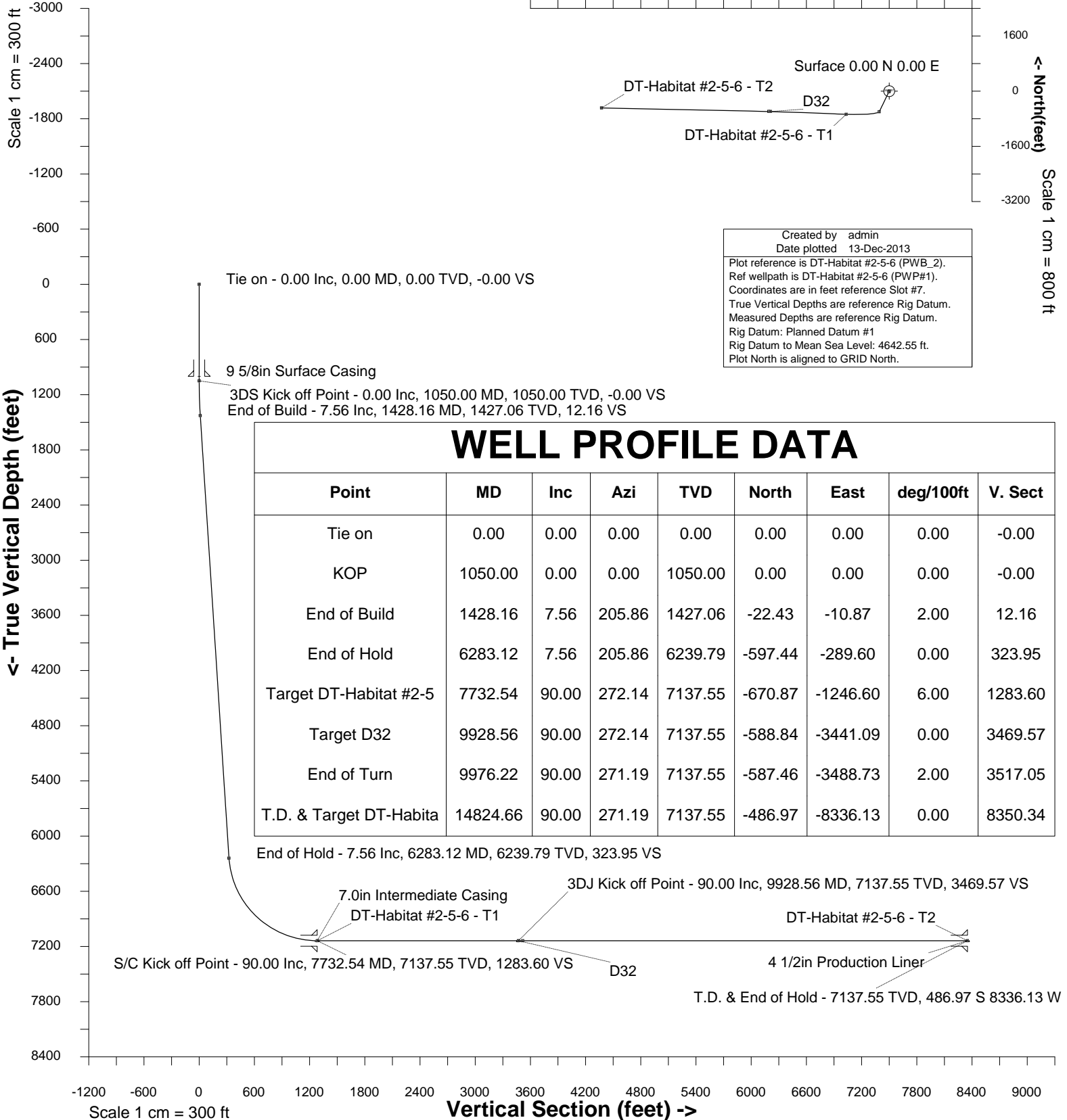
# MINERAL RESOURCES, INC. (Original)

<b>Location</b>	Weld County, CO, USA (Original)	<b>Slot</b>	Slot #7
<b>Field</b>	Wattenberg	<b>Well</b>	DT-Habitat #2-5-6
<b>Installation</b>	Downtown	<b>Wellbore</b>	DT-Habitat #2-5-6 (PWB_2)

Scale 1 cm = 800 ft

East (feet) ->

-9600 -8000 -6400 -4800 -3200 -1600 0 1600



Created by admin  
Date plotted 13-Dec-2013  
Plot reference is DT-Habitat #2-5-6 (PWB\_2).  
Ref wellpath is DT-Habitat #2-5-6 (PWP#1).  
Coordinates are in feet reference Slot #7.  
True Vertical Depths are reference Rig Datum.  
Measured Depths are reference Rig Datum.  
Rig Datum: Planned Datum #1  
Rig Datum to Mean Sea Level: 4642.55 ft.  
Plot North is aligned to GRID North.

## WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00
KOP	1050.00	0.00	0.00	1050.00	0.00	0.00	0.00	-0.00
End of Build	1428.16	7.56	205.86	1427.06	-22.43	-10.87	2.00	12.16
End of Hold	6283.12	7.56	205.86	6239.79	-597.44	-289.60	0.00	323.95
Target DT-Habitat #2-5	7732.54	90.00	272.14	7137.55	-670.87	-1246.60	6.00	1283.60
Target D32	9928.56	90.00	272.14	7137.55	-588.84	-3441.09	0.00	3469.57
End of Turn	9976.22	90.00	271.19	7137.55	-587.46	-3488.73	2.00	3517.05
T.D. & Target DT-Habitat	14824.66	90.00	271.19	7137.55	-486.97	-8336.13	0.00	8350.34



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: DT-Habitat #2-5-6 (PWB\_2)

Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
Slot #7	1402595.7073	3227069.3293	40.43566000	-104.68426000	98.36S	0.90E	-0.50

Declination			
Date	Source	Time	
30-Jan-2013	IGRF Model [1900.0-2015.0]	10:11	
5-Dec-2013	IGRF Model [1900.0-2015.0]	14:34	
5-Dec-2013	IGRF Model [1900.0-2015.0]	14:37	
5-Dec-2013	IGRF Model [1900.0-2015.0]	14:38	
5-Dec-2013	IGRF Model [1900.0-2015.0]	14:41	

Site Details				
Name	Northing	Easting	Coord System Name	North Alignment
Downtown	1402694.0641	3227068.4245	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
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	1402595.71	3227069.33
1050.00	0.00	0.000	1050.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
1428.16	7.56	205.860	1427.06	22.43S	10.87W	2.00	12.16	1402573.28	3227058.46
6283.12	7.56	205.860	6239.79	597.44S	289.60W	==>	323.95	1401998.29	3226779.74
7732.54	90.00	272.140	7137.55	670.87S	1246.60W	6.00	1283.60	1401924.86	3225822.78
9928.56	90.00	272.140	7137.55	588.84S	3441.09W	==>	3469.57	1402006.89	3223628.38
9976.22	90.00	271.190	7137.55	587.46S	3488.73W	2.00	3517.05	1402008.27	3223580.74
14824.66	90.00	271.190	7137.55	486.97S	8336.13W	==>	8350.34	1402108.76	3218733.54

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	1402595.71	3227069.33
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
1050.00	0.00	0.000	1050.00	0.00N	0.00E	==>	0.00	1402595.71	3227069.33
1150.00	2.00	205.860	1149.98	1.57S	0.76W	2.00	0.85	1402594.14	3227068.57
1250.00	4.00	205.860	1249.84	6.28S	3.04W	2.00	3.40	1402589.43	3227066.29
1350.00	6.00	205.860	1349.45	14.12S	6.85W	2.00	7.66	1402581.59	3227062.48
1428.16	7.56	205.860	1427.06	22.43S	10.87W	2.00	12.16	1402573.28	3227058.46
1500.00	7.56	205.860	1498.28	30.94S	15.00W	==>	16.77	1402564.77	3227054.33
1600.00	7.56	205.860	1597.41	42.78S	20.74W	==>	23.20	1402552.93	3227048.59
1700.00	7.56	205.860	1696.54	54.62S	26.48W	==>	29.62	1402541.09	3227042.85
1800.00	7.56	205.860	1795.67	66.47S	32.22W	==>	36.04	1402529.24	3227037.11
1900.00	7.56	205.860	1894.80	78.31S	37.96W	==>	42.46	1402517.40	3227031.37
2000.00	7.56	205.860	1993.93	90.15S	43.70W	==>	48.88	1402505.56	3227025.63
2100.00	7.56	205.860	2093.06	102.00S	49.44W	==>	55.31	1402493.71	3227019.89
2200.00	7.56	205.860	2192.19	113.84S	55.18W	==>	61.73	1402481.87	3227014.15
2300.00	7.56	205.860	2291.32	125.69S	60.92W	==>	68.15	1402470.03	3227008.41
2400.00	7.56	205.860	2390.45	137.53S	66.67W	==>	74.57	1402458.18	3227002.67
2500.00	7.56	205.860	2489.58	149.37S	72.41W	==>	80.99	1402446.34	3226996.93
2600.00	7.56	205.860	2588.71	161.22S	78.15W	==>	87.42	1402434.50	3226991.18
2700.00	7.56	205.860	2687.84	173.06S	83.89W	==>	93.84	1402422.65	3226985.44
2800.00	7.56	205.860	2786.97	184.91S	89.63W	==>	100.26	1402410.81	3226979.70
2900.00	7.56	205.860	2886.10	196.75S	95.37W	==>	106.68	1402398.97	3226973.96
3000.00	7.56	205.860	2985.23	208.59S	101.11W	==>	113.11	1402387.12	3226968.22
3100.00	7.56	205.860	3084.36	220.44S	106.85W	==>	119.53	1402375.28	3226962.48

