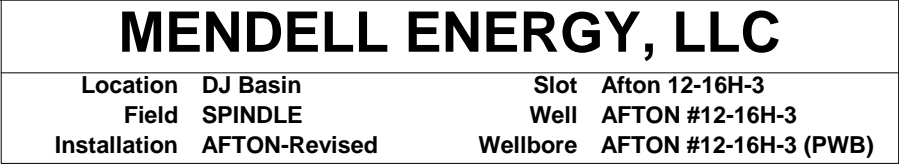


MENDELL ENERGY, LLC			
Location	DJ Basin	Slot	Afton 12-16H-3
Field	SPINDLE	Well	AFTON #12-16H-3
Installation	AFTON-Revised	Wellbore	AFTON #12-16H-3 (PWB)

Slot	Afton 12-16H-3
Well	AFTON #12-16H-3
Wellbore	AFTON #12-16H-3 (PWB)



INTEGRATED PETROLEUM TECHNOLOGIES, INC

SYSDRILL

Well Design Combined Report
Wellbore: AFTON #12-16H-3 (PWB)



Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
Afton 12-16H-3	1233718.5973	3156356.0566	39.97359102	-104.94210402	0.09S	31.90E	-0.00

Declination			
Date	Source	Time	
8-Jul-2013	IGRF Model [1900.0-2020.0]		08:51

Site Details				
Name	Northing	Easting	Coord System Name	North Alignment
AFTON-Revised	1233718.6871	3156324.1575	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
13.00	0.00	0.000	13.00	0.00N	0.00E		0.00	1233718.60	3156356.06
500.00	0.00	168.990	500.00	0.00N	0.00E	==>	0.00	1233718.60	3156356.06
834.00	6.68	168.990	833.25	19.09S	3.71E	2.00	-18.96	1233699.51	3156359.77
7133.66	6.68	168.990	7090.13	738.42S	143.61E	==>	-733.22	1232980.20	3156499.66
8151.48	90.13	359.790	7762.00	137.82S	156.15E	9.50	-132.54	1233580.78	3156512.20
12486.51	90.13	359.790	7752.00	4197.16N	140.05E	==>	4199.50	1237915.62	3156496.11

Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	Rig Datum
13.00	0.00	0.000	13.00	0.00N	0.00E	==>	0.00	Slot Datum
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	
500.00	0.00	168.990	500.00	0.00N	0.00E	==>	0.00	3DS Kick off Point
600.00	2.00	168.990	599.98	1.71S	0.33E	2.00	-1.70	
700.00	4.00	168.990	699.84	6.85S	1.33E	2.00	-6.80	
800.00	6.00	168.990	799.45	15.41S	3.00E	2.00	-15.30	
834.00	6.68	168.990	833.25	19.09S	3.71E	2.00	-18.96	End of Build
900.00	6.68	168.990	898.80	26.63S	5.18E	==>	-26.44	
1000.00	6.68	168.990	998.12	38.05S	7.40E	==>	-37.78	
1100.00	6.68	168.990	1097.44	49.46S	9.62E	==>	-49.12	
1200.00	6.68	168.990	1196.76	60.88S	11.84E	==>	-60.45	
1250.00	6.68	168.990	1246.42	66.59S	12.95E	==>	-66.12	9 5/8in Surface Casing
1300.00	6.68	168.990	1296.08	72.30S	14.06E	==>	-71.79	
1400.00	6.68	168.990	1395.40	83.72S	16.28E	==>	-83.13	
1500.00	6.68	168.990	1494.72	95.14S	18.50E	==>	-94.47	
1600.00	6.68	168.990	1594.04	106.56S	20.72E	==>	-105.81	
1700.00	6.68	168.990	1693.36	117.98S	22.94E	==>	-117.14	
1800.00	6.68	168.990	1792.69	129.39S	25.16E	==>	-128.48	
1900.00	6.68	168.990	1892.01	140.81S	27.38E	==>	-139.82	
2000.00	6.68	168.990	1991.33	152.23S	29.61E	==>	-151.16	
2100.00	6.68	168.990	2090.65	163.65S	31.83E	==>	-162.50	
2200.00	6.68	168.990	2189.97	175.07S	34.05E	==>	-173.84	
2300.00	6.68	168.990	2289.29	186.49S	36.27E	==>	-185.17	
2400.00	6.68	168.990	2388.61	197.91S	38.49E	==>	-196.51	
2500.00	6.68	168.990	2487.93	209.32S	40.71E	==>	-207.85	
2600.00	6.68	168.990	2587.25	220.74S	42.93E	==>	-219.19	
2700.00	6.68	168.990	2686.58	232.16S	45.15E	==>	-230.53	
2800.00	6.68	168.990	2785.90	243.58S	47.37E	==>	-241.87	
2900.00	6.68	168.990	2885.22	255.00S	49.59E	==>	-253.20	
3000.00	6.68	168.990	2984.54	266.42S	51.81E	==>	-264.54	
3100.00	6.68	168.990	3083.86	277.84S	54.03E	==>	-275.88	
3200.00	6.68	168.990	3183.18	289.26S	56.25E	==>	-287.22	
3300.00	6.68	168.990	3282.50	300.67S	58.47E	==>	-298.56	
3400.00	6.68	168.990	3381.82	312.09S	60.69E	==>	-309.89	
3500.00	6.68	168.990	3481.14	323.51S	62.92E	==>	-321.23	

