

MARATHON OIL COMPANY

Location: COLORADO

Field: WELD COUNTY (NAD 83, GRID NORTH)

Facility: SEC.28-T7N-R62W

Slot: SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28)

Well: CROW VALLEY 7-62-28-4H

Wellbore: CROW VALLEY 7-62-28-4H PWB



Plot reference wellpath is CROW VALLEY 7-62-28-4H (REV-B.0) PWP

True vertical depths are referenced to H&P 321 (RKB)

Measured depths are referenced to H&P 321 (RKB)

H&P 321 (RKB) to Mean Sea Level: 4963 feet

Mean Sea Level to Mud line (At Slot: SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28)): 0 feet

Coordinates are in feet referenced to Slot

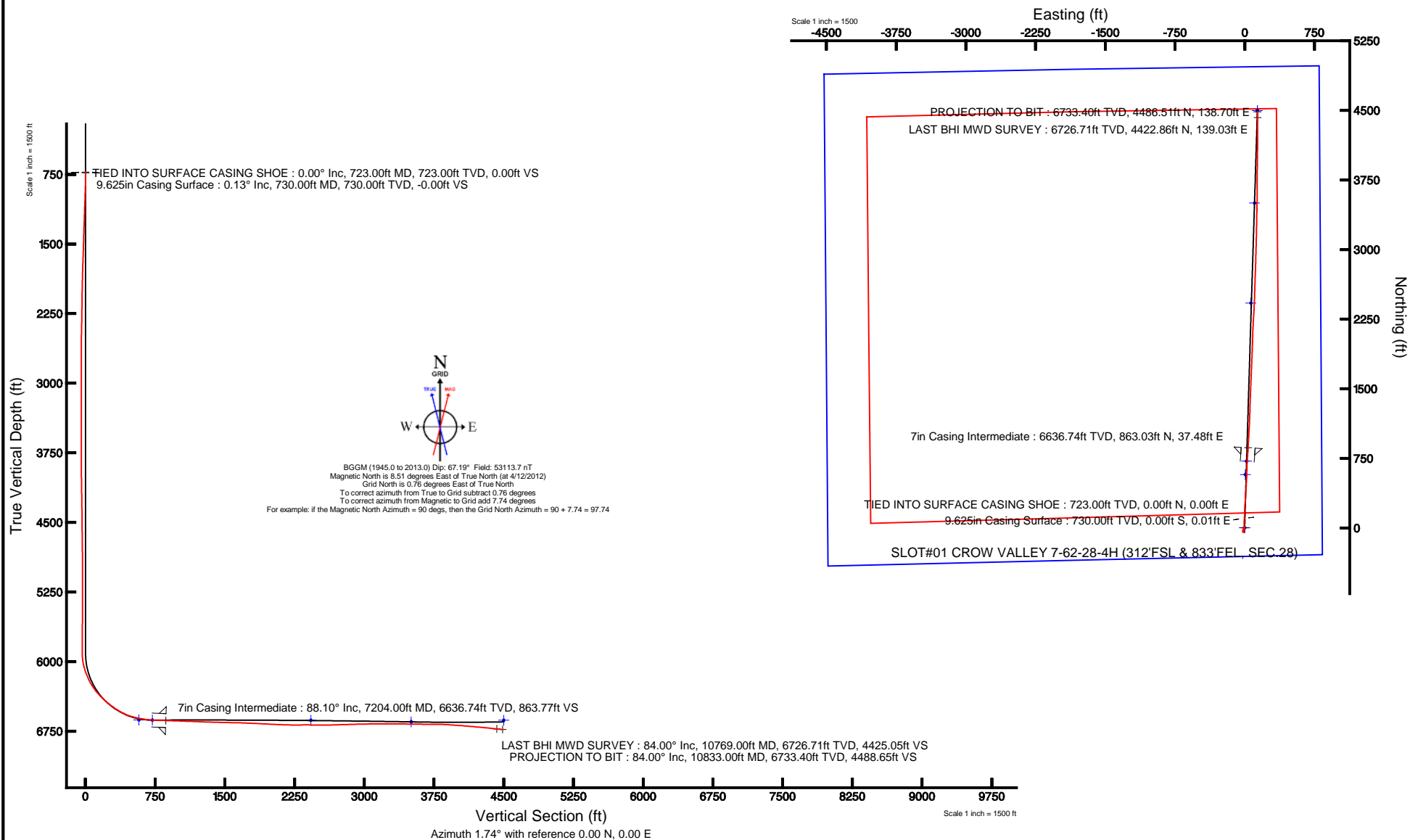
Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet