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 4642.6ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 266.660 degrees  
Bottom hole distance is 8350.34 Feet on azimuth 266.66 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 13-Dec-2013



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: DT-Habitat #2-5-6 (PWB\_2)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
3200.00	7.56	205.860	3183.49	232.28S	112.59W	==>	125.95	1402363.44	3226956.74
3300.00	7.56	205.860	3282.62	244.12S	118.34W	==>	132.37	1402351.59	3226951.00
3400.00	7.56	205.860	3381.75	255.97S	124.08W	==>	138.79	1402339.75	3226945.26
3500.00	7.56	205.860	3480.88	267.81S	129.82W	==>	145.22	1402327.91	3226939.52
3600.00	7.56	205.860	3580.01	279.66S	135.56W	==>	151.64	1402316.06	3226933.78
3700.00	7.56	205.860	3679.14	291.50S	141.30W	==>	158.06	1402304.22	3226928.03
3800.00	7.56	205.860	3778.27	303.34S	147.04W	==>	164.48	1402292.38	3226922.29
3900.00	7.56	205.860	3877.40	315.19S	152.78W	==>	170.90	1402280.53	3226916.55
4000.00	7.56	205.860	3976.53	327.03S	158.52W	==>	177.33	1402268.69	3226910.81
4100.00	7.56	205.860	4075.66	338.88S	164.26W	==>	183.75	1402256.85	3226905.07
4200.00	7.56	205.860	4174.79	350.72S	170.01W	==>	190.17	1402245.00	3226899.33
4300.00	7.56	205.860	4273.92	362.56S	175.75W	==>	196.59	1402233.16	3226893.59
4400.00	7.56	205.860	4373.05	374.41S	181.49W	==>	203.01	1402221.32	3226887.85
4500.00	7.56	205.860	4472.18	386.25S	187.23W	==>	209.44	1402209.47	3226882.11
4600.00	7.56	205.860	4571.31	398.09S	192.97W	==>	215.86	1402197.63	3226876.37
4700.00	7.56	205.860	4670.44	409.94S	198.71W	==>	222.28	1402185.79	3226870.63
4800.00	7.56	205.860	4769.57	421.78S	204.45W	==>	228.70	1402173.94	3226864.88
4900.00	7.56	205.860	4868.70	433.63S	210.19W	==>	235.12	1402162.10	3226859.14
5000.00	7.56	205.860	4967.83	445.47S	215.94W	==>	241.55	1402150.26	3226853.40
5100.00	7.56	205.860	5066.96	457.31S	221.68W	==>	247.97	1402138.41	3226847.66
5200.00	7.56	205.860	5166.09	469.16S	227.42W	==>	254.39	1402126.57	3226841.92
5300.00	7.56	205.860	5265.22	481.00S	233.16W	==>	260.81	1402114.73	3226836.18
5400.00	7.56	205.860	5364.35	492.85S	238.90W	==>	267.23	1402102.88	3226830.44
5500.00	7.56	205.860	5463.48	504.69S	244.64W	==>	273.66	1402091.04	3226824.70
5600.00	7.56	205.860	5562.61	516.53S	250.38W	==>	280.08	1402079.19	3226818.96
5700.00	7.56	205.860	5661.74	528.38S	256.12W	==>	286.50	1402067.35	3226813.22
5800.00	7.56	205.860	5760.87	540.22S	261.86W	==>	292.92	1402055.51	3226807.48
5900.00	7.56	205.860	5860.00	552.06S	267.61W	==>	299.34	1402043.66	3226801.73
6000.00	7.56	205.860	5959.13	563.91S	273.35W	==>	305.77	1402031.82	3226795.99
6100.00	7.56	205.860	6058.26	575.75S	279.09W	==>	312.19	1402019.98	3226790.25
6200.00	7.56	205.860	6157.39	587.60S	284.83W	==>	318.61	1402008.13	3226784.51
