

# MINERAL RESOURCES, INC.

<b>Location</b>	<b>Windsor</b>	<b>Slot</b>	<b>Slot #43</b>
<b>Field</b>	<b>Wattenberg</b>	<b>Well</b>	<b>GP-Hillside #3-19-19</b>
<b>Installation</b>	<b>Mineral Resources MRI</b>	<b>Wellbore</b>	<b>GP-Hillside #3-19-19 (PWB)</b>

Scale 1 cm = 800 ft

East (feet) ->

-11200 -9600 -8000 -6400 -4800 -3200 -1600 0 1600

## 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	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00
End of Build	2413.38	34.27	272.94	2313.04	25.49	-496.62	2.00	497.05
End of Hold	7614.10	34.27	272.94	6611.01	175.62	-3421.08	0.00	3423.99
Target SG69	8853.85	90.00	269.86	7168.00	193.44	-4474.06	4.50	4477.11
T.D. & Target SG70	13195.85	90.00	269.86	7168.00	182.89	-8816.05	0.00	8817.95

SG70 SG69  
Surface 0.00 N 0.00 E

1600

0

-1600

Scale 1 cm = 800 ft

Scale 1 cm = 400 ft

<- True Vertical Depth (feet)

-800

-0

800

1600

2400

3200

4000

4800

5600

6400

7200

8000

Tie on - 0.00 Inc, 0.00 MD, 0.00 TVD, 0.00 VS

3DS Kick off Point - 0.00 Inc, 700.00 MD, 700.00 TVD, 0.00 VS  
9 5/8in Surface Casing

End of Build - 34.27 Inc, 2413.38 MD, 2313.04 TVD, 497.05 VS

End of Hold - 34.27 Inc, 7614.10 MD, 6611.01 TVD, 3423.99 VS

7.0in Intermediate Casing

SG70

4 1/2in Production Liner

S/C Kick off Point - 90.00 Inc, 8853.85 MD, 7168.00 TVD, 4477.11 VS

SG69 T.D. & End of Hold - 7168.00 TVD, 182.89 N 8816.05 W

Created by admin  
Date plotted 21-Mar-2014

Plot reference is GP-Hillside #3-19-19 (PWB).  
Ref wellpath is MRI-Hillside #3-19-19 (PWP#1).  
Coordinates are in feet reference Slot #43.  
True Vertical Depths are reference Rig Datum.  
Measured Depths are reference Rig Datum.  
Rig Datum: Planned Datum #1  
Rig Datum to Mean Sea Level: 4673.00 ft.  
Plot North is aligned to GRID North.

-800 -0 800 1600 2400 3200 4000 4800 5600 6400 7200 8000 8800 9600

Scale 1 cm = 400 ft

Vertical Section (feet) ->

Azimuth 271.19 with reference 0.00 N, 0.00 E from Slot #43



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: GP-Hillside #3-19-19 (PWB)

Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
Slot #43	1386094.7040	3227709.5900	40.39035038	-104.68250649	400.45S	376.97W	1.00

Declination			
Date	Source	Time	
22-Jan-2013	IGRF Model [1900.0-2015.0]	09:44	
18-Sep-2013	IGRF Model [1900.0-2015.0]	10:23	

Site Details				
Name	Northing	Easting	Coord System Name	North Alignment
Mineral Resources MRI	1386495.1419	3228086.5450	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	1386094.70	3227709.59
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1386094.70	3227709.59
2413.38	34.27	272.940	2313.04	25.49N	496.62W	2.00	497.05	1386120.20	3227212.99
7614.10	34.27	272.940	6611.01	175.62N	3421.08W	==>	3423.99	1386270.31	3224288.65
8853.85	90.00	269.860	7168.00	193.44N	4474.06W	4.50	4477.11	1386288.13	3223235.72
13195.85	90.00	269.860	7168.00	182.89N	8816.05W	==>	8817.95	1386277.59	3218893.91

