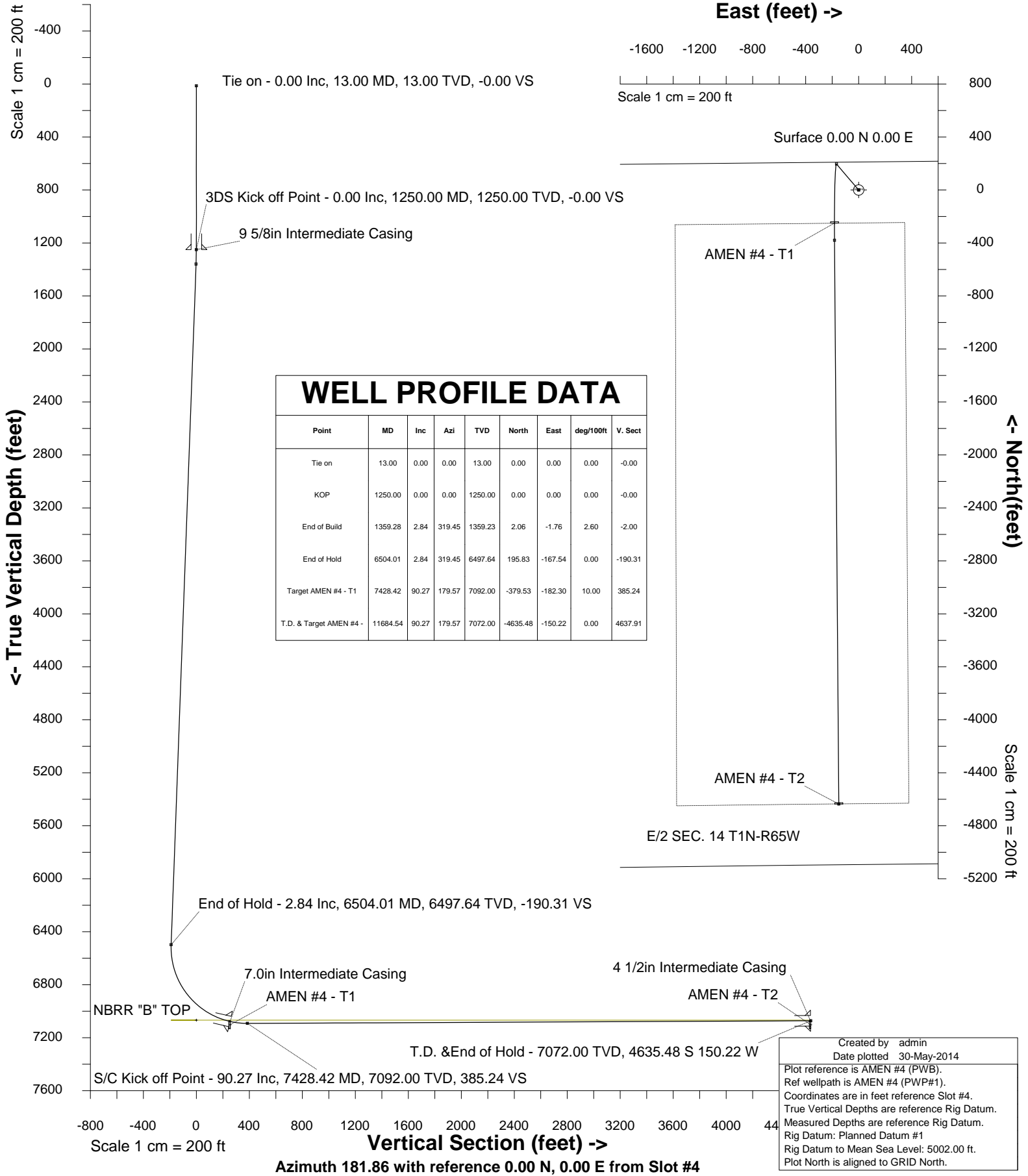


# VERDAD OIL & GAS CORP

Location WELD COUNTY, CO  
 Field Wattenburg  
 Installation AMEN PAD

Slot Slot #4  
 Well AMEN #4  
 Wellbore AMEN #4 (PWB)



