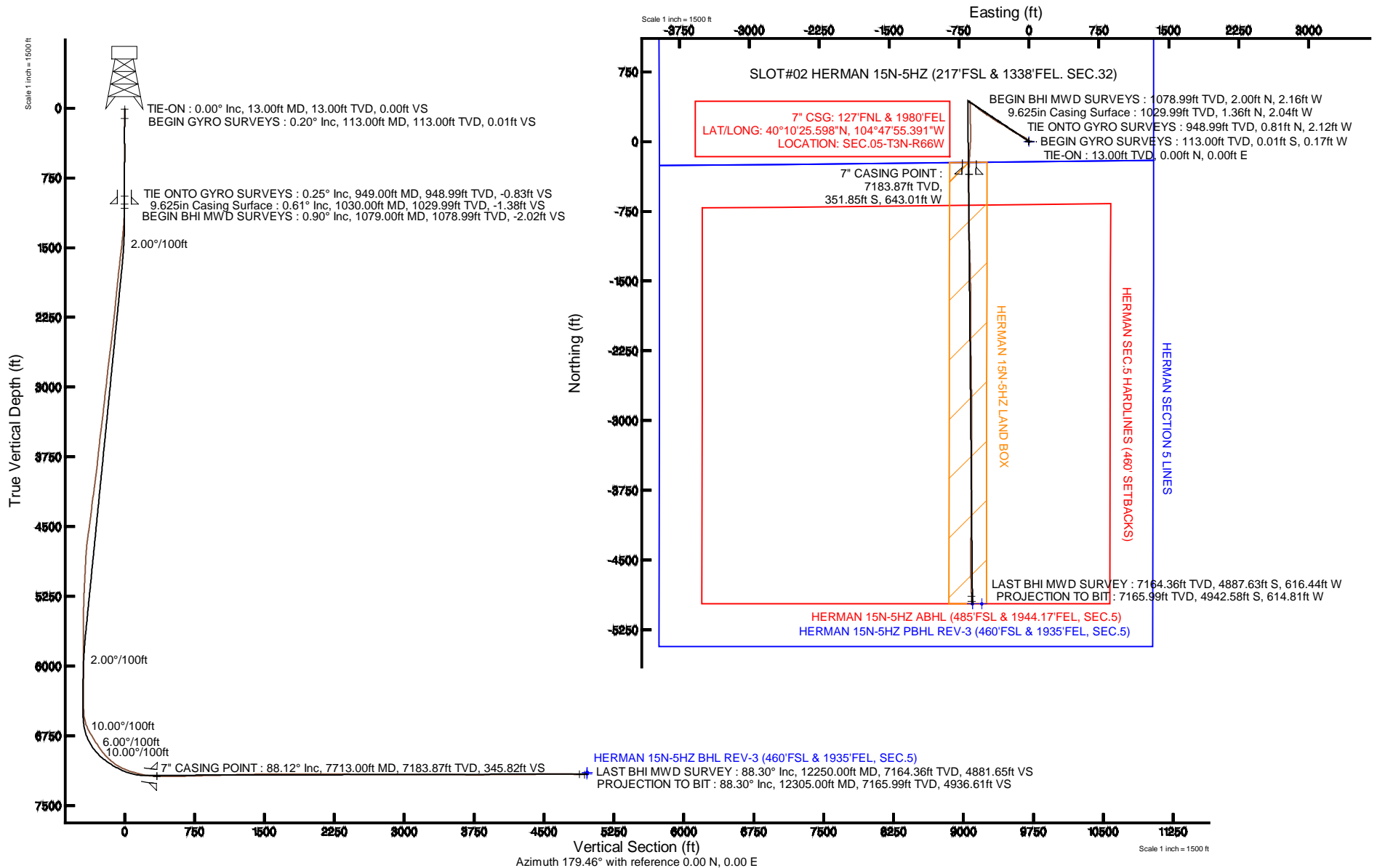


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL, SEC.32)
 Field: WELD COUNTY (KERR MCGEE) Well: HERMAN 15N-5HZ
 Facility: SEC.32-T3N-R66W Wellbore: HERMAN 15N-5HZ PWB

