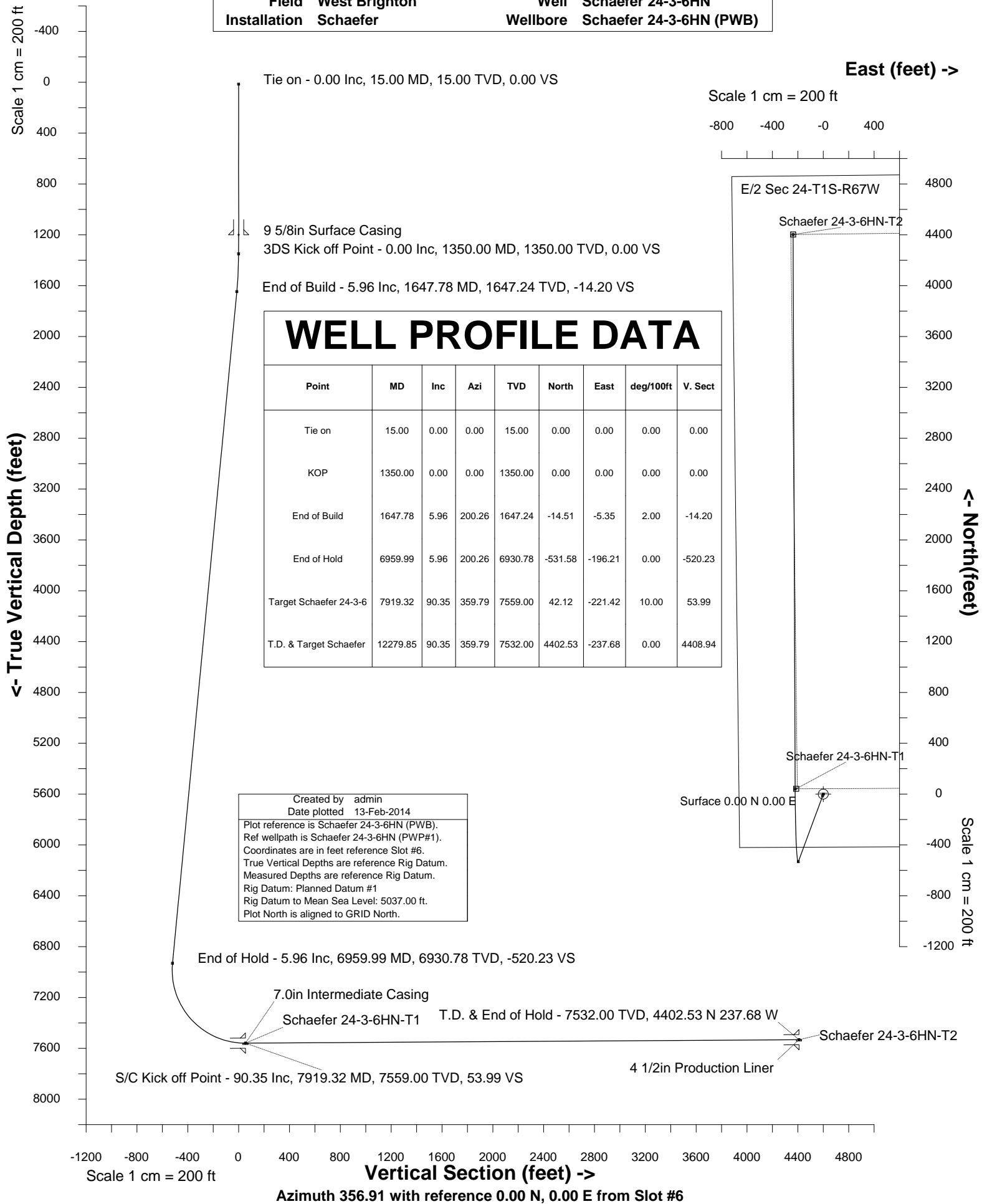


WARD PETROLEUM

Location	ADAMS COUNTY, CO	Slot	Slot #6
Field	West Brighton	Well	Schaefer 24-3-6HN
Installation	Schaefer	Wellbore	Schaefer 24-3-6HN (PWB)





INTEGRATED PETROLEUM TECHNOLOGIES, INC
SYSDRILL
Well Design Combined Report
Wellbore: Schaefer 24-3-6HN (PWB)

Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
Slot #6	1223318.0553	3186474.5168	39.94447000	-104.83492000	0.55S	72.90W	-0.00

Declination			
Date	Source	Time	
10-Feb-2014	IGRF Model [1900.0-2015.0]		13:06

Site Details				
Name	Northing	Easting	Coord System Name	North Alignment
Schaefer	1223318.6021	3186547.4140	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
15.00	0.00	0.000	15.00	0.00N	0.00E		0.00	1223318.06	3186474.52
1350.00	0.00	0.000	1350.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
1647.78	5.96	200.260	1647.24	14.51S	5.35W	2.00	-14.20	1223303.55	3186469.16
6959.99	5.96	200.260	6930.78	531.58S	196.21W	==>	-520.23	1222786.49	3186278.31
7919.32	90.35	359.790	7559.00	42.12N	221.42W	10.00	53.99	1223360.17	3186253.11
12279.85	90.35	359.790	7532.00	4402.53N	237.68W	==>	4408.94	1227720.45	3186236.85

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	1223318.06	3186474.52
15.00	0.00	0.000	15.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
1335.00	0.00	0.000	1335.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
1350.00	0.00	0.000	1350.00	0.00N	0.00E	==>	0.00	1223318.06	3186474.52
1435.00	1.70	200.260	1434.99	1.18S	0.44W	2.00	-1.16	1223316.87	3186474.08
1535.00	3.70	200.260	1534.87	5.60S	2.07W	2.00	-5.48	1223312.45	3186472.45
1635.00	5.70	200.260	1634.53	13.29S	4.90W	2.00	-13.00	1223304.77	3186469.61
1647.78	5.96	200.260	1647.24	14.51S	5.35W	2.00	-14.20	1223303.55	3186469.16
1700.00	5.96	200.260	1699.18	19.59S	7.23W	==>	-19.17	1223298.47	3186467.29
1800.00	5.96	200.260	1798.64	29.32S	10.82W	==>	-28.70	1223288.73	3186463.69
1900.00	5.96	200.260	1898.10	39.06S	14.42W	==>	-38.22	1223279.00	3186460.10
2000.00	5.96	200.260	1997.56	48.79S	18.01W	==>	-47.75	1223269.27	3186456.51
2100.00	5.96	200.260	2097.02	58.52S	21.60W	==>	-57.27	1223259.53	3186452.92
2200.00	5.96	200.260	2196.48	68.26S	25.19W	==>	-66.80	1223249.80	3186449.32
2300.00	5.96	200.260	2295.94	77.99S	28.79W	==>	-76.33	1223240.07	3186445.73
2400.00	5.96	200.260	2395.40	87.73S	32.38W	==>	-85.85	1223230.33	3186442.14
2500.00	5.96	200.260	2494.86	97.46S	35.97W	==>	-95.38	1223220.60	3186438.54
2600.00	5.96	200.260	2594.32	107.19S	39.57W	==>	-104.90	1223210.87	3186434.95
2700.00	5.96	200.260	2693.78	116.93S	43.16W	==>	-114.43	1223201.13	3186431.36
2800.00	5.96	200.260	2793.25	126.66S	46.75W	==>	-123.96	1223191.40	3186427.77
2900.00	5.96	200.260	2892.71	136.39S	50.34W	==>	-133.48	1223181.67	3186424.17
3000.00	5.96	200.260	2992.17	146.13S	53.94W	==>	-143.01	1223171.93	3186420.58
3100.00	5.96	200.260	3091.63	155.86S	57.53W	==>	-152.53	1223162.20	3186416.99
3200.00	5.96	200.260	3191.09	165.60S	61.12W	==>	-162.06	1223152.46	3186413.40
3300.00	5.96	200.260	3290.55	175.33S	64.72W	==>	-171.59	1223142.73	3186409.80

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5037.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 356.910 degrees
Bottom hole distance is 4408.94 Feet on azimuth 356.91 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 13-Feb-2014