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 5166.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 1.910 degrees
Bottom hole distance is 4199.50 Feet on azimuth 1.91 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 28-Jul-2015

INTEGRATED PETROLEUM TECHNOLOGIES, INC

SYSDRILL

Well Design Combined Report
Wellbore: AFTON #12-16H-3 (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
3600.00	6.68	168.990	3580.47	334.93S	65.14E	==>	-332.57	
3700.00	6.68	168.990	3679.79	346.35S	67.36E	==>	-343.91	
3800.00	6.68	168.990	3779.11	357.77S	69.58E	==>	-355.25	
3900.00	6.68	168.990	3878.43	369.19S	71.80E	==>	-366.59	
4000.00	6.68	168.990	3977.75	380.60S	74.02E	==>	-377.92	
4100.00	6.68	168.990	4077.07	392.02S	76.24E	==>	-389.26	
4200.00	6.68	168.990	4176.39	403.44S	78.46E	==>	-400.60	
4300.00	6.68	168.990	4275.71	414.86S	80.68E	==>	-411.94	
4400.00	6.68	168.990	4375.03	426.28S	82.90E	==>	-423.28	
4500.00	6.68	168.990	4474.36	437.70S	85.12E	==>	-434.61	
4600.00	6.68	168.990	4573.68	449.12S	87.34E	==>	-445.95	
4700.00	6.68	168.990	4673.00	460.53S	89.56E	==>	-457.29	
4800.00	6.68	168.990	4772.32	471.95S	91.78E	==>	-468.63	
4900.00	6.68	168.990	4871.64	483.37S	94.00E	==>	-479.97	
5000.00	6.68	168.990	4970.96	494.79S	96.22E	==>	-491.31	
5100.00	6.68	168.990	5070.28	506.21S	98.45E	==>	-502.64	
5200.00	6.68	168.990	5169.60	517.63S	100.67E	==>	-513.98	
5300.00	6.68	168.990	5268.92	529.05S	102.89E	==>	-525.32	
5400.00	6.68	168.990	5368.25	540.46S	105.11E	==>	-536.66	
5500.00	6.68	168.990	5467.57	551.88S	107.33E	==>	-548.00	
5600.00	6.68	168.990	5566.89	563.30S	109.55E	==>	-559.34	
5700.00	6.68	168.990	5666.21	574.72S	111.77E	==>	-570.67	
5800.00	6.68	168.990	5765.53	586.14S	113.99E	==>	-582.01	
5900.00	6.68	168.990	5864.85	597.56S	116.21E	==>	-593.35	
6000.00	6.68	168.990	5964.17	608.98S	118.43E	==>	-604.69	
6100.00	6.68	168.990	6063.49	620.40S	120.65E	==>	-616.03	
6200.00	6.68	168.990	6162.81	631.81S	122.87E	==>	-627.36	
6300.00	6.68	168.990	6262.14	643.23S	125.09E	==>	-638.70	
6400.00	6.68	168.990	6361.46	654.65S	127.31E	==>	-650.04	
6500.00	6.68	168.990	6460.78	666.07S	129.53E	==>	-661.38	