Plot reference wellpath is HERMAN 15N-5HZ (REV-A.0) PWP

True vertical depths are referenced to ENSIGN 138 (13' RKB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to ENSIGN 138 (13' RKB) (RKB)	North Reference: True north
ENSGN 138 (13' RKB) (RKB) to Mean Sea Level: 4884 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL, SEC.32)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 18/Oct/2013





Actual Wellpath Report

HERMAN 15N-5HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL. SEC.32)
Area	COLORADO	Well	HERMAN 15N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 15N-5HZ AWB
Facility	SEC.32-T3N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Robiale01
Scale	0.999958	Report Generated	15/Oct/2013 at 11:04
Convergence at slot	n/a	Database/Source file	WA_ANADARKO/HERMAN_15N-5HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	24.59	42.07	3196603.65	1307281.77	40°10'29.075"N	104°47'47.108"W
Facility Reference Pt			3196561.77	1307256.85	40°10'28.832"N	104°47'47.650"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	ENSIGN 138 (13' RKB) (RKB) to Facility Vertical Datum	4884.00ft
Horizontal Reference Pt	Slot	ENSIGN 138 (13' RKB) (RKB) to Mean Sea Level	4884.00ft
Vertical Reference Pt	ENSIGN 138 (13' RKB) (RKB)	ENSIGN 138 (13' RKB) (RKB) to Mud Line at Slot (SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL. SEC.32))	4884.00ft
MD Reference Pt	ENSIGN 138 (13' RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	187.09°

Actual Wellpath Report

HERMAN 15N-5HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL. SEC.32)
Area	COLORADO	Well	HERMAN 15N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 15N-5HZ AWB
Facility	SEC.32-T3N-R66W		