6283.12	7.56	205.860	6239.79	597.44S	289.60W	==>	323.95	1401998.29	3226779.74
6300.00	8.02	212.530	6256.51	599.43S	290.72W	6.00	325.18	1401996.30	3226778.62
6400.00	12.19	237.880	6354.98	610.94S	303.42W	6.00	338.53	1401984.79	3226765.92
6500.00	17.44	249.380	6451.65	621.84S	326.41W	6.00	362.12	1401973.90	3226742.93
6600.00	23.06	255.550	6545.44	632.01S	359.43W	6.00	395.68	1401963.72	3226709.91
6700.00	28.82	259.380	6635.33	641.35S	402.13W	6.00	438.85	1401954.38	3226667.22
6800.00	34.66	262.020	6720.34	649.75S	454.03W	6.00	491.15	1401945.98	3226615.32
6900.00	40.54	263.970	6799.53	657.12S	514.57W	6.00	552.02	1401938.61	3226554.78
7000.00	46.45	265.510	6872.05	663.38S	583.08W	6.00	620.78	1401932.35	3226486.27
7100.00	52.37	266.760	6937.08	668.46S	658.81W	6.00	696.68	1401927.27	3226410.54
7200.00	58.31	267.840	6993.92	672.30S	740.94W	6.00	778.89	1401923.43	3226328.42
7300.00	64.25	268.780	7041.96	674.87S	828.56W	6.00	866.51	1401920.86	3226240.80
7400.00	70.20	269.630	7080.65	676.13S	920.71W	6.00	958.58	1401919.60	3226148.65
7500.00	76.15	270.420	7109.58	676.08S	1016.39W	6.00	1054.09	1401919.66	3226052.98
7600.00	82.11	271.180	7128.43	674.70S	1114.54W	6.00	1151.99	1401921.03	3225954.83
7700.00	88.06	271.910	7137.00	672.02S	1214.09W	6.00	1251.21	1401923.71	3225855.29
7732.54	90.00	272.140	7137.55	670.87S	1246.60W	6.00	1283.60	1401924.86	3225822.78
7800.00	90.00	272.140	7137.55	668.35S	1314.02W	==>	1350.76	1401927.38	3225755.37
7900.00	90.00	272.140	7137.55	664.62S	1413.95W	==>	1450.30	1401931.12	3225655.44
8000.00	90.00	272.140	7137.55	660.88S	1513.88W	==>	1549.84	1401934.85	3225555.51
8100.00	90.00	272.140	7137.55	657.15S	1613.81W	==>	1649.38	1401938.59	3225455.59
8200.00	90.00	272.140	7137.55	653.41S	1713.74W	==>	1748.93	1401942.32	3225355.66
8300.00	90.00	272.140	7137.55	649.68S	1813.67W	==>	1848.47	1401946.06	3225255.73
8400.00	90.00	272.140	7137.55	645.94S	1913.60W	==>	1948.01	1401949.79	3225155.81
8500.00	90.00	272.140	7137.55	642.20S	2013.53W	==>	2047.55	1401953.53	3225055.88
8600.00	90.00	272.140	7137.55	638.47S	2113.46W	==>	2147.09	1401957.26	3224955.96
8700.00	90.00	272.140	7137.55	634.73S	2213.39W	==>	2246.64	1401961.00	3224856.03
8800.00	90.00	272.140	7137.55	631.00S	2313.32W	==>	2346.18	1401964.73	3224756.10
8900.00	90.00	272.140	7137.55	627.26S	2413.25W	==>	2445.72	1401968.47	3224656.18
9000.00	90.00	272.140	7137.55	623.53S	2513.18W	==>	2545.26	1401972.21	3224556.25

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Vertical Section is from 0.00N 0.00E on azimuth 266.660 degrees  
Bottom hole distance is 8350.34 Feet on azimuth 266.66 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 13-Dec-2013



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL

Well Design Combined Report  
Wellbore: DT-Habitat #2-5-6 (PWB\_2)