6600.00	6.68	168.990	6560.10	677.49S	131.76E	==>	-672.72	
6700.00	6.68	168.990	6659.42	688.91S	133.98E	==>	-684.06	
6800.00	6.68	168.990	6758.74	700.33S	136.20E	==>	-695.39	
6900.00	6.68	168.990	6858.06	711.74S	138.42E	==>	-706.73	
7000.00	6.68	168.990	6957.38	723.16S	140.64E	==>	-718.07	
7100.00	6.68	168.990	7056.70	734.58S	142.86E	==>	-729.41	
7133.66	6.68	168.990	7090.13	738.42S	143.61E	==>	-733.22	End of Hold
7200.00	1.28	101.430	7156.31	742.36S	145.07E	9.50	-737.11	
7300.00	9.33	7.470	7255.86	734.53S	147.23E	9.50	-729.22	
7400.00	18.78	3.490	7352.76	710.38S	149.26E	9.50	-705.00	
7500.00	28.27	2.130	7444.35	670.55S	151.13E	9.50	-665.14	
7600.00	37.76	1.410	7528.11	616.16S	152.77E	9.50	-610.72	
7700.00	47.25	0.950	7601.74	548.68S	154.13E	9.50	-543.24	
7800.00	56.75	0.610	7663.24	469.98S	155.20E	9.50	-464.54	
7900.00	66.25	0.340	7710.90	382.20S	155.92E	9.50	-376.79	
8000.00	75.74	0.110	7743.43	287.76S	156.29E	9.50	-282.39	
8100.00	85.24	359.890	7759.92	189.25S	156.29E	9.50	-183.93	7.0in Intermediate Casing S/C Kick off Point/Target
8151.00	90.09	359.790	7762.00	138.30S	156.15E	9.50	-133.02	
8151.48	90.13	359.790	7762.00	137.82S	156.15E	9.50	-132.54	
8200.00	90.13	359.790	7761.89	89.30S	155.97E	==>	-84.05	
8300.00	90.13	359.790	7761.66	10.69N	155.59E	==>	15.88	
8400.00	90.13	359.790	7761.43	110.69N	155.22E	==>	115.81	
8500.00	90.13	359.790	7761.20	210.69N	154.85E	==>	215.74	
8600.00	90.13	359.790	7760.97	310.69N	154.48E	==>	315.67	
8700.00	90.13	359.790	7760.73	410.69N	154.11E	==>	415.60	
8800.00	90.13	359.790	7760.50	510.69N	153.74E	==>	515.53	
8900.00	90.13	359.790	7760.27	610.69N	153.37E	==>	615.46	
9000.00	90.13	359.790	7760.04	710.69N	153.00E	==>	715.39	
9100.00	90.13	359.790	7759.81	810.69N	152.62E	==>	815.33	
9200.00	90.13	359.790	7759.58	910.69N	152.25E	==>	915.26	
9300.00	90.13	359.790	7759.35	1010.68N	151.88E	==>	1015.19	

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 5166.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 1.910 degrees
Bottom hole distance is 4199.50 Feet on azimuth 1.91 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 28-Jul-2015

