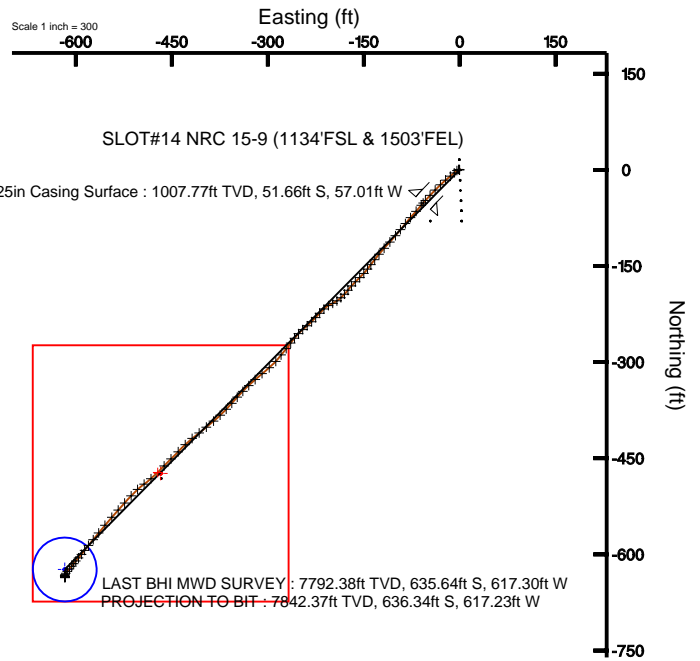
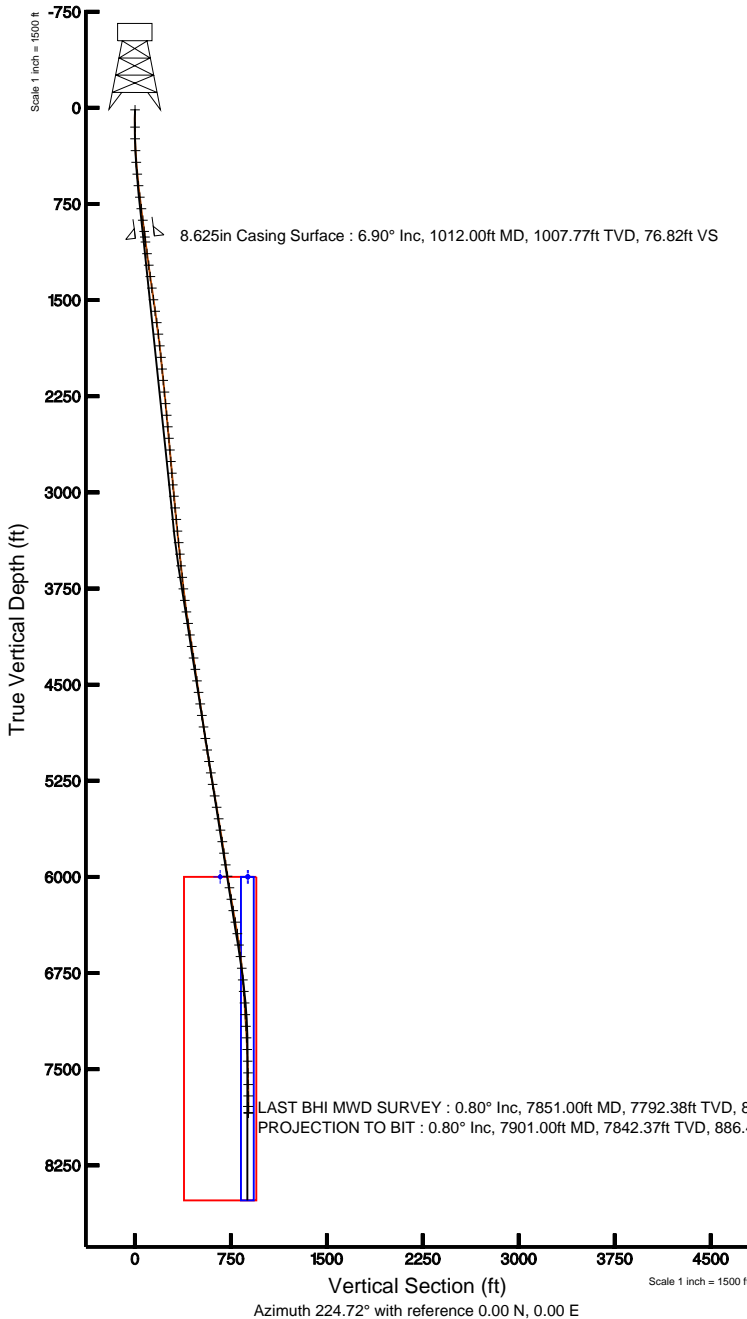