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	1386094.70	3227709.59
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1386094.70	3227709.59
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1386094.70	3227709.59
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1386094.70	3227709.59
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1386094.70	3227709.59
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1386094.70	3227709.59
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1386094.70	3227709.59
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1386094.70	3227709.59
800.00	2.00	272.940	799.98	0.09N	1.74W	2.00	1.74	1386094.79	3227707.85
900.00	4.00	272.940	899.84	0.36N	6.97W	2.00	6.98	1386095.06	3227702.62
1000.00	6.00	272.940	999.45	0.80N	15.67W	2.00	15.69	1386095.51	3227693.92
1100.00	8.00	272.940	1098.70	1.43N	27.84W	2.00	27.87	1386096.13	3227681.75
1200.00	10.00	272.940	1197.47	2.23N	43.47W	2.00	43.50	1386096.94	3227666.13
1300.00	12.00	272.940	1295.62	3.21N	62.52W	2.00	62.57	1386097.91	3227647.07
1400.00	14.00	272.940	1393.06	4.36N	84.98W	2.00	85.06	1386099.07	3227624.61
1500.00	16.00	272.940	1489.64	5.69N	110.83W	2.00	110.93	1386100.39	3227598.76
1600.00	18.00	272.940	1585.27	7.19N	140.03W	2.00	140.15	1386101.89	3227569.57
1700.00	20.00	272.940	1679.82	8.86N	172.54W	2.00	172.69	1386103.56	3227537.06
1800.00	22.00	272.940	1773.17	10.69N	208.33W	2.00	208.51	1386105.40	3227501.27
1900.00	24.00	272.940	1865.21	12.70N	247.35W	2.00	247.56	1386107.40	3227462.25
2000.00	26.00	272.940	1955.84	14.86N	289.55W	2.00	289.80	1386109.57	3227420.05
2100.00	28.00	272.940	2044.94	17.19N	334.89W	2.00	335.17	1386111.89	3227374.71
2200.00	30.00	272.940	2132.39	19.68N	383.30W	2.00	383.63	1386114.38	3227326.30
2300.00	32.00	272.940	2218.11	22.32N	434.74W	2.00	435.11	1386117.02	3227274.87
2400.00	34.00	272.940	2301.97	25.11N	489.13W	2.00	489.54	1386119.81	3227220.48
2413.38	34.27	272.940	2313.04	25.49N	496.62W	2.00	497.05	1386120.20	3227212.99
2500.00	34.27	272.940	2384.63	27.99N	545.33W	==>	545.80	1386122.70	3227164.28
2600.00	34.27	272.940	2467.27	30.88N	601.57W	==>	602.08	1386125.58	3227108.05
2700.00	34.27	272.940	2549.91	33.77N	657.80W	==>	658.36	1386128.47	3227051.82
2800.00	34.27	272.940	2632.55	36.65N	714.03W	==>	714.64	1386131.36	3226995.59
2900.00	34.27	272.940	2715.20	39.54N	770.26W	==>	770.91	1386134.24	3226939.36
3000.00	34.27	272.940	2797.84	42.43N	826.49W	==>	827.19	1386137.13	3226883.13
3100.00	34.27	272.940	2880.48	45.31N	882.72W	==>	883.47	1386140.02	3226826.90
3200.00	34.27	272.940	2963.12	48.20N	938.96W	==>	939.75	1386142.90	3226770.67
3300.00	34.27	272.940	3045.76	51.09N	995.19W	==>	996.03	1386145.79	3226714.44
3400.00	34.27	272.940	3128.40	53.97N	1051.42W	==>	1052.31	1386148.68	3226658.21
3500.00	34.27	272.940	3211.05	56.86N	1107.65W	==>	1108.59	1386151.56	3226601.99

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 4673.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 271.190 degrees  
Bottom hole distance is 8817.95 Feet on azimuth 271.19 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 21-Mar-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL

Well Design Combined Report  
Wellbore: GP-Hillside #3-19-19 (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
3600.00	34.27	272.940	3293.69	59.75N	1163.88W	==>	1164.87	1386154.45	3226545.76
3700.00	34.27	272.940	3376.33	62.63N	1220.11W	==>	1221.15	1386157.33	3226489.53
3800.00	34.27	272.940	3458.97	65.52N	1276.35W	==>	1277.43	1386160.22	3226433.30
3900.00	34.27	272.940	3541.61	68.41N	1332.58W	==>	1333.71	1386163.11	3226377.07
4000.00	34.27	272.940	3624.25	71.29N	1388.81W	==>	1389.99	1386165.99	3226320.84
4100.00	34.27	272.940	3706.90	74.18N	1445.04W	==>	1446.27	1386168.88	3226264.61
4200.00	34.27	272.940	3789.54	77.07N	1501.27W	==>	1502.55	1386171.77	3226208.38
4300.00	34.27	272.940	3872.18	79.95N	1557.51W	==>	1558.83	1386174.65	3226152.15
4400.00	34.27	272.940	3954.82	82.84N	1613.74W	==>	1615.11	1386177.54	3226095.92
4500.00	34.27	272.940	4037.46	85.73N	1669.97W	==>	1671.39	1386180.43	3226039.69
4600.00	34.27	272.940	4120.10	88.61N	1726.20W	==>	1727.67	1386183.31	3225983.46
4700.00	34.27	272.940	4202.75	91.50N	1782.43W	==>	1783.95	1386186.20	3225927.23
4800.00	34.27	272.940	4285.39	94.39N	1838.66W	==>	1840.23	1386189.09	3225871.00
4900.00	34.27	272.940	4368.03	97.27N	1894.90W	==>	1896.51	1386191.97	3225814.77
5000.00	34.27	272.940	4450.67	100.16N	1951.13W	==>	1952.79	1386194.86	3225758.54
5100.00	34.27	272.940	4533.31	103.05N	2007.36W	==>	2009.07	1386197.75	3225702.31
5200.00	34.27	272.940	4615.95	105.93N	2063.59W	==>	2065.35	1386200.63	3225646.08
5300.00	34.27	272.940	4698.60	108.82N	2119.82W	==>	2121.62	1386203.52	3225589.86
5400.00	34.27	272.940	4781.24	111.71N	2176.06W	==>	2177.90	1386206.41	3225533.63
5500.00	34.27	272.940	4863.88	114.59N	2232.29W	==>	2234.18	1386209.29	3225477.40
5600.00	34.27	272.940	4946.52	117.48N	2288.52W	==>	2290.46	1386212.18	3225421.17
5700.00	34.27	272.940	5029.16	120.37N	2344.75W	==>	2346.74	1386215.06	3225364.94
5800.00	34.27	272.940	5111.81	123.25N	2400.98W	==>	2403.02	1386217.95	3225308.71
5900.00	34.27	272.940	5194.45	126.14N	2457.21W	==>	2459.30	1386220.84	3225252.48
6000.00	34.27	272.940	5277.09	129.03N	2513.45W	==>	2515.58	1386223.72	3225196.25
6100.00	34.27	272.940	5359.73	131.91N	2569.68W	==>	2571.86	1386226.61	3225140.02
6200.00	34.27	272.940	5442.37	134.80N	2625.91W	==>	2628.14	1386229.50	3225083.79
6300.00	34.27	272.940	5525.01	137.69N	2682.14W	==>	2684.42	1386232.38	3225027.56
6400.00	34.27	272.940	5607.66	140.57N	2738.37W	==>	2740.70	1386235.27	3224971.33
6500.00	34.27	272.940	5690.30	143.46N	2794.61W	==>	2796.98	1386238.16	3224915.10