North Reference: Grid north

Scale: True distance

Depths are in feet

Created by: cookdanm on 5/22/2012





Actual Wellpath Report

CROW VALLEY 7-62-28-4H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28)
Area	COLORADO	Well	CROW VALLEY 7-62-28-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 7-62-28-4H AWB
Facility	SEC.28-T7N-R62W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	Grid	User	Cookdanm
Scale	0.999969	Report Generated	5/22/2012 at 9:42:28 PM
Convergence at slot	0.76° East	Database/Source file	WA_Denver/CROW_VALLEY_7-62-28-4H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.10	-0.19	3327775.00	1441271.37	40°32'19.345"N	104°19'14.398"W
Facility Reference Pt			3327775.19	1441271.27	40°32'19.344"N	104°19'14.395"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	4963.00ft
Horizontal Reference Pt	Slot	H&P 321 (RKB) to Mean Sea Level	4963.00ft
Vertical Reference Pt	H&P 321 (RKB)	H&P 321 (RKB) to Mud Line at Slot (SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28))	4963.00ft
MD Reference Pt	H&P 321 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	1.74°



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REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28)
Area	COLORADO	Well	CROW VALLEY 7-62-28-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 7-62-28-4H AWB
Facility	SEC.28-T7N-R62W		

WELLPATH DATA (136 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
723.00	0.000	117.500	723.00	0.00	0.00	0.00	3327775.00	1441271.37	40°32'19.345"N	104°19'14.398"W	0.00	TIED INTO SURFACE CASING SHOE
772.00	0.900	117.500	772.00	-0.17	-0.18	0.34	3327775.34	1441271.20	40°32'19.343"N	104°19'14.394"W	1.84	
803.00	0.700	113.100	802.99	-0.34	-0.36	0.73	3327775.73	1441271.01	40°32'19.341"N	104°19'14.389"W	0.67	
896.00	2.600	214.300	895.96	-2.33	-2.33	0.07	3327775.06	1441269.04	40°32'19.322"N	104°19'14.398"W	3.03	
987.00	2.300	219.200	986.88	-5.52	-5.45	-2.25	3327772.74	1441265.92	40°32'19.291"N	104°19'14.428"W	0.40	
1079.00	2.500	217.400	1078.80	-8.61	-8.47	-4.64	3327770.36	1441262.90	40°32'19.262"N	104°19'14.460"W	0.23	
1172.00	2.400	218.000	1171.71	-11.83	-11.62	-7.07	3327767.93	1441259.75	40°32'19.231"N	104°19'14.492"W	0.11	
1264.00	2.300	215.700	1263.64	-14.91	-14.64	-9.33	3327775.06	1441256.74	40°32'19.202"N	104°19'14.521"W	0.15	
1357.00	2.200	215.700	1356.56	-17.94	-17.60	-11.46	3327763.53	1441253.77	40°32'19.173"N	104°19'14.549"W	0.11	
1448.00	2.000	216.100	1447.50	-20.70	-20.30	-13.42	3327761.58	1441251.07	40°32'19.146"N	104°19'14.575"W	0.22	
1541.00	2.100	214.200	1540.44	-23.48	-23.02	-15.33	3327759.67	1441248.35	40°32'19.120"N	104°19'14.601"W	0.13	
1633.00	2.200	206.100	1632.38	-26.51	-26.00	-17.06	3327757.94	1441245.37	40°32'19.090"N	104°19'14.623"W	0.35	
1726.00	2.000	207.900	1725.32	-29.59	-29.04	-18.60	3327756.40	1441242.33	40°32'19.060"N	104°19'14.644"W	0.23	
1817.00	1.800	203.700	1816.27	-32.34	-31.75	-19.92	3327755.08	1441239.62	40°32'19.034"N	104°19'14.661"W	0.27	
1909.00	1.500	191.200	1908.23	-34.87	-34.26	-20.73	3327754.26	1441237.12	40°32'19.009"N	104°19'14.672"W	0.51	
2005.00	0.800	159.300	2004.21	-36.73	-36.12	-20.74	3327754.26	1441235.26	40°32'18.991"N	104°19'14.673"W	0.96	