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	272.140	7137.55	619.79S	2613.11W	==>	2644.81	1401975.94	3224456.33
9200.00	90.00	272.140	7137.55	616.06S	2713.04W	==>	2744.35	1401979.68	3224356.40
9300.00	90.00	272.140	7137.55	612.32S	2812.97W	==>	2843.89	1401983.41	3224256.47
9400.00	90.00	272.140	7137.55	608.58S	2912.90W	==>	2943.43	1401987.15	3224156.55
9500.00	90.00	272.140	7137.55	604.85S	3012.83W	==>	3042.98	1401990.88	3224056.62
9600.00	90.00	272.140	7137.55	601.11S	3112.76W	==>	3142.52	1401994.62	3223956.69
9700.00	90.00	272.140	7137.55	597.38S	3212.69W	==>	3242.06	1401998.35	3223856.77
9800.00	90.00	272.140	7137.55	593.64S	3312.62W	==>	3341.60	1402002.09	3223756.84
9900.00	90.00	272.140	7137.55	589.91S	3412.55W	==>	3441.14	1402005.82	3223656.92
9928.56	90.00	272.140	7137.55	588.84S	3441.09W	==>	3469.57	1402006.89	3223628.38
9976.22	90.00	271.190	7137.55	587.46S	3488.73W	2.00	3517.05	1402008.27	3223580.74
10000.00	90.00	271.190	7137.55	586.96S	3512.50W	==>	3540.76	1402008.77	3223556.97
10100.00	90.00	271.190	7137.55	584.89S	3612.48W	==>	3640.44	1402010.84	3223456.99
10200.00	90.00	271.190	7137.55	582.82S	3712.46W	==>	3740.13	1402012.91	3223357.02
10300.00	90.00	271.190	7137.55	580.75S	3812.44W	==>	3839.82	1402014.98	3223257.04
10400.00	90.00	271.190	7137.55	578.67S	3912.42W	==>	3939.51	1402017.06	3223157.07
10500.00	90.00	271.190	7137.55	576.60S	4012.40W	==>	4039.19	1402019.13	3223057.09
10600.00	90.00	271.190	7137.55	574.53S	4112.38W	==>	4138.88	1402021.20	3222957.12
10700.00	90.00	271.190	7137.55	572.46S	4212.35W	==>	4238.57	1402023.27	3222857.14
10800.00	90.00	271.190	7137.55	570.38S	4312.33W	==>	4338.26	1402025.35	3222757.17
10900.00	90.00	271.190	7137.55	568.31S	4412.31W	==>	4437.94	1402027.42	3222657.19
11000.00	90.00	271.190	7137.55	566.24S	4512.29W	==>	4537.63	1402029.49	3222557.22
11100.00	90.00	271.190	7137.55	564.17S	4612.27W	==>	4637.32	1402031.56	3222457.25
11200.00	90.00	271.190	7137.55	562.09S	4712.25W	==>	4737.01	1402033.64	3222357.27
11300.00	90.00	271.190	7137.55	560.02S	4812.23W	==>	4836.69	1402035.71	3222257.30
11400.00	90.00	271.190	7137.55	557.95S	4912.20W	==>	4936.38	1402037.78	3222157.32
11500.00	90.00	271.190	7137.55	555.88S	5012.18W	==>	5036.07	1402039.85	3222057.35
11600.00	90.00	271.190	7137.55	553.80S	5112.16W	==>	5135.76	1402041.93	3221957.37
11700.00	90.00	271.190	7137.55	551.73S	5212.14W	==>	5235.44	1402044.00	3221857.40
11800.00	90.00	271.190	7137.55	549.66S	5312.12W	==>	5335.13	1402046.07	3221757.42
11900.00	90.00	271.190	7137.55	547.59S	5412.10W	==>	5434.82	1402048.14	3221657.45
12000.00	90.00	271.190	7137.55	545.51S	5512.07W	==>	5534.51	1402050.22	3221557.47
12100.00	90.00	271.190	7137.55	543.44S	5612.05W	==>	5634.19	1402052.29	3221457.50
12200.00	90.00	271.190	7137.55	541.37S	5712.03W	==>	5733.88	1402054.36	3221357.53
12300.00	90.00	271.190	7137.55	539.30S	5812.01W	==>	5833.57	1402056.43	3221257.55
12400.00	90.00	271.190	7137.55	537.22S	5911.99W	==>	5933.26	1402058.51	3221157.58
12500.00	90.00	271.190	7137.55	535.15S	6011.97W	==>	6032.94	1402060.58	3221057.60
12600.00	90.00	271.190	7137.55	533.08S	6111.95W	==>	6132.63	1402062.65	3220957.63
12700.00	90.00	271.190	7137.55	531.01S	6211.92W	==>	6232.32	1402064.72	3220857.65
12800.00	90.00	271.190	7137.55	528.93S	6311.90W	==>	6332.01	1402066.80	3220757.68
12900.00	90.00	271.190	7137.55	526.86S	6411.88W	==>	6431.69	1402068.87	3220657.70
13000.00	90.00	271.190	7137.55	524.79S	6511.86W	==>	6531.38	1402070.94	3220557.73
13100.00	90.00	271.190	7137.55	522.72S	6611.84W	==>	6631.07	1402073.01	3220457.75
13200.00	90.00	271.190	7137.55	520.64S	6711.82W	==>	6730.76	1402075.09	3220357.78
13300.00	90.00	271.190	7137.55	518.57S	6811.80W	==>	6830.44	1402077.16	3220257.81
13400.00	90.00	271.190	7137.55	516.50S	6911.77W	==>	6930.13	1402079.23	3220157.83
13500.00	90.00	271.190	7137.55	514.43S	7011.75W	==>	7029.82	1402081.30	3220057.86
13600.00	90.00	271.190	7137.55	512.35S	7111.73W	==>	7129.51	1402083.37	3219957.88
13700.00	90.00	271.190	7137.55	510.28S	7211.71W	==>	7229.19	1402085.45	3219857.91
13800.00	90.00	271.190	7137.55	508.21S	7311.69W	==>	7328.88	1402087.52	3219757.93
13900.00	90.00	271.190	7137.55	506.14S	7411.67W	==>	7428.57	1402089.59	3219657.96
14000.00	90.00	271.190	7137.55	504.06S	7511.65W	==>	7528.26	1402091.66	3219557.98
14100.00	90.00	271.190	7137.55	501.99S	7611.62W	==>	7627.94	1402093.74	3219458.01
14200.00	90.00	271.190	7137.55	499.92S	7711.60W	==>	7727.63	1402095.81	3219358.03
14300.00	90.00	271.190	7137.55	497.85S	7811.58W	==>	7827.32	1402097.88	3219258.06
14400.00	90.00	271.190	7137.55	495.77S	7911.56W	==>	7927.01	1402099.95	3219158.09
14500.00	90.00	271.190	7137.55	493.70S	8011.54W	==>	8026.69	1402102.03	3219058.11
14600.00	90.00	271.190	7137.55	491.63S	8111.52W	==>	8126.38	1402104.10	3218958.14
14700.00	90.00	271.190	7137.55	489.56S	8211.50W	==>	8226.07	1402106.17	3218858.16
14800.00	90.00	271.190	7137.55	487.48S	8311.47W	==>	8325.76	1402108.24	3218758.19
14824.66	90.00	271.190	7137.55	486.97S	8336.13W	==>	8350.34	1402108.76	3218733.54

