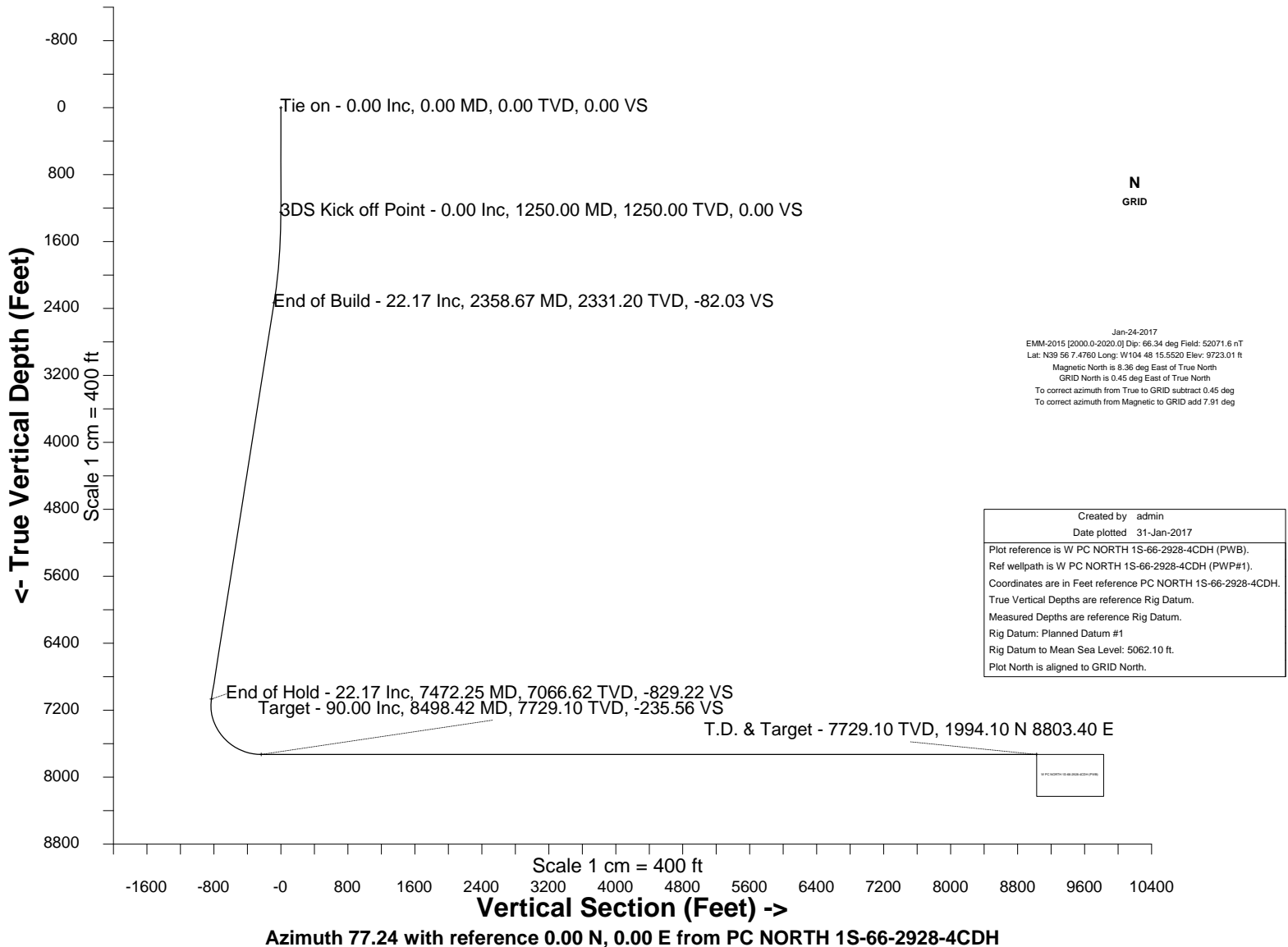
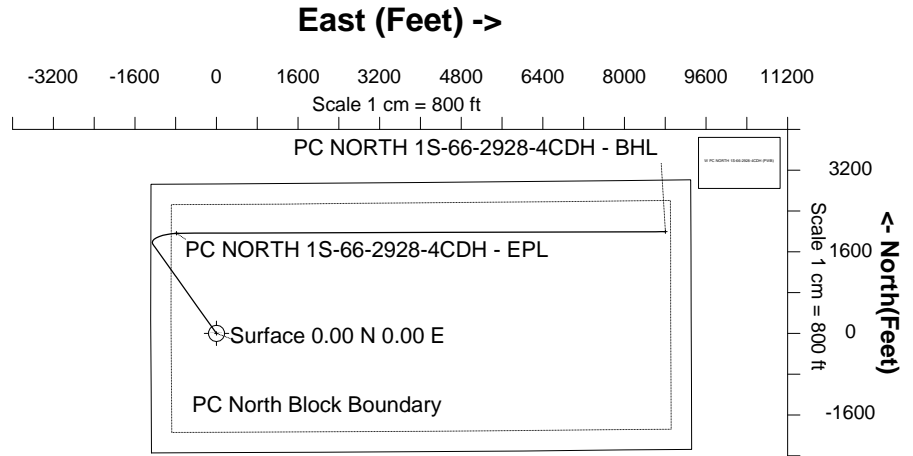


