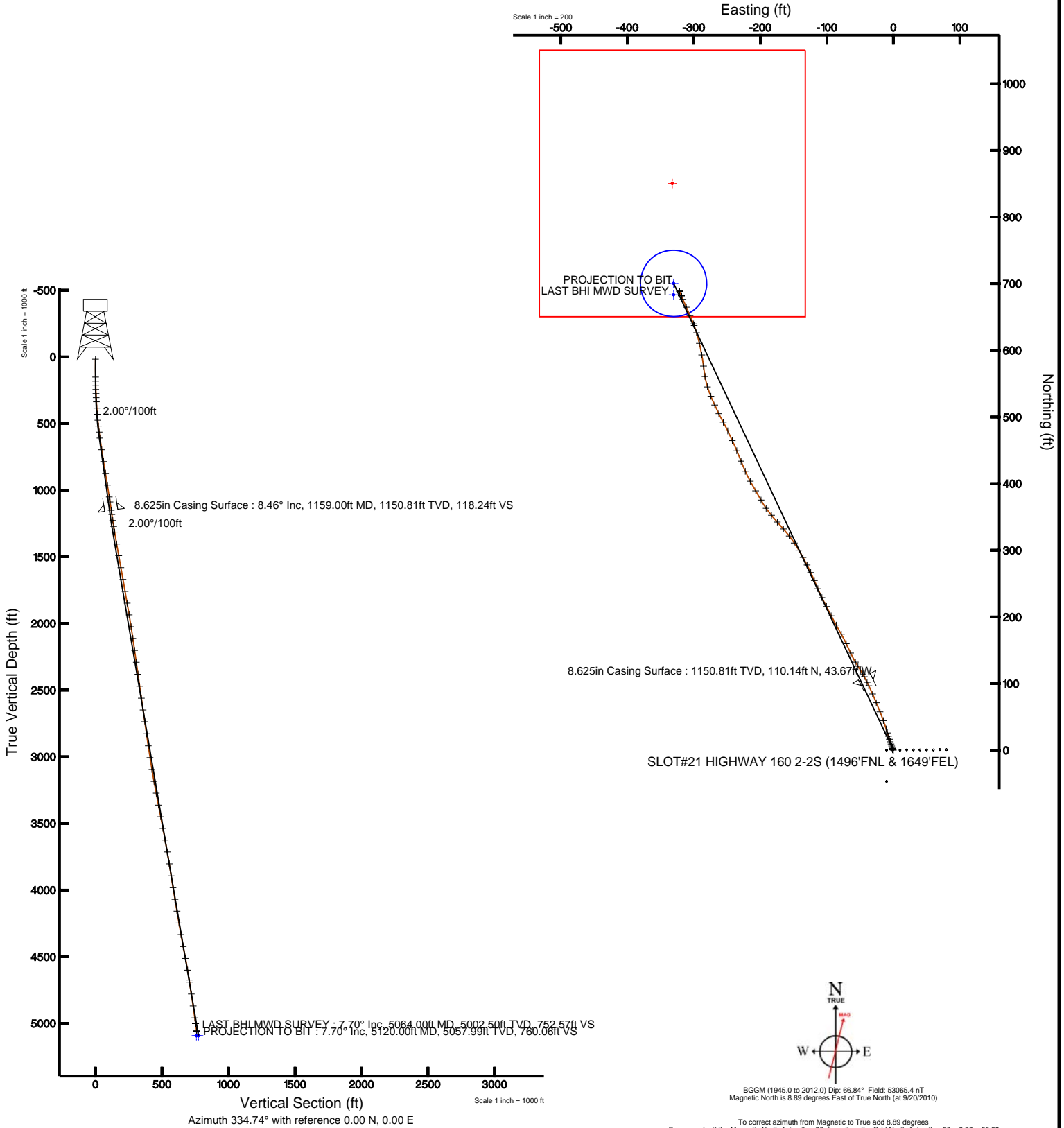


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#21 HIGHWAY 160 2-2S (1496'FNL & 1649'FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: HIGHWAY 160 2-2S
 Facility: SEC.02-T1N-R66W Wellbore: HIGHWAY 160 2-2S PWB



Plot reference wellpath is HIGHWAY 160 2-2S (REV-B.0) PWB	
True vertical depths are referenced to XTREME 8 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 8 (RT)	North Reference: True north
XTREME 8 (RT) to Mean Sea Level: 5122 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.02-T1N-R66W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdarm on 10/26/2010





Actual Wellpath Report

HIGHWAY 160 2-2S AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 HIGHWAY 160 2-2S (1496'FNL & 1649'FEL)
Area	COLORADO	Well	HIGHWAY 160 2-2S
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 2-2S AWB
Facility	SEC.02-T1N-R66W		

