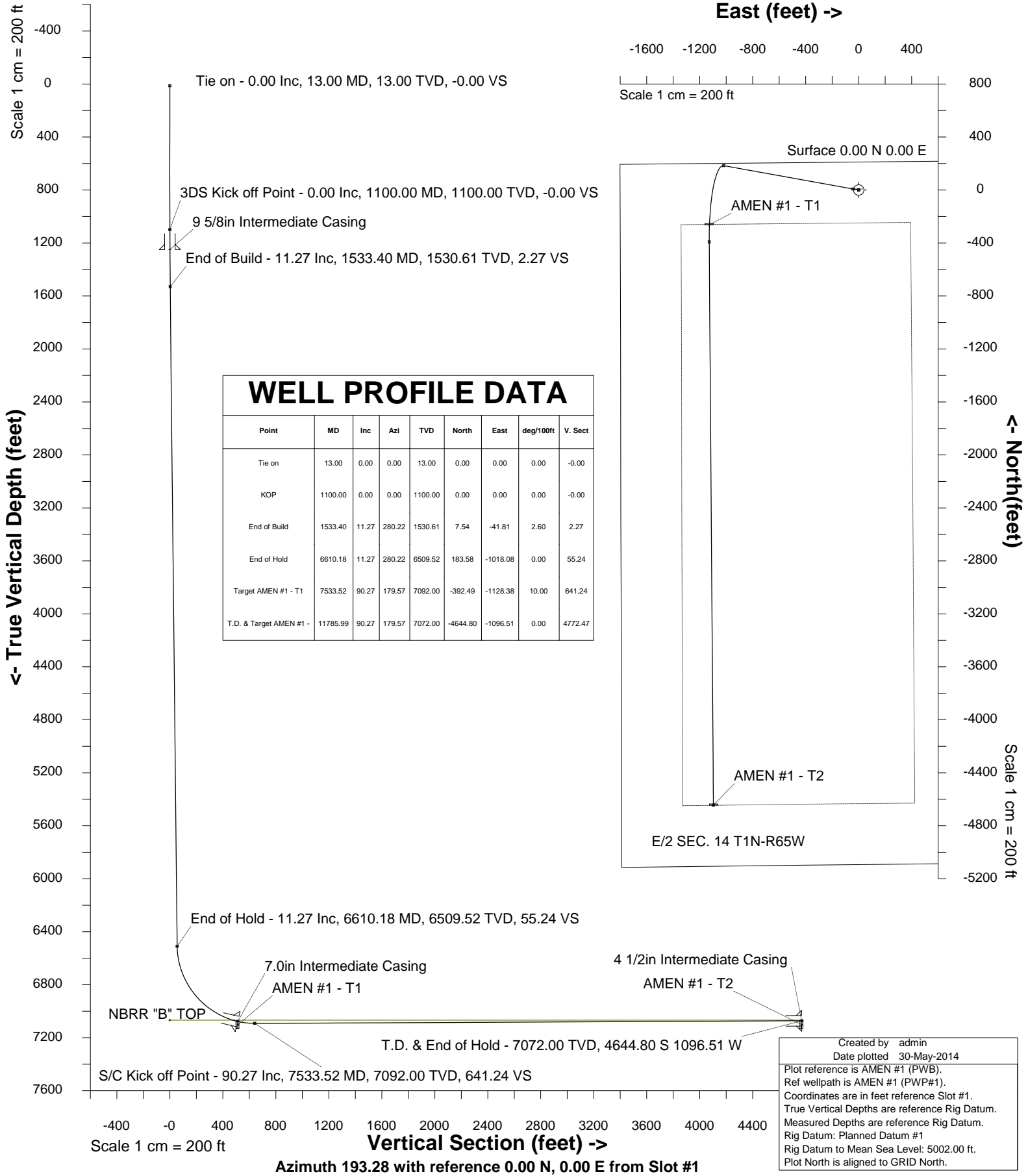


# VERDAD OIL & GAS CORP

Location WELD COUNTY, CO  
 Field Wattenburg  
 Installation AMEN PAD

Slot Slot #1  
 Well AMEN #1  
 Wellbore AMEN #1 (PWB)