INTEGRATED PETROLEUM TECHNOLOGIES, INC
SYSDRILL

Well Design Combined Report
Wellbore: Schaefer 24-3-6HN (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
3400.00	5.96	200.260	3390.01	185.06S	68.31W	==>	-181.11	1223133.00	3186406.21
3500.00	5.96	200.260	3489.47	194.80S	71.90W	==>	-190.64	1223123.26	3186402.62
3600.00	5.96	200.260	3588.93	204.53S	75.49W	==>	-200.16	1223113.53	3186399.02
3700.00	5.96	200.260	3688.39	214.26S	79.09W	==>	-209.69	1223103.80	3186395.43
3800.00	5.96	200.260	3787.85	224.00S	82.68W	==>	-219.22	1223094.06	3186391.84
3900.00	5.96	200.260	3887.31	233.73S	86.27W	==>	-228.74	1223084.33	3186388.25
4000.00	5.96	200.260	3986.77	243.47S	89.87W	==>	-238.27	1223074.60	3186384.65
4100.00	5.96	200.260	4086.23	253.20S	93.46W	==>	-247.79	1223064.86	3186381.06
4200.00	5.96	200.260	4185.69	262.93S	97.05W	==>	-257.32	1223055.13	3186377.47
4300.00	5.96	200.260	4285.15	272.67S	100.64W	==>	-266.85	1223045.40	3186373.88
4400.00	5.96	200.260	4384.61	282.40S	104.24W	==>	-276.37	1223035.66	3186370.28
4500.00	5.96	200.260	4484.07	292.13S	107.83W	==>	-285.90	1223025.93	3186366.69
4600.00	5.96	200.260	4583.53	301.87S	111.42W	==>	-295.42	1223016.20	3186363.10
4700.00	5.96	200.260	4682.99	311.60S	115.02W	==>	-304.95	1223006.46	3186359.50
4800.00	5.96	200.260	4782.45	321.34S	118.61W	==>	-314.47	1222996.73	3186355.91
4900.00	5.96	200.260	4881.91	331.07S	122.20W	==>	-324.00	1222987.00	3186352.32
5000.00	5.96	200.260	4981.37	340.80S	125.79W	==>	-333.53	1222977.26	3186348.73
5100.00	5.96	200.260	5080.83	350.54S	129.39W	==>	-343.05	1222967.53	3186345.13
5200.00	5.96	200.260	5180.29	360.27S	132.98W	==>	-352.58	1222957.80	3186341.54
5300.00	5.96	200.260	5279.75	370.00S	136.57W	==>	-362.10	1222948.06	3186337.95
5400.00	5.96	200.260	5379.21	379.74S	140.17W	==>	-371.63	1222938.33	3186334.36
5500.00	5.96	200.260	5478.67	389.47S	143.76W	==>	-381.16	1222928.60	3186330.76
5600.00	5.96	200.260	5578.13	399.21S	147.35W	==>	-390.68	1222918.86	3186327.17
5700.00	5.96	200.260	5677.59	408.94S	150.94W	==>	-400.21	1222909.13	3186323.58
5800.00	5.96	200.260	5777.05	418.67S	154.54W	==>	-409.73	1222899.39	3186319.98
5900.00	5.96	200.260	5876.51	428.41S	158.13W	==>	-419.26	1222889.66	3186316.39
6000.00	5.96	200.260	5975.97	438.14S	161.72W	==>	-428.79	1222879.93	3186312.80
6100.00	5.96	200.260	6075.43	447.87S	165.32W	==>	-438.31	1222870.19	3186309.21
6200.00	5.96	200.260	6174.89	457.61S	168.91W	==>	-447.84	1222860.46	3186305.61
6300.00	5.96	200.260	6274.35	467.34S	172.50W	==>	-457.36	1222850.73	3186302.02