WELLPATH DATA (121 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	265.800	0.00	0.00	0.00	0.00	40°10'29.075"N	104°47'47.108"W	0.00	
13.00	0.000	265.800	13.00	0.00	0.00	0.00	40°10'29.075"N	104°47'47.108"W	0.00	TIE-ON
113.00	0.200	265.800	113.00	0.03	-0.01	-0.17	40°10'29.075"N	104°47'47.110"W	0.20	BEGIN GYRO SURVEYS
213.00	0.260	295.640	213.00	0.00	0.07	-0.55	40°10'29.076"N	104°47'47.115"W	0.13	
313.00	0.280	268.270	313.00	-0.04	0.16	-1.00	40°10'29.077"N	104°47'47.121"W	0.13	
413.00	0.280	223.800	413.00	0.19	-0.02	-1.41	40°10'29.075"N	104°47'47.126"W	0.21	
513.00	0.170	52.280	513.00	0.29	-0.11	-1.47	40°10'29.074"N	104°47'47.127"W	0.45	
613.00	0.290	301.680	613.00	0.08	0.12	-1.56	40°10'29.076"N	104°47'47.128"W	0.38	
713.00	0.100	93.920	713.00	-0.03	0.24	-1.69	40°10'29.077"N	104°47'47.130"W	0.38	
813.00	0.270	321.880	813.00	-0.20	0.42	-1.75	40°10'29.079"N	104°47'47.131"W	0.35	
913.00	0.270	297.450	912.99	-0.45	0.72	-2.11	40°10'29.082"N	104°47'47.135"W	0.11	
949.00	0.250	46.650	948.99	-0.54	0.81	-2.12	40°10'29.083"N	104°47'47.135"W	1.18	TIE ONTO GYRO SURVEYS
1079.00	0.900	346.200	1078.99	-1.72	2.00	-2.16	40°10'29.095"N	104°47'47.136"W	0.62	BEGIN BHI MWD SURVEYS
1170.00	3.100	330.300	1169.93	-4.35	4.83	-3.55	40°10'29.123"N	104°47'47.154"W	2.47	
1260.00	5.200	317.600	1259.69	-8.95	9.96	-7.51	40°10'29.173"N	104°47'47.205"W	2.53	
1352.00	7.300	314.000	1351.14	-15.17	17.10	-14.52	40°10'29.244"N	104°47'47.295"W	2.32	
1443.00	9.400	311.800	1441.17	-22.88	26.07	-24.22	40°10'29.333"N	104°47'47.420"W	2.33	
1554.00	11.200	304.100	1550.38	-32.93	38.15	-39.91	40°10'29.452"N	104°47'47.622"W	2.04	
1645.00	13.900	300.300	1639.20	-41.26	48.62	-56.67	40°10'29.556"N	104°47'47.838"W	3.10	
1736.00	13.000	298.400	1727.70	-49.28	59.01	-75.11	40°10'29.658"N	104°47'48.076"W	1.10	
1827.00	12.400	297.000	1816.47	-56.33	68.31	-92.82	40°10'29.750"N	104°47'48.304"W	0.74	
1918.00	12.200	297.700	1905.39	-63.04	77.22	-110.04	40°10'29.838"N	104°47'48.526"W	0.27	
2009.00	11.700	297.100	1994.41	-69.58	85.89	-126.76	40°10'29.924"N	104°47'48.741"W	0.57	
2100.00	11.000	298.600	2083.63	-75.93	94.25	-142.60	40°10'30.006"N	104°47'48.945"W	0.83	
2190.00	11.300	297.500	2171.93	-82.15	102.43	-157.96	40°10'30.087"N	104°47'49.143"W	0.41	
2281.00	12.000	305.200	2261.07	-89.71	112.00	-173.60	40°10'30.182"N	104°47'49.344"W	1.87	
2372.00	10.800	303.700	2350.27	-97.99	122.18	-188.42	40°10'30.282"N	104°47'49.535"W	1.36	
2464.00	11.800	301.700	2440.48	-105.77	131.91	-203.60	40°10'30.379"N	104°47'49.731"W	1.17	
2555.00	11.900	306.800	2529.55	-114.29	142.42	-219.03	40°10'30.482"N	104°47'49.930"W	1.16	
2646.00	11.800	305.300	2618.61	-123.34	153.42	-234.14	40°10'30.591"N	104°47'50.124"W	0.36	
2738.00	12.100	304.300	2708.61	-132.20	164.29	-249.78	40°10'30.698"N	104°47'50.326"W	0.40	
2829.00	13.100	299.500	2797.42	-140.49	174.74	-266.63	40°10'30.802"N	104°47'50.543"W	1.59	
2921.00	12.800	297.700	2887.08	-148.05	184.61	-284.73	40°10'30.899"N	104°47'50.776"W	0.55	
3012.00	12.300	297.800	2975.91	-155.03	193.82	-302.23	40°10'30.990"N	104°47'51.002"W	0.55	
3103.00	12.900	301.300	3064.72	-162.62	203.62	-319.49	40°10'31.087"N	104°47'51.224"W	1.07	
3195.00	11.300	299.500	3154.67	-170.27	213.39	-336.11	40°10'31.184"N	104°47'51.438"W	1.79	
3289.00	12.400	302.600	3246.67	-178.13	223.36	-352.63	40°10'31.282"N	104°47'51.651"W	1.35	
3384.00	11.400	304.900	3339.63	-186.90	234.23	-368.92	40°10'31.390"N	104°47'51.861"W	1.16	
3479.00	11.100	306.500	3432.80	-195.77	245.04	-383.97	40°10'31.496"N	104°47'52.055"W	0.46	
3575.00	12.000	306.400	3526.86	-205.19	256.46	-399.43	40°10'31.609"N	104°47'52.254"W	0.94	
3765.00	11.100	299.900	3713.02	-221.95	277.30	-431.19	40°10'31.815"N	104°47'52.663"W	0.83	
3860.00	11.400	299.600	3806.19	-229.09	286.50	-447.28	40°10'31.906"N	104°47'52.870"W	0.32	
3955.00	12.300	302.300	3899.16	-237.00	296.54	-464.00	40°10'32.005"N	104°47'53.086"W	1.11	
4145.00	12.500	308.700	4084.74	-256.40	320.21	-497.15	40°10'32.239"N	104°47'53.513"W	0.73	
4239.00	12.400	310.100	4176.53	-267.23	333.07	-512.81	40°10'32.366"N	104°47'53.714"W	0.34	