Created by admin  
 Date plotted 30-May-2014  
 Plot reference is AMEN #1 (PWB).  
 Ref wellpath is AMEN #1 (PWP#1).  
 Coordinates are in feet reference Slot #1.  
 True Vertical Depths are reference Rig Datum.  
 Measured Depths are reference Rig Datum.  
 Rig Datum: Planned Datum #1  
 Rig Datum to Mean Sea Level: 5002.00 ft.  
 Plot North is aligned to GRID North.

INTEGRATED PETROLEUM TECHNOLOGIES, INC  
 SYSDRILL  
 Well Design Combined Report  
 Wellbore: AMEN #1 (PWB)



Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
Slot #1	1265242.5862	3245036.1214	40.05816000	-104.62459000	31524.95N	88714.94E	-0.00

Declination			
Date	Source	Time	
14-May-2014	IGRF Model [1900.0-2015.0]	10:32	

Site Details				
Name	Northing	Easting	Coord System Name	North Alignment
AMEN PAD	1233718.6881	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	1265242.59	3245036.12
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
1533.40	11.27	280.220	1530.61	7.54N	41.81W	2.60	2.27	1265250.12	3244994.32
6610.18	11.27	280.220	6509.52	183.58N	1018.08W		55.24	1265426.16	3244018.08
7533.52	90.27	179.570	7092.00	392.49S	1128.38W	10.00	641.24	1264850.11	3243907.79
11785.99	90.27	179.570	7072.00	4644.80S	1096.51W	==>	4772.47	1260597.97	3243939.65

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	1265242.59	3245036.12
13.00	0.00	0.000	13.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
1087.00	0.00	0.000	1087.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1265242.59	3245036.12
1187.00	2.26	280.220	1186.98	0.30N	1.69W	2.60	0.09	1265242.89	3245034.43
1287.00	4.86	280.220	1286.78	1.41N	7.80W	2.60	0.42	1265243.99	3245028.32
1387.00	7.46	280.220	1386.19	3.31N	18.37W	2.60	1.00	1265245.90	3245017.76
1487.00	10.06	280.220	1485.01	6.01N	33.36W	2.60	1.81	1265248.60	3245002.77
1533.40	11.27	280.220	1530.61	7.54N	41.81W	2.60	2.27	1265250.12	3244994.32
1600.00	11.27	280.220	1595.93	9.85N	54.61W	==>	2.96	1265252.43	3244981.51
1700.00	11.27	280.220	1694.00	13.32N	73.84W	==>	4.01	1265255.90	3244962.28
1800.00	11.27	280.220	1792.07	16.78N	93.07W	==>	5.05	1265259.37	3244943.05
1900.00	11.27	280.220	1890.14	20.25N	112.31W	==>	6.09	1265262.84	3244923.82
2000.00	11.27	280.220	1988.22	23.72N	131.54W	==>	7.14	1265266.30	3244904.59
2100.00	11.27	280.220	2086.29	27.19N	150.77W	==>	8.18	1265269.77	3244885.36
2200.00	11.27	280.220	2184.36	30.65N	170.00W	==>	9.22	1265273.24	3244866.13
2300.00	11.27	280.220	2282.43	34.12N	189.23W	==>	10.27	1265276.71	3244846.90
2400.00	11.27	280.220	2380.51	37.59N	208.46W	==>	11.31	1265280.17	3244827.67
2500.00	11.27	280.220	2478.58	41.06N	227.69W	==>	12.35	1265283.64	3244808.44
2600.00	11.27	280.220	2576.65	44.52N	246.92W	==>	13.40	1265287.11	3244789.21
2700.00	11.27	280.220	2674.72	47.99N	266.15W	==>	14.44	1265290.58	3244769.98
2800.00	11.27	280.220	2772.80	51.46N	285.38W	==>	15.48	1265294.04	3244750.76
2900.00	11.27	280.220	2870.87	54.93N	304.61W	==>	16.53	1265297.51	3244731.53
3000.00	11.27	280.220	2968.94	58.40N	323.84W	==>	17.57	1265300.98	3244712.30
3100.00	11.27	280.220	3067.01	61.86N	343.07W	==>	18.61	1265304.45	3244693.07
3200.00	11.27	280.220	3165.08	65.33N	362.30W	==>	19.66	1265307.91	3244673.84
3300.00	11.27	280.220	3263.16	68.80N	381.53W	==>	20.70	1265311.38	3244654.61