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Vertical Section is from 0.00N 0.00E on azimuth 266.660 degrees  
Bottom hole distance is 8350.34 Feet on azimuth 266.66 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 13-Dec-2013



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: DT-Habitat #2-5-6 (PWB\_2)

Hole Sections								
Diameter [in]	Start MD[ft]	Start TVD[ft]	Start North[ft]	Start East[ft]	End MD[ft]	End TVD[ft]	End North[ft]	End East[ft]
12 1/4	0.00	0.00	0.00N	0.00E	1000.00	1000.00	0.00N	0.00E
8 3/4	1000.00	1000.00	0.00N	0.00E	7732.00	7137.55	670.89S	1246.06W
6 1/8	7732.00	7137.55	670.89S	1246.06W	14824.66	7137.55	486.97S	8336.13W

Casings								
Name	Top MD[ft]	Top TVD[ft]	Top North[ft]	Top East[ft]	Shoe MD[ft]	Shoe TVD[ft]	Shoe North[ft]	Shoe East[ft]
9 5/8in Surface Casing	0.00	0.00	0.00N	0.00E	1000.00	1000.00	0.00N	0.00E
7.0in Intermediate Casing	0.00	0.00	0.00N	0.00E	7732.00	7137.55	670.89S	1246.06W
4 1/2in Production Liner	6283.00	6239.67	597.43S	289.59W	14824.66	7137.55	486.97S	8336.13W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
D32	588.84S	3441.09W	7137.55	40.43413000	-104.69664000	1402006.89	3223628.38	27-Nov-2013
DT-Habitat #2-5-6	670.87S	1246.60W	7137.55	40.43385000	-104.68876000	1401924.86	3225822.78	27-Nov-2013
- T1								
DT-Habitat #2-5-6	486.97S	8336.13W	7137.55	40.43453000	-104.71422000	1402108.76	3218733.54	27-Nov-2013
- T2								

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
142807	Planned	14824.66	7137.55	WdW Rate Gyro	Standard	

Notes

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: DT-Habitat #2-5-6 (PWB\_2)