Actual Wellpath Report

HERMAN 15N-5HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL. SEC.32)
Area	COLORADO	Well	HERMAN 15N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 15N-5HZ AWB
Facility	SEC.32-T3N-R66W		

WELLPATH DATA (121 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4335.00	10.300	308.400	4270.65	-277.30	345.05	-527.42	40°10'32.485"N	104°47'53.903"W	2.21	
4431.00	10.600	309.000	4365.06	-286.43	355.93	-541.01	40°10'32.592"N	104°47'54.078"W	0.33	
4525.00	11.800	309.300	4457.26	-296.12	367.46	-555.17	40°10'32.706"N	104°47'54.260"W	1.28	
4620.00	11.700	311.000	4550.27	-306.67	379.93	-569.95	40°10'32.829"N	104°47'54.451"W	0.38	
4715.00	10.900	312.500	4643.43	-317.25	392.32	-583.84	40°10'32.952"N	104°47'54.630"W	0.90	
4904.00	8.400	293.200	4829.79	-331.44	409.84	-609.72	40°10'33.125"N	104°47'54.963"W	2.15	
4999.00	7.600	288.900	4923.87	-334.65	414.61	-622.04	40°10'33.172"N	104°47'55.122"W	1.05	
5095.00	7.200	292.300	5019.07	-337.53	418.95	-633.61	40°10'33.215"N	104°47'55.271"W	0.62	
5190.00	4.800	312.300	5113.55	-341.39	423.88	-642.06	40°10'33.264"N	104°47'55.380"W	3.31	
5285.00	2.200	338.100	5208.37	-345.27	428.25	-645.68	40°10'33.307"N	104°47'55.426"W	3.13	
5380.00	1.800	344.700	5303.31	-348.25	431.38	-646.76	40°10'33.338"N	104°47'55.440"W	0.49	
5475.00	1.600	346.100	5398.27	-350.87	434.11	-647.47	40°10'33.365"N	104°47'55.449"W	0.22	
5570.00	0.200	202.800	5493.26	-351.94	435.24	-647.85	40°10'33.376"N	104°47'55.454"W	1.86	
5853.00	0.900	94.300	5776.25	-351.58	434.62	-645.83	40°10'33.370"N	104°47'55.428"W	0.35	
6042.00	0.700	54.100	5965.23	-352.44	435.19	-643.41	40°10'33.375"N	104°47'55.397"W	0.31	
6230.00	1.400	97.200	6153.20	-353.22	435.57	-640.20	40°10'33.379"N	104°47'55.356"W	0.54	
6325.00	0.300	156.100	6248.19	-353.00	435.20	-638.95	40°10'33.376"N	104°47'55.339"W	1.34	
6514.00	1.500	106.800	6437.16	-352.16	434.03	-636.38	40°10'33.364"N	104°47'55.306"W	0.70	
6608.00	5.500	164.200	6530.99	-347.80	429.34	-633.98	40°10'33.318"N	104°47'55.275"W	5.17	
6702.00	19.200	175.100	6622.60	-328.43	409.51	-631.42	40°10'33.122"N	104°47'55.242"W	14.72	
6797.00	30.000	178.700	6708.86	-289.54	370.08	-629.54	40°10'32.732"N	104°47'55.218"W	11.47	
6892.00	32.000	179.500	6790.28	-241.09	321.16	-628.78	40°10'32.249"N	104°47'55.208"W	2.15	
