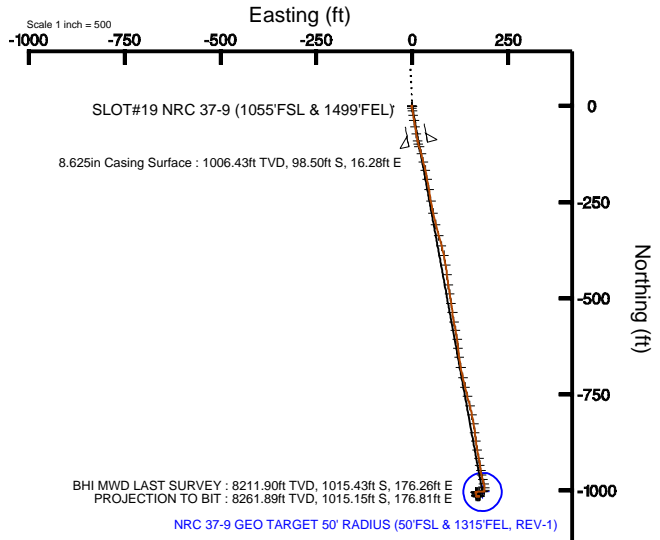
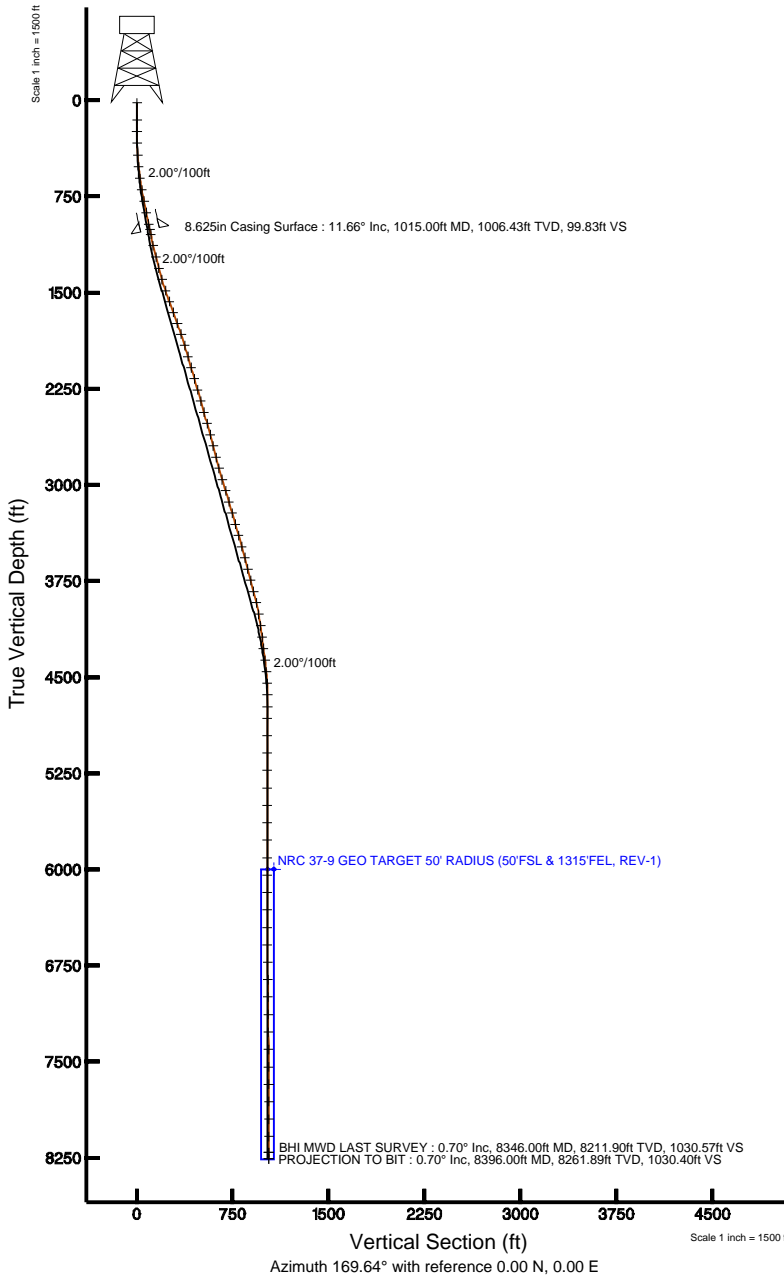