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 Vertical Section is from 0.00N 0.00E on azimuth 193.280 degrees  
 Bottom hole distance is 4772.47 Feet on azimuth 193.28 degrees from Wellhead  
 Calculation method uses Minimum Curvature method  
 Prepared by Integrated Petroleum Technologies, Inc.  
 Date Printed: 30-May-2014

INTEGRATED PETROLEUM TECHNOLOGIES, INC  
 SYSDRILL  
 Well Design Combined Report  
 Wellbore: AMEN #1 (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	11.27	280.220	3361.23	72.27N	400.76W	==>	21.74	1265314.85	3244635.38
3500.00	11.27	280.220	3459.30	75.73N	419.99W	==>	22.79	1265318.32	3244616.15
3600.00	11.27	280.220	3557.37	79.20N	439.22W	==>	23.83	1265321.78	3244596.92
3700.00	11.27	280.220	3655.45	82.67N	458.45W	==>	24.87	1265325.25	3244577.69
3800.00	11.27	280.220	3753.52	86.14N	477.68W	==>	25.92	1265328.72	3244558.46
3900.00	11.27	280.220	3851.59	89.60N	496.91W	==>	26.96	1265332.19	3244539.23
4000.00	11.27	280.220	3949.66	93.07N	516.14W	==>	28.01	1265335.65	3244520.00
4100.00	11.27	280.220	4047.73	96.54N	535.37W	==>	29.05	1265339.12	3244500.77
4200.00	11.27	280.220	4145.81	100.01N	554.60W	==>	30.09	1265342.59	3244481.54
4300.00	11.27	280.220	4243.88	103.47N	573.83W	==>	31.14	1265346.06	3244462.31
4400.00	11.27	280.220	4341.95	106.94N	593.06W	==>	32.18	1265349.52	3244443.08
4500.00	11.27	280.220	4440.02	110.41N	612.29W	==>	33.22	1265352.99	3244423.85
4600.00	11.27	280.220	4538.10	113.88N	631.52W	==>	34.27	1265356.46	3244404.62
4700.00	11.27	280.220	4636.17	117.35N	650.75W	==>	35.31	1265359.93	3244385.40
4800.00	11.27	280.220	4734.24	120.81N	669.98W	==>	36.35	1265363.39	3244366.17
4900.00	11.27	280.220	4832.31	124.28N	689.21W	==>	37.40	1265366.86	3244346.94
5000.00	11.27	280.220	4930.39	127.75N	708.44W	==>	38.44	1265370.33	3244327.71
5100.00	11.27	280.220	5028.46	131.22N	727.67W	==>	39.48	1265373.80	3244308.48
5200.00	11.27	280.220	5126.53	134.68N	746.90W	==>	40.53	1265377.26	3244289.25
5300.00	11.27	280.220	5224.60	138.15N	766.13W	==>	41.57	1265380.73	3244270.02
5400.00	11.27	280.220	5322.67	141.62N	785.36W	==>	42.61	1265384.20	3244250.79
5500.00	11.27	280.220	5420.75	145.09N	804.59W	==>	43.66	1265387.67	3244231.56
5600.00	11.27	280.220	5518.82	148.55N	823.82W	==>	44.70	1265391.13	3244212.33
5700.00	11.27	280.220	5616.89	152.02N	843.05W	==>	45.74	1265394.60	3244193.10
5800.00	11.27	280.220	5714.96	155.49N	862.28W	==>	46.79	1265398.07	3244173.87
5900.00	11.27	280.220	5813.04	158.96N	881.51W	==>	47.83	1265401.54	3244154.64
6000.00	11.27	280.220	5911.11	162.42N	900.74W	==>	48.87	1265405.00	3244135.41
6100.00	11.27	280.220	6009.18	165.89N	919.97W	==>	49.92	1265408.47	3244116.18