6600.00	34.27	272.940	5772.94	146.35N	2850.84W	==>	2853.26	1386241.04	3224858.87
6700.00	34.27	272.940	5855.58	149.23N	2907.07W	==>	2909.54	1386243.93	3224802.64
6800.00	34.27	272.940	5938.22	152.12N	2963.30W	==>	2965.82	1386246.82	3224746.41
6900.00	34.27	272.940	6020.86	155.00N	3019.53W	==>	3022.10	1386249.70	3224690.18
7000.00	34.27	272.940	6103.51	157.89N	3075.76W	==>	3078.38	1386252.59	3224633.96
7100.00	34.27	272.940	6186.15	160.78N	3132.00W	==>	3134.66	1386255.48	3224577.73
7200.00	34.27	272.940	6268.79	163.66N	3188.23W	==>	3190.94	1386258.36	3224521.50
7300.00	34.27	272.940	6351.43	166.55N	3244.46W	==>	3247.22	1386261.25	3224465.27
7400.00	34.27	272.940	6434.07	169.44N	3300.69W	==>	3303.50	1386264.13	3224409.04
7500.00	34.27	272.940	6516.71	172.32N	3356.92W	==>	3359.78	1386267.02	3224352.81
7600.00	34.27	272.940	6599.36	175.21N	3413.16W	==>	3416.06	1386269.91	3224296.58
7614.10	34.27	272.940	6611.01	175.62N	3421.08W	==>	3423.99	1386270.31	3224288.65
7700.00	38.13	272.530	6680.32	178.03N	3471.75W	4.50	3474.69	1386272.73	3224237.99
7800.00	42.62	272.140	6756.48	180.66N	3536.45W	4.50	3539.44	1386275.36	3224173.29
7900.00	47.11	271.810	6827.34	183.08N	3606.94W	4.50	3609.96	1386277.78	3224102.81
8000.00	51.61	271.520	6892.45	185.28N	3682.77W	4.50	3685.82	1386279.97	3224026.98
8100.00	56.10	271.270	6951.42	187.24N	3763.47W	4.50	3766.55	1386281.94	3223946.28
8200.00	60.60	271.040	7003.88	188.95N	3848.56W	4.50	3851.65	1386283.65	3223861.19
8300.00	65.09	270.830	7049.51	190.40N	3937.51W	4.50	3940.61	1386285.10	3223772.25
8400.00	69.59	270.640	7088.02	191.59N	4029.76W	4.50	4032.86	1386286.29	3223680.00
8500.00	74.09	270.460	7119.18	192.50N	4124.75W	4.50	4127.85	1386287.19	3223585.02
8600.00	78.58	270.280	7142.80	193.13N	4221.89W	4.50	4224.99	1386287.82	3223487.88
8700.00	83.08	270.120	7158.72	193.47N	4320.59W	4.50	4323.67	1386288.17	3223389.19
8800.00	87.58	269.950	7166.86	193.53N	4420.23W	4.50	4423.29	1386288.22	3223289.55
8853.85	90.00	269.860	7168.00	193.44N	4474.06W	4.50	4477.11	1386288.13	3223235.72
8900.00	90.00	269.860	7168.00	193.32N	4520.21W	==>	4523.25	1386288.02	3223189.57
9000.00	90.00	269.860	7168.00	193.08N	4620.21W	==>	4623.22	1386287.78	3223089.57
9100.00	90.00	269.860	7168.00	192.84N	4720.21W	==>	4723.20	1386287.53	3222989.58
9200.00	90.00	269.860	7168.00	192.60N	4820.21W	==>	4823.17	1386287.29	3222889.58
9300.00	90.00	269.860	7168.00	192.35N	4920.21W	==>	4923.14	1386287.05	3222789.59
9400.00	90.00	269.860	7168.00	192.11N	5020.21W	==>	5023.12	1386286.81	3222689.59
9500.00	90.00	269.860	7168.00	191.87N	5120.21W	==>	5123.09	1386286.56	3222589.60