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#19 NRC 37-9 (1055'FSL & 1499'FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: NRC 37-9
 Facility: SEC.09-T1N-R67W Wellbore: NRC 37-9 PWB

Plus reference wellbore is NRC 37-9 (REV-A.0) PWB	
True vertical depths are referenced to XTREME 12 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 12 (RT)	North Reference: True north
XTREME 12 (RT) to Mean Sea Level: 5041 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.09-T1N-R67W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wagner on 10/26/2010



BGGM (1945.0 to 2012.0) Dip: 66.80° Field: 53051 nT
 Magnetic North is 8.98 degrees East of True North (at 9/23/2010)

To correct azimuth from Magnetic to True add 8.98 degrees
 For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 8.98 = 98.98



Actual Wellpath Report

NRC 37-9 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 NRC 37-9 (1055'FSL & 1499'FEL)
Area	COLORADO	Well	NRC 37-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 37-9 AWB
Facility	SEC.09-T1N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Wagnjam
Scale	0.999962	Report Generated	10/26/2010 at 2:04:01 PM
Convergence at slot	0.39° East	Database/Source file	WA_Denver/NRC_37-9_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-2561.69	186.70	3170270.53	1265711.39	40°03'40.190"N	104°53'30.026"W
Facility Reference Pt			3170066.29	1268271.65	40°04'05.506"N	104°53'32.428"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 12 (RT) to Facility Vertical Datum	5041.00ft
Horizontal Reference Pt	Slot	XTREME 12 (RT) to Mean Sea Level	5041.00ft
Vertical Reference Pt	XTREME 12 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 12 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	170.12°



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 NRC 37-9 (1055'FSL & 1499'FEL)
Area	COLORADO	Well	NRC 37-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 37-9 AWB
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (82 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	342.300	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	342.300	15.00	0.00	0.00	0.00	0.00	
149.00	1.000	342.300	148.99	-1.16	1.11	-0.36	0.75	
241.00	0.300	227.300	240.99	-1.82	1.72	-0.78	1.26	
332.00	1.700	176.700	331.97	-0.35	0.21	-0.87	1.68	
426.00	3.800	167.200	425.86	4.14	-4.22	-0.10	2.28	
516.00	6.100	171.100	515.52	11.90	-11.86	1.30	2.58	
607.00	7.800	171.100	605.85	22.91	-22.74	3.00	1.87	
697.00	9.900	171.400	694.77	36.76	-36.42	5.10	2.33	
788.00	11.300	170.400	784.22	53.49	-52.95	7.76	1.55	
879.00	11.600	170.400	873.40	71.56	-70.76	10.77	0.33	
970.00	12.400	169.000	962.42	90.48	-89.37	14.16	0.94	
1052.00	11.100	160.900	1042.70	107.07	-105.47	18.43	2.56	
1142.00	13.100	165.500	1130.70	125.79	-123.54	23.81	2.47	
1234.00	14.200	165.800	1220.10	147.44	-144.57	29.19	1.20	
1324.00	14.600	167.200	1307.27	169.77	-166.33	34.41	0.59	
1415.00	16.500	169.700	1394.94	194.15	-190.24	39.27	2.21	
1506.00	18.500	170.700	1481.72	221.51	-217.20	43.91	2.22	
1597.00	20.000	170.000	1567.63	251.51	-246.77	48.95	1.67	
1688.00	20.500	168.600	1653.01	283.00	-277.72	54.80	0.77	
1778.00	19.600	166.200	1737.55	313.82	-307.83	61.51	1.35	
1869.00	18.900	164.000	1823.47	343.70	-336.82	69.22	1.11	
1960.00	16.700	164.400	1910.10	371.37	-363.58	76.80	2.42	
2051.00	15.800	168.300	1997.47	396.76	-388.31	82.83	1.55	
2141.00	16.800	171.100	2083.85	422.01	-413.16	87.32	1.41	
2232.00	16.300	173.900	2171.08	447.91	-438.85	90.71	1.03	
2323.00	16.600	171.400	2258.36	473.65	-464.40	94.02	0.84	
2414.00	15.200	170.400	2345.88	498.57	-489.02	97.95	1.57	
2504.00	15.700	171.400	2432.62	522.54	-512.69	101.74	0.63	
2595.00	16.100	171.800	2520.14	547.47	-537.35	105.38	0.46	