6400.00	5.96	200.260	6373.81	477.08S	176.09W	==>	-466.89	1222840.99	3186298.43
6500.00	5.96	200.260	6473.28	486.81S	179.69W	==>	-476.42	1222831.26	3186294.84
6600.00	5.96	200.260	6572.74	496.54S	183.28W	==>	-485.94	1222821.53	3186291.24
6700.00	5.96	200.260	6672.20	506.28S	186.87W	==>	-495.47	1222811.79	3186287.65
6800.00	5.96	200.260	6771.66	516.01S	190.46W	==>	-504.99	1222802.06	3186284.06
6900.00	5.96	200.260	6871.12	525.75S	194.06W	==>	-514.52	1222792.33	3186280.47
6959.99	5.96	200.260	6930.78	531.58S	196.21W	==>	-520.23	1222786.49	3186278.31
7000.00	2.62	232.740	6970.68	534.09S	197.66W	10.00	-522.65	1222783.99	3186276.86
7100.00	8.68	345.930	7070.31	528.14S	201.32W	10.00	-516.52	1222789.93	3186273.20
7200.00	18.54	353.520	7167.39	504.97S	204.96W	10.00	-493.18	1222813.10	3186269.57
7300.00	28.49	355.920	7258.97	465.28S	208.46W	10.00	-453.36	1222852.79	3186266.07
7400.00	38.47	357.140	7342.27	410.28S	211.72W	10.00	-398.27	1222907.79	3186262.81
7500.00	48.46	357.920	7414.76	341.64S	214.63W	10.00	-329.57	1222976.43	3186259.89
7600.00	58.45	358.490	7474.24	261.44S	217.12W	10.00	-249.36	1223056.62	3186257.40
7700.00	68.44	358.950	7518.89	172.13S	219.11W	10.00	-160.07	1223145.93	3186255.42
7800.00	78.43	359.350	7547.36	76.41S	220.52W	10.00	-64.41	1223241.64	3186254.00
7900.00	88.42	359.720	7558.79	22.80N	221.33W	10.00	34.70	1223340.85	3186253.19
7919.32	90.35	359.790	7559.00	42.12N	221.42W	10.00	53.99	1223360.17	3186253.11
8000.00	90.35	359.790	7558.50	122.80N	221.72W	==>	134.57	1223440.85	3186252.80
8100.00	90.35	359.790	7557.88	222.79N	222.09W	==>	234.44	1223540.84	3186252.43
8200.00	90.35	359.790	7557.26	322.79N	222.46W	==>	334.31	1223640.84	3186252.06
8300.00	90.35	359.790	7556.64	422.79N	222.84W	==>	434.19	1223740.83	3186251.69
8400.00	90.35	359.790	7556.02	522.79N	223.21W	==>	534.06	1223840.82	3186251.31
8500.00	90.35	359.790	7555.40	622.78N	223.58W	==>	633.93	1223940.82	3186250.94
8600.00	90.35	359.790	7554.79	722.78N	223.96W	==>	733.80	1224040.81	3186250.57
8700.00	90.35	359.790	7554.17	822.78N	224.33W	==>	833.67	1224140.81	3186250.20
8800.00	90.35	359.790	7553.55	922.77N	224.70W	==>	933.55	1224240.80	3186249.82
8900.00	90.35	359.790	7552.93	1022.77N	225.07W	==>	1033.42	1224340.80	3186249.45
9000.00	90.35	359.790	7552.31	1122.77N	225.45W	==>	1133.29	1224440.79	3186249.08
9100.00	90.35	359.790	7551.69	1222.77N	225.82W	==>	1233.16	1224540.78	3186248.70
9200.00	90.35	359.790	7551.07	1322.76N	226.19W	==>	1333.03	1224640.78	3186248.33