6200.00	11.27	280.220	6107.25	169.36N	939.21W	==>	50.96	1265411.94	3244096.95
6300.00	11.27	280.220	6205.33	172.83N	958.44W	==>	52.00	1265415.41	3244077.72
6400.00	11.27	280.220	6303.40	176.30N	977.67W	==>	53.05	1265418.87	3244058.49
6500.00	11.27	280.220	6401.47	179.76N	996.90W	==>	54.09	1265422.34	3244039.26
6600.00	11.27	280.220	6499.54	183.23N	1016.13W	==>	55.13	1265425.81	3244020.04
6610.18	11.27	280.220	6509.52	183.58N	1018.08W	==>	55.24	1265426.16	3244018.08
6700.00	13.04	237.340	6597.50	179.66N	1035.29W	10.00	63.01	1265422.24	3244000.87
6800.00	20.14	211.900	6693.40	158.91N	1053.93W	10.00	87.49	1265401.49	3243982.23
6900.00	28.96	200.350	6784.32	121.50N	1071.49W	10.00	127.93	1265364.08	3243964.67
7000.00	38.32	193.970	6867.51	68.59N	1087.44W	10.00	183.10	1265311.17	3243948.73
7100.00	47.91	189.810	6940.44	1.77N	1101.28W	10.00	251.31	1265244.35	3243934.88
7200.00	57.62	186.760	7000.88	76.93S	1112.60W	10.00	330.50	1265165.66	3243923.56
7300.00	67.38	184.300	7047.01	165.10S	1121.06W	10.00	418.26	1265077.49	3243915.11
7400.00	77.17	182.180	7077.42	260.09S	1126.39W	10.00	511.92	1264982.51	3243909.78
7500.00	86.98	180.220	7091.20	358.98S	1128.44W	10.00	608.65	1264883.62	3243907.73
7533.52	90.27	179.570	7092.00	392.49S	1128.38W	10.00	641.24	1264850.11	3243907.79
7600.00	90.27	179.570	7091.69	458.97S	1127.88W	==>	705.83	1264783.64	3243908.29
7700.00	90.27	179.570	7091.22	558.96S	1127.13W	==>	802.97	1264683.65	3243909.04
7800.00	90.27	179.570	7090.75	658.96S	1126.38W	==>	900.12	1264583.65	3243909.79
7900.00	90.27	179.570	7090.28	758.95S	1125.63W	==>	997.27	1264483.66	3243910.54
8000.00	90.27	179.570	7089.81	858.95S	1124.88W	==>	1094.42	1264383.67	3243911.29
8100.00	90.27	179.570	7089.34	958.95S	1124.13W	==>	1191.57	1264283.68	3243912.04
8200.00	90.27	179.570	7088.87	1058.94S	1123.38W	==>	1288.72	1264183.69	3243912.78
8300.00	90.27	179.570	7088.40	1158.94S	1122.63W	==>	1385.87	1264083.69	3243913.53
8400.00	90.27	179.570	7087.92	1258.93S	1121.88W	==>	1483.02	1263983.70	3243914.28
8500.00	90.27	179.570	7087.45	1358.93S	1121.13W	==>	1580.17	1263883.71	3243915.03
8600.00	90.27	179.570	7086.98	1458.93S	1120.38W	==>	1677.31	1263783.72	3243915.78
8700.00	90.27	179.570	7086.51	1558.92S	1119.63W	==>	1774.46	1263683.72	3243916.53
8800.00	90.27	179.570	7086.04	1658.92S	1118.89W	==>	1871.61	1263583.73	3243917.28
8900.00	90.27	179.570	7085.57	1758.92S	1118.14W	==>	1968.76	1263483.74	3243918.03
9000.00	90.27	179.570	7085.10	1858.91S	1117.39W	2065.9	2065.91	1263383.75	3243918.78
9100.00	90.27	179.570	7084.63	1958.91S	1116.64W	==>	2163.06	1263283.76	3243919.53