# HRM Resources

Location	DJ Basin	Slot	PC NORTH 1S-66-2928-4CDH
Field	WATTENBERG	Well	W PC NORTH 1S-66-2928-4CDH
Installation	PC 1S-66-2928 PAD	Wellbore	W PC NORTH 1S-66-2928-4CDH (PWB)

## WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	S 0.00	W 0.00		0.00
KOP	1250.00	0.00	324.46	1250.00	S 0.00	W 0.00	0.00	0.00
End of Build	2358.67	22.17	324.46	2331.20	N 172.39	W 123.15	2.00	-82.03
End of Hold	7472.25	22.17	324.46	7066.62	N 1742.76	W 1244.99	0.00	-829.22
Target PC NOR... - EPL	8498.42	90.00	89.82	7729.10	N 1964.67	W 686.55	10.00	-235.56
T.D. & Target PC ...BHL	17988.42	90.00	89.82	7729.10	N 1994.10	E 8803.40	0.00	9026.42





SYSDRILL  
Well Design Combined Report  
Wellbore: W PC NORTH 1S-66-2928-4CDH (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
PC NORTH 1S-66-2928-4CDH	N39 56 7.0440	W104 48 15.5520	1220039.9708	3195080.1789	43.71S	0.34E	0.00

Declination		
Date	Source	Time
Jan-24-2017	EMM-2015 [2000.0-2020.0]	09:32

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
PC 1S-66-2928 PAD	N39 56 7.4760	W104 48 15.5520	1220083.6821	3195079.8360	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
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	1220039.97	3195080.18
1250.00	0.00	324.460	1250.00	0.00N	0.00E	==>	0.00	1220039.97	3195080.18
2358.67	22.17	324.460	2331.20	172.39N	123.15W	2.00	-82.03	1220212.36	3194957.03
7472.25	22.17	324.460	7066.62	1742.76N	1244.99W	==>	-829.22	1221782.68	3193835.23
8498.42	90.00	89.820	7729.10	1964.67N	686.55W	10.00	-235.56	1222004.58	3194393.65
17988.42	90.00	89.820	7729.10	1994.10N	8803.40E	==>	9026.42	1222034.01	3203883.31

