

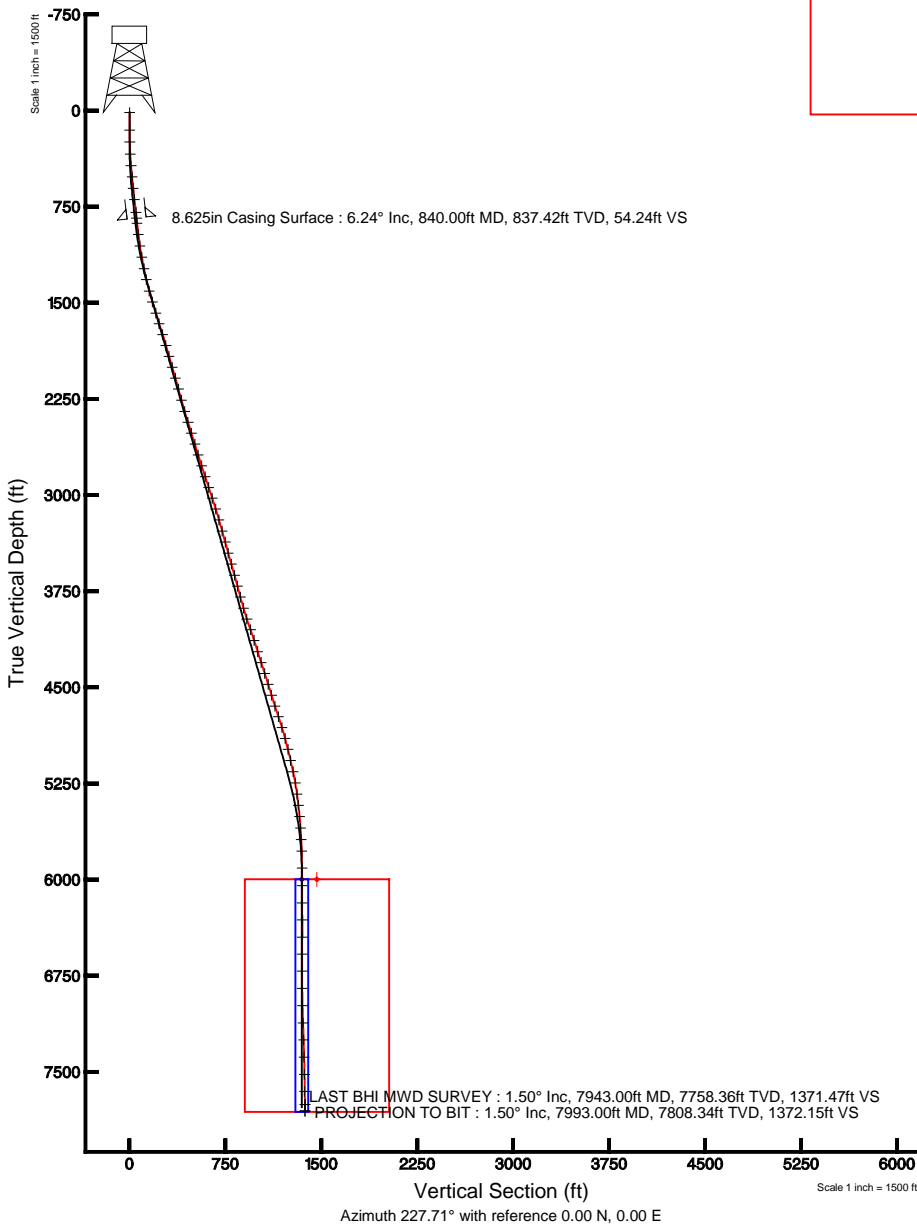
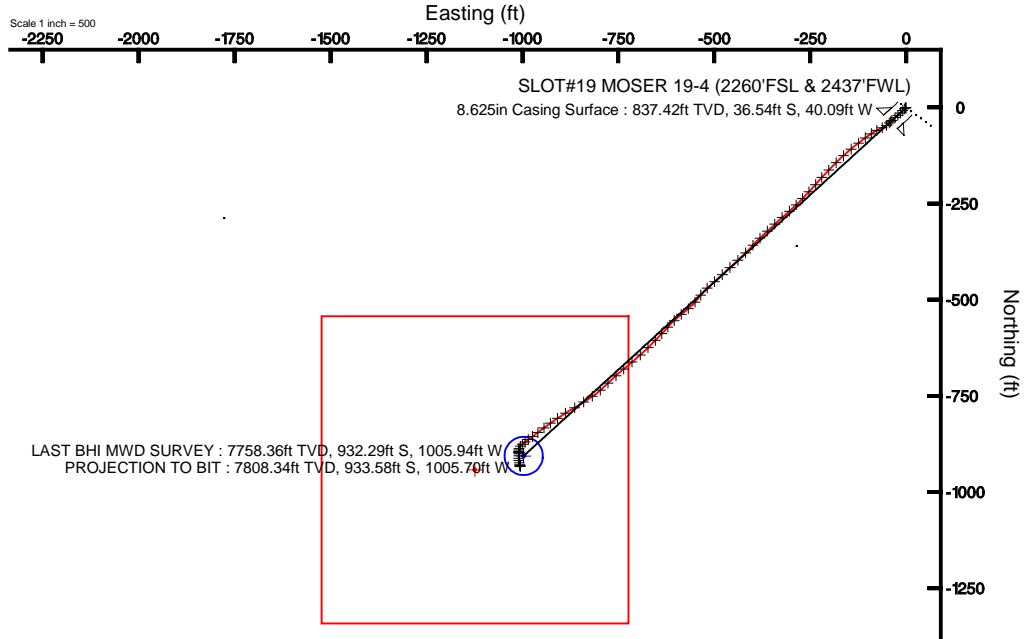


# KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#19 MOSER 19-4 (2260'FSL & 2437'FWL)  
 Field: WELD COUNTY (KERR MCGEE) Well: MOSER 19-4  
 Facility: SEC.04-T2N-R65W Wellbore: MOSER 19-4 PWB



Pit reference wellpath is MOSER 19-4 (REV.8.0) PWB	
True vertical depths are referenced to XTREME 15 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (801), US feet
Measured depths are referenced to XTREME 15 (RKB)	North Reference: True north
XTREME 15 (RKB) to Mean Sea Level 4874 feet	Scale: True distance
Mean Sea Level to Midline (At Slot SLOT#19 MOSER 19-4 (2260'FSL & 2437'FWL)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: coolstarr on 9/8/2011



BGM (1945.0 to 2012.0) Dip: 66.89° Field: 53035.1 nT  
 Magnetic North is 8.76 degrees East of True North (at 6/9/2011)

To correct azimuth from Magnetic to True add 8.76 degrees  
 For example: if the Magnetic North Azimuth = 90 degs, then the True North Azimuth = 90 + 8.76 = 98.76



# Actual Wellpath Report

MOSER 19-4 AWP

Page 1 of 5



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 MOSER 19-4 (2260'FSL & 2437'FWL)
Area	COLORADO	Well	MOSER 19-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 19-4 AWB
Facility	SEC.04-T2N-R65W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.1
North Reference	True	User	Cookdanm
Scale	0.999958	Report Generated	9/8/2011 at 2:15:30 PM
Convergence at slot	0.54° East	Database/Source file	WA_Denver/MOSER_19-4_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-672.86	-84.68	3232109.06	1304665.78	40°10'00.188"N	104°40'10.024"W
Facility Reference Pt			3232187.43	1305339.38	40°10'06.838"N	104°40'08.933"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

## WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 15 (RKB) to Facility Vertical Datum	4874.00ft
Horizontal Reference Pt	Slot	XTREME 15 (RKB) to Mean Sea Level	4874.00ft
Vertical Reference Pt	XTREME 15 (RKB)	XTREME 15 (RKB) to Mud Line at Slot (SLOT#19 MOSER 19-4 (2260'FSL & 2437'FWL))	4874.00ft
MD Reference Pt	XTREME 15 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	227.71°



# Actual Wellpath Report

MOSER 19-4 AWP

Page 2 of 5



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 MOSER 19-4 (2260'FSL & 2437'FWL)
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Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 19-4 AWB
Facility	SEC.04-T2N-R65W		