Actual Wellpath Report

NRC 37-9 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 NRC 37-9 (1055'FSL & 1499'FEL)
Area	COLORADO	Well	NRC 37-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 37-9 AWB
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (82 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2686.00	15.100	170.700	2607.79	571.93	-561.54	109.09	1.15	
2777.00	14.200	168.600	2695.83	594.94	-584.18	113.22	1.15	
2868.00	14.800	171.400	2783.93	617.72	-606.61	117.16	1.01	
2958.00	15.000	174.600	2870.91	640.82	-629.58	119.97	0.94	
3049.00	16.900	172.800	2958.40	665.78	-654.42	122.74	2.16	
3140.00	17.000	168.600	3045.45	692.29	-680.59	127.03	1.35	
3230.00	17.000	168.300	3131.52	718.59	-706.37	132.30	0.10	
3321.00	15.900	165.800	3218.79	744.32	-731.48	138.05	1.44	
3412.00	16.000	165.100	3306.29	769.24	-755.68	144.34	0.24	
3503.00	16.400	166.500	3393.68	794.56	-780.30	150.56	0.61	
3594.00	15.200	167.900	3481.24	819.30	-804.45	156.06	1.38	
3684.00	15.000	169.700	3568.13	842.74	-827.45	160.61	0.57	
3775.00	14.300	174.600	3656.18	865.72	-850.23	163.78	1.56	
3866.00	14.600	171.700	3744.30	888.39	-872.76	166.49	0.86	
3957.00	15.500	169.700	3832.18	912.01	-896.08	170.32	1.14	
4047.00	12.900	169.700	3919.42	934.09	-917.80	174.27	2.89	
4138.00	9.300	172.500	4008.70	951.60	-935.09	177.05	4.00	
4229.00	8.900	171.800	4098.56	965.98	-949.34	179.01	0.46	
4320.00	6.700	165.100	4188.71	978.31	-961.44	181.38	2.61	
4410.00	7.500	166.900	4278.02	989.40	-972.24	184.06	0.92	
4501.00	7.400	161.600	4368.25	1001.13	-983.58	187.26	0.76	
4592.00	5.900	174.200	4458.64	1011.59	-993.80	189.58	2.29	
4683.00	2.800	204.500	4549.38	1018.09	-1000.48	189.13	4.13	
4773.00	2.200	245.600	4639.30	1020.34	-1003.19	186.64	2.05	
4864.00	2.400	266.700	4730.23	1020.56	-1004.02	183.15	0.95	
4955.00	1.800	275.400	4821.17	1019.96	-1004.00	179.83	0.74	
5091.00	1.400	269.800	4957.12	1019.12	-1003.80	176.04	0.32	
5227.00	1.100	264.600	5093.08	1018.74	-1003.93	173.08	0.24	
5363.00	0.900	248.400	5229.06	1018.85	-1004.45	170.78	0.25	
5499.00	0.800	249.400	5365.05	1019.25	-1005.17	168.90	0.07	



