

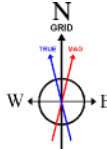


# MARATHON OIL COMPANY

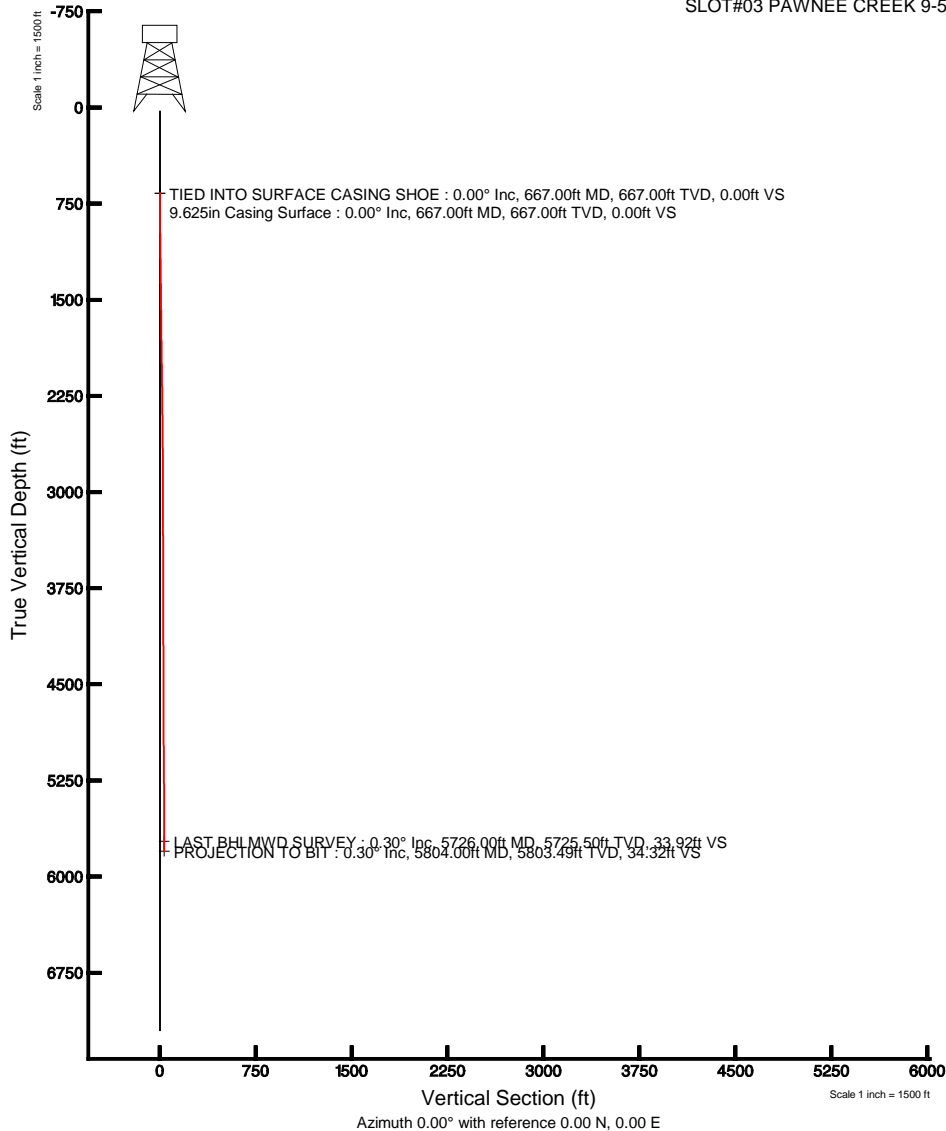
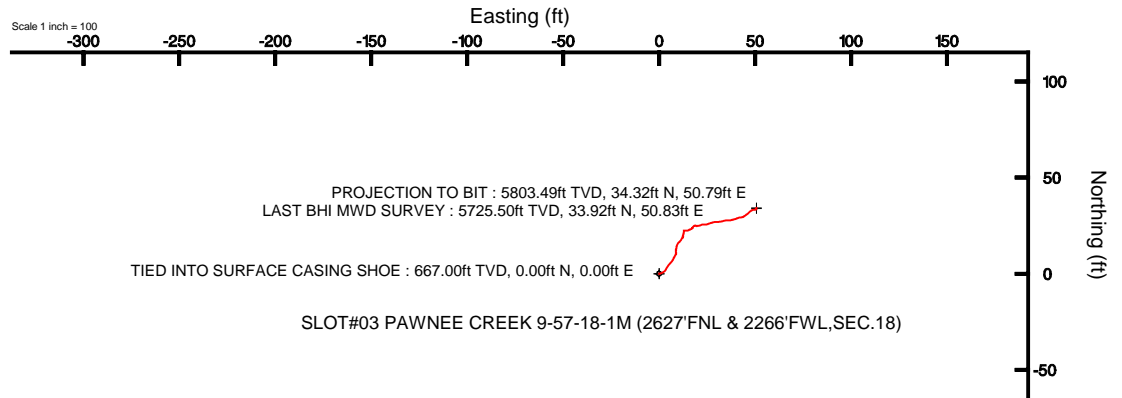
Location: COLORADO Slot: SLOT#03 PAWNEE CREEK 9-57-18-1M (2627'FNL & 2266'FWL,SEC.18)  
Field: WELD COUNTY (NAD 83, GRID NORTH) Well: PAWNEE CREEK 9-57-18-1M  
Facility: SEC.18-RSN-R57W Wellbore: PAWNEE CREEK 9-57-18-1M PWB