2101.00	1.000	144.800	2100.20	-38.02	-37.43	-20.02	3327754.98	1441233.95	40°32'18.978"N	104°19'14.664"W	0.31	
2196.00	1.000	142.300	2195.18	-39.32	-38.76	-19.03	3327755.96	1441232.61	40°32'18.965"N	104°19'14.651"W	0.05	
2292.00	1.000	170.000	2291.17	-40.79	-40.25	-18.38	3327756.62	1441231.12	40°32'18.950"N	104°19'14.643"W	0.50	
2388.00	1.100	166.800	2387.15	-42.50	-41.97	-18.02	3327756.98	1441229.40	40°32'18.933"N	104°19'14.639"W	0.12	
2484.00	1.400	160.800	2483.13	-44.49	-43.98	-17.42	3327757.57	1441227.40	40°32'18.913"N	104°19'14.631"W	0.34	
2579.00	0.700	104.100	2578.12	-45.69	-45.21	-16.48	3327758.52	1441226.16	40°32'18.900"N	104°19'14.619"W	1.23	
2675.00	0.600	113.600	2674.11	-46.01	-45.56	-15.45	3327759.55	1441225.82	40°32'18.897"N	104°19'14.606"W	0.15	
2771.00	0.600	101.200	2770.10	-46.28	-45.86	-14.50	3327760.50	1441225.52	40°32'18.894"N	104°19'14.594"W	0.13	
2867.00	0.500	113.400	2866.10	-46.51	-46.12	-13.62	3327761.38	1441225.25	40°32'18.891"N	104°19'14.582"W	0.16	
2962.00	0.400	81.000	2961.10	-46.61	-46.23	-12.91	3327762.08	1441225.14	40°32'18.890"N	104°19'14.573"W	0.28	
3058.00	0.300	43.600	3057.10	-46.36	-46.00	-12.41	3327762.59	1441225.38	40°32'18.892"N	104°19'14.567"W	0.25	
3153.00	0.200	54.000	3152.09	-46.07	-45.72	-12.10	3327762.89	1441225.65	40°32'18.895"N	104°19'14.563"W	0.12	
3249.00	0.400	45.400	3248.09	-45.72	-45.39	-11.73	3327763.27	1441225.99	40°32'18.898"N	104°19'14.558"W	0.21	
3346.00	0.500	98.500	3345.09	-45.53	-45.21	-11.07	3327763.93	1441226.16	40°32'18.900"N	104°19'14.549"W	0.42	
3440.00	0.300	43.800	3439.09	-45.39	-45.10	-10.49	3327764.50	1441226.28	40°32'18.901"N	104°19'14.542"W	0.43	
3536.00	0.200	94.700	3535.09	-45.22	-44.93	-10.15	3327764.84	1441226.45	40°32'18.902"N	104°19'14.537"W	0.24	
3631.00	0.300	158.800	3630.09	-45.45	-45.17	-9.90	3327765.10	1441226.20	40°32'18.900"N	104°19'14.534"W	0.29	
3728.00	0.400	137.600	3727.09	-45.93	-45.66	-9.58	3327765.42	1441225.71	40°32'18.895"N	104°19'14.530"W	0.17	
3825.00	0.400	138.900	3824.08	-46.42	-46.17	-9.12	3327765.87	1441225.21	40°32'18.890"N	104°19'14.524"W	0.01	
3921.00	1.000	2.000	3920.08	-45.83	-45.58	-8.88	3327766.12	1441225.79	40°32'18.896"N	104°19'14.521"W	1.38	
4016.00	0.800	345.500	4015.07	-44.36	-44.11	-9.01	3327765.98	1441227.26	40°32'18.910"N	104°19'14.522"W	0.34	
4113.00	0.800	353.900	4112.06	-43.04	-42.78	-9.25	3327765.74	1441228.59	40°32'18.924"N	104°19'14.525"W	0.12	
4208.00	0.800	10.000	4207.05	-41.73	-41.47	-9.21	3327765.79	1441229.91	40°32'18.936"N	104°19'14.524"W	0.24	
4304.00	1.200	6.400	4303.03	-40.06	-39.81	-8.98	3327766.02	1441231.56	40°32'18.953"N	104°19'14.521"W	0.42	
4400.00	0.600	327.400	4399.02	-38.65	-38.39	-9.14	3327765.86	1441232.99	40°32'18.967"N	104°19'14.523"W	0.86	
4497.00	0.500	357.700	4496.02	-37.81	-37.54	-9.43	3327765.57	1441233.84	40°32'18.975"N	104°19'14.527"W	0.31	
4593.00	0.600	341.400	4592.01	-36.92	-36.64	-9.61	3327765.39	1441234.73	40°32'18.984"N	104°19'14.529"W	0.19	
4688.00	0.800	334.500	4687.01	-35.86	-35.57	-10.05	3327764.94	1441235.80	40°32'18.995"N	104°19'14.534"W	0.23	
4784.00	0.900	331.600	4783.00	-34.61	-34.30	-10.70	3327764.30	1441237.07	40°32'19.007"N	104°19'14.542"W	0.11	