INTEGRATED PETROLEUM TECHNOLOGIES, INC

SYSDRILL

Well Design Combined Report
Wellbore: AFTON #12-16H-3 (PWB)



Interpolated Wellpath								All Station Comments
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	
9400.00	90.13	359.790	7759.12	1110.68N	151.51E	==>	1115.12	
9500.00	90.13	359.790	7758.89	1210.68N	151.14E	==>	1215.05	
9600.00	90.13	359.790	7758.66	1310.68N	150.77E	==>	1314.98	
9700.00	90.13	359.790	7758.43	1410.68N	150.40E	==>	1414.91	
9800.00	90.13	359.790	7758.20	1510.68N	150.03E	==>	1514.84	
9900.00	90.13	359.790	7757.97	1610.68N	149.66E	==>	1614.77	
10000.00	90.13	359.790	7757.74	1710.68N	149.28E	==>	1714.71	
10100.00	90.13	359.790	7757.51	1810.68N	148.91E	==>	1814.64	
10200.00	90.13	359.790	7757.27	1910.68N	148.54E	==>	1914.57	
10300.00	90.13	359.790	7757.04	2010.68N	148.17E	==>	2014.50	
10400.00	90.13	359.790	7756.81	2110.67N	147.80E	==>	2114.43	
10500.00	90.13	359.790	7756.58	2210.67N	147.43E	==>	2214.36	
10600.00	90.13	359.790	7756.35	2310.67N	147.06E	==>	2314.29	
10700.00	90.13	359.790	7756.12	2410.67N	146.69E	==>	2414.22	
10800.00	90.13	359.790	7755.89	2510.67N	146.31E	==>	2514.15	
10900.00	90.13	359.790	7755.66	2610.67N	145.94E	==>	2614.08	
11000.00	90.13	359.790	7755.43	2710.67N	145.57E	==>	2714.02	
11100.00	90.13	359.790	7755.20	2810.67N	145.20E	==>	2813.95	
11200.00	90.13	359.790	7754.97	2910.67N	144.83E	==>	2913.88	
11300.00	90.13	359.790	7754.74	3010.67N	144.46E	==>	3013.81	
11400.00	90.13	359.790	7754.51	3110.66N	144.09E	==>	3113.74	
11500.00	90.13	359.790	7754.28	3210.66N	143.72E	==>	3213.67	
11600.00	90.13	359.790	7754.04	3310.66N	143.34E	==>	3313.60	
11700.00	90.13	359.790	7753.81	3410.66N	142.97E	==>	3413.53	
11800.00	90.13	359.790	7753.58	3510.66N	142.60E	==>	3513.46	
11900.00	90.13	359.790	7753.35	3610.66N	142.23E	==>	3613.40	
12000.00	90.13	359.790	7753.12	3710.66N	141.86E	==>	3713.33	
12100.00	90.13	359.790	7752.89	3810.66N	141.49E	==>	3813.26	
12200.00	90.13	359.790	7752.66	3910.66N	141.12E	==>	3913.19	
12300.00	90.13	359.790	7752.43	4010.66N	140.75E	==>	4013.12	
12400.00	90.13	359.790	7752.20	4110.66N	140.38E	==>	4113.05	
12486.51	90.13	359.790	7752.00	4197.16N	140.05E	==>	4199.50	End of Hold/Target, 4 1/2in Intermediate Casing

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 5166.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 1.910 degrees
Bottom hole distance is 4199.50 Feet on azimuth 1.91 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 28-Jul-2015

INTEGRATED PETROLEUM TECHNOLOGIES, INC
SYSDRILL
Well Design Combined Report
Wellbore: AFTON #12-16H-3 (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	13.00	13.00	0.00N	0.00E	1250.00	1246.42	66.59S	12.95E
8 3/4	1250.00	1246.42	66.59S	12.95E	8151.00	7762.00	138.30S	156.15E
6 1/8	8151.00	7762.00	138.30S	156.15E	12486.51	7752.00	4197.16N	140.05E