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	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	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	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	
1300.00	1.00	324.460	1300.00	0.36N	0.25W	2.00	-0.17	
1400.00	3.00	324.460	1399.93	3.19N	2.28W	2.00	-1.52	
1500.00	5.00	324.460	1499.68	8.87N	6.34W	2.00	-4.22	
1600.00	7.00	324.460	1599.13	17.38N	12.41W	2.00	-8.27	
1700.00	9.00	324.460	1698.15	28.70N	20.50W	2.00	-13.66	
1800.00	11.00	324.460	1796.63	42.83N	30.60W	2.00	-20.38	
1900.00	13.00	324.460	1894.44	59.75N	42.68W	2.00	-28.43	
2000.00	15.00	324.460	1991.46	79.43N	56.74W	2.00	-37.79	
2100.00	17.00	324.460	2087.58	101.86N	72.76W	2.00	-48.46	
2200.00	19.00	324.460	2182.68	127.00N	90.73W	2.00	-60.43	
2300.00	21.00	324.460	2276.65	154.83N	110.61W	2.00	-73.67	
2400.00	22.17	324.460	2369.48	185.08N	132.22W	==>	-88.07	
2500.00	22.17	324.460	2462.08	215.79N	154.16W	==>	-102.68	
2600.00	22.17	324.460	2554.69	246.50N	176.10W	==>	-117.29	
2700.00	22.17	324.460	2647.29	277.21N	198.04W	==>	-131.90	
2800.00	22.17	324.460	2739.89	307.92N	219.97W	==>	-146.51	
2900.00	22.17	324.460	2832.50	338.63N	241.91W	==>	-161.12	
3000.00	22.17	324.460	2925.10	369.34N	263.85W	==>	-175.74	
3100.00	22.17	324.460	3017.71	400.05N	285.79W	==>	-190.35	

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 5062.1ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 77.240 degrees  
Bottom hole distance is 9026.42 Feet on azimuth 77.24 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by IPT  
Date Printed: 31-Jan-2017



SYSDRILL  
Well Design Combined Report  
Wellbore: W PC NORTH 1S-66-2928-4CDH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
3200.00	22.17	324.460	3110.31	430.76N	307.73W	==>	-204.96	
3300.00	22.17	324.460	3202.92	461.47N	329.67W	==>	-219.57	
3400.00	22.17	324.460	3295.52	492.18N	351.60W	==>	-234.18	
3500.00	22.17	324.460	3388.13	522.89N	373.54W	==>	-248.80	
3600.00	22.17	324.460	3480.73	553.60N	395.48W	==>	-263.41	
3700.00	22.17	324.460	3573.34	584.31N	417.42W	==>	-278.02	
3800.00	22.17	324.460	3665.94	615.02N	439.36W	==>	-292.63	
3900.00	22.17	324.460	3758.55	645.73N	461.30W	==>	-307.24	
4000.00	22.17	324.460	3851.15	676.44N	483.23W	==>	-321.86	
4100.00	22.17	324.460	3943.76	707.15N	505.17W	==>	-336.47	
4200.00	22.17	324.460	4036.36	737.86N	527.11W	==>	-351.08	
4300.00	22.17	324.460	4128.96	768.57N	549.05W	==>	-365.69	
4400.00	22.17	324.460	4221.57	799.28N	570.99W	==>	-380.30	
4500.00	22.17	324.460	4314.17	829.99N	592.93W	==>	-394.92	
4600.00	22.17	324.460	4406.78	860.70N	614.86W	==>	-409.53	