Actual Wellpath Report

CROW VALLEY 7-62-28-4H AWP

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Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28)
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Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 7-62-28-4H AWB
Facility	SEC.28-T7N-R62W		

WELLPATH DATA (136 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
4880.00	0.500	325.300	4878.99	-33.62	-33.30	-11.30	3327763.70	1441238.08	40°32'19.017"N	104°19'14.550"W	0.42	
4976.00	0.200	215.900	4974.99	-33.43	-33.09	-11.63	3327763.36	1441238.29	40°32'19.020"N	104°19'14.554"W	0.62	
5071.00	0.200	117.800	5069.99	-33.64	-33.30	-11.58	3327763.41	1441238.08	40°32'19.018"N	104°19'14.554"W	0.32	
5167.00	0.200	138.000	5165.99	-33.83	-33.50	-11.32	3327766.67	1441237.87	40°32'19.015"N	104°19'14.550"W	0.07	
5263.00	0.400	77.800	5261.99	-33.87	-33.56	-10.88	3327764.11	1441237.82	40°32'19.015"N	104°19'14.545"W	0.36	
5358.00	0.400	104.400	5356.98	-33.86	-33.57	-10.24	3327764.76	1441237.81	40°32'19.015"N	104°19'14.536"W	0.19	
5454.00	0.500	97.800	5452.98	-33.98	-33.71	-9.50	3327765.50	1441237.67	40°32'19.013"N	104°19'14.527"W	0.12	
5550.00	0.400	114.900	5548.98	-34.16	-33.91	-8.78	3327766.22	1441237.47	40°32'19.011"N	104°19'14.518"W	0.17	
5646.00	0.700	118.800	5644.97	-34.56	-34.33	-7.96	3327767.03	1441237.05	40°32'19.007"N	104°19'14.507"W	0.31	
5740.00	0.500	130.600	5738.97	-35.07	-34.87	-7.15	3327767.85	1441236.50	40°32'19.001"N	104°19'14.497"W	0.25	
5837.00	0.600	127.200	5835.96	-35.63	-35.46	-6.42	3327768.57	1441235.92	40°32'18.996"N	104°19'14.487"W	0.11	
5900.00	0.300	82.100	5898.96	-35.80	-35.63	-5.99	3327769.00	1441235.74	40°32'18.994"N	104°19'14.482"W	0.70	
5932.00	2.000	1.200	5930.95	-35.23	-35.06	-5.90	3327769.10	1441236.31	40°32'18.999"N	104°19'14.480"W	6.17	
5964.00	5.300	1.200	5962.88	-33.19	-33.03	-5.86	3327769.14	1441238.35	40°32'19.019"N	104°19'14.480"W	10.31	
5996.00	8.400	0.200	5994.65	-29.37	-29.21	-5.82	3327769.18	1441242.16	40°32'19.057"N	104°19'14.478"W	9.69	
6028.00	11.000	359.800	6026.19	-23.99	-23.82	-5.82	3327769.17	1441247.56	40°32'19.110"N	104°19'14.477"W	8.13	
6060.00	14.300	359.200	6057.41	-16.98	-16.81	-5.89	3327769.11	1441254.56	40°32'19.180"N	104°19'14.477"W	10.32	
6092.00	17.100	359.600	6088.21	-8.33	-8.16	-5.97	3327769.02	1441263.22	40°32'19.265"N	104°19'14.477"W	8.76	
6124.00	19.900	0.000	6118.56	1.81	2.00	-6.01	3327768.99	1441273.37	40°32'19.366"N	104°19'14.475"W	8.76	
6156.00	22.900	0.300	6148.35	13.48	13.67	-5.97	3327769.02	1441285.05	40°32'19.481"N	104°19'14.473"W	9.38	
6188.00	24.000	1.000	6177.70	26.22	26.41	-5.83	3327769.17	1441297.78	40°32'19.607"N	104°19'14.469"W	3.55	