PWB reference wellbore is PAWNEE CREEK 9-57-18-1M (REV-A-0) PWB	
True vertical depths are referenced to HSP 321 (RWB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to HSP 321 (RWB)	North Reference: Grid north
HSP 321 (RWB) to Mean Sea Level: 4524 feet	Scale: True distance
Mean Sea Level to Mean the (45 Slot: SLOT#03 PAWNEE CREEK 9-57-18-1M (2627'FNL & 2266'FWL,SEC.18)) 0 feet	Offsets are in feet
Coordinates are in feet referenced to Slot	Created by: ccsd/asm on 12/1/2011



BGGM (1945.0 to 2012.0) Dip: 67.49° Field: 53388 nT  
Magnetic North is 8.26 degrees East of True North (at 10/20/2011)  
Grid North is 1.10 degrees East of True North  
To correct azimuth from True to Grid subtract 1.10 degrees  
To correct azimuth from Magnetic to Grid add 7.16 degrees  
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.16 = 97.16





# Actual Wellpath Report

PAWNEE CREEK 9-57-18-1M AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#03 PAWNEE CREEK 9-57-18-1M (2627'FNL & 2266'FWL,SEC.18)
Area	COLORADO	Well	PAWNEE CREEK 9-57-18-1M
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	PAWNEE CREEK 9-57-18-1M AWB
Facility	SEC.18-R9N-R57W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.1
North Reference	Grid	User	Cookdanm
Scale	0.999995	Report Generated	12/1/2011 at 4:37:27 PM
Convergence at slot	1.10° East	Database/Source file	WA_Denver/PAWNEE_CREEK_9-57-18-1M_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2189.43	1556.11	3472511.90	1521212.04	40°45'05.908"N	103°47'40.128"W
Facility Reference Pt			3470955.80	1523401.45	40°45'27.833"N	103°47'59.798"W
Field Reference Pt			3476081.76	1512960.14	40°43'43.704"N	103°46'55.829"W

## WELLPATH DATUM

Calculation method	Minimum curvature	H&P 321 (RKB) to Facility Vertical Datum	4628.00ft
Horizontal Reference Pt	Slot	H&P 321 (RKB) to Mean Sea Level	4628.00ft
Vertical Reference Pt	H&P 321 (RKB)	H&P 321 (RKB) to Mud Line at Slot (SLOT#03 PAWNEE CREEK 9-57-18-1M (2627'FNL & 2266'FWL,SEC.18))	4628.00ft
MD Reference Pt	H&P 321 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.00°