Ellipse separations are reported ONLY if BOTH wells have uncertainty data  
Only Depth and Magnetic Reference Field error terms are correlated across tie points  
Proximities beyond 2500.00ft with expansion rate of 0.00ft/1000ft are not reported  
Scan limit 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
DT-Habitat #2-5-6 (PWB_2)	12-Dec-2013	13-Dec-2013

Well		
Name	Government ID	Last Revised
DT-Habitat #2-5-6		4-Apr-2013

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #7	1402595.7073	3227069.3293	40.43566000	-104.68426000	98.36S	0.90E

Installation				
Name	Easting	Northing	Coord System Name	North Alignment
Downtown	3227068.4245	1402694.0641	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]
DT-Habitat #3-5-6	DT-Habitat #3-5-6 (PWB_2)	Slot #8	Downtown	14.84	1009.00	14815.17	12.26	967.85	2.59	14824.66
DT-Habitat #1-5-6	DT-Habitat #1-5-6 (PWB_2)	Slot #6	Downtown	18.22	1050.00	14824.66	15.74	967.85	2.62	14824.66
DT-Heath #1-5-8	DT-Heath #1-5-8 (PWB)	Slot #1	Downtown	23.81	7227.76	7227.76	8.83	7217.85	1.52	7217.85
DT-Lopez #2-5-6	DT-Lopez #2-5-6 (PWB)	Slot #5	Downtown	31.50	1066.27	12669.96	29.13	1066.27	2.31	12778.87
DT-Habitat #4-5-6	DT-Habitat #4-5-6 (PWB_2)	Slot #9	Downtown	32.81	1126.45	14808.36	30.34	1126.45	4.32	14824.66
DT-Lextron #1-32-32	DT-Lextron #1-32-32 (PWB)	Slot #4	Downtown	47.36	683.50	683.50	45.43	721.78	21.46	951.44
DT-Habitat #5-5-6	DT-Habitat #5-5-6 (PWB_2)	Slot #10	Downtown	47.44	984.25	14801.66	44.95	984.25	6.61	14824.66
Erbes #5-2H5	Erbes #5-2H5 (AWB)	Erbes #5-2H5	Downtown Pad offsets	54.83	3191.96	3191.96	35.76	3200.00	2.87	3231.63
ERBES #5-2H5	ERBES #5-2H5 (AWB)	ERBES #5-2H5	Island Grove Offsets	54.83	3191.96	3191.96	35.76	3200.00	2.87	3231.63
DT-Martinez #1-5-6	DT-Martinez #1-5-6 (PWB)	Slot #11	Downtown	62.00	834.20	14796.59	59.85	834.20	8.64	14824.66
DT-Lopez	DT-Lopez	Slot #3	Downtown	65.58	683.60	12715.34	63.67	683.60	5.20	12844.49

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: DT-Habitat #2-5-6 (PWB\_2)