WELL PROFILE DATA								
Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	13.00	0.00	0.00	13.00	0.00	0.00	0.00	-0.00
KOP	1250.00	0.00	0.00	1250.00	0.00	0.00	0.00	-0.00
End of Build	1359.28	2.84	319.45	1359.23	2.06	-1.76	2.60	-2.00
End of Hold	6504.01	2.84	319.45	6497.64	195.83	-167.54	0.00	-190.31
Target AMEN #4 - T1	7428.42	90.27	179.57	7092.00	-379.53	-182.30	10.00	385.24
T.D. & Target AMEN #4 -	11684.54	90.27	179.57	7072.00	-4635.48	-150.22	0.00	4637.91

Created by admin  
 Date plotted 30-May-2014  
 Plot reference is AMEN #4 (PWB).  
 Ref wellpath is AMEN #4 (PWP#1).  
 Coordinates are in feet reference Slot #4.  
 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 #4 (PWB)



Wellhead Details							
Name	Northing	Easting	Latitude	Longitude	North	East	Elevation Above Inst.
Slot #4	1265243.0284	3245080.9056	40.05816000	-104.62443000	31525.40N	88759.72E	-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	1265243.03	3245080.91
1250.00	0.00	0.000	1250.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
1359.28	2.84	319.450	1359.23	2.06N	1.76W	2.60	-2.00	1265245.09	3245079.14
6504.01	2.84	319.450	6497.64	195.83N	167.54W		-190.31	1265438.86	3244913.37
7428.42	90.27	179.570	7092.00	379.53S	182.30W	10.00	385.24	1264863.51	3244898.61
11684.54	90.27	179.570	7072.00	4635.48S	150.22W	==>	4637.91	1260607.73	3244930.69

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	1265243.03	3245080.91
13.00	0.00	0.000	13.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
1237.00	0.00	0.000	1237.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
1250.00	0.00	0.000	1250.00	0.00N	0.00E	==>	0.00	1265243.03	3245080.91
1337.00	2.26	319.450	1336.98	1.30N	1.12W	2.60	-1.27	1265244.33	3245079.79
1359.28	2.84	319.450	1359.23	2.06N	1.76W	2.60	-2.00	1265245.09	3245079.14
1400.00	2.84	319.450	1399.91	3.59N	3.07W		-3.49	1265246.62	3245077.83
1500.00	2.84	319.450	1499.78	7.36N	6.30W		-7.15	1265250.39	3245074.61
1600.00	2.84	319.450	1599.66	11.13N	9.52W		-10.81	1265254.15	3245071.39
1700.00	2.84	319.450	1699.54	14.89N	12.74W		-14.47	1265257.92	3245068.17
1800.00	2.84	319.450	1799.41	18.66N	15.96W		-18.13	1265261.69	3245064.94
1900.00	2.84	319.450	1899.29	22.42N	19.18W		-21.79	1265265.45	3245061.72
2000.00	2.84	319.450	1999.17	26.19N	22.41W		-25.45	1265269.22	3245058.50
2100.00	2.84	319.450	2099.04	29.96N	25.63W		-29.11	1265272.98	3245055.28
2200.00	2.84	319.450	2198.92	33.72N	28.85W		-32.77	1265276.75	3245052.06
2300.00	2.84	319.450	2298.80	37.49N	32.07W		-36.43	1265280.52	3245048.83
2400.00	2.84	319.450	2398.68	41.26N	35.30W		-40.09	1265284.28	3245045.61
2500.00	2.84	319.450	2498.55	45.02N	38.52W		-43.75	1265288.05	3245042.39
2600.00	2.84	319.450	2598.43	48.79N	41.74W		-47.41	1265291.82	3245039.17
2700.00	2.84	319.450	2698.31	52.56N	44.96W		-51.07	1265295.58	3245035.94
2800.00	2.84	319.450	2798.18	56.32N	48.18W		-54.73	1265299.35	3245032.72
2900.00	2.84	319.450	2898.06	60.09N	51.41W		-58.39	1265303.12	3245029.50
3000.00	2.84	319.450	2997.94	63.86N	54.63W		-62.05	1265306.88	3245026.28
3100.00	2.84	319.450	3097.82	67.62N	57.85W		-65.71	1265310.65	3245023.06
3200.00	2.84	319.450	3197.69	71.39N	61.07W		-69.37	1265314.41	3245019.83