# Actual Wellpath Report

PAWNEE CREEK 9-57-18-1M AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#03 PAWNEE CREEK 9-57-18-1M (2627'FNL & 2266'FWL,SEC.18)
Area	COLORADO	Well	PAWNEE CREEK 9-57-18-1M
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	PAWNEE CREEK 9-57-18-1M AWB
Facility	SEC.18-R9N-R57W		

## WELLPATH DATA (54 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
667.00	0.000	79.300	667.00	0.00	0.00	0.00	3472511.90	1521212.04	40°45'05.908"N	103°47'40.128"W	0.00	TIED INTO SURFACE CASING SHOE
716.00	0.900	79.300	716.00	0.07	0.07	0.38	3472512.28	1521212.11	40°45'05.909"N	103°47'40.123"W	1.84	
810.00	0.600	64.700	809.99	0.42	0.42	1.55	3472513.45	1521212.46	40°45'05.912"N	103°47'40.108"W	0.38	
905.00	0.900	54.500	904.98	1.06	1.06	2.61	3472514.51	1521213.10	40°45'05.918"N	103°47'40.094"W	0.34	
999.00	0.900	24.500	998.97	2.17	2.17	3.51	3472515.42	1521214.20	40°45'05.929"N	103°47'40.082"W	0.50	
1094.00	0.900	32.800	1093.96	3.47	3.47	4.23	3472516.13	1521215.51	40°45'05.941"N	103°47'40.072"W	0.14	
1188.00	1.000	42.200	1187.95	4.70	4.70	5.18	3472517.08	1521216.74	40°45'05.953"N	103°47'40.060"W	0.20	
1283.00	0.900	42.500	1282.93	5.86	5.86	6.24	3472518.14	1521217.90	40°45'05.965"N	103°47'40.045"W	0.11	
1377.00	1.000	28.300	1376.92	7.13	7.13	7.13	3472519.03	1521219.17	40°45'05.977"N	103°47'40.034"W	0.27	
1472.00	0.700	28.000	1471.91	8.37	8.37	7.79	3472519.70	1521220.41	40°45'05.989"N	103°47'40.025"W	0.32	
1566.00	0.800	29.300	1565.90	9.45	9.45	8.38	3472520.29	1521221.49	40°45'06.000"N	103°47'40.017"W	0.11	
1661.00	0.500	15.700	1660.90	10.43	10.43	8.82	3472520.72	1521222.47	40°45'06.009"N	103°47'40.011"W	0.35	
1756.00	0.600	344.300	1755.89	11.31	11.31	8.80	3472520.70	1521223.34	40°45'06.018"N	103°47'40.011"W	0.33	
1850.00	0.800	15.100	1849.88	12.41	12.41	8.83	3472520.74	1521224.45	40°45'06.029"N	103°47'40.010"W	0.45	
1945.00	0.800	5.700	1944.88	13.71	13.71	9.07	3472520.98	1521225.75	40°45'06.042"N	103°47'40.007"W	0.14	
2039.00	1.100	25.200	2038.86	15.18	15.18	9.52	3472521.43	1521227.22	40°45'06.056"N	103°47'40.001"W	0.46	
2133.00	1.000	52.000	2132.85	16.51	16.51	10.55	3472522.46	1521228.54	40°45'06.069"N	103°47'39.987"W	0.53	
2228.00	1.100	28.900	2227.83	17.81	17.81	11.65	3472523.55	1521229.85	40°45'06.082"N	103°47'39.972"W	0.45	
2322.00	0.500	34.500	2321.82	18.94	18.94	12.31	3472524.22	1521230.98	40°45'06.093"N	103°47'39.963"W	0.64	
2417.00	0.400	352.000	2416.82	19.61	19.61	12.50	3472524.41	1521231.65	40°45'06.099"N	103°47'39.961"W	0.36	
2511.00	0.700	17.200	2510.82	20.49	20.49	12.63	3472524.53	1521232.52	40°45'06.108"N	103°47'39.959"W	0.40	