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 NRC 37-9 (1055'FSL & 1499'FEL)
Area	COLORADO	Well	NRC 37-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 37-9 AWB
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (82 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5635.00	0.900	256.900	5501.03	1019.48	-1005.75	166.97	0.11	
5772.00	0.400	60.300	5638.03	1019.38	-1005.76	166.34	0.94	
5908.00	0.400	304.700	5774.03	1018.89	-1005.25	166.36	0.50	
6044.00	0.000	338.800	5910.03	1018.55	-1004.98	165.97	0.29	
6180.00	0.200	195.300	6046.02	1018.77	-1005.21	165.91	0.15	
6317.00	0.200	210.500	6183.02	1019.17	-1005.65	165.73	0.04	
6453.00	0.300	290.300	6319.02	1019.17	-1005.73	165.27	0.24	
6589.00	0.300	107.100	6455.02	1019.15	-1005.71	165.28	0.44	
6725.00	0.600	144.100	6591.02	1019.95	-1006.39	166.04	0.30	
6861.00	0.800	148.900	6727.01	1021.48	-1007.78	166.94	0.15	
6997.00	0.700	165.800	6863.00	1023.19	-1009.40	167.64	0.18	
7133.00	0.700	183.000	6998.99	1024.83	-1011.03	167.80	0.15	
7270.00	0.800	198.500	7135.98	1026.49	-1012.78	167.45	0.16	
7406.00	0.500	211.500	7271.97	1027.77	-1014.18	166.84	0.24	
7542.00	0.500	157.000	7407.96	1028.79	-1015.23	166.76	0.34	
7678.00	0.900	113.100	7543.95	1029.95	-1016.20	167.98	0.47	
7814.00	0.800	88.500	7679.94	1030.67	-1016.59	169.91	0.28	
7950.00	0.900	95.100	7815.92	1031.08	-1016.66	171.92	0.10	
8086.00	0.600	71.200	7951.91	1031.25	-1016.53	173.66	0.31	
8222.00	0.600	67.400	8087.90	1030.98	-1016.03	174.99	0.03	
8346.00	0.700	62.800	8211.90	1030.61	-1015.43	176.26	0.09	BHI MWD LAST SURVEY
8396.00	0.700	62.800	8261.89	1030.43	-1015.15	176.81	0.00	PROJECTION TO BIT



Actual Wellpath Report

NRC 37-9 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 NRC 37-9 (1055'FSL & 1499'FEL)
Area	COLORADO	Well	NRC 37-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 37-9 AWB
Facility	SEC.09-T1N-R67W		

HOLE & CASING SECTIONS Ref Wellbore: NRC 37-9 AWB Ref Wellpath: NRC 37-9 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	0.00	1052.00	1052.00	0.00	1042.70	0.00	0.00	-105.47	18.43
8.625in Casing Surface	15.00	1015.00	1000.00	15.00	1006.43	0.00	0.00	-98.50	16.28
7.875in Open Hole	1015.00	8396.00	7381.00	1006.43	8261.89	-98.50	16.28	-1015.15	176.81

WELLPATH COMPOSITION Ref Wellbore: NRC 37-9 AWB Ref Wellpath: NRC 37-9 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	970.00	NaviTrak (Standard)	BHI MWD SURVEYS 12.25 HOLE <149-970>	NRC 37-9 AWB
970.00	8346.00	NaviTrak (Standard)	BHI MWD SRUVEYS 7.875 HOLE <1052-8346>	NRC 37-9 AWB
8346.00	8396.00	Blind Drilling (std)	Projection to bit	NRC 37-9 AWB



Actual Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 NRC 37-9 (1055'FSL & 1499'FEL)
Area	COLORADO	Well	NRC 37-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 37-9 AWB
Facility	SEC.09-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8346.00	0.700	62.800	8211.90	BHI MWD LAST SURVEY
8396.00	0.700	62.800	8261.89	PROJECTION TO BIT