6220.00	26.400	1.400	6206.66	39.84	40.03	-5.54	3327769.45	1441311.40	40°32'19.741"N	104°19'14.463"W	7.52	
6252.00	30.000	1.700	6234.85	54.96	55.14	-5.13	3327769.87	1441326.51	40°32'19.890"N	104°19'14.455"W	11.26	
6284.00	32.600	3.400	6262.20	71.58	71.74	-4.38	3327770.61	1441343.12	40°32'20.054"N	104°19'14.442"W	8.58	
6316.00	35.000	3.800	6288.78	89.37	89.51	-3.26	3327771.73	1441360.88	40°32'20.230"N	104°19'14.425"W	7.53	
6347.00	38.100	3.600	6313.69	107.82	107.93	-2.07	3327772.92	1441379.30	40°32'20.412"N	104°19'14.406"W	10.01	
6379.00	40.000	3.000	6338.54	127.97	128.06	-0.91	3327774.08	1441399.43	40°32'20.610"N	104°19'14.388"W	6.05	
6411.00	42.100	2.500	6362.67	148.98	149.04	0.09	3327775.09	1441420.41	40°32'20.818"N	104°19'14.371"W	6.64	
6443.00	44.900	1.100	6385.88	171.00	171.06	0.78	3327775.77	1441442.43	40°32'21.035"N	104°19'14.358"W	9.25	
6475.00	47.200	0.600	6408.08	194.04	194.09	1.12	3327776.11	1441465.46	40°32'21.263"N	104°19'14.350"W	7.27	
6507.00	49.000	1.600	6429.45	217.85	217.90	1.58	3327776.57	1441489.27	40°32'21.498"N	104°19'14.340"W	6.09	
6539.00	51.500	3.500	6449.92	242.45	242.48	2.68	3327777.67	1441513.84	40°32'21.740"N	104°19'14.322"W	9.05	
6571.00	52.600	4.500	6469.59	267.66	267.65	4.44	3327779.44	1441539.01	40°32'21.989"N	104°19'14.294"W	4.23	
6603.00	54.400	5.600	6488.63	293.34	293.27	6.71	3327781.70	1441564.64	40°32'22.242"N	104°19'14.261"W	6.27	
6635.00	55.800	5.800	6506.94	319.52	319.39	9.32	3327784.31	1441590.75	40°32'22.499"N	104°19'14.222"W	4.40	
6667.00	58.100	3.800	6524.39	346.30	346.11	11.55	3327786.55	1441617.47	40°32'22.763"N	104°19'14.189"W	8.89	
6699.00	60.300	2.500	6540.77	373.78	373.55	13.06	3327788.06	1441644.91	40°32'23.034"N	104°19'14.165"W	7.71	
6731.00	63.600	2.200	6555.82	402.01	401.77	14.22	3327789.21	1441673.13	40°32'23.313"N	104°19'14.145"W	10.35	
6764.00	66.600	3.000	6569.71	431.94	431.66	15.58	3327790.57	1441703.02	40°32'23.608"N	104°19'14.122"W	9.35	
6796.00	69.800	3.200	6581.59	461.64	461.33	17.18	3327792.18	1441732.69	40°32'23.901"N	104°19'14.096"W	10.02	
6827.00	72.800	3.200	6591.53	490.99	490.64	18.82	3327793.82	1441762.00	40°32'24.190"N	104°19'14.070"W	9.68	
6859.00	74.900	2.500	6600.43	521.72	521.34	20.35	3327795.35	1441792.70	40°32'24.493"N	104°19'14.045"W	6.89	
6891.00	77.700	2.400	6608.01	552.80	552.40	21.68	3327796.67	1441823.75	40°32'24.800"N	104°19'14.022"W	8.76	
6924.00	80.200	1.800	6614.34	585.19	584.76	22.86	3327797.86	1441856.12	40°32'25.120"N	104°19'14.001"W	7.78	
6956.00	80.300	1.500	6619.75	616.72	616.29	23.77	3327798.77	1441887.64	40°32'25.431"N	104°19'13.984"W	0.98	