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#14 NRC 15-9 (1134'FSL & 1503'FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: NRC 15-9
 Facility: SEC.09-T1N-R67W Wellbore: NRC 15-9 PWB



Plot reference wellpath is NRC 15-9 (REV.C.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: 5036 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: cookdarn on 8/21/2010



BGGM (1945.0 to 2012.0) Dip: 66.80° Field: 53051 nT
 Magnetic North is 8.98 degrees East of True North (at 8/23/2010)

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 15-9 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 NRC 15-9 (1134'FSL & 1503'FEL)
Area	COLORADO	Well	NRC 15-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 15-9 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	Cookdanm
Scale	0.999962	Report Generated	9/21/2010 at 4:07:38 PM
Convergence at slot	0.39° East	Database/Source file	Denver Server/NRC_15-9_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-2481.91	183.34	3170266.62	1265791.15	40°03'40.979"N	104°53'30.070"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	5038.00ft
Horizontal Reference Pt	Slot	XTREME 12 (RT) to Mean Sea Level	5038.00ft
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	224.72°



Actual Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 NRC 15-9 (1134'FSL & 1503'FEL)
Area	COLORADO	Well	NRC 15-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 15-9 AWB
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (89 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	333.800	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	333.800	15.00	0.00	0.00	0.00	0.00	
149.00	0.600	333.800	149.00	-0.23	0.63	-0.31	0.45	
241.00	1.400	254.400	240.99	0.59	0.76	-1.60	1.54	
333.00	2.600	228.400	332.93	3.65	-0.93	-4.25	1.60	
425.00	4.400	228.700	424.75	9.25	-4.64	-8.46	1.96	
517.00	5.500	230.400	516.41	17.16	-9.78	-14.51	1.21	
608.00	6.600	230.800	606.90	26.70	-15.87	-21.92	1.21	
698.00	7.500	225.600	696.22	37.72	-23.25	-30.13	1.22	
789.00	7.200	224.200	786.47	49.36	-31.49	-38.35	0.38	
880.00	7.200	223.800	876.76	60.76	-39.69	-46.27	0.06	
967.00	6.900	221.000	963.10	71.43	-47.57	-53.47	0.52	
1051.00	6.900	220.600	1046.49	81.50	-55.21	-60.06	0.06	
1142.00	8.700	221.100	1136.64	93.82	-64.55	-68.15	1.98	
1233.00	7.900	221.700	1226.69	106.93	-74.41	-76.83	0.88	
1323.00	7.800	219.600	1315.85	119.19	-83.73	-84.84	0.34	
1414.00	7.600	219.200	1406.03	131.33	-93.15	-92.58	0.23	
1505.00	8.000	219.900	1496.18	143.63	-102.67	-100.44	0.45	
1596.00	8.500	222.100	1586.24	156.66	-112.52	-109.01	0.65	
1686.00	8.400	223.100	1675.27	169.87	-122.26	-117.97	0.20	
1777.00	7.200	219.200	1765.42	182.20	-131.53	-126.11	1.44	
1868.00	6.700	217.200	1855.75	193.14	-140.18	-132.93	0.61	
1959.00	5.500	217.800	1946.24	202.73	-147.85	-138.81	1.32	
2050.00	5.500	217.500	2036.82	211.38	-154.76	-144.14	0.03	
2140.00	5.700	222.400	2126.39	220.13	-161.48	-149.77	0.58	
2231.00	6.000	227.000	2216.92	229.40	-168.06	-156.30	0.61	
2322.00	5.700	225.900	2307.44	238.67	-174.45	-163.02	0.35	
2413.00	5.700	218.500	2397.99	247.68	-181.13	-169.08	0.81	
2504.00	5.400	221.300	2488.57	256.44	-187.88	-174.72	0.44	
2594.00	5.000	222.100	2578.20	264.59	-193.97	-180.15	0.45	
2685.00	4.800	228.400	2668.86	272.35	-199.44	-185.65	0.63	
2776.00	5.300	235.400	2759.51	280.28	-204.36	-191.96	0.87	
2867.00	4.300	244.900	2850.19	287.61	-208.19	-198.51	1.40	
2958.00	5.200	240.000	2940.88	294.79	-211.70	-205.17	1.08	
3048.00	6.100	227.000	3030.44	303.50	-217.00	-212.20	1.73	
3139.00	6.000	223.500	3120.94	313.09	-223.75	-219.01	0.42	
3230.00	5.500	221.700	3211.48	322.20	-230.46	-225.18	0.58	
3321.00	5.900	227.000	3302.03	331.23	-236.90	-231.51	0.73	
3411.00	6.200	229.100	3391.53	340.70	-243.24	-238.56	0.41	
3502.00	5.400	229.100	3482.06	349.87	-249.26	-245.51	0.88	
3593.00	6.100	223.400	3572.61	358.97	-255.58	-252.07	0.99	
3684.00	5.900	218.900	3663.11	368.46	-262.73	-258.33	0.56	
3774.00	6.400	217.500	3752.59	378.03	-270.31	-264.29	0.58	
3865.00	7.600	220.300	3842.91	389.07	-278.92	-271.27	1.37	
3956.00	8.400	217.500	3933.02	401.66	-288.79	-279.21	0.98	