2606.00	0.600	14.200	2605.81	21.52	21.52	12.92	3472524.83	1521233.56	40°45'06.118"N	103°47'39.955"W	0.11	
2700.00	0.300	342.000	2699.81	22.23	22.23	12.97	3472524.87	1521234.27	40°45'06.125"N	103°47'39.954"W	0.41	
2795.00	0.600	88.600	2794.80	22.48	22.48	13.39	3472525.29	1521234.52	40°45'06.128"N	103°47'39.948"W	0.78	
2889.00	0.600	99.500	2888.80	22.41	22.41	14.36	3472526.27	1521234.45	40°45'06.127"N	103°47'39.936"W	0.12	
2984.00	0.700	57.800	2983.79	22.64	22.64	15.35	3472527.25	1521234.68	40°45'06.129"N	103°47'39.923"W	0.50	
3078.00	0.700	75.800	3077.79	23.09	23.09	16.39	3472528.29	1521235.12	40°45'06.133"N	103°47'39.909"W	0.23	
3173.00	0.300	38.700	3172.78	23.42	23.42	17.11	3472529.01	1521235.46	40°45'06.136"N	103°47'39.900"W	0.52	
3267.00	0.500	23.800	3266.78	23.99	23.99	17.43	3472529.33	1521236.03	40°45'06.142"N	103°47'39.896"W	0.24	
3362.00	0.700	47.800	3361.78	24.76	24.76	18.02	3472529.93	1521236.80	40°45'06.149"N	103°47'39.888"W	0.33	
3456.00	0.800	107.400	3455.77	24.95	24.95	19.07	3472530.98	1521236.99	40°45'06.151"N	103°47'39.874"W	0.80	
3551.00	1.000	78.300	3550.76	24.92	24.92	20.52	3472532.42	1521236.96	40°45'06.150"N	103°47'39.855"W	0.52	
3645.00	1.000	67.000	3644.74	25.41	25.41	22.08	3472533.98	1521237.44	40°45'06.155"N	103°47'39.835"W	0.21	
3740.00	0.700	104.500	3739.73	25.58	25.58	23.40	3472535.31	1521237.62	40°45'06.156"N	103°47'39.818"W	0.65	
3835.00	0.800	74.200	3834.73	25.62	25.62	24.60	3472536.51	1521237.66	40°45'06.156"N	103°47'39.802"W	0.42	
3929.00	1.000	71.500	3928.71	26.06	26.06	26.01	3472537.92	1521238.09	40°45'06.160"N	103°47'39.784"W	0.22	
4024.00	1.100	72.300	4023.70	26.60	26.60	27.67	3472539.57	1521238.64	40°45'06.166"N	103°47'39.762"W	0.11	
4119.00	1.300	88.000	4118.68	26.91	26.91	29.61	3472541.52	1521238.95	40°45'06.168"N	103°47'39.737"W	0.40	
4213.00	1.100	84.500	4212.66	27.04	27.04	31.58	3472543.48	1521239.07	40°45'06.169"N	103°47'39.711"W	0.23	
4308.00	1.300	72.000	4307.64	27.46	27.46	33.51	3472545.41	1521239.49	40°45'06.173"N	103°47'39.686"W	0.35	
4402.00	1.100	93.000	4401.62	27.74	27.74	35.42	3472547.33	1521239.78	40°45'06.175"N	103°47'39.661"W	0.51	
4497.00	1.000	81.400	4496.60	27.82	27.82	37.15	3472549.06	1521239.85	40°45'06.176"N	103°47'39.638"W	0.25	
4591.00	0.600	69.500	4590.59	28.11	28.11	38.43	3472550.33	1521240.15	40°45'06.178"N	103°47'39.622"W	0.46	
4686.00	0.600	80.100	4685.59	28.37	28.37	39.38	3472551.29	1521240.41	40°45'06.181"N	103°47'39.609"W	0.12	
4780.00	1.100	65.900	4779.57	28.82	28.82	40.69	3472552.59	1521240.86	40°45'06.185"N	103°47'39.592"W	0.57	