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Vertical Section is from 0.00N 0.00E on azimuth 271.190 degrees  
Bottom hole distance is 8817.95 Feet on azimuth 271.19 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 21-Mar-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: GP-Hillside #3-19-19 (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
9600.00	90.00	269.860	7168.00	191.62N	5220.21W	==>	5223.06	1386286.32	3222489.60
9700.00	90.00	269.860	7168.00	191.38N	5320.21W	==>	5323.04	1386286.08	3222389.60
9800.00	90.00	269.860	7168.00	191.14N	5420.21W	==>	5423.01	1386285.83	3222289.61
9900.00	90.00	269.860	7168.00	190.89N	5520.21W	==>	5522.98	1386285.59	3222189.61
10000.00	90.00	269.860	7168.00	190.65N	5620.21W	==>	5622.95	1386285.35	3222089.62
10100.00	90.00	269.860	7168.00	190.41N	5720.21W	==>	5722.93	1386285.11	3221989.62
10200.00	90.00	269.860	7168.00	190.17N	5820.21W	==>	5822.90	1386284.86	3221889.63
10300.00	90.00	269.860	7168.00	189.92N	5920.21W	==>	5922.87	1386284.62	3221789.63
10400.00	90.00	269.860	7168.00	189.68N	6020.21W	==>	6022.85	1386284.38	3221689.64
10500.00	90.00	269.860	7168.00	189.44N	6120.21W	==>	6122.82	1386284.13	3221589.64
10600.00	90.00	269.860	7168.00	189.19N	6220.21W	==>	6222.79	1386283.89	3221489.64
10700.00	90.00	269.860	7168.00	188.95N	6320.21W	==>	6322.77	1386283.65	3221389.65
10800.00	90.00	269.860	7168.00	188.71N	6420.21W	==>	6422.74	1386283.40	3221289.65
10900.00	90.00	269.860	7168.00	188.47N	6520.21W	==>	6522.71	1386283.16	3221189.66
11000.00	90.00	269.860	7168.00	188.22N	6620.21W	==>	6622.69	1386282.92	3221089.66
11100.00	90.00	269.860	7168.00	187.98N	6720.21W	==>	6722.66	1386282.68	3220989.67
11200.00	90.00	269.860	7168.00	187.74N	6820.21W	==>	6822.63	1386282.43	3220889.67
11300.00	90.00	269.860	7168.00	187.49N	6920.21W	==>	6922.61	1386282.19	3220789.68
11400.00	90.00	269.860	7168.00	187.25N	7020.21W	==>	7022.58	1386281.95	3220689.68
11500.00	90.00	269.860	7168.00	187.01N	7120.20W	==>	7122.55	1386281.70	3220589.69
11600.00	90.00	269.860	7168.00	186.77N	7220.20W	==>	7222.53	1386281.46	3220489.69
11700.00	90.00	269.860	7168.00	186.52N	7320.20W	==>	7322.50	1386281.22	3220389.69
11800.00	90.00	269.860	7168.00	186.28N	7420.20W	==>	7422.47	1386280.98	3220289.70
11900.00	90.00	269.860	7168.00	186.04N	7520.20W	==>	7522.44	1386280.73	3220189.70
12000.00	90.00	269.860	7168.00	185.79N	7620.20W	==>	7622.42	1386280.49	3220089.71
12100.00	90.00	269.860	7168.00	185.55N	7720.20W	==>	7722.39	1386280.25	3219989.71
12200.00	90.00	269.860	7168.00	185.31N	7820.20W	==>	7822.36	1386280.00	3219889.72
12300.00	90.00	269.860	7168.00	185.06N	7920.20W	==>	7922.34	1386279.76	3219789.72
12400.00	90.00	269.860	7168.00	184.82N	8020.20W	==>	8022.31	1386279.52	3219689.73
12500.00	90.00	269.860	7168.00	184.58N	8120.20W	==>	8122.28	1386279.28	3219589.73
12600.00	90.00	269.860	7168.00	184.34N	8220.20W	==>	8222.26	1386279.03	3219489.74
12700.00	90.00	269.860	7168.00	184.09N	8320.20W	==>	8322.23	1386278.79	3219389.74
12800.00	90.00	269.860	7168.00	183.85N	8420.20W	==>	8422.20	1386278.55	3219289.74
12900.00	90.00	269.860	7168.00	183.61N	8520.20W	==>	8522.18	1386278.30	3219189.75
13000.00	90.00	269.860	7168.00	183.36N	8620.20W	==>	8622.15	1386278.06	3219089.75
13100.00	90.00	269.860	7168.00	183.12N	8720.20W	==>	8722.12	1386277.82	3218989.76
13195.85	90.00	269.860	7168.00	182.89N	8816.05W	==>	8817.95	1386277.59	3218893.91