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	0.999961	Report Generated	10/26/2010 at 11:12:57 AM
Convergence at slot	0.49° East	Database/Source file	Denver Server/HIGHWAY_160_2-2S_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-298.97	2405.36	3212449.39	1274083.03	40°04'59.707"N	104°44'26.635"W
Facility Reference Pt			3210041.69	1274361.62	40°05'02.663"N	104°44'57.581"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 8 (RT) to Facility Vertical Datum	5122.00ft
Horizontal Reference Pt	Slot	XTREME 8 (RT) to Mean Sea Level	5122.00ft
Vertical Reference Pt	XTREME 8 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 8 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	334.74°



Actual Wellpath Report

HIGHWAY 160 2-2S AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 HIGHWAY 160 2-2S (1496'FNL & 1649'FEL)
Area	COLORADO	Well	HIGHWAY 160 2-2S
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 2-2S AWB
Facility	SEC.02-T1N-R66W		

WELLPATH DATA (69 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	302.100	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	302.100	17.00	0.00	0.00	0.00	0.00	
151.00	0.600	302.100	151.00	0.59	0.37	-0.59	0.45	
182.00	0.900	323.500	181.99	0.97	0.65	-0.88	1.31	
213.00	1.200	335.400	212.99	1.53	1.15	-1.16	1.19	
244.00	1.900	344.300	243.98	2.36	1.94	-1.43	2.38	
275.00	2.400	350.600	274.96	3.49	3.07	-1.68	1.78	
306.00	3.000	346.400	305.92	4.91	4.50	-1.97	2.04	
337.00	3.500	341.100	336.87	6.65	6.18	-2.47	1.88	
384.00	4.100	341.900	383.77	9.74	9.14	-3.46	1.28	
430.00	4.800	340.800	429.63	13.28	12.52	-4.60	1.53	
475.00	5.600	342.200	474.44	17.33	16.39	-5.89	1.80	
520.00	6.200	342.900	519.21	21.92	20.80	-7.28	1.34	
565.00	7.400	341.800	563.89	27.20	25.88	-8.90	2.68	
610.00	8.200	342.900	608.47	33.25	31.70	-10.75	1.81	
699.00	8.900	340.400	696.48	46.38	44.25	-14.92	0.89	
789.00	9.200	337.300	785.36	60.50	57.44	-20.03	0.64	
878.00	9.800	338.000	873.14	75.17	71.03	-25.62	0.69	
968.00	8.600	336.200	961.98	89.54	84.29	-31.20	1.37	
1058.00	8.800	334.100	1050.95	103.16	96.64	-36.92	0.42	
1096.00	8.600	334.400	1088.51	108.90	101.82	-39.42	0.54	
1191.00	8.400	329.900	1182.47	122.92	114.23	-45.97	0.73	
1236.00	8.700	328.100	1226.97	129.58	119.96	-49.42	0.89	
1281.00	9.200	327.100	1271.42	136.52	125.87	-53.17	1.16	
1325.00	9.800	328.800	1314.82	143.73	132.02	-57.02	1.51	
1415.00	9.900	335.500	1403.49	159.09	145.62	-64.20	1.28	
1504.00	10.200	334.400	1491.13	174.62	159.69	-70.77	0.40	
1595.00	10.200	331.300	1580.69	190.72	174.02	-78.12	0.60	
1685.00	9.900	329.300	1669.31	206.37	187.66	-85.90	0.51	
1776.00	10.200	333.000	1758.91	222.22	201.57	-93.55	0.78	
1866.00	9.800	333.400	1847.54	237.84	215.52	-100.60	0.45	
1955.00	9.600	332.700	1935.27	252.83	228.88	-107.40	0.26	
2046.00	9.000	338.000	2025.08	267.52	242.23	-113.54	1.15	
2134.00	8.500	335.800	2112.05	280.89	254.54	-118.79	0.68	
2225.00	8.100	334.800	2202.10	294.03	266.48	-124.27	0.47	
2315.00	8.100	334.100	2291.20	306.71	277.92	-129.74	0.11	
2406.00	8.000	330.200	2381.31	319.43	289.18	-135.69	0.61	
2496.00	8.100	328.500	2470.42	331.98	300.02	-142.12	0.29	
2587.00	8.100	326.700	2560.51	344.70	310.84	-148.99	0.28	
2676.00	8.600	321.700	2648.57	357.39	321.31	-156.55	0.99	
2766.00	9.000	319.000	2737.51	370.72	331.90	-165.34	0.64	
2857.00	8.500	319.000	2827.45	384.04	342.35	-174.42	0.55	
2948.00	8.400	319.000	2917.46	396.91	352.44	-183.20	0.11	
3038.00	8.600	325.700	3006.48	409.89	362.96	-191.30	1.12	
3129.00	9.700	329.500	3096.32	424.24	375.19	-199.03	1.38	



Actual Wellpath Report

HIGHWAY 160 2-2S AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 HIGHWAY 160 2-2S (1496'FNL & 1649'FEL)
Area	COLORADO	Well	HIGHWAY 160 2-2S
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 2-2S AWB
Facility	SEC.02-T1N-R66W		