## WELLPATH DATA (84 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	283.700	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	283.700	15.00	0.00	0.00	0.00	0.00	
152.00	0.300	283.700	152.00	0.20	0.08	-0.35	0.22	
245.00	1.200	235.200	244.99	1.30	-0.41	-1.38	1.10	
339.00	3.300	221.100	338.91	4.97	-3.01	-3.97	2.29	
428.00	4.900	223.900	427.68	11.30	-7.68	-8.29	1.81	
517.00	5.800	224.300	516.29	19.59	-13.64	-14.07	1.01	
606.00	6.000	234.800	604.83	28.69	-19.54	-21.01	1.23	
694.00	6.400	226.000	692.31	38.16	-25.60	-28.30	1.17	
795.00	6.300	228.500	792.69	49.33	-33.18	-36.50	0.29	
881.00	6.200	222.500	878.18	58.67	-39.73	-43.17	0.77	
970.00	6.900	236.200	966.61	68.74	-46.25	-50.86	1.92	
1059.00	9.200	243.300	1054.73	80.89	-52.42	-61.66	2.81	
1149.00	10.700	245.700	1143.37	95.76	-59.09	-75.70	1.73	
1240.00	11.200	234.100	1232.72	112.58	-67.75	-90.56	2.48	
1328.00	13.200	234.500	1318.73	131.05	-78.60	-105.67	2.27	
1419.00	15.500	232.700	1406.89	153.49	-92.00	-123.80	2.57	
1509.00	16.700	229.200	1493.36	178.40	-107.74	-143.16	1.71	
1599.00	17.500	228.500	1579.38	204.85	-125.16	-163.08	0.92	
1686.00	17.900	224.600	1662.26	231.28	-143.35	-182.26	1.44	
1775.00	17.600	224.300	1747.03	258.37	-162.71	-201.27	0.35	
1864.00	16.300	222.900	1832.16	284.25	-181.49	-219.17	1.53	
1953.00	16.300	220.000	1917.58	309.07	-200.21	-235.70	0.91	
2041.00	16.800	224.300	2001.94	334.01	-218.77	-252.52	1.50	
2130.00	15.600	223.600	2087.41	358.78	-236.65	-269.75	1.37	
2218.00	15.300	226.700	2172.23	382.20	-253.18	-286.36	1.00	
2309.00	15.200	227.800	2260.02	406.13	-269.43	-303.94	0.34	
2399.00	16.700	230.200	2346.56	430.85	-285.63	-322.62	1.82	
2488.00	17.400	224.600	2431.65	456.91	-303.29	-341.79	2.00	
2578.00	17.100	228.800	2517.60	483.58	-321.59	-361.19	1.42	
2667.00	17.600	226.400	2602.56	510.12	-339.49	-380.78	0.98	
2755.00	17.100	222.500	2686.55	536.30	-358.20	-399.16	1.44	
2844.00	18.400	225.300	2771.32	563.37	-377.73	-417.98	1.75	
2934.00	18.400	226.700	2856.72	591.76	-397.46	-438.42	0.49	
3022.00	17.800	228.100	2940.36	619.10	-415.97	-458.53	0.84	
3111.00	17.900	226.700	3025.08	646.38	-434.44	-478.61	0.50	
3200.00	17.800	229.200	3109.80	673.65	-452.71	-498.87	0.87	
3288.00	16.200	227.800	3193.95	699.38	-469.74	-518.14	1.88	
3379.00	15.200	217.900	3281.57	723.83	-487.69	-534.88	3.14	
3468.00	16.100	220.400	3367.27	747.57	-506.29	-550.04	1.26	
3558.00	15.400	232.000	3453.91	771.87	-523.16	-567.55	3.58	
3646.00	15.800	229.900	3538.67	795.49	-538.07	-585.93	0.79	
3736.00	15.800	227.400	3625.27	819.99	-554.25	-604.32	0.76	
3824.00	15.100	220.400	3710.10	843.34	-571.09	-620.57	2.26	
3914.00	15.200	225.000	3796.97	866.76	-588.36	-636.51	1.34	



# Actual Wellpath Report

MOSER 19-4 AWP

Page 3 of 5



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 MOSER 19-4 (2260'FSL & 2437'FWL)
Area	COLORADO	Well	MOSER 19-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 19-4 AWB
Facility	SEC.04-T2N-R65W		