4700.00	22.17	324.460	4499.38	891.41N	636.80W	==>	-424.14	
4800.00	22.17	324.460	4591.99	922.12N	658.74W	==>	-438.75	
4900.00	22.17	324.460	4684.59	952.83N	680.68W	==>	-453.36	
5000.00	22.17	324.460	4777.20	983.54N	702.62W	==>	-467.98	
5100.00	22.17	324.460	4869.80	1014.25N	724.56W	==>	-482.59	
5200.00	22.17	324.460	4962.41	1044.96N	746.49W	==>	-497.20	
5300.00	22.17	324.460	5055.01	1075.67N	768.43W	==>	-511.81	
5400.00	22.17	324.460	5147.62	1106.38N	790.37W	==>	-526.42	
5500.00	22.17	324.460	5240.22	1137.09N	812.31W	==>	-541.04	
5600.00	22.17	324.460	5332.82	1167.80N	834.25W	==>	-555.65	
5700.00	22.17	324.460	5425.43	1198.51N	856.19W	==>	-570.26	
5800.00	22.17	324.460	5518.03	1229.22N	878.13W	==>	-584.87	
5900.00	22.17	324.460	5610.64	1259.93N	900.06W	==>	-599.48	
6000.00	22.17	324.460	5703.24	1290.64N	922.00W	==>	-614.10	
6100.00	22.17	324.460	5795.85	1321.35N	943.94W	==>	-628.71	
6200.00	22.17	324.460	5888.45	1352.05N	965.88W	==>	-643.32	
6300.00	22.17	324.460	5981.06	1382.76N	987.82W	==>	-657.93	
6400.00	22.17	324.460	6073.66	1413.47N	1009.76W	==>	-672.54	
6500.00	22.17	324.460	6166.27	1444.18N	1031.69W	==>	-687.16	
6600.00	22.17	324.460	6258.87	1474.89N	1053.63W	==>	-701.77	
6700.00	22.17	324.460	6351.48	1505.60N	1075.57W	==>	-716.38	
6800.00	22.17	324.460	6444.08	1536.31N	1097.51W	==>	-730.99	
6900.00	22.17	324.460	6536.68	1567.02N	1119.45W	==>	-745.60	
7000.00	22.17	324.460	6629.29	1597.73N	1141.39W	==>	-760.22	
7100.00	22.17	324.460	6721.89	1628.44N	1163.32W	==>	-774.83	
7200.00	22.17	324.460	6814.50	1659.15N	1185.26W	==>	-789.44	
7300.00	22.17	324.460	6907.10	1689.86N	1207.20W	==>	-804.05	
7400.00	22.17	324.460	6999.71	1720.57N	1229.14W	==>	-818.66	
7500.00	20.77	331.010	7092.44	1751.33N	1250.42W	10.00	-832.62	
7600.00	18.39	0.320	7186.88	1782.69N	1258.95W	10.00	-834.01	
7700.00	20.92	29.420	7281.27	1814.09N	1250.07W	10.00	-818.42	
7800.00	27.02	49.150	7372.75	1844.57N	1224.05W	10.00	-786.30	
7900.00	34.86	61.330	7458.54	1873.21N	1181.68W	10.00	-738.65	
8000.00	43.51	69.330	7536.02	1899.14N	1124.25W	10.00	-676.92	
8100.00	52.56	75.080	7602.85	1921.58N	1053.50W	10.00	-602.96	
8200.00	61.82	79.570	7657.00	1939.83N	971.59W	10.00	-519.04	
8300.00	71.21	83.330	7696.82	1953.34N	881.00W	10.00	-427.70	
8400.00	80.66	86.690	7721.10	1961.71N	784.48W	10.00	-331.72	
8500.00	90.00	89.820	7729.10	1964.68N	684.98W	==>	-234.02	
8600.00	90.00	89.820	7729.10	1964.99N	584.98W	==>	-136.42	
8700.00	90.00	89.820	7729.10	1965.30N	484.98W	==>	-38.82	
8800.00	90.00	89.820	7729.10	1965.61N	384.98W	==>	58.77	
8900.00	90.00	89.820	7729.10	1965.92N	284.98W	==>	156.37	
9000.00	90.00	89.820	7729.10	1966.23N	184.98W	==>	253.97	