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Bottom hole distance is 8817.95 Feet on azimuth 271.19 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Integrated Petroleum Technologies, Inc.  
Date Printed: 21-Mar-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC  
SYSDRILL  
Well Design Combined Report  
Wellbore: GP-Hillside #3-19-19 (PWB)

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	900.00	899.84	0.36N	6.97W
8 3/4	900.00	899.84	0.36N	6.97W	8853.00	7168.00	193.44N	4473.21W
6 1/8	8853.00	7168.00	193.44N	4473.21W	13195.85	7168.00	182.89N	8816.05W

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	900.00	899.84	0.36N	6.97W
7.0in Intermediate Casing	0.00	0.00	0.00N	0.00E	8853.00	7168.00	193.44N	4473.21W
4 1/2in Production Liner	8653.00	7152.20	193.34N	4274.04W	13195.85	7168.00	182.89N	8816.05W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
SG69	193.44N	4474.06W	7168.00	40.39099343	-104.69856085	1386288.13	3223235.72	17-Mar-2014
SG70	182.89N	8816.05W	7168.00	40.39107115	-104.71414789	1386277.59	3218893.91	17-Mar-2014

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
64201	Planned	13195.85	7168.00	WdW Rate Gyro	Standard	

Notes

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: GP-Hillside #3-19-19 (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  
Proximities beyond 1000.00ft 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
GP-Hillside #3-19-19 (PWB)	19-Sep-2013	20-Mar-2014

Well		
Name	Government ID	Last Revised
GP-Hillside #3-19-19		20-Mar-2014

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #43	1386094.7040	3227709.5900	40.39035038	-104.68250649	400.45S	376.97W

Installation				
Name	Easting	Northing	Coord System Name	North Alignment
Mineral Resources MRI	3228086.5450	1386495.1419	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]
GP-Hillside #2-19-19	GP-Hillside #2-19-19 (PWB)	Slot #42	Mineral Resources MRI	12.00	500.00	8856.55	11.17	524.93	2.62	13195.85
GP-JEvans #1-19-19	GP-JEvans #1-19-19 (PWB)	Slot #44	Mineral Resources MRI	12.00	705.38	705.38	10.83	754.59	2.53	13195.85
GP-Hillside #1-18-18	GP-Hillside #1-18-18 (PWB)	Slot #41	Mineral Resources MRI	23.96	803.81	4073.79	22.65	820.21	4.34	13195.85
GP-JEvans #2-19-19	GP-JEvans #2-19-19 (PWB)	Slot #45	Mineral Resources MRI	24.00	350.42	8175.39	23.41	400.00	4.22	13195.85
GP-JEvans #3-19-19	GP-JEvans #3-19-19 (PWB)	Slot #46	Mineral Resources MRI	36.00	550.76	550.76	35.10	574.15	6.47	13195.85
GP-Jackson #5-18-18	GP-Jackson #5-18-18 (PWB)	Slot #40	Mineral Resources MRI	36.93	820.21	820.21	35.59	836.61	6.58	13195.85
GP-JEvans 4-19-19	GP-JEvans 4-19-19 (PWB)	Slot #47	Mineral Resources MRI	48.00	705.38	705.38	46.83	754.59	19.35	7004.59
GP-Jackson #4-18-18	GP-Jackson #4-18-18 (PWB)	Slot #39	Mineral Resources MRI	48.91	836.61	836.61	47.14	869.42	26.05	1049.87
GP-JEvans #5-19-19	GP-JEvans #5-19-19 (PWB)	Slot #48	Mineral Resources MRI	60.00	200.00	200.00	59.68	229.66	26.98	5479.00
GP-Jackson	GP-Jackson	Slot #38	Mineral	60.88	853.02	853.02	59.09	885.83	27.98	5429.79