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	13.00	13.00	0.00N	0.00E	1250.00	1246.42	66.59S	12.95E
7.0in Intermediate Casing	13.00	13.00	0.00N	0.00E	8151.00	7762.00	138.30S	156.15E
4 1/2in Intermediate Casing	7133.00	7089.48	738.35S	143.59E	12486.51	7752.00	4197.16N	140.05E

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
AFTON #12-16H-3 Rev - T1	137.82S	156.15E	7762.00	39.97321000	-104.94155000	1233580.78	3156512.20	3-Mar-2014
AFTON #12-16H-3 Rev - T2	4197.16N	140.05E	7752.00	39.98511000	-104.94151000	1237915.62	3156496.11	3-Mar-2014

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
398399	Planned	12486.51	7752.00	ISCWSA MWD	Rev 3 + Fixed Rig + Rotating

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 5166.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 1.910 degrees
Bottom hole distance is 4199.50 Feet on azimuth 1.91 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 28-Jul-2015

SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: AFTON #12-16H-3 (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
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
AFTON #12-16H-3 (PWB)	9-Jul-2015	28-Jul-2015

Well		
Name	Government ID	Last Revised
AFTON #12-16H-3		21-Jul-2015

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Afton 12-16H-3	1233718.5973	3156356.0566	39.97359102	-104.94210402	0.09S	31.90E

Installation				
Name	Easting	Northing	Coord System Name	North Alignment
AFTON-Revised	3156324.1575	1233718.6871	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Field				
Name	Easting	Northing	Coord System Name	North Alignment
SPINDLE	3156324.1590	1233718.6871	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Clearance Summary								
Offset Wellbore	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
AFTON #12-16H-4 Sidetrack	AFTON-Revised	10.82	739.91	12298.57	5.49	751.19	2.02	767.59
AFTON #12-16H-4 Original	AFTON-Revised	10.82	739.91	8708.09	5.49	751.19	2.02	767.59
AFTON 12-16H-2 (PWB)	AFTON-Revised	15.96	505.13	12486.51	11.86	570.74	2.95	12486.51
AFTON 12-16H-6 (PWB)	AFTON-Revised	25.07	500.00	8247.91	22.26	513.00	1.43	12486.51
AFTON 12-16H-7 (PWB)	AFTON-Revised	29.66	500.00	12486.51	25.75	521.53	1.19	12486.51
AFTON 12-16H-5 (PWB)	AFTON-Revised	29.83	500.00	12483.18	27.01	521.53	3.57	12480.19
AFTON 12-16H-1 (PWB)	AFTON-Revised	31.90	505.13	12486.51	27.80	570.74	3.95	12486.51
AFTON 12-16H-8 (PWB)	AFTON-Revised	40.56	500.00	12486.51	36.64	521.53	1.92	12486.51
PULIS #12-8 (AWB)	Offsets	108.52	505.13	8320.30	104.79	537.93	21.86	1243.31
DARLOW UNIT #12-16B (AWB)	Offsets	245.86	505.13	8359.21	236.73	554.34	7.88	8362.74
ELMS #2 (AWB)	Offsets	431.46	11252.28	11252.28	326.80	11252.28	4.12	11266.28
BARKER #12-9 (AWB)	Offsets	556.81	9646.91	9646.91	488.56	9658.67	8.12	9691.48
N COLORADO	Offsets	866.35	7198.04	7198.04	815.70	7198.04	17.08	7230.85

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 5166.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 1.910 degrees
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 28-Jul-2015

SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: AFTON #12-16H-3 (PWB)