Actual Wellpath Report

CROW VALLEY 7-62-28-4H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28)
Area	COLORADO	Well	CROW VALLEY 7-62-28-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 7-62-28-4H AWB
Facility	SEC.28-T7N-R62W		

WELLPATH DATA (136 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
6988.00	81.500	1.500	6624.82	648.32	647.87	24.60	3327799.59	1441919.23	40°32'25.743"N	104°19'13.968"W	3.75	
7020.00	84.400	2.500	6628.74	680.07	679.61	25.71	3327800.70	1441950.96	40°32'26.056"N	104°19'13.948"W	9.58	
7051.00	87.100	3.800	6631.04	710.98	710.47	27.41	3327802.40	1441981.82	40°32'26.361"N	104°19'13.921"W	9.66	
7083.00	87.700	4.100	6632.49	742.92	742.36	29.61	3327804.60	1442013.71	40°32'26.676"N	104°19'13.887"W	2.10	
7115.00	87.900	3.900	6633.72	774.87	774.26	31.84	3327806.84	1442045.61	40°32'26.991"N	104°19'13.852"W	0.88	
7154.00	88.100	3.700	6635.08	813.82	813.15	34.42	3327809.42	1442084.50	40°32'27.375"N	104°19'13.812"W	0.73	
7257.00	88.100	2.900	6638.50	916.73	915.92	40.35	3327815.34	1442187.27	40°32'28.390"N	104°19'13.718"W	0.78	
7290.00	88.200	3.300	6639.56	949.70	948.86	42.13	3327817.13	1442220.20	40°32'28.715"N	104°19'13.689"W	1.25	
7385.00	88.100	3.000	6642.63	1044.62	1043.67	47.35	3327822.35	1442315.00	40°32'29.651"N	104°19'13.605"W	0.33	
7481.00	87.800	2.800	6646.06	1140.54	1139.48	52.20	3327827.20	1442410.82	40°32'30.597"N	104°19'13.526"W	0.38	
7577.00	87.800	2.000	6649.75	1236.46	1235.32	56.22	3327831.22	1442506.66	40°32'31.543"N	104°19'13.457"W	0.83	
7672.00	87.800	0.900	6653.39	1331.39	1330.22	58.62	3327833.62	1442601.55	40°32'32.481"N	104°19'13.410"W	1.16	
7768.00	88.700	2.700	6656.33	1427.34	1426.13	61.64	3327836.63	1442697.45	40°32'33.428"N	104°19'13.354"W	2.10	
7863.00	88.700	2.100	6658.48	1522.31	1521.02	65.62	3327840.61	1442792.34	40°32'34.365"N	104°19'13.286"W	0.63	
7958.00	89.300	2.600	6660.14	1617.29	1615.92	69.51	3327844.50	1442887.24	40°32'35.302"N	104°19'13.219"W	0.82	
8055.00	87.600	2.600	6662.76	1714.24	1712.78	73.91	3327848.90	1442984.10	40°32'36.258"N	104°19'13.146"W	1.75	
8150.00	87.300	2.300	6666.99	1809.14	1807.60	77.97	3327852.96	1443078.92	40°32'37.195"N	104°19'13.077"W	0.45	
8244.00	86.800	1.900	6671.83	1903.01	1901.41	81.41	3327856.40	1443172.73	40°32'38.121"N	104°19'13.016"W	0.68	
8339.00	87.500	1.900	6676.55	1997.89	1996.24	84.55	3327859.54	1443267.55	40°32'39.058"N	104°19'12.959"W	0.74	
8434.00	87.500	1.800	6680.70	2092.80	2091.10	87.62	3327862.61	1443362.41	40°32'39.995"N	104°19'12.903"W	0.11	
8530.00	88.800	3.000	6683.79	2188.74	2186.97	91.63	3327866.63	1443458.27	40°32'40.941"N	104°19'12.834"W	1.84	