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Wellbore: GP-Hillside #3-19-19 (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]
n #3-18-18	#3-18-18 (PWB)		Resources MRI							
GP-Double Clutch #1-19-19	GP-Double Clutch #1-19-19 (PWB)	Slot #49	Mineral Resources MRI	72.00	250.87	250.87	71.60	250.87	31.58	4872.05
GP-Jackson #2-18-18	GP-Jackson #2-18-18 (PWB)	Slot #37	Mineral Resources MRI	72.86	849.33	849.33	71.09	853.02	29.60	5101.71
GP-Double Clutch #2-19-19	GP-Double Clutch #2-19-19 (PWB)	Slot #50	Mineral Resources MRI	84.01	705.38	705.38	82.82	771.00	36.41	4790.03
GP-Jackson #1-18-18	GP-Jackson #1-18-18 (PWB)	Slot #36	Mineral Resources MRI	85.01	700.00	700.00	83.48	700.00	33.78	4445.54
GP-Double Clutch #3-19-19	GP-Double Clutch #3-19-19 (PWB)	Slot #51	Mineral Resources MRI	96.01	705.38	705.38	94.82	771.00	59.09	1148.29
GP-Alles #3-18-18	GP-Alles #3-18-18 (PWB)	Slot #35	Mineral Resources MRI	97.01	524.93	524.93	95.76	524.93	38.36	4300.00
GP-Dairy #1-19-19	GP-Dairy #1-19-19 (PWB)	Slot #52	Mineral Resources MRI	108.01	705.38	705.38	106.82	771.00	69.51	1148.29
GP-Alles #2-18-18	GP-Alles #2-18-18 (PWB)	Slot #34	Mineral Resources MRI	109.00	474.32	474.32	107.84	475.72	47.36	3789.37
GP-Dairy #2-19-20	GP-Dairy #2-19-20 (PWB)	Slot #53	Mineral Resources MRI	120.01	705.38	705.38	118.83	738.19	78.70	1230.31
GP-Dairy #3-19-20	GP-Dairy #3-19-20 (PWB)	Slot #54	Mineral Resources MRI	132.01	700.00	700.00	130.88	700.00	88.07	1263.12
CDOT-1 #E2	CDOT-1 #E2 (AWB)	CDOT-1 #E2	Mineral Resources MRI	134.07	2702.16	2702.16	109.42	2702.16	5.43	2690.29
GP-Dairy #4-19-20	GP-Dairy #4-19-20 (PWB)	Slot #55	Mineral Resources MRI	144.01	650.33	650.33	142.96	650.33	97.52	1361.55
GP-Dairy #4-19-20	GP-Dairy #4-19-20 (PWB)	Slot #56	Mineral Resources MRI	156.01	600.31	600.31	155.04	600.31	105.28	2034.12
GP-Library #1-19-20	GP-Library #1-19-20 (PWB)	Slot #57	Mineral Resources MRI	168.01	550.30	550.30	166.72	550.30	101.67	918.64
CDOT-2 #D7	CDOT-2 #D7 (AWB)	CDOT-2 #D7	Mineral Resources MRI	170.74	541.34	541.34	168.64	574.15	13.01	2985.56
Tri Point #E3	Tri Point #E3 (AWB)	Tri Point #E3	Mineral Resources MRI	177.73	3353.72	3353.72	143.34	3477.69	4.39	3707.35
Sunnyview #E4	Sunnyview #E4 (AWB)	Sunnyview #E4	Mineral Resources MRI	178.17	1167.49	1167.49	171.89	1181.10	12.08	5282.15
CDOT-3	CDOT-3 #D2	CDOT-3	Mineral	184.03	787.40	787.40	180.95	869.42	37.29	1541.99

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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]
#D2	(AWB)	#D2	Resources MRI							
Ehrlich Motors #D8	Ehrlich Motors #D8 (AWB)	Ehrlich Motors #D8	Mineral Resources MRI	199.64	560.99	1033.46	199.06	639.76	10.40	3300.00
Sleep Inn #E5	Sleep Inn #E5 (AWB)	Sleep Inn #E5	Mineral Resources MRI	213.24	0.00	0.00	213.02	49.21	32.77	3067.59
Commerce Center 4 #20-2H5	Commerce Center 4 #20-2H5 (AWB)	Commerce Center 4 #20-2H5	MRI Offsets	270.02	1984.91	1984.91	263.92	1984.91	41.52	2148.95
University Square #D6	University Square #D6 (AWB)	University Square #D6	Mineral Resources MRI	296.86	771.00	771.00	294.92	771.00	7.74	7644.36
Garden City #D5	Garden City #D5 (AWB)	Garden City #D5	Mineral Resources MRI	315.89	12.00	702.45	315.02	246.06	26.44	4560.37
University 5 Spot #D4	University 5 Spot #D4 (AWB)	University 5 Spot #D4	Mineral Resources MRI	371.68	262.47	262.47	371.02	262.47	22.21	3600.00
Wheeler #D3	Wheeler #D3 (AWB)	Wheeler #D3	Mineral Resources MRI	379.45	200.00	200.00	378.80	229.66	36.48	2641.08
Driftwood #D1	Driftwood #D1 (AWB)	Driftwood #D1	Mineral Resources MRI	388.03	0.00	349.39	387.76	49.21	37.51	3067.59
Classic Lanes #C9	Classic Lanes #C9 (AWB)	Classic Lanes #C9	Mineral Resources MRI	391.35	0.00	0.00	391.00	131.23	39.73	2575.46
District Six #C6	District Six #C6 (AWB)	District Six #C6	Mineral Resources MRI	402.14	200.00	200.00	401.50	229.66	96.25	1952.10
Volk #C7	Volk #C7 (AWB)	Volk #C7	Mineral Resources MRI	403.01	0.00	552.15	402.82	49.21	58.91	2362.20
Union Pacific #C5	Union Pacific #C5 (AWB)	Union Pacific #C5	Mineral Resources MRI	411.71	177.66	177.66	411.09	177.66	110.98	1935.70
HWY 85-3 #C4	HWY 85-3 #C4 (AWB)	HWY 85-3 #C4	Mineral Resources MRI	424.29	117.33	117.33	423.89	147.64	126.21	2034.12
Countryside Center #C3	Countryside Center #C3 (AWB)	Countryside Center #C3	Mineral Resources MRI	429.36	1.00	1.00	429.27	32.81	139.41	1700.00
BMC #B8	BMC #B8 (AWB)	BMC #B8	Mineral Resources MRI	549.97	1.00	1.00	549.24	131.23	51.32	3018.37
Millers Green House #A10	Millers Green House #A10 (AWB)	Millers Green House #A10	Mineral Resources MRI	566.26	3.00	3.00	565.41	246.06	190.34	1788.06
Greeley Industrial South #B9	Greeley Industrial South #B9 (AWB)	Greeley Industrial South #B9	Mineral Resources MRI	567.61	601.00	601.00	566.37	606.96	74.67	2362.20
GG-Toddys	GG-Toddys	Slot #9	Gallery	567.66	13195.85	13195.85	521.30	13195.85	12.24	13195.85

