

HRM Resources

Location Weld County, CO, USA

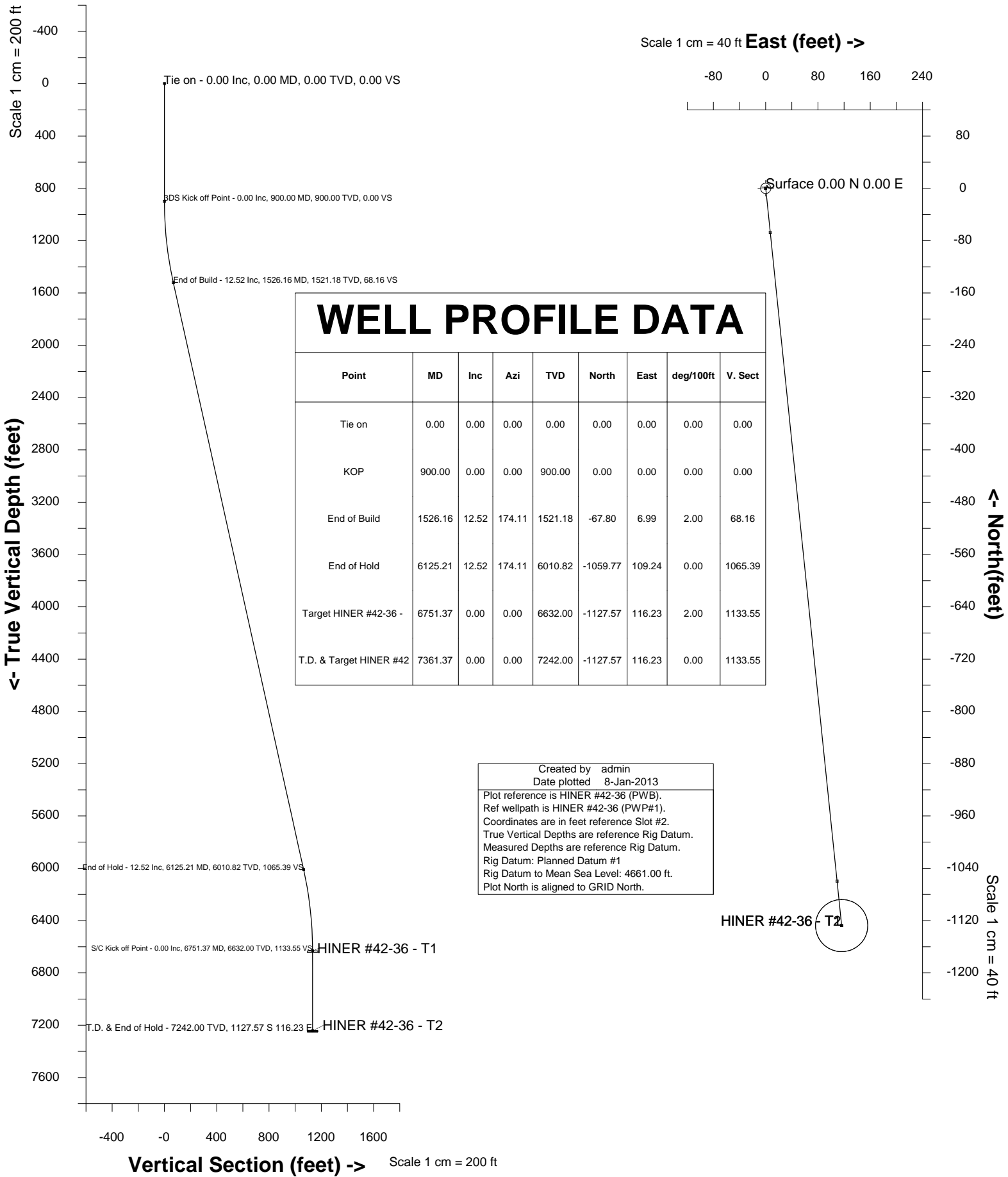
Slot Slot #2

Field WATTENBERG

Well HINER #42-36

Installation Hiner Pad

Wellbore HINER #42-36 (PWB)





SYS DRILL
Wellpath Report
Wellbore: HINER #42-36 (PWB)
Wellpath: HINER #42-36 (PWP#1)

Wellbore

Name	Created	Last Revised
HINER #42-36 (PWB)	19-Dec-2012	8-Jan-2013

Well

Name	Government ID	Last Revised
HINER #42-36		19-Dec-2012

Slot

Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #2	1407600.8796	3217392.9487	N40 26 58.6959	W104 43 7.9028	1.00S	20.00W

Installation

Name	Easting	Northing	Coord System Name	North Alignment
Hiner Pad	3217412.9479	1407601.8796	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Field