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 Vertical Section is from 0.00N 0.00E on azimuth 181.860 degrees  
 Bottom hole distance is 4637.91 Feet on azimuth 181.86 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 #4 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
3300.00	2.84	319.450	3297.57	75.16N	64.30W	==>	-73.03	1265318.18	3245016.61
3400.00	2.84	319.450	3397.45	78.92N	67.52W	==>	-76.69	1265321.95	3245013.39
3500.00	2.84	319.450	3497.32	82.69N	70.74W	==>	-80.35	1265325.71	3245010.17
3600.00	2.84	319.450	3597.20	86.46N	73.96W	==>	-84.01	1265329.48	3245006.95
3700.00	2.84	319.450	3697.08	90.22N	77.19W	==>	-87.67	1265333.25	3245003.72
3800.00	2.84	319.450	3796.96	93.99N	80.41W	==>	-91.33	1265337.01	3245000.50
3900.00	2.84	319.450	3896.83	97.75N	83.63W	==>	-94.99	1265340.78	3244997.28
4000.00	2.84	319.450	3996.71	101.52N	86.85W	==>	-98.65	1265344.55	3244994.06
4100.00	2.84	319.450	4096.59	105.29N	90.07W	==>	-102.32	1265348.31	3244990.83
4200.00	2.84	319.450	4196.46	109.05N	93.30W	==>	-105.98	1265352.08	3244987.61
4300.00	2.84	319.450	4296.34	112.82N	96.52W	==>	-109.64	1265355.84	3244984.39
4400.00	2.84	319.450	4396.22	116.59N	99.74W	==>	-113.30	1265359.61	3244981.17
4500.00	2.84	319.450	4496.09	120.35N	102.96W	==>	-116.96	1265363.38	3244977.95
4600.00	2.84	319.450	4595.97	124.12N	106.19W	==>	-120.62	1265367.14	3244974.72
4700.00	2.84	319.450	4695.85	127.89N	109.41W	==>	-124.28	1265370.91	3244971.50
4800.00	2.84	319.450	4795.73	131.65N	112.63W	==>	-127.94	1265374.68	3244968.28
4900.00	2.84	319.450	4895.60	135.42N	115.85W	==>	-131.60	1265378.44	3244965.06
5000.00	2.84	319.450	4995.48	139.19N	119.07W	==>	-135.26	1265382.21	3244961.84
5100.00	2.84	319.450	5095.36	142.95N	122.30W	==>	-138.92	1265385.98	3244958.61
5200.00	2.84	319.450	5195.23	146.72N	125.52W	==>	-142.58	1265389.74	3244955.39
5300.00	2.84	319.450	5295.11	150.49N	128.74W	==>	-146.24	1265393.51	3244952.17
5400.00	2.84	319.450	5394.99	154.25N	131.96W	==>	-149.90	1265397.27	3244948.95
5500.00	2.84	319.450	5494.87	158.02N	135.19W	==>	-153.56	1265401.04	3244945.72
5600.00	2.84	319.450	5594.74	161.79N	138.41W	==>	-157.22	1265404.81	3244942.50
5700.00	2.84	319.450	5694.62	165.55N	141.63W	==>	-160.88	1265408.57	3244939.28
5800.00	2.84	319.450	5794.50	169.32N	144.85W	==>	-164.54	1265412.34	3244936.06
5900.00	2.84	319.450	5894.37	173.08N	148.08W	==>	-168.20	1265416.11	3244932.84
6000.00	2.84	319.450	5994.25	176.85N	151.30W	==>	-171.86	1265419.87	3244929.61
6100.00	2.84	319.450	6094.13	180.62N	154.52W	==>	-175.52	1265423.64	3244926.39
6200.00	2.84	319.450	6194.00	184.38N	157.74W	==>	-179.18	1265427.41	3244923.17
6300.00	2.84	319.450	6293.88	188.15N	160.96W	==>	-182.84	1265431.17	3244919.95
6400.00	2.84	319.450	6393.76	191.92N	164.19W	==>	-186.50	1265434.94	3244916.73
6500.00	2.84	319.450	6493.64	195.68N	167.41W	==>	-190.16	1265438.70	3244913.50
6504.01	2.84	319.450	6497.64	195.83N	167.54W	==>	-190.31	1265438.86	3244913.37
6600.00	7.65	193.350	6593.37	191.42N	170.57W	10.00	-185.79	1265434.44	3244910.35
6700.00	17.52	185.390	6690.85	169.90N	173.53W	10.00	-164.19	1265412.92	3244907.39
6800.00	27.48	183.100	6783.12	131.78N	176.20W	10.00	-126.00	1265374.80	3244904.72
6900.00	37.47	181.970	6867.38	78.20N	178.49W	10.00	-72.38	1265321.23	3244902.42
7000.00	47.45	181.260	6941.06	10.81N	180.35W	10.00	-4.96	1265253.84	3244900.56
7100.00	57.45	180.750	7001.93	68.36S	181.72W	10.00	74.21	1265174.67	3244899.20
7200.00	67.44	180.340	7048.14	156.90S	182.54W	10.00	162.73	1265086.14	3244898.37
7300.00	77.43	179.990	7078.27	252.12S	182.80W	10.00	257.90	1264990.92	3244898.11
7400.00	87.43	179.660	7091.43	351.12S	182.49W	10.00	356.85	1264891.92	3244898.42
7428.42	90.27	179.570	7092.00	379.53S	182.30W	10.00	385.24	1264863.51	3244898.61
7500.00	90.27	179.570	7091.66	451.11S	181.76W	==>	456.76	1264791.94	3244899.15
7600.00	90.27	179.570	7091.19	551.10S	181.00W	==>	556.68	1264691.95	3244899.91
7700.00	90.27	179.570	7090.72	651.10S	180.25W	==>	656.60	1264591.96	3244900.66
7800.00	90.27	179.570	7090.25	751.09S	179.50W	==>	756.51	1264491.96	3244901.42
7900.00	90.27	179.570	7089.78	851.09S	178.74W	==>	856.43	1264391.97	3244902.17
8000.00	90.27	179.570	7089.31	951.09S	177.99W	==>	956.35	1264291.98	3244902.92
8100.00	90.27	179.570	7088.84	1051.08S	177.24W	==>	1056.27	1264191.99	3244903.68
8200.00	90.27	179.570	7088.37	1151.08S	176.48W	==>	1156.19	1264091.99	3244904.43
8300.00	90.27	179.570	7087.90	1251.08S	175.73W	==>	1256.11	1263992.00	3244905.18
8400.00	90.27	179.570	7087.43	1351.07S	174.98W	==>	1356.03	1263892.01	3244905.94
8500.00	90.27	179.570	7086.96	1451.07S	174.22W	==>	1455.95	1263792.02	3244906.69
8600.00	90.27	179.570	7086.49	1551.06S	173.47W	==>	1555.87	1263692.03	3244907.44
8700.00	90.27	179.570	7086.02	1651.06S	172.71W	==>	1655.79	1263592.03	3244908.20
8800.00	90.27	179.570	7085.55	1751.06S	171.96W	==>	1755.71	1263492.04	3244908.95
8900.00	90.27	179.570	7085.08	1851.05S	171.21W	==>	1855.63	1263392.05	3244909.70
9000.00	90.27	179.570	7084.61	1951.05S	170.45W	==>	1955.54	1263292.06	3244910.46