Actual Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 NRC 15-9 (1134'FSL & 1503'FEL)
Area	COLORADO	Well	NRC 15-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 15-9 AWB
Facility	SEC.09-T1N-R67W		

WELLPATH DATA (89 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4047.00	8.200	221.000	4023.07	414.73	-298.96	-287.51	0.60	
4138.00	9.800	230.500	4112.95	428.91	-308.78	-297.75	2.39	
4228.00	8.700	231.200	4201.78	443.30	-317.92	-308.96	1.23	
4319.00	9.300	226.900	4291.66	457.48	-327.26	-319.69	0.99	
4409.00	8.400	227.300	4380.59	471.32	-336.68	-329.84	1.00	
4500.00	7.900	225.200	4470.67	484.21	-345.60	-339.16	0.64	
4591.00	8.100	222.100	4560.78	496.87	-354.76	-347.89	0.52	
4682.00	7.900	220.600	4650.90	509.51	-364.27	-356.26	0.32	
4772.00	8.500	225.200	4739.98	522.33	-373.65	-365.01	0.99	
4863.00	8.200	226.300	4830.01	535.54	-382.87	-374.47	0.37	
4954.00	9.500	230.200	4919.93	549.51	-392.16	-384.93	1.57	
5045.00	9.000	230.500	5009.75	564.06	-401.50	-396.19	0.55	
5136.00	9.200	231.200	5099.60	578.37	-410.58	-407.36	0.25	
5226.00	8.600	232.600	5188.52	592.19	-419.18	-418.31	0.71	
5317.00	9.900	224.500	5278.34	606.75	-428.89	-429.20	2.02	
5408.00	9.800	224.900	5367.99	622.32	-439.96	-440.15	0.13	
5499.00	10.300	225.200	5457.60	638.20	-451.18	-451.39	0.55	
5590.00	9.100	223.800	5547.30	653.53	-462.10	-462.14	1.34	
5680.00	9.100	225.200	5636.16	667.76	-472.25	-472.12	0.25	
5771.00	9.200	230.100	5726.01	682.20	-481.99	-482.80	0.86	
5862.00	8.000	232.900	5815.98	695.71	-490.48	-493.44	1.40	
5953.00	8.700	230.100	5906.02	708.83	-498.71	-503.77	0.89	
6043.00	9.500	220.600	5994.89	723.02	-508.72	-513.82	1.89	
6134.00	9.700	222.100	6084.61	738.17	-520.11	-523.85	0.35	
6225.00	9.000	223.500	6174.40	752.94	-530.96	-533.89	0.81	
6316.00	10.200	220.600	6264.13	768.10	-542.24	-544.03	1.42	
6407.00	10.600	219.900	6353.63	784.47	-554.78	-554.64	0.46	
6498.00	9.100	219.600	6443.29	799.98	-566.75	-564.60	1.65	
6588.00	8.100	219.200	6532.28	813.38	-577.14	-573.14	1.11	
6679.00	6.800	218.900	6622.51	825.12	-586.31	-580.58	1.43	
6770.00	5.400	216.400	6712.99	834.72	-593.94	-586.50	1.57	
6861.00	4.600	219.600	6803.64	842.59	-600.20	-591.37	0.93	
6952.00	4.500	219.600	6894.36	849.78	-605.77	-595.97	0.11	
7042.00	3.600	225.200	6984.13	856.12	-610.48	-600.23	1.09	
7133.00	3.200	210.800	7074.97	861.45	-614.67	-603.56	1.03	
7224.00	3.300	223.400	7165.83	866.53	-618.76	-606.66	0.79	
7315.00	3.600	221.300	7256.66	872.00	-622.81	-610.34	0.36	
7406.00	2.900	220.300	7347.51	877.15	-626.71	-613.72	0.77	
7497.00	1.800	213.900	7438.44	880.85	-629.65	-616.00	1.24	
7588.00	1.200	199.500	7529.41	883.11	-631.73	-617.12	0.77	
7679.00	0.800	185.500	7620.39	884.47	-633.26	-617.50	0.51	
7768.00	0.800	170.400	7709.38	885.31	-634.50	-617.45	0.24	
7851.00	0.800	174.200	7792.38	886.02	-635.64	-617.30	0.06	LAST BHI MWD SURVEY
7901.00	0.800	174.200	7842.37	886.46	-636.34	-617.23	0.00	PROJECTION TO BIT