8626.00	90.600	3.400	6684.30	2284.70	2282.81	96.99	3327871.98	1443554.11	40°32'41.888"N	104°19'12.749"W	1.92	
8721.00	89.900	3.100	6683.88	2379.67	2377.66	102.38	3327877.37	1443648.95	40°32'42.824"N	104°19'12.662"W	0.80	
8818.00	89.500	1.800	6684.39	2476.66	2474.56	106.52	3327881.52	1443745.86	40°32'43.781"N	104°19'12.592"W	1.40	
8914.00	90.000	1.400	6684.81	2572.66	2570.53	109.20	3327884.20	1443841.82	40°32'44.729"N	104°19'12.541"W	0.67	
9009.00	91.700	2.200	6683.40	2667.64	2665.46	112.19	3327887.18	1443936.75	40°32'45.666"N	104°19'12.486"W	1.98	
9105.00	91.200	2.300	6680.97	2763.61	2761.36	115.96	3327890.95	1444032.64	40°32'46.613"N	104°19'12.420"W	0.53	
9201.00	92.000	1.100	6678.29	2859.57	2857.28	118.80	3327893.79	1444128.56	40°32'47.561"N	104°19'12.367"W	1.50	
9297.00	91.300	1.800	6675.53	2955.53	2953.21	121.23	3327896.22	1444224.48	40°32'48.508"N	104°19'12.319"W	1.03	
9392.00	91.200	1.500	6673.45	3050.50	3048.14	123.97	3327898.96	1444319.42	40°32'49.446"N	104°19'12.267"W	0.33	
9489.00	90.400	1.400	6672.10	3147.49	3145.10	126.42	3327901.41	1444416.37	40°32'50.404"N	104°19'12.219"W	0.83	
9585.00	90.300	1.300	6671.51	3243.49	3241.07	128.68	3327903.67	1444512.34	40°32'51.352"N	104°19'12.173"W	0.15	
9681.00	89.100	0.600	6672.02	3339.47	3337.06	130.27	3327905.26	1444608.32	40°32'52.300"N	104°19'12.136"W	1.45	
9777.00	88.800	1.500	6673.77	3435.45	3433.02	132.03	3327907.02	1444704.29	40°32'53.248"N	104°19'12.096"W	0.99	
9874.00	89.400	0.700	6675.30	3532.43	3529.99	133.89	3327908.89	1444801.25	40°32'54.206"N	104°19'12.056"W	1.03	
9969.00	89.200	0.300	6676.46	3627.40	3624.98	134.72	3327909.71	1444896.24	40°32'55.144"N	104°19'12.028"W	0.47	
10065.00	90.400	0.100	6676.79	3723.36	3720.98	135.06	3327910.05	1444992.23	40°32'56.092"N	104°19'12.008"W	1.27	
10161.00	88.500	0.600	6677.72	3819.33	3816.97	135.64	3327910.64	1445088.22	40°32'57.041"N	104°19'11.983"W	2.05	
10257.00	86.000	0.500	6682.32	3915.19	3912.84	136.57	3327911.56	1445184.09	40°32'57.988"N	104°19'11.955"W	2.61	
10353.00	85.900	0.900	6689.10	4010.93	4008.60	137.73	3327912.73	1445279.84	40°32'58.934"N	104°19'11.923"W	0.43	
10450.00	85.100	0.800	6696.71	4107.62	4105.29	139.17	3327914.16	1445376.53	40°32'59.889"N	104°19'11.888"W	0.83	
10546.00	84.800	0.100	6705.16	4203.22	4200.91	139.92	3327914.91	1445472.15	40°33'00.834"N	104°19'11.862"W	0.79	
10641.00	84.600	359.800	6713.94	4297.77	4295.50	139.84	3327914.83	1445566.74	40°33'01.768"N	104°19'11.847"W	0.38	
10737.00	84.100	359.500	6723.39	4393.24	4391.04	139.25	3327914.25	1445662.27	40°33'02.712"N	104°19'11.838"W	0.61	
10769.00	84.000	359.700	6726.71	4425.05	4422.86	139.03	3327914.02	1445694.09	40°33'03.027"N	104°19'11.835"W	0.70	LAST BHI MWD SURVEY