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 Bottom hole distance is 4637.91 Feet on azimuth 181.86 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 #4 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
9100.00	90.27	179.570	7084.15	2051.04S	169.70W	==>	2055.46	1263192.07	3244911.21
9200.00	90.27	179.570	7083.68	2151.04S	168.95W	==>	2155.38	1263092.07	3244911.97
9300.00	90.27	179.570	7083.21	2251.04S	168.19W	==>	2255.30	1262992.08	3244912.72
9400.00	90.27	179.570	7082.74	2351.03S	167.44W	==>	2355.22	1262892.09	3244913.47
9500.00	90.27	179.570	7082.27	2451.03S	166.69W	==>	2455.14	1262792.10	3244914.23
9600.00	90.27	179.570	7081.80	2551.02S	165.93W	==>	2555.06	1262692.11	3244914.98
9700.00	90.27	179.570	7081.33	2651.02S	165.18W	==>	2654.98	1262592.11	3244915.73
9800.00	90.27	179.570	7080.86	2751.02S	164.42W	==>	2754.90	1262492.12	3244916.49
9900.00	90.27	179.570	7080.39	2851.01S	163.67W	==>	2854.82	1262392.13	3244917.24
10000.00	90.27	179.570	7079.92	2951.01S	162.92W	==>	2954.74	1262292.14	3244917.99
10100.00	90.27	179.570	7079.45	3051.00S	162.16W	==>	3054.66	1262192.14	3244918.75
10200.00	90.27	179.570	7078.98	3151.00S	161.41W	==>	3154.57	1262092.15	3244919.50
10300.00	90.27	179.570	7078.51	3251.00S	160.66W	==>	3254.49	1261992.16	3244920.26
10400.00	90.27	179.570	7078.04	3350.99S	159.90W	==>	3354.41	1261892.17	3244921.01
10500.00	90.27	179.570	7077.57	3450.99S	159.15W	==>	3454.33	1261792.18	3244921.76
10600.00	90.27	179.570	7077.10	3550.98S	158.40W	==>	3554.25	1261692.18	3244922.52
10700.00	90.27	179.570	7076.63	3650.98S	157.64W	==>	3654.17	1261592.19	3244923.27
10800.00	90.27	179.570	7076.16	3750.98S	156.89W	==>	3754.09	1261492.20	3244924.02
10900.00	90.27	179.570	7075.69	3850.97S	156.13W	==>	3854.01	1261392.21	3244924.78
11000.00	90.27	179.570	7075.22	3950.97S	155.38W	==>	3953.93	1261292.22	3244925.53
11100.00	90.27	179.570	7074.75	4050.96S	154.63W	==>	4053.85	1261192.22	3244926.28
11200.00	90.27	179.570	7074.28	4150.96S	153.87W	==>	4153.77	1261092.23	3244927.04
11300.00	90.27	179.570	7073.81	4250.96S	153.12W	==>	4253.69	1260992.24	3244927.79
11400.00	90.27	179.570	7073.34	4350.95S	152.37W	==>	4353.61	1260892.25	3244928.54
11500.00	90.27	179.570	7072.87	4450.95S	151.61W	==>	4453.52	1260792.26	3244929.30
11600.00	90.27	179.570	7072.40	4550.94S	150.86W	==>	4553.44	1260692.26	3244930.05
11684.54	90.27	179.570	7072.00	4635.48S	150.22W	==>	4637.91	1260607.73	3244930.69