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Wellbore: GP-Hillside #3-19-19 (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]
#1-13-12	#1-13-12 (PWB)		Green, Rev. 01							
Riverview #A9	Riverview #A9 (AWB)	Riverview #A9	Mineral Resources MRI	568.28	500.99	500.99	566.30	500.99	207.56	1837.27
HWY 34-2 #A8	HWY 34-2 #A8 (AWB)	HWY 34-2 #A8	Mineral Resources MRI	577.40	2.00	2.00	576.72	131.23	232.44	1246.72
HWY 34-1 #A7	HWY 34-1 #A7 (AWB)	HWY 34-1 #A7	Mineral Resources MRI	584.98	2.00	2.00	584.08	200.00	217.54	1377.95
Shupe 5 Spot #B10	Shupe 5 Spot #B10 (AWB)	Shupe 5 Spot #B10	Mineral Resources MRI	586.23	700.00	700.00	584.84	705.38	134.27	2362.20
Highway 85-2 #B-11	Highway 85-2 #B-11 (AWB)	Highway 85-2 #B-11	Mineral Resources MRI	604.21	323.50	323.50	603.09	323.50	125.97	1919.29
Sam Pak #A6	Sam Pak #A6 (AWB)	Sam Pak #A6	Mineral Resources MRI	617.36	5.00	5.00	616.46	300.00	277.46	1656.82
Highway 85-1 #B12	Highway 85-1 #B12 (AWB)	Highway 85-1 #B12	Mineral Resources MRI	623.78	700.00	700.00	622.39	705.38	240.53	2230.97
Bus Barn #A5	Bus Barn #A5 (AWB)	Bus Barn #A5	Mineral Resources MRI	624.47	5.00	5.00	623.46	300.00	169.79	1624.02
Smith 5 Spot #A4	Smith 5 Spot #A4 (AWB)	Smith 5 Spot #A4	Mineral Resources MRI	636.48	4.00	4.00	635.70	164.04	236.01	1800.00
Parkview South #A3	Parkview South #A3 (AWB)	Parkview South #A3	Mineral Resources MRI	649.26	5.00	5.00	648.70	147.64	272.38	1574.80
Delta Park #A2	Delta Park #A2 (AWB)	Delta Park #A2	Mineral Resources MRI	658.46	200.00	200.00	657.70	213.25	171.47	1591.21
Clark #A1	Clark #A1 (AWB)	Clark #A1	Mineral Resources MRI	672.62	5.00	5.00	671.77	229.66	115.10	2214.57
Commerce Center 3 #20-1H5	Commerce Center 3 #20-1H5 (AWB)	Commerce Center 3 #20-1H5	MRI Offsets	740.23	705.38	705.38	737.93	705.38	215.20	1919.29
GG-Toddys #2-13-12	GG-Toddys #2-13-12 (PWB)	Slot #8	Gallery Green, Rev. 01	913.32	13195.85	13195.85	871.59	13195.85	21.89	13195.85