# Actual Wellpath Report

PAWNEE CREEK 9-57-18-1M AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#03 PAWNEE CREEK 9-57-18-1M (2627'FNL & 2266'FWL,SEC.18)
Area	COLORADO	Well	PAWNEE CREEK 9-57-18-1M
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	PAWNEE CREEK 9-57-18-1M AWB
Facility	SEC.18-R9N-R57W		

## WELLPATH DATA (54 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4875.00	1.000	84.600	4874.56	29.27	29.27	42.35	3472554.25	1521241.31	40°45'06.189"N	103°47'39.571"W	0.37	
4969.00	0.500	69.700	4968.55	29.49	29.49	43.55	3472555.45	1521241.53	40°45'06.191"N	103°47'39.555"W	0.57	
5064.00	0.700	53.900	5063.55	29.98	29.98	44.41	3472556.31	1521242.02	40°45'06.196"N	103°47'39.544"W	0.27	
5159.00	1.100	57.100	5158.53	30.82	30.82	45.64	3472557.55	1521242.85	40°45'06.204"N	103°47'39.527"W	0.42	
5253.00	0.800	41.000	5252.52	31.80	31.80	46.83	3472558.73	1521243.84	40°45'06.213"N	103°47'39.512"W	0.42	
5537.00	0.600	89.600	5536.50	33.31	33.31	49.62	3472561.52	1521245.35	40°45'06.228"N	103°47'39.475"W	0.21	
5631.00	0.500	64.300	5630.50	33.49	33.49	50.48	3472562.38	1521245.53	40°45'06.229"N	103°47'39.464"W	0.28	
5726.00	0.300	354.500	5725.50	33.92	33.92	50.83	3472562.73	1521245.95	40°45'06.233"N	103°47'39.459"W	0.51	LAST BHI MWD SURVEY
5804.00	0.300	354.500	5803.49	34.32	34.32	50.79	3472562.69	1521246.36	40°45'06.237"N	103°47'39.460"W	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS - Ref Wellbore: PAWNEE CREEK 9-57-18-1M AWB Ref Wellpath: PAWNEE CREEK 9-57-18-1M AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	30.00	667.00	637.00	30.00	667.00	0.00	0.00	0.00	0.00
7.875in Open Hole	667.00	5726.00	5059.00	667.00	5725.50	0.00	0.00	33.92	50.83

## WELLPATH COMPOSITION - Ref Wellbore: PAWNEE CREEK 9-57-18-1M AWB Ref Wellpath: PAWNEE CREEK 9-57-18-1M AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
667.00	5726.00	NaviTrak (Standard)	BHI MWD SURVEYS <716-5726>	PAWNEE CREEK 9-57-18-1M AWB
5726.00	5804.00	Blind Drilling (std)	Projection to bit	PAWNEE CREEK 9-57-18-1M AWB

**Actual Wellpath Report**

PAWNEE CREEK 9-57-18-1M AWP

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**REFERENCE WELLPATH IDENTIFICATION**

Operator	MARATHON OIL COMPANY	Slot	SLOT#03 PAWNEE CREEK 9-57-18-1M (2627'FNL & 2266'FWL,SEC.18)
Area	COLORADO	Well	PAWNEE CREEK 9-57-18-1M
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	PAWNEE CREEK 9-57-18-1M AWB
Facility	SEC.18-R9N-R57W		

**WELLPATH COMMENTS**

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
667.00	0.000	79.300	667.00	TIED INTO SURFACE CASING SHOE
5726.00	0.300	354.500	5725.50	LAST BHI MWD SURVEY
5804.00	0.300	354.500	5803.49	PROJECTION TO BIT