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 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	1250.00	0.00N	0.00E
8 3/4	1250.00	1250.00	0.00N	0.00E	7296.00	7077.39	248.22S	182.80W
6 1/8	7296.00	7077.39	248.22S	182.80W	11682.64	7072.01	4633.58S	150.24W

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	1250.00	0.00N	0.00E
7.0in Intermediate Casing	13.00	13.00	0.00N	0.00E	7296.00	7077.39	248.22S	182.80W
4 1/2in Intermediate Casing	7096.00	6999.77	65.00S	181.67W	11682.64	7072.01	4633.58S	150.24W

Targets								
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting	Last Revised
AMEN #4 - T1	249.53S	182.30W	7102.00	40.05748000	-104.62509000	1264993.51	3244898.61	14-May-2014
AMEN #4 - T2	4635.48S	150.22W	7102.00	40.04544000	-104.62513000	1260607.73	3244930.69	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
192582	Planned	11684.54	7072.00	WdW Rate Gyro	Standard

Notes

SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: AMEN #4 (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 #4 (PWB)	14-May-2014	30-May-2014

Well		
Name	Government ID	Last Revised
AMEN #4		14-May-2014

Slot						
Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #4	1265243.0284	3245080.9056	40.05816000	-104.62443000	31525.40N	88759.72E

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 #5 (PWB)	AMEN PAD	14.00	1250.00	1250.00	11.04	1250.00	3.94	11676.39
AMEN #3 (PWB)	AMEN PAD	16.80	1200.00	1200.00	13.92	1200.00	3.93	11676.39
AMEN #2 (PWB)	AMEN PAD	30.79	1150.00	1150.00	28.00	1150.00	7.87	11676.39
AMEN #1 (PWB)	AMEN PAD	44.79	1100.00	1100.00	42.07	1100.00	11.79	11676.39
WUERTZ #12-3 (AWB)	Amen Pad Offsets	2152.81	1259.72	1259.72	2141.16	1250.00	76.19	6656.70
STEINWALD #37 (AWB)	Amen Pad Offsets	3050.93	10795.29	10795.29	2992.59	10823.37	49.02	11659.98