Offset Wellbore	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
41-13 #7 (AWB)								
SAUVAGE #11-7 (AWB)	Offsets	1068.48	12172.36	12172.36	941.45	12201.32	8.31	12313.00
W MORRISON #16-1 (AWB)	Offsets	1080.58	12486.51	12486.51	1000.01	12486.51	13.41	12486.51
BROKEN BOW II #7-1 (AWB)	Offsets	1176.06	2079.93	8356.36	1164.61	2473.63	49.59	5377.17
MALLO #1 (AWB)	Offsets	1325.22	505.13	8366.37	1321.43	554.34	64.41	5360.77
Ruby #2 (AWB)	Offsets	1364.60	21.00	9682.38	1363.37	62.21	18.91	10085.18
WIERNMAN #7-3 (AWB)	Offsets	1432.58	8748.65	8748.65	1399.09	8772.84	36.39	9478.22
DARLOW #12-2 (AWB)	Offsets	1442.30	500.00	9682.11	1434.91	521.53	56.61	11053.03
TUDEX REINHOLT #NC4 (AWB)	Offsets	1583.54	12038.76	12038.76	1459.69	12070.09	12.54	12283.34
BELLINGER #12-7 (AWB)	Offsets	1931.00	500.00	9686.96	1927.25	513.00	63.52	11348.30
SAUVAGE #3 (AWB)	Offsets	1998.33	11315.49	11315.49	1891.53	11364.71	17.68	11856.83
W MORRISON #15-1 (AWB)	Offsets	2126.78	12486.51	12486.51	2012.78	12486.51	18.66	12486.51
MORRISON #9-1 (AWB)	Offsets	2331.47	12486.51	12486.51	2275.62	12486.51	41.75	12486.51
W MORRISON #9-1 (AWB)	Offsets	2331.47	12486.51	12486.51	2275.67	12486.51	41.78	12486.51
TUDEX BRINK #S-2 (AWB)	Offsets	2409.16	193.45	10356.16	2406.24	513.00	57.04	11659.98
ELMS #12-4 (AWB)	Offsets	2640.90	10906.10	10906.10	2596.10	10938.20	51.60	11938.85
SEVENS #1 (AWB)	Offsets	2700.74	12313.00	12313.00	2644.42	12348.96	46.47	12486.51
W MORRISON 33-1 #4 (AWB)	Offsets	2858.33	12486.51	12486.51	2763.55	12486.51	30.16	12486.51
LENART #S-1 (AWB)	Offsets	2874.97	11684.85	11684.85	2818.04	11725.60	45.53	12486.51
CUNDALL #6-12 (AWB)	Offsets	2891.66	11020.22	11020.22	2792.25	11085.83	26.25	12037.28
W MORRISON INVESTMENT CO #2 (AWB)	Offsets	2911.21	12486.51	12486.51	2851.70	12486.51	48.92	12486.51
NORTH YORK #11-12 (AWB)	Offsets	2956.77	9695.51	9695.51	2888.06	9757.09	35.54	11135.05
CROFF #12-5 (AWB)	Offsets	2996.86	500.00	10971.01	2993.07	513.00	49.30	12266.94
REINHOLT #12-6 (AWB)	Offsets	3082.41	12073.62	12073.62	3014.36	12119.30	42.33	12486.51
W MORRISON 24-1 #3 (AWB)	Offsets	3170.92	12486.51	12486.51	3042.24	12486.51	24.64	12486.51
NORTH	Offsets	3249.68	7148.83	7148.83	3196.47	7148.83	60.55	7313.00

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 5166.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 1.910 degrees
Prepared by Integrated Petroleum Technologies, Inc.
Date Printed: 28-Jul-2015

SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: AFTON #12-16H-3 (PWB)



Offset Wellbore	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
COLORADO #6 (AWB)								
NORTH YORK #13-12 (AWB)	Offsets	3534.79	505.13	8537.18	3530.04	554.34	55.91	12037.28
W MORRISON #11-1 (AWB)	Offsets	3874.78	12486.51	12486.51	3758.12	12486.51	33.21	12486.51
BEISEL UNIT #1 (AWB)	Offsets	4501.29	12486.51	12486.51	4432.05	12486.51	65.01	12486.51