## WELLPATH DATA (84 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4003.00	16.500	223.200	3882.59	891.01	-605.83	-653.41	1.56	
4092.00	18.100	226.400	3967.56	917.43	-624.58	-672.08	2.09	
4179.00	19.200	228.100	4049.99	945.25	-643.45	-692.51	1.41	
4268.00	18.500	229.500	4134.22	974.00	-662.39	-714.14	0.94	
4360.00	17.000	231.300	4221.84	1002.01	-680.28	-735.74	1.74	
4449.00	18.400	227.800	4306.62	1029.05	-697.85	-756.30	1.98	
4540.00	18.000	225.700	4393.07	1057.46	-717.32	-777.00	0.84	
4628.00	17.300	228.800	4476.93	1084.13	-735.44	-796.58	1.33	
4717.00	17.100	236.600	4561.96	1110.29	-751.36	-817.46	2.60	
4806.00	18.600	236.600	4646.68	1137.25	-766.38	-840.24	1.69	
4894.00	18.100	239.700	4730.20	1164.48	-781.00	-863.76	1.25	
4983.00	17.900	238.200	4814.85	1191.46	-795.18	-887.32	0.57	
5071.00	15.400	235.900	4899.15	1216.32	-808.86	-908.49	2.94	
5160.00	13.500	235.500	4985.33	1238.31	-821.37	-926.84	2.14	
5249.00	13.400	232.400	5071.89	1258.88	-833.55	-943.57	0.82	
5339.00	12.300	233.800	5159.64	1278.81	-845.57	-959.57	1.27	
5428.00	9.900	232.400	5246.97	1295.86	-855.84	-973.28	2.71	
5516.00	7.900	233.100	5333.90	1309.43	-864.09	-984.11	2.28	
5605.00	6.400	232.700	5422.21	1320.46	-870.77	-992.95	1.69	
5693.00	5.300	228.500	5509.75	1329.41	-876.43	-999.90	1.34	
5782.00	4.300	222.500	5598.44	1336.84	-881.62	-1005.23	1.26	
5873.00	3.600	197.900	5689.22	1342.72	-886.85	-1008.41	1.99	
5964.00	1.900	185.600	5780.12	1346.32	-891.07	-1009.44	1.97	
6096.00	0.800	170.500	5912.08	1348.44	-894.16	-1009.50	0.87	
6232.00	0.700	187.000	6048.07	1349.58	-895.92	-1009.44	0.17	
6367.00	0.200	175.400	6183.06	1350.35	-896.97	-1009.53	0.37	
6500.00	0.400	177.200	6316.06	1350.79	-897.67	-1009.48	0.15	
6635.00	0.400	61.800	6451.06	1350.63	-897.92	-1009.05	0.50	
6767.00	0.400	52.400	6583.06	1349.73	-897.42	-1008.27	0.05	
6900.00	0.400	142.000	6716.05	1349.30	-897.50	-1007.62	0.42	
7035.00	0.700	207.400	6851.05	1350.11	-898.60	-1007.71	0.48	
7170.00	1.800	190.500	6986.02	1352.57	-901.42	-1008.48	0.85	
7304.00	2.600	184.200	7119.92	1356.45	-906.52	-1009.08	0.62	
7437.00	2.700	187.400	7252.77	1361.03	-912.64	-1009.71	0.13	
7571.00	2.600	169.100	7386.63	1365.02	-918.75	-1009.54	0.63	
7706.00	2.600	162.400	7521.49	1367.89	-924.68	-1008.03	0.23	
7840.00	1.700	164.900	7655.40	1370.07	-929.49	-1006.60	0.68	
7943.00	1.500	169.100	7758.36	1371.47	-932.29	-1005.94	0.22	LAST BHI MWD SURVEY
7993.00	1.500	169.100	7808.34	1372.15	-933.58	-1005.70	0.00	PROJECTION TO BIT



# Actual Wellpath Report

MOSER 19-4 AWP

Page 4 of 5



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 MOSER 19-4 (2260'FSL & 2437'FWL)
Area	COLORADO	Well	MOSER 19-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 19-4 AWB
Facility	SEC.04-T2N-R65W		

## HOLE & CASING SECTIONS - Ref Wellbore: MOSER 19-4 AWB Ref Wellpath: MOSER 19-4 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]
12.25in Open Hole	15.00	850.00	835.00	15.00	847.37	0.00	0.00	-37.30	-40.85
8.625in Casing Surface	15.00	840.00	825.00	15.00	837.42	0.00	0.00	-36.54	-40.09
7.875in Open Hole	840.00	7993.00	7153.00	837.42	7808.34	-36.54	-40.09	-933.58	-1005.70

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
MOSER 19-4 GEO TARGET 50' RADIUS (1350'FSL & 1450'FWL, REV-1)		6000.00	-906.72	-996.65	3231120.99	1303749.81	40°09'51.228"N	104°40'22.861"W	circle
MOSER 19-4 LEGAL BOX (364'N,436'S,273'E,527'W OF GEO TARGET)		6000.00	-942.72	-1123.67	3230994.32	1303712.62	40°09'50.872"N	104°40'24.497"W	square

## WELLPATH COMPOSITION - Ref Wellbore: MOSER 19-4 AWB Ref Wellpath: MOSER 19-4 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	7943.00	NaviTrak (Standard)	BHI MWD SURVEYS <152-7943>	MOSER 19-4 AWB
7943.00	7993.00	Blind Drilling (std)	Projection to bit	MOSER 19-4 AWB



# Actual Wellpath Report

MOSER 19-4 AWP

Page 5 of 5



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Area	COLORADO	Well	MOSER 19-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 19-4 AWB
Facility	SEC.04-T2N-R65W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7943.00	1.500	169.100	7758.36	LAST BHI MWD SURVEY
7993.00	1.500	169.100	7808.34	PROJECTION TO BIT