6987.00	34.000	179.500	6869.95	-189.80	269.43	-628.33	40°10'31.737"N	104°47'55.203"W	2.11	
7081.00	39.800	179.000	6945.09	-133.92	213.02	-627.57	40°10'31.180"N	104°47'55.193"W	6.18	
7176.00	49.100	178.900	7012.83	-68.14	146.57	-626.35	40°10'30.523"N	104°47'55.177"W	9.79	
7270.00	58.600	179.600	7068.22	6.97	70.76	-625.39	40°10'29.774"N	104°47'55.165"W	10.12	
7365.00	67.000	183.200	7111.62	90.97	-13.61	-627.55	40°10'28.940"N	104°47'55.192"W	9.46	
7412.00	72.300	184.200	7127.96	134.94	-57.56	-630.40	40°10'28.506"N	104°47'55.229"W	11.45	
7459.00	74.700	183.600	7141.31	179.93	-102.52	-633.46	40°10'28.062"N	104°47'55.269"W	5.25	
7506.00	75.800	183.600	7153.27	225.30	-147.88	-636.32	40°10'27.614"N	104°47'55.305"W	2.34	
7554.00	76.300	182.700	7164.84	271.77	-194.40	-638.87	40°10'27.154"N	104°47'55.338"W	2.10	
7601.00	80.500	182.200	7174.29	317.65	-240.38	-640.84	40°10'26.699"N	104°47'55.364"W	9.00	
7649.00	84.800	180.900	7180.43	365.02	-287.96	-642.13	40°10'26.229"N	104°47'55.380"W	9.35	
7666.00	86.600	180.500	7181.71	381.87	-304.91	-642.33	40°10'26.062"N	104°47'55.383"W	10.85	
7713.00†	88.118	181.151	7183.87	428.54	-351.85	-643.01	40°10'25.598"N	104°47'55.391"W	3.51	7" CASING POINT
7731.00	88.700	181.400	7184.37	446.44	-369.84	-643.41	40°10'25.420"N	104°47'55.397"W	3.51	
7794.00	89.400	180.300	7185.42	509.05	-432.82	-644.34	40°10'24.798"N	104°47'55.409"W	2.07	
7889.00	91.100	180.700	7185.00	603.42	-527.82	-645.17	40°10'23.859"N	104°47'55.419"W	1.84	
7984.00	91.200	180.200	7183.09	697.76	-622.79	-645.92	40°10'22.920"N	104°47'55.429"W	0.54	
8079.00	91.500	179.500	7180.86	791.98	-717.77	-645.67	40°10'21.982"N	104°47'55.426"W	0.80	
8173.00	92.000	180.200	7177.99	885.18	-811.72	-645.42	40°10'21.053"N	104°47'55.422"W	0.91	
8268.00	91.800	178.300	7174.84	979.24	-906.66	-644.18	40°10'20.115"N	104°47'55.406"W	2.01	
8363.00	90.700	178.500	7172.76	1073.13	-1001.60	-641.53	40°10'19.177"N	104°47'55.372"W	1.18	
8551.00	92.400	178.200	7167.68	1258.87	-1189.44	-636.12	40°10'17.321"N	104°47'55.302"W	0.92	
8642.00	91.200	177.900	7164.82	1348.69	-1280.34	-633.02	40°10'16.423"N	104°47'55.263"W	1.36	



Actual Wellpath Report

HERMAN 15N-5HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL. SEC.32)
Area	COLORADO	Well	HERMAN 15N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 15N-5HZ AWB
Facility	SEC.32-T3N-R66W		