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Vertical Section is from 0.00N 0.00E on azimuth 77.240 degrees  
Bottom hole distance is 9026.42 Feet on azimuth 77.24 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by IPT  
Date Printed: 31-Jan-2017



SYSDRILL  
Well Design Combined Report  
Wellbore: W PC NORTH 1S-66-2928-4CDH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
9100.00	90.00	89.820	7729.10	1966.54N	84.98W	==>	351.56	
9200.00	90.00	89.820	7729.10	1966.85N	15.02E	==>	449.16	
9300.00	90.00	89.820	7729.10	1967.16N	115.02E	==>	546.76	
9400.00	90.00	89.820	7729.10	1967.47N	215.02E	==>	644.36	
9500.00	90.00	89.820	7729.10	1967.78N	315.02E	==>	741.95	
9600.00	90.00	89.820	7729.10	1968.09N	415.02E	==>	839.55	
9700.00	90.00	89.820	7729.10	1968.40N	515.02E	==>	937.15	
9800.00	90.00	89.820	7729.10	1968.71N	615.02E	==>	1034.75	
9900.00	90.00	89.820	7729.10	1969.02N	715.02E	==>	1132.34	
10000.00	90.00	89.820	7729.10	1969.33N	815.02E	==>	1229.94	
10100.00	90.00	89.820	7729.10	1969.64N	915.02E	==>	1327.54	
10200.00	90.00	89.820	7729.10	1969.95N	1015.01E	==>	1425.13	
10300.00	90.00	89.820	7729.10	1970.26N	1115.01E	==>	1522.73	
10400.00	90.00	89.820	7729.10	1970.57N	1215.01E	==>	1620.33	
10500.00	90.00	89.820	7729.10	1970.88N	1315.01E	==>	1717.93	
10600.00	90.00	89.820	7729.10	1971.19N	1415.01E	==>	1815.52	
10700.00	90.00	89.820	7729.10	1971.50N	1515.01E	==>	1913.12	
10800.00	90.00	89.820	7729.10	1971.81N	1615.01E	==>	2010.72	
10900.00	90.00	89.820	7729.10	1972.12N	1715.01E	==>	2108.32	
11000.00	90.00	89.820	7729.10	1972.43N	1815.01E	==>	2205.91	
11100.00	90.00	89.820	7729.10	1972.74N	1915.01E	==>	2303.51	
11200.00	90.00	89.820	7729.10	1973.05N	2015.01E	==>	2401.11	
11300.00	90.00	89.820	7729.10	1973.36N	2115.01E	==>	2498.70	
11400.00	90.00	89.820	7729.10	1973.67N	2215.01E	==>	2596.30	
11500.00	90.00	89.820	7729.10	1973.98N	2315.01E	==>	2693.90	
11600.00	90.00	89.820	7729.10	1974.29N	2415.01E	==>	2791.50	
11700.00	90.00	89.820	7729.10	1974.60N	2515.01E	==>	2889.09	
11800.00	90.00	89.820	7729.10	1974.91N	2615.01E	==>	2986.69	
11900.00	90.00	89.820	7729.10	1975.22N	2715.01E	==>	3084.29	
12000.00	90.00	89.820	7729.10	1975.53N	2815.01E	==>	3181.89	
12100.00	90.00	89.820	7729.10	1975.84N	2915.01E	==>	3279.48	
12200.00	90.00	89.820	7729.10	1976.15N	3015.01E	==>	3377.08	
12300.00	90.00	89.820	7729.10	1976.46N	3115.00E	==>	3474.68	
12400.00	90.00	89.820	7729.10	1976.77N	3215.00E	==>	3572.27	
12500.00	90.00	89.820	7729.10	1977.08N	3315.00E	==>	3669.87	
12600.00	90.00	89.820	7729.10	1977.39N	3415.00E	==>	3767.47	
12700.00	90.00	89.820	7729.10	1977.70N	3515.00E	==>	3865.07	
12800.00	90.00	89.820	7729.10	1978.01N	3615.00E	==>	3962.66	
12900.00	90.00	89.820	7729.10	1978.32N	3715.00E	==>	4060.26	
13000.00	90.00	89.820	7729.10	1978.63N	3815.00E	==>	4157.86	
13100.00	90.00	89.820	7729.10	1978.94N	3915.00E	==>	4255.46	
13200.00	90.00	89.820	7729.10	1979.25N	4015.00E	==>	4353.05	
13300.00	90.00	89.820	7729.10	1979.56N	4115.00E	==>	4450.65	
13400.00	90.00	89.820	7729.10	1979.87N	4215.00E	==>	4548.25	
13500.00	90.00	89.820	7729.10	1980.18N	4315.00E	==>	4645.84	
13600.00	90.00	89.820	7729.10	1980.49N	4415.00E	==>	4743.44	
13700.00	90.00	89.820	7729.10	1980.80N	4515.00E	==>	4841.04	
13800.00	90.00	89.820	7729.10	1981.11N	4615.00E	==>	4938.64	
13900.00	90.00	89.820	7729.10	1981.42N	4715.00E	==>	5036.23	
14000.00	90.00	89.820	7729.10	1981.73N	4815.00E	==>	5133.83	
14100.00	90.00	89.820	7729.10	1982.04N	4915.00E	==>	5231.43	
14200.00	90.00	89.820	7729.10	1982.35N	5015.00E	==>	5329.03	
14300.00	90.00	89.820	7729.10	1982.66N	5115.00E	==>	5426.62	
14400.00	90.00	89.820	7729.10	1982.97N	5214.99E	==>	5524.22	
14500.00	90.00	89.820	7729.10	1983.28N	5314.99E	==>	5621.82	
14600.00	90.00	89.820	7729.10	1983.59N	5414.99E	==>	5719.41	
14700.00	90.00	89.820	7729.10	1983.90N	5514.99E	==>	5817.01	
14800.00	90.00	89.820	7729.10	1984.21N	5614.99E	==>	5914.61	
14900.00	90.00	89.820	7729.10	1984.53N	5714.99E	==>	6012.21	