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-Heath #2-5-8	DT-Heath #2-5-8 (PWB)	Slot #2	Downtown	80.15	633.50	7070.21	78.33	633.50	17.65	7135.83
DT-Pioneer #2-5-17	DT-Pioneer #2-5-17 (PWB)	Slot #12	Downtown	80.20	784.30	784.30	78.13	784.30	35.69	1000.00
DT-Pioneer #1-5-17	DT-Pioneer #1-5-17 (PWB)	Slot #13	Downtown	94.76	734.40	734.40	92.78	734.40	43.26	984.25
DT-StarPak #5-5-17	DT-StarPak #5-5-17 (PWB)	Slot #14	Downtown	112.97	684.40	684.40	111.07	684.40	53.02	951.44
DT-StarPak #4-5-17	DT-StarPak #4-5-17 (PWB)	Slot #15	Downtown	127.51	634.60	634.60	125.69	634.60	61.68	935.04
DT-StarPak #3-5-17	DT-StarPak #3-5-17 (PWB)	Slot #16	Downtown	142.08	584.60	584.60	140.30	541.34	70.57	935.04
DT-StarPak #2-5-17	DT-StarPak #2-5-17 (PWB)	Slot #17	Downtown	160.30	534.50	534.50	158.52	534.50	80.30	7627.95
DT-StarPak #1-5-17	DT-StarPak #1-5-17 (PWB)	Slot #18	Downtown	174.87	475.72	475.72	173.19	475.72	74.38	7857.61
DT-Martinez #2-5-6	DT-Martinez #2-5-6 (PWB)	Slot #19	Downtown	193.09	434.40	14785.26	191.47	434.40	10.89	14824.66
Gas 2-2-5	Gas 2-2-5 (AWB)	Gas 2-2-5	Island Grove Offsets	199.25	8656.70	8656.70	133.14	8628.61	2.82	8579.40
DT-Martinez #3-5-6	DT-Martinez #3-5-6 (PWB)	Slot #20	Downtown	207.66	384.40	14775.88	206.13	384.40	12.93	14824.66
DT-Forbes #1-5-6	DT-Forbes #1-5-6 (PWB)	Slot #21	Downtown	222.23	334.60	14766.08	220.78	334.60	15.19	14824.66
Warnoco 6-2-6	Warnoco 6-2-6 (AWB)	Warnoco 6-2-6	Island Grove Offsets	231.42	11206.81	11206.81	130.65	11253.28	2.20	11286.09
DT-Forbes #2-5-6	DT-Forbes #2-5-6 (PWB)	Slot #22	Downtown	240.45	284.80	14756.27	239.08	284.80	17.35	14824.66
DT-Forbes #3-5-6	DT-Forbes #3-5-6 (PWB)	Slot #23	Downtown	255.04	234.55	234.55	253.74	234.55	146.40	967.85
DT-Forbes #4-5-6	DT-Forbes #4-5-6 (PWB)	Slot #24	Downtown	269.65	184.55	184.55	268.44	184.55	157.73	1000.00
DT-Forbes #5-5-6	DT-Forbes #5-5-6 (PWB)	Slot #25	Downtown	287.86	135.55	135.55	286.73	135.55	170.82	984.25
DT-Luther #1-5-6	DT-Luther #1-5-6 (PWB)	Slot #26	Downtown	302.43	85.55	85.55	301.38	85.55	182.63	984.25
CS-Longmeadow #2-1-12	CS-Longmeadow #2-1-12 (PWB)	Slot #17	C Street Pad	508.32	14824.66	14824.66	478.96	14824.66	17.31	14824.66
CS-Longmeadow #1-1-12	CS-Longmeadow #1-1-12 (PWB)	Slot #18	C Street Pad	791.89	14824.66	14824.66	764.49	14824.66	28.90	14824.66
W Mcelroy #41-5	W Mcelroy #41-5 (AWB)	Mcelroy #41-5	Downtown Pad offsets	999.21	1771.65	1771.65	985.39	2017.72	40.44	6315.62
Namara	Namara	Namara	Island Grove	1001.39	803.81	8000.32	997.29	918.64	30.10	8169.29

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: DT-Habitat #2-5-6 (PWB\_2)

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]
3-7-32	3-7-32 (AWB)	3-7-32	Offsets							
Joz A 5-7-32	Joz A 5-7-32 (AWB)	Joz A 5-7-32	Island Grove Offsets	1031.24	1050.00	1050.00	1021.06	1066.27	60.18	6660.10
Thermo 5-5-32	Thermo 5-5-32 (AWB)	Thermo 5-5-32	Island Grove Offsets	1034.14	1.55	1.55	1032.54	114.83	127.85	4199.48
CS-Kinkade #5-1-12	CS-Kinkade #5-1-12 (PWB)	Slot #19	C Street Pad	1145.18	14824.66	14824.66	1117.03	14824.66	40.69	14824.66
CS-Kinkade #4-1-12	CS-Kinkade #4-1-12 (PWB)	Slot #20	C Street Pad	1457.95	14824.66	14824.66	1430.54	14824.66	53.19	14824.66
4H 5-7-31	4H 5-7-31 (AWB)	4H 5-7-31	Island Grove Offsets	1464.41	12002.33	12002.33	1347.88	11975.07	12.46	11843.83
Island Grove 2-32	Island Grove 2-32 (AWB)	Island Grove 2-32	Island Grove Offsets	1595.55	8680.40	8680.40	1541.97	8710.63	27.36	9202.76
CS-Kinkade #3-1-12	CS-Kinkade #3-1-12 (PWB)	Slot #21	C Street Pad	1803.22	14824.66	14824.66	1775.58	14824.66	65.23	14824.66
Arnold #1	Arnold #1 (AWB)	Arnold #1	Downtown Pad offsets	1943.46	6332.02	6332.02	1914.10	6332.02	64.91	6660.10
CS-Kinkade #2-1-12	CS-Kinkade #2-1-12 (PWB)	Slot #22	C Street Pad	2124.47	14824.66	14824.66	2097.23	14824.66	77.99	14824.66
CS-Kinkade #1-1-12	CS-Kinkade #1-1-12 (PWB)	Slot #23	C Street Pad	2467.98	14824.66	14824.66	2440.52	14824.66	89.85	14824.66