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Vertical Section is from 0.00N 0.00E on azimuth 356.910 degrees
Bottom hole distance is 4408.94 Feet on azimuth 356.91 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
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SYSDRILL
Well Design Combined Report
Wellbore: Schaefer 24-3-6HN (PWB)

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
9300.00	90.35	359.790	7550.45	1422.76N	226.57W	==>	1432.91	1224740.77	3186247.96
9400.00	90.35	359.790	7549.83	1522.76N	226.94W	==>	1532.78	1224840.77	3186247.59
9500.00	90.35	359.790	7549.21	1622.76N	227.31W	==>	1632.65	1224940.76	3186247.21
9600.00	90.35	359.790	7548.59	1722.75N	227.68W	==>	1732.52	1225040.76	3186246.84
9700.00	90.35	359.790	7547.97	1822.75N	228.06W	==>	1832.39	1225140.75	3186246.47
9800.00	90.35	359.790	7547.35	1922.75N	228.43W	==>	1932.27	1225240.74	3186246.09
9900.00	90.35	359.790	7546.74	2022.75N	228.80W	==>	2032.14	1225340.74	3186245.72
10000.00	90.35	359.790	7546.12	2122.74N	229.18W	==>	2132.01	1225440.73	3186245.35
10100.00	90.35	359.790	7545.50	2222.74N	229.55W	==>	2231.88	1225540.73	3186244.98
10200.00	90.35	359.790	7544.88	2322.74N	229.92W	==>	2331.76	1225640.72	3186244.60
10300.00	90.35	359.790	7544.26	2422.74N	230.29W	==>	2431.63	1225740.72	3186244.23
10400.00	90.35	359.790	7543.64	2522.73N	230.67W	==>	2531.50	1225840.71	3186243.86
10500.00	90.35	359.790	7543.02	2622.73N	231.04W	==>	2631.37	1225940.70	3186243.48
10600.00	90.35	359.790	7542.40	2722.73N	231.41W	==>	2731.24	1226040.70	3186243.11
10700.00	90.35	359.790	7541.78	2822.73N	231.79W	==>	2831.12	1226140.69	3186242.74
10800.00	90.35	359.790	7541.16	2922.72N	232.16W	==>	2930.99	1226240.69	3186242.37
10900.00	90.35	359.790	7540.54	3022.72N	232.53W	==>	3030.86	1226340.68	3186241.99
11000.00	90.35	359.790	7539.92	3122.72N	232.90W	==>	3130.73	1226440.68	3186241.62
11100.00	90.35	359.790	7539.31	3222.71N	233.28W	==>	3230.60	1226540.67	3186241.25
11200.00	90.35	359.790	7538.69	3322.71N	233.65W	==>	3330.48	1226640.66	3186240.87
11300.00	90.35	359.790	7538.07	3422.71N	234.02W	==>	3430.35	1226740.66	3186240.50
11400.00	90.35	359.790	7537.45	3522.71N	234.39W	==>	3530.22	1226840.65	3186240.13
11500.00	90.35	359.790	7536.83	3622.70N	234.77W	==>	3630.09	1226940.65	3186239.76
11600.00	90.35	359.790	7536.21	3722.70N	235.14W	==>	3729.96	1227040.64	3186239.38
11700.00	90.35	359.790	7535.59	3822.70N	235.51W	==>	3829.84	1227140.64	3186239.01
11800.00	90.35	359.790	7534.97	3922.70N	235.89W	==>	3929.71	1227240.63	3186238.64
11900.00	90.35	359.790	7534.35	4022.69N	236.26W	==>	4029.58	1227340.62	3186238.27
12000.00	90.35	359.790	7533.73	4122.69N	236.63W	==>	4129.45	1227440.62	3186237.89
12100.00	90.35	359.790	7533.11	4222.69N	237.00W	==>	4229.32	1227540.61	3186237.52
12200.00	90.35	359.790	7532.49	4322.69N	237.38W	==>	4329.20	1227640.61	3186237.15
12279.85	90.35	359.790	7532.00	4402.53N	237.68W	==>	4408.94	1227720.45	3186236.85

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SYSDRILL
Well Design Combined Report
Wellbore: Schaefer 24-3-6HN (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]
13 1/2	15.00	15.00	0.00N	0.00E	1200.00	1200.00	0.00N	0.00E
8 3/4	15.00	15.00	0.00N	0.00E	7919.00	7559.00	41.80N	221.42W
6 1/8	7919.00	7559.00	41.80N	221.42W	12279.81	7532.00	4402.49N	237.67W

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	15.00	15.00	0.00N	0.00E	1200.00	1200.00	0.00N	0.00E
7.0in Intermediate Casing	15.00	15.00	0.00N	0.00E	7919.00	7559.00	41.80N	221.42W
4 1/2in Production Liner	7719.00	7525.58	154.35S	219.42W	12279.81	7532.00	4402.49N	237.67W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
Schaefer 24-3-6HN-T1	42.12N	213.42W	7559.00	39.94459000	-104.83568000	1223360.17	3186261.11	11-Feb-2014
Schaefer 24-3-6HN-T2	4402.53N	237.68W	7532.00	39.95656000	-104.83565000	1227720.45	3186236.85	11-Feb-2014

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
153373	Planned	12279.85	7532.00	WdW Rate Gyro	Standard

Notes

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 5037.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 356.910 degrees
Bottom hole distance is 4408.94 Feet on azimuth 356.91 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 13-Feb-2014



SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: Schaefer 24-3-6HN (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 2000.00ft 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
Schaefer 24-3-6HN (PWB)	12-Feb-2014	13-Feb-2014

Well		
Name	Government ID	Last Revised
Schaefer 24-3-6HN		11-Feb-2014

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #6	1223318.0553	3186474.5168	39.94447000	-104.83492000	0.55S	72.90W