Actual Wellpath Report

CROW VALLEY 7-62-28-4H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28)
Area	COLORADO	Well	CROW VALLEY 7-62-28-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 7-62-28-4H AWB
Facility	SEC.28-T7N-R62W		

WELLPATH DATA (136 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
10833.00	84.000	359.700	6733.40	4488.65	4486.51	138.70	3327913.69	1445757.74	40°33'03.656"N	104°19'11.828"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: CROW VALLEY 7-62-28-4H AWB Ref Wellpath: CROW VALLEY 7-62-28-4H 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	31.00	730.00	699.00	31.00	730.00	0.00	0.00	0.00	0.01
8.75in Open Hole	730.00	7204.00	6474.00	730.00	6636.74	0.00	0.01	863.03	37.48
7in Casing Intermediate	31.00	7204.00	7173.00	31.00	6636.74	0.00	0.00	863.03	37.48
6in Open Hole	7204.00	10833.00	3629.00	6636.74	6733.40	863.03	37.48	4486.51	138.70

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
CROW VALLEY 7-62-28-4H SECTION LINES		0.00	0.00	0.00	3327775.00	1441271.37	40°32'19.345"N	104°19'14.398"W	polygon
CROW VALLEY 7-62-28-4H LANDING ON EXCEL (REV-1)		6630.00	573.44	8.04	3327783.04	1441844.80	40°32'25.010"N	104°19'14.195"W	point
CROW VALLEY 7-62-28-4H LANDING ON EXCEL (REV-2)		6632.00	718.58	21.24	3327796.23	1441989.93	40°32'26.442"N	104°19'13.999"W	point
CROW VALLEY 7-62-28-4H BHL ON PLAT (470'FNL & 666'FEL, REV-1)		6633.00	4498.46	136.82	3327911.81	1445769.69	40°33'03.774"N	104°19'11.851"W	point
CROW VALLEY 7-62-28-4H HARDLINES (460' SETBACKS)		6633.00	0.00	0.00	3327775.00	1441271.37	40°32'19.345"N	104°19'14.398"W	polygon
CROW VALLEY 7-62-28-4H PT#2 ON EXCEL (REV-1)		6633.00	2423.51	66.74	3327841.73	1443694.80	40°32'43.282"N	104°19'13.116"W	point
CROW VALLEY 7-62-28-4H BHL ON PLAT (470'FNL & 666'FEL, REV-2)		6651.00	4498.46	136.82	3327911.81	1445769.69	40°33'03.774"N	104°19'11.851"W	point
CROW VALLEY 7-62-28-4H PT#2 ON EXCEL (REV-2)		6651.00	3503.16	106.73	3327881.72	1444774.42	40°32'53.944"N	104°19'12.412"W	point

WELLPATH COMPOSITION - Ref Wellbore: CROW VALLEY 7-62-28-4H AWB Ref Wellpath: CROW VALLEY 7-62-28-4H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
723.00	7020.00	NaviTrak (Standard)	BHI MWD NAVITRAK 8.75" HOLE <772-7020>	CROW VALLEY 7-62-28-4H AWB
7020.00	10769.00	NaviTrak (Standard)	BHI MWD NAVITRAK 6" HOLE <7051-10769>	CROW VALLEY 7-62-28-4H AWB
10769.00	10833.00	Blind Drilling (std)	Projection to bit	CROW VALLEY 7-62-28-4H AWB

**Actual Wellpath Report****CROW VALLEY 7-62-28-4H AWP**

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**REFERENCE WELLPATH IDENTIFICATION**

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 7-62-28-4H (312'FSL & 833'FEL, SEC.28)
Area	COLORADO	Well	CROW VALLEY 7-62-28-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 7-62-28-4H AWB
Facility	SEC.28-T7N-R62W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
723.00	0.000	117.500	723.00	TIED INTO SURFACE CASING SHOE
10769.00	84.000	359.700	6726.71	LAST BHI MWD SURVEY
10833.00	84.000	359.700	6733.40	PROJECTION TO BIT