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 Vertical Section is from 0.00N 0.00E on azimuth 193.280 degrees  
 Bottom hole distance is 4772.47 Feet on azimuth 193.28 degrees from Wellhead  
 Calculation method uses Minimum Curvature method  
 Prepared by Integrated Petroleum Technologies, Inc.  
 Date Printed: 30-May-2014

INTEGRATED PETROLEUM TECHNOLOGIES, INC  
 SYSDRILL  
 Well Design Combined Report  
 Wellbore: AMEN #1 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
9200.00	90.27	179.570	7084.16	2058.90S	1115.89W	==>	2260.21	1263183.76	3243920.28
9300.00	90.27	179.570	7083.69	2158.90S	1115.14W	==>	2357.36	1263083.77	3243921.03
9400.00	90.27	179.570	7083.22	2258.90S	1114.39W	==>	2454.50	1262983.78	3243921.78
9500.00	90.27	179.570	7082.75	2358.89S	1113.64W	==>	2551.65	1262883.79	3243922.53
9600.00	90.27	179.570	7082.28	2458.89S	1112.89W	==>	2648.80	1262783.80	3243923.27
9700.00	90.27	179.570	7081.81	2558.88S	1112.14W	==>	2745.95	1262683.80	3243924.02
9800.00	90.27	179.570	7081.34	2658.88S	1111.39W	==>	2843.10	1262583.81	3243924.77
9900.00	90.27	179.570	7080.87	2758.88S	1110.64W	==>	2940.25	1262483.82	3243925.52
10000.00	90.27	179.570	7080.40	2858.87S	1109.89W	==>	3037.40	1262383.83	3243926.27
10100.00	90.27	179.570	7079.93	2958.87S	1109.14W	==>	3134.55	1262283.83	3243927.02
10200.00	90.27	179.570	7079.46	3058.86S	1108.39W	==>	3231.70	1262183.84	3243927.77
10300.00	90.27	179.570	7078.99	3158.86S	1107.65W	==>	3328.84	1262083.85	3243928.52
10400.00	90.27	179.570	7078.52	3258.86S	1106.90W	==>	3425.99	1261983.86	3243929.27
10500.00	90.27	179.570	7078.05	3358.85S	1106.15W	==>	3523.14	1261883.87	3243930.02
10600.00	90.27	179.570	7077.58	3458.85S	1105.40W	==>	3620.29	1261783.87	3243930.77
10700.00	90.27	179.570	7077.11	3558.84S	1104.65W	==>	3717.44	1261683.88	3243931.52
10800.00	90.27	179.570	7076.64	3658.84S	1103.90W	==>	3814.59	1261583.89	3243932.27
10900.00	90.27	179.570	7076.17	3758.84S	1103.15W	==>	3911.74	1261483.90	3243933.02
11000.00	90.27	179.570	7075.70	3858.83S	1102.40W	==>	4008.89	1261383.91	3243933.77
11100.00	90.27	179.570	7075.23	3958.83S	1101.65W	==>	4106.03	1261283.91	3243934.51
11200.00	90.27	179.570	7074.76	4058.83S	1100.90W	==>	4203.18	1261183.92	3243935.26
11300.00	90.27	179.570	7074.29	4158.82S	1100.15W	==>	4300.33	1261083.93	3243936.01
11400.00	90.27	179.570	7073.82	4258.82S	1099.40W	==>	4397.48	1260983.94	3243936.76
11500.00	90.27	179.570	7073.35	4358.81S	1098.65W	==>	4494.63	1260883.95	3243937.51
11600.00	90.27	179.570	7072.87	4458.81S	1097.90W	==>	4591.78	1260783.95	3243938.26
11700.00	90.27	179.570	7072.40	4558.81S	1097.15W	==>	4688.93	1260683.96	3243939.01
11785.99	90.27	179.570	7072.00	4644.80S	1096.51W	==>	4772.47	1260597.97	3243939.65