Installation				
Name	Easting	Northing	Coord System Name	North Alignment
Schaefer	3186547.4140	1223318.6021	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Field				
Name	Easting	Northing	Coord System Name	North Alignment
West Brighton	3178196.4983	1231661.3262	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]
Schaefer 25-1-6HC	Schaefer 25-1-6HC (PWB)	Slot #14	Schaefer	12.59	1524.19	7488.00	8.30	7488.00	1.58	7488.00
Schaefer 24-3-5HC	Schaefer 24-3-5HC (PWB)	Slot #5	Schaefer	14.02	1350.00	7919.32	11.15	1196.10	4.89	1196.10
Schaefer 24-3-7HC	Schaefer 24-3-7HC (PWB)	Slot #7	Schaefer	16.82	1300.00	1300.00	13.96	1196.10	5.87	1196.10
Schaefer 25-1-7HN	Schaefer 25-1-7HN (PWB)	Slot #15	Schaefer	16.83	1294.53	7385.70	13.96	1196.10	5.87	1196.10
Schaefer 25-1-5HN	Schaefer 25-1-5HN (PWB)	Slot #13	Schaefer	26.75	1350.00	7362.28	23.88	1196.10	9.33	1196.10
Schaefer 25-1-8HC	Schaefer 25-1-8HC (PWB)	Slot #16	Schaefer	26.75	1215.00	1215.00	23.88	1196.10	9.33	1196.10
Schaefer 24-3-4HN	Schaefer 24-3-4HN (PWB)	Slot #4	Schaefer	28.04	1350.00	12279.85	25.17	1196.10	9.78	1196.10
Schaefer 24-3-8HN	Schaefer 24-3-8HN (PWB)	Slot #8	Schaefer	30.84	1250.00	1250.00	27.98	1196.10	10.76	1196.10
Schaefer 25-1-4HC	Schaefer 25-1-4HC (PWB)	Slot #12	Schaefer	39.26	1350.00	1350.00	36.39	1196.10	13.67	1425.76
Schaefer	Schaefer	Slot #3	Schaefer	44.86	1300.00	12279.85	42.00	1196.10	15.65	1196.10

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Vertical Section is from 0.00N 0.00E on azimuth 356.910 degrees
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SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: Schaefer 24-3-6HN (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]
24-3-3HC	24-3-3HC (PWB)									
Schaefer 25-1-3HN	Schaefer 25-1-3HN (PWB)	Slot #11	Schaefer	52.53	1350.00	1350.00	49.67	1196.10	18.33	1196.10
Schaefer 24-3-2HN	Schaefer 24-3-2HN (PWB)	Slot #2	Schaefer	58.88	1250.00	12279.85	56.02	1196.10	20.54	1196.10
Schaefer 25-1-2HC	Schaefer 25-1-2HC (PWB)	Slot #10	Schaefer	68.85	1300.00	1300.00	65.99	1196.10	24.02	1196.10
Schaefer 24-3-1HC	Schaefer 24-3-1HC (PWB)	Slot #1	Schaefer	72.90	1200.00	1200.00	70.03	1200.00	25.38	1200.00
Schaefer 25-1-1HN	Schaefer 25-1-1HN (PWB)	Slot #9	Schaefer	82.61	1250.00	1250.00	79.74	1196.10	28.82	1196.10
W Letterly-Scott 1	W Letterly-Scott 1 (AWB)	Letterly-Scott 1	Offsets	1043.02	11209.49	11209.49	987.14	11219.07	18.57	11301.09
Sharp #24-3-9HC	Sharp #24-3-9HC (PWB)	Slot #10	Sharp Pad	1348.03	7915.00	7915.00	1282.94	12268.94	16.84	12268.94
SHARP #24-3-9HC	SHARP #24-3-9HC (PWB)	Slot #7	Sharp Pad	1348.03	7915.00	7915.00	1282.92	12268.94	16.83	12268.94
Sharp #25-1-9HN	Sharp #25-1-9HN (PWB)	Slot #4	Sharp Pad	1368.07	7429.76	7429.76	1351.90	7429.76	84.58	7429.70
Sharp #24-3-10HN	Sharp #24-3-10HN (PWB)	Slot #9	Sharp Pad	1769.67	7905.42	7905.42	1704.10	12268.94	21.87	12268.94
Sharp #25-1-10HC	Sharp #25-1-10HC (PWB)	Slot #3	Sharp Pad	1813.08	7555.30	7555.30	1798.29	7555.30	116.65	8364.74