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Vertical Section is from 0.00N 0.00E on azimuth 77.240 degrees  
Bottom hole distance is 9026.42 Feet on azimuth 77.24 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by IPT  
Date Printed: 31-Jan-2017



SYS DRILL  
Well Design Combined Report  
Wellbore: W PC NORTH 1S-66-2928-4CDH (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
15000.00	90.00	89.820	7729.10	1984.84N	5814.99E	==>	6109.80	
15100.00	90.00	89.820	7729.10	1985.15N	5914.99E	==>	6207.40	
15200.00	90.00	89.820	7729.10	1985.46N	6014.99E	==>	6305.00	
15300.00	90.00	89.820	7729.10	1985.77N	6114.99E	==>	6402.60	
15400.00	90.00	89.820	7729.10	1986.08N	6214.99E	==>	6500.19	
15500.00	90.00	89.820	7729.10	1986.39N	6314.99E	==>	6597.79	
15600.00	90.00	89.820	7729.10	1986.70N	6414.99E	==>	6695.39	
15700.00	90.00	89.820	7729.10	1987.01N	6514.99E	==>	6792.98	
15800.00	90.00	89.820	7729.10	1987.32N	6614.99E	==>	6890.58	
15900.00	90.00	89.820	7729.10	1987.63N	6714.99E	==>	6988.18	
16000.00	90.00	89.820	7729.10	1987.94N	6814.99E	==>	7085.78	
16100.00	90.00	89.820	7729.10	1988.25N	6914.99E	==>	7183.37	
16200.00	90.00	89.820	7729.10	1988.56N	7014.99E	==>	7280.97	
16300.00	90.00	89.820	7729.10	1988.87N	7114.99E	==>	7378.57	
16400.00	90.00	89.820	7729.10	1989.18N	7214.98E	==>	7476.17	
16500.00	90.00	89.820	7729.10	1989.49N	7314.98E	==>	7573.76	
16600.00	90.00	89.820	7729.10	1989.80N	7414.98E	==>	7671.36	
16700.00	90.00	89.820	7729.10	1990.11N	7514.98E	==>	7768.96	
16800.00	90.00	89.820	7729.10	1990.42N	7614.98E	==>	7866.55	
16900.00	90.00	89.820	7729.10	1990.73N	7714.98E	==>	7964.15	
17000.00	90.00	89.820	7729.10	1991.04N	7814.98E	==>	8061.75	
17100.00	90.00	0E on a7729.10	7729.10	1991.35N	7914.98E	==>	8159.35	
17200.00	90.00	89.820	7729.10	1991.66N	8014.98E	==>	8256.94	
17300.00	90.00	89.820	7729.10	1991.97N	8114.98E	==>	8354.54	
17400.00	90.00	89.820	7729.10	1992.28N	8214.98E	==>	8452.14	
17500.00	90.00	89.820	7729.10	1992.59N	8314.98E	==>	8549.74	
17600.00	90.00	89.820	7729.10	1992.90N	8414.98E	==>	8647.33	
17700.00	90.00	89.820	7729.10	1993.21N	8514.98E	==>	8744.93	
17800.00	90.00	89.820	7729.10	1993.52N	8614.98E	==>	8842.53	
17900.00	90.00	89.820	7729.10	1993.83N	8714.98E	==>	8940.12	
17988.42	90.00	89.820	7729.10	1994.10N	8803.40E	==>	9026.42	

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 5062.1ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 77.240 degrees  
Bottom hole distance is 9026.42 Feet on azimuth 77.24 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by IPT  
Date Printed: 31-Jan-2017