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 Bottom hole distance is 4772.47 Feet on azimuth 193.28 degrees from Wellhead  
 Calculation method uses Minimum Curvature method  
 Prepared by Integrated Petroleum Technologies, Inc.  
 Date Printed: 30-May-2014



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	1249.88	0.91N	5.02W
8 3/4	1250.00	1249.88	0.91N	5.02W	7400.00	7077.42	260.09S	1126.39W
6 1/8	7400.00	7077.42	260.09S	1126.39W	11782.90	7072.01	4641.70S	1096.53W

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 Intermediate Casing	13.00	13.00	0.00N	0.00E	1250.00	1249.88	0.91N	5.02W
7.0in Intermediate Casing	13.00	13.00	0.00N	0.00E	7400.00	7077.42	260.09S	1126.39W
4 1/2in Intermediate Casing	7200.00	7000.88	76.93S	1112.60W	11782.90	7072.01	4641.70S	1096.53W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
AMEN #1 - T1	262.49S	1128.38W	7102.00	40.05747000	-104.62863000	1264980.11	3243907.79	14-May-2014
AMEN #1 - T2	4644.80S	1096.51W	7102.00	40.04544000	-104.62867000	1260597.97	3243939.65	14-May-2014

Formations						
Formation Name	MD[ft]	TVD[ft]	Dip Angle[deg]	Dip Azimuth[deg]	Incidence Angle[deg]	Remarks
NBRR "B" TOP			0.00	0.00		

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
192475	Planned	11785.99	7072.00	WdW Rate Gyro	Standard	

Notes

SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: AMEN #1 (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	
AMEN #1 (PWB)	14-May-2014	30-May-2014	

Well			
Name	Government ID	Last Revised	
AMEN #1		14-May-2014	

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #1	1265242.5862	3245036.1214	40.05816000	-104.62459000	31524.95N	88714.94E

Installation					
Name	Easting	Northing	Coord System Name	North Alignment	
AMEN PAD	3156324.1575	1233718.6881	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid	

Field					
Name	Easting	Northing	Coord System Name	North Alignment	
Wattenburg	3156324.1603	1233718.6881	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]
AMEN #2 (PWB)	AMEN PAD	14.00	1100.00	1100.00	11.28	1100.00	3.93	11774.81
AMEN #3 (PWB)	AMEN PAD	27.99	1100.00	1100.00	25.28	1100.00	7.86	11774.81
AMEN #4 (PWB)	AMEN PAD	44.79	1100.00	1100.00	42.07	1100.00	11.80	11774.81
AMEN #5 (PWB)	AMEN PAD	58.78	1100.00	1100.00	56.07	1100.00	15.73	11774.81
STEINWALD #37 (AWB)	Amen Pad Offsets	2059.85	10894.55	10894.55	2001.34	10921.79	33.13	11463.13
WUERTZ #12-3 (AWB)	Amen Pad Offsets	2190.10	1100.00	1100.00	2179.15	1112.08	99.55	6713.00