Name	Easting	Northing	Coord System Name	North Alignment
WATTENBERG	3217412.9943	1407601.8800	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Wellpath Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00
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	0.000	500.00	0.00N	0.00E	==>	0.00
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00
1000.00	2.00	174.110	999.98	1.74S	0.18E	2.00	1.75
1100.00	4.00	174.110	1099.84	6.94S	0.72E	2.00	6.98
1200.00	6.00	174.110	1199.45	15.61S	1.61E	2.00	15.69
1300.00	8.00	174.110	1298.70	27.73S	2.86E	2.00	27.88
1400.00	10.00	174.110	1397.47	43.29S	4.46E	2.00	43.52
1500.00	12.00	174.110	1495.62	62.27S	6.42E	2.00	62.60
1526.16	12.52	174.110	1521.18	67.80S	6.99E	2.00	68.16
1600.00	12.52	174.110	1593.27	83.73S	8.63E	==>	84.17
1700.00	12.52	174.110	1690.89	105.29S	10.85E	==>	105.85
1800.00	12.52	174.110	1788.51	126.86S	13.08E	==>	127.54
1900.00	12.52	174.110	1886.13	148.43S	15.30E	==>	149.22
2000.00	12.52	174.110	1983.75	170.00S	17.52E	==>	170.90
2100.00	12.52	174.110	2081.37	191.57S	19.75E	==>	192.59
2200.00	12.52	174.110	2178.99	213.14S	21.97E	==>	214.27
2300.00	12.52	174.110	2276.62	234.71S	24.19E	==>	235.95
2400.00	12.52	174.110	2374.24	256.28S	26.42E	==>	257.64
2500.00	12.52	174.110	2471.86	277.85S	28.64E	==>	279.32
2600.00	12.52	174.110	2569.48	299.42S	30.86E	==>	301.00
2700.00	12.52	174.110	2667.10	320.99S	33.09E	==>	322.69
2800.00	12.52	174.110	2764.72	342.56S	35.31E	==>	344.37
2900.00	12.52	174.110	2862.34	364.12S	37.53E	==>	366.05
3000.00	12.52	174.110	2959.96	385.69S	39.76E	==>	387.74
3100.00	12.52	174.110	3057.58	407.26S	41.98E	==>	409.42
3200.00	12.52	174.110	3155.20	428.83S	44.20E	==>	431.10
3300.00	12.52	174.110	3252.82	450.40S	46.43E	==>	452.79
3400.00	12.52	174.110	3350.44	471.97S	48.65E	==>	474.47
3500.00	12.52	174.110	3448.07	493.54S	50.87E	==>	496.15
3600.00	12.52	174.110	3545.69	515.11S	53.10E	==>	517.84
3700.00	12.52	174.110	3643.31	536.68S	55.32E	==>	539.52
3800.00	12.52	174.110	3740.93	558.25S	57.54E	==>	561.20
3900.00	12.52	174.110	3838.55	579.82S	59.77E	==>	582.89
4000.00	12.52	174.110	3936.17	601.39S	61.99E	==>	604.57
4100.00	12.52	174.110	4033.79	622.95S	64.21E	==>	626.25
4200.00	12.52	174.110	4131.41	644.52S	66.44E	==>	647.94
4300.00	12.52	174.110	4229.03	666.09S	68.66E	==>	669.62
4400.00	12.52	174.110	4326.65	687.66S	70.88E	==>	691.31
4500.00	12.52	174.110	4424.27	709.23S	73.11E	==>	712.99
4600.00	12.52	174.110	4521.89	730.80S	75.33E	==>	734.67

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 4661.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 174.110 degrees
Bottom hole distance is 1133.55 Feet on azimuth 174.11 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Peterson Energy
Date Printed: 8-Jan-2013



SYSDRILL
Wellpath Report
Wellbore: HINER #42-36 (PWB)
Wellpath: HINER #42-36 (PWP#1)