SYSDRILL  
Well Design Combined Report  
Wellbore: W PC NORTH 1S-66-2928-4CDH (PWB)



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
PC NORTH 1S-66-2928-4CDH - BHL	1994.10N	8803.40E	7729.10	N39 56 26.0520	W104 46 22.3320	1222034.01	3203883.31
PC NORTH 1S-66-2928-4CDH - EPL	1964.67N	786.55W	7729.10	N39 56 26.5200	W104 48 25.4520	1222004.58	3194293.65

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
523039	Planned	1500.00	1499.68	WdW Rate Gyro	Standard	
523038	Planned	17988.42	7729.10	ISCWSA MWD	Rev 4 + SAG + FLT	

Notes



SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: W PC NORTH 1S-66-2928-4CDH (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
W PC NORTH 1S-66-2928-4CDH (PWB)	Jan-24-2017	Jan-24-2017

Well		
Name	Government ID	Last Revised
W PC NORTH 1S-66-2928-4CDH		Jan-24-2017

Slot						
Name	Latitude	Longitude	Grid Northing	Grid Easting	North	East
PC NORTH 1S-66-2928-4CDH	N39 56 7.0440	W104 48 15.5520	1220039.9708	3195080.1789	43.71S	0.34E

Installation						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Easting	Northing	Coord System Name	North Alignment
PC 1S-66-2928 PAD	N39 56 7.4760	W104 48 15.5520	3195079.8360	1220083.6821	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
W PC NORTH 1S-66-2928-3NH	14.57	1200.03	1200.03	-154.82	17988.42	0.66	17988.42
W PC NORTH 1S-66-2928-5NH	18.21	1250.00	17988.42	-129.96	17988.42	0.70	17988.42
W PC NORTH 1S-66-2928-2NH	29.14	1150.16	17988.42	-125.63	17988.42	0.81	17988.42
W PC SOUTH 1S-66-2928-14NH	30.85	1250.00	17988.42	28.83	1263.12	3.19	17988.42
W PC NORTH 1S-66-2928-6NH	32.79	1250.00	17988.42	-73.04	17988.42	0.89	17988.42
W PC SOUTH 1S-66-2928-13CDH	34.12	1250.00	17988.42	32.08	1279.53	2.91	17988.42
W PC SOUTH 1S-66-2928-15NH	35.82	1250.00	17988.42	33.81	1250.00	3.70	17988.42
W PC SOUTH 1S-66-2928-12NH	42.00	1443.57	17988.42	39.67	1459.97	2.68	17988.42
W PC SOUTH 1S-66-2928-16CDH	45.02	1250.00	17988.42	43.00	1250.00	4.01	17988.42
W PC NORTH 1S-66-2928-7CDH	47.36	1250.00	1250.00	-0.99	17988.42	1.00	17988.42
W PC NORTH 1S-66-2928-11NH	50.37	1574.80	17988.42	47.91	1574.80	2.21	17988.42

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SYSDRILL  
Closest Approach + Clearance Factor Summary Report  
Wellbore: W PC NORTH 1S-66-2928-4CDH (PWB)



Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
W PC SOUTH 1S-66-2928-17N H	56.52	1250.00	17988.42	54.50	1250.00	4.20	17988.42
W PC NORTH 1S-66-2928-8NH	61.93	1250.00	17988.42	59.91	1250.00	1.29	17988.42
W PC SOUTH 1S-66-2928-18N H	69.19	1250.00	17988.42	67.17	1250.00	4.69	17988.42
W PC NORTH 1S-66-2928-9NH	76.50	1250.00	17988.42	74.49	1250.00	1.74	17988.42
W PC SOUTH 1S-66-2928-19C DH	82.48	1250.00	17988.42	80.47	1250.00	5.08	17988.42
W PC NORTH 1S-66-2928-10C DH	91.07	1250.00	17988.42	89.06	1250.00	1.88	17988.42
W PC SOUTH 1S-66-2928-20N H	96.15	1250.00	17988.42	94.14	1250.00	5.24	17988.42
W POLLARD #1	3627.10	13870.83	13870.83	3367.63	13992.78	13.29	14780.18