Actual Wellpath Report

NRC 15-9 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 NRC 15-9 (1134'FSL & 1503'FEL)
Area	COLORADO	Well	NRC 15-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 15-9 AWB
Facility	SEC.09-T1N-R67W		

HOLE & CASING SECTIONS Ref Wellbore: NRC 15-9 AWB Ref Wellpath: NRC 15-9 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	15.00	1012.00	997.00	15.00	1007.77	0.00	0.00	-51.66	-57.01
8.625in Casing Surface	15.00	1012.00	997.00	15.00	1007.77	0.00	0.00	-51.66	-57.01
6.75in Open Hole	1012.00	7901.00	6889.00	1007.77	7842.37	-51.66	-57.01	-636.34	-617.23

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
NRC 15-9 GEO TARGET 50' RADIUS (511'FSL & 2120'FEL, REV-2)		6000.00	-623.75	-617.58	3169653.36	1265163.20	40°03'34.815"N	104°53'38.012"W	circle
NRC 15-9 BHL ON PLAT (510'FSL & 2130'FEL, REV-1)		6000.00	-624.75	-627.58	3169643.37	1265162.13	40°03'34.805"N	104°53'38.141"W	point
NRC 15-9 LEGAL BOX (50'S,350'N,50'W,350'E OF GEO TARGET)		6000.00	-473.75	-467.58	3169802.32	1265314.22	40°03'36.297"N	104°53'36.083"W	square

WELLPATH COMPOSITION Ref Wellbore: NRC 15-9 AWB Ref Wellpath: NRC 15-9 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	967.00	NaviTrak (Standard)	BHI MWD SURVEYS 12.25 HOLE <149-967>	NRC 15-9 AWB
967.00	7851.00	NaviTrak (Standard)	BHI MWD SURVEYS 6.75 HOLE <1051-7851>	NRC 15-9 AWB
7851.00	7901.00	Blind Drilling (std)	Projection to bit	NRC 15-9 AWB



Actual Wellpath Report

NRC 15-9 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 NRC 15-9 (1134'FSL & 1503'FEL)
Area	COLORADO	Well	NRC 15-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 15-9 AWB
Facility	SEC.09-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7851.00	0.800	174.200	7792.38	LAST BHI MWD SURVEY
7901.00	0.800	174.200	7842.37	PROJECTION TO BIT