WELLPATH DATA (69 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3219.00	10.800	330.600	3184.88	440.20	389.07	-207.01	1.24	
3309.00	10.500	330.600	3273.33	456.79	403.56	-215.18	0.33	
3400.00	10.600	336.600	3362.79	473.43	418.46	-222.57	1.21	
3489.00	10.700	337.600	3450.26	489.86	433.62	-228.97	0.24	
3578.00	11.200	337.600	3537.64	506.75	449.25	-235.42	0.56	
3667.00	10.500	334.400	3625.05	523.49	464.55	-242.21	1.04	
3758.00	9.800	335.500	3714.62	539.52	479.08	-249.01	0.80	
3848.00	9.100	330.200	3803.40	554.28	492.22	-255.72	1.24	
3939.00	9.000	334.400	3893.27	568.57	504.89	-262.37	0.73	
4029.00	9.400	334.400	3982.11	582.96	517.86	-268.59	0.44	
4118.00	9.300	338.300	4069.93	597.40	531.10	-274.39	0.72	
4208.00	9.800	341.500	4158.69	612.27	545.12	-279.51	0.81	
4299.00	10.500	351.700	4248.27	627.89	560.67	-283.16	2.12	
4387.00	10.200	351.700	4334.84	643.01	576.31	-285.45	0.34	
4478.00	11.300	350.300	4424.24	659.31	593.08	-288.11	1.24	
4569.00	11.300	346.700	4513.48	676.62	610.54	-291.67	0.78	
4659.00	9.500	343.200	4601.99	692.60	626.23	-295.84	2.12	
4734.00	8.500	339.700	4676.07	704.24	637.36	-299.55	1.52	
4750.00	8.500	338.300	4691.89	706.60	639.57	-300.40	1.29	
4840.00	9.000	335.500	4780.85	720.28	652.15	-305.78	0.73	
4930.00	8.600	335.800	4869.79	734.04	664.69	-311.46	0.45	
5021.00	7.600	338.300	4959.88	746.85	676.49	-316.47	1.16	
5064.00	7.700	337.600	5002.50	752.57	681.80	-318.62	0.32	LAST BHI MWD SURVEY
5120.00	7.700	337.600	5057.99	760.06	688.73	-321.48	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS Ref Wellbore: HIGHWAY 160 2-2S AWB Ref Wellpath: HIGHWAY 160 2-2S 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	17.00	1159.00	1142.00	17.00	1150.81	0.00	0.00	110.14	-43.67
8.625in Casing Surface	17.00	1159.00	1142.00	17.00	1150.81	0.00	0.00	110.14	-43.67
7.875in Open Hole	1159.00	5120.00	3961.00	1150.81	5057.99	110.14	-43.67	688.73	-321.48



Actual Wellpath Report

HIGHWAY 160 2-2S AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 HIGHWAY 160 2-2S (1496'FNL & 1649'FEL)
Area	COLORADO	Well	HIGHWAY 160 2-2S
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 2-2S AWB
Facility	SEC.02-T1N-R66W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
HIGHWAY 160 2-2S BHL ON PLAT (810'FNL & 1980'FEL, REV-1)		5093.00	683.41	-330.46	3212113.10	1274763.57	40°05'06.461"N	104°44'30.887"W	point
HIGHWAY 160 2-2S GEO TARGET 50' RADIUS (793'FNL & 1980'FEL, REV-2)		5093.00	700.41	-330.46	3212112.96	1274780.56	40°05'06.629"N	104°44'30.887"W	circle
HIGHWAY 160 2-2S LEGAL BOX (50'S,350'N,198'W,202'E OF GEO TARGET)		5093.00	850.41	-332.46	3212109.68	1274930.53	40°05'08.111"N	104°44'30.913"W	square

WELLPATH COMPOSITION Ref Wellbore: HIGHWAY 160 2-2S AWB Ref Wellpath: HIGHWAY 160 2-2S AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1058.00	NaviTrak (Standard)	BHI MWD SURVEYS 12.25 HOLE <151-1058>	HIGHWAY 160 2-2S AWB
1058.00	5064.00	NaviTrak (Standard)	BHI MWD SURVEYS 7.875 HOLE <1096-5064>	HIGHWAY 160 2-2S AWB
5064.00	5120.00	Blind Drilling (std)	Projection to bit	HIGHWAY 160 2-2S AWB



Actual Wellpath Report

HIGHWAY 160 2-2S AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 HIGHWAY 160 2-2S (1496'FNL & 1649'FEL)
Area	COLORADO	Well	HIGHWAY 160 2-2S
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 2-2S AWB
Facility	SEC.02-T1N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
5064.00	7.700	337.600	5002.50	LAST BHI MWD SURVEY
5120.00	7.700	337.600	5057.99	PROJECTION TO BIT