Wellpath Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
4700.00	12.52	174.110	4619.52	752.37S	77.55E	==>	756.36
4800.00	12.52	174.110	4717.14	773.94S	79.78E	==>	778.04
4900.00	12.52	174.110	4814.76	795.51S	82.00E	==>	799.72
5000.00	12.52	174.110	4912.38	817.08S	84.22E	==>	821.41
5100.00	12.52	174.110	5010.00	838.65S	86.45E	==>	843.09
5200.00	12.52	174.110	5107.62	860.21S	88.67E	==>	864.77
5300.00	12.52	174.110	5205.24	881.78S	90.89E	==>	886.46
5400.00	12.52	174.110	5302.86	903.35S	93.12E	==>	908.14
5500.00	12.52	174.110	5400.48	924.92S	95.34E	==>	929.82
5600.00	12.52	174.110	5498.10	946.49S	97.56E	==>	951.51
5700.00	12.52	174.110	5595.72	968.06S	99.79E	==>	973.19
5800.00	12.52	174.110	5693.34	989.63S	102.01E	==>	994.87
5900.00	12.52	174.110	5790.97	1011.20S	104.23E	==>	1016.56
6000.00	12.52	174.110	5888.59	1032.77S	106.46E	==>	1038.24
6100.00	12.52	174.110	5986.21	1054.34S	108.68E	==>	1059.92
6125.21	12.52	174.110	6010.82	1059.77S	109.24E	==>	1065.39
6225.21	10.52	174.110	6108.80	1079.64S	111.29E	2.00	1085.36
6325.21	8.52	174.110	6207.41	1096.10S	112.98E	2.00	1101.91
6425.21	6.52	174.110	6306.55	1109.12S	114.33E	2.00	1115.00
6525.21	4.52	174.110	6406.08	1118.70S	115.31E	2.00	1124.62
6625.21	2.52	174.110	6505.88	1124.81S	115.94E	2.00	1130.77
6725.21	0.52	174.110	6605.84	1127.45S	116.22E	2.00	1133.43
6751.37	0.00	0.000	6632.00	1127.57S	116.23E	2.00	1133.55
6800.00	0.00	0.000	6680.63	1127.57S	116.23E	==>	1133.55
6900.00	0.00	0.000	6780.63	1127.57S	116.23E	==>	1133.55
7000.00	0.00	0.000	6880.63	1127.57S	116.23E	==>	1133.55
7100.00	0.00	0.000	6980.63	1127.57S	116.23E	==>	1133.55
7200.00	0.00	0.000	7080.63	1127.57S	116.23E	==>	1133.55
7300.00	0.00	0.000	7180.63	1127.57S	116.23E	==>	1133.55
7361.37	0.00	0.000	7242.00	1127.57S	116.23E	==>	1133.55

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Calculation method uses Minimum Curvature method
Prepared by Peterson Energy
Date Printed: 8-Jan-2013



SYSDRILL
Wellpath Report
Wellbore: HINER #42-36 (PWB)
Wellpath: HINER #42-36 (PWP#1)

Targets

Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Easting	Northing	Last Revised
HINER #42-36 - T1	1127.57S	116.23E	6632.00	N40 26 47.5440	W104 43 6.5280	3217509.17	1406473.35	10-Dec-2012
HINER #42-36 - T2	1127.57S	116.23E	7242.00	N40 26 47.5440	W104 43 6.5280	3217509.17	1406473.35	10-Dec-2012

Survey Tool Program

Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
19261	Planned	7361.37	7242.00	WdW Rate Gyro	Standard

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SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: HINER #42-36 (PWB)
Wellpath: HINER #42-36 (PWP#1)

Ellipse separations are reported ONLY if BOTH wells have uncertainty data
Only Depth and Magnetic Reference Field error terms are correlated across tie points
Cutoff 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
HINER #42-36 (PWB)	19-Dec-2012	8-Jan-2013

Well

Name	Government ID	Last Revised
HINER #42-36		19-Dec-2012

Slot

Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Slot #2	1407600.8796	3217392.9487	N40 26 58.6959	W104 43 7.9028	1.00S	20.00W

Installation

Name	Easting	Northing	Coord System Name	North Alignment
Hiner Pad	3217412.9479	1407601.8796	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Field

Name	Easting	Northing	Coord System Name	North Alignment
WATTENBERG	3217412.9943	1407601.8800	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]
HINER 41-36	HINER 41-36 (PWB)	Slot #3	Hiner Pad	20.00	918.64	7361.37	18.51	951.44	12.23	1066.27
HINER #8-2-36	HINER #8-2-36 (PWB)	Slot #1	Hiner Pad	20.07	900.00	7361.37	18.62	900.00	13.24	967.85
HINER 6-4-36	HINER 6-4-36 (PWB)	Slot #4	Hiner Pad	40.00	900.00	7361.37	38.55	902.23	23.42	1246.72
HINER #32-36	HINER #32-36 (PWB)	Slot #5	Hiner Pad	60.00	900.00	7361.37	58.55	900.00	36.98	1131.89
HINER #6-2-36	HINER #6-2-36 (PWB)	Slot #6	Hiner Pad	80.00	902.23	7361.37	78.51	951.44	44.76	1246.72
HINER #4-2-36	HINER #4-2-36 (PWB)	Slot #7	Hiner Pad	100.00	902.23	7361.37	98.52	935.04	58.13	1181.10
HINER 31-36	HINER 31-36 (PWB)	Slot #8	Hiner Pad	120.00	836.61	7361.37	118.64	853.02	73.97	1148.29