WELLPATH DATA (121 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8831.00	91.400	179.000	7160.53	1535.49	-1469.22	-627.91	40°10'14.556"N	104°47'55.197"W	0.59	
8925.00	90.000	179.600	7159.38	1628.62	-1563.20	-626.76	40°10'13.627"N	104°47'55.182"W	1.62	
9019.00	90.200	178.000	7159.22	1721.63	-1657.18	-624.80	40°10'12.699"N	104°47'55.156"W	1.72	
9114.00	89.300	179.700	7159.63	1815.65	-1752.16	-622.89	40°10'11.760"N	104°47'55.132"W	2.02	
9209.00	90.500	179.900	7159.80	1909.88	-1847.15	-622.56	40°10'10.821"N	104°47'55.128"W	1.28	
9303.00	89.600	180.000	7159.72	2003.15	-1941.15	-622.48	40°10'09.892"N	104°47'55.126"W	0.96	
9400.00	89.300	180.300	7160.65	2099.43	-2038.15	-622.73	40°10'08.934"N	104°47'55.130"W	0.44	
9494.00	89.700	179.900	7161.47	2192.73	-2132.14	-622.89	40°10'08.005"N	104°47'55.132"W	0.60	
9683.00	90.100	179.500	7161.80	2380.16	-2321.14	-621.90	40°10'06.137"N	104°47'55.119"W	0.30	
9778.00	89.400	178.500	7162.21	2474.21	-2416.12	-620.25	40°10'05.199"N	104°47'55.098"W	1.28	
9872.00	88.300	179.800	7164.10	2567.28	-2510.09	-618.85	40°10'04.270"N	104°47'55.080"W	1.81	
9967.00	89.000	179.100	7166.34	2661.41	-2605.06	-617.94	40°10'03.332"N	104°47'55.068"W	1.04	
10064.00	90.400	179.500	7166.85	2757.51	-2702.05	-616.76	40°10'02.373"N	104°47'55.053"W	1.50	
10158.00	91.200	179.400	7165.53	2850.67	-2796.03	-615.85	40°10'01.444"N	104°47'55.041"W	0.86	
10252.00	90.400	179.700	7164.22	2943.85	-2890.02	-615.11	40°10'00.516"N	104°47'55.031"W	0.91	
10347.00	89.900	179.800	7163.97	3038.07	-2985.02	-614.70	40°09'59.577"N	104°47'55.026"W	0.54	
10441.00	88.900	179.900	7164.96	3131.31	-3079.01	-614.45	40°09'58.648"N	104°47'55.023"W	1.07	
10536.00	90.000	179.600	7165.87	3225.53	-3174.00	-614.04	40°09'57.709"N	104°47'55.017"W	1.20	
10631.00	89.200	180.000	7166.53	3319.76	-3269.00	-613.71	40°09'56.771"N	104°47'55.013"W	0.94	
10726.00	90.300	180.600	7166.95	3414.09	-3364.00	-614.21	40°09'55.832"N	104°47'55.019"W	1.32	
10820.00	90.600	180.700	7166.21	3507.49	-3457.99	-615.27	40°09'54.903"N	104°47'55.033"W	0.34	
10915.00	89.300	179.900	7166.29	3601.82	-3552.98	-615.77	40°09'53.964"N	104°47'55.040"W	1.61	
11104.00	90.000	180.800	7167.45	3789.51	-3741.97	-616.92	40°09'52.097"N	104°47'55.054"W	0.60	
11296.00	90.300	180.300	7166.94	3980.26	-3933.96	-618.77	40°09'50.199"N	104°47'55.078"W	0.30	
11486.00	91.000	180.700	7164.79	4168.99	-4123.94	-620.42	40°09'48.322"N	104°47'55.099"W	0.42	
11675.00	90.000	180.600	7163.14	4356.79	-4312.92	-622.57	40°09'46.455"N	104°47'55.127"W	0.53	
11864.00	91.800	180.600	7160.17	4544.54	-4501.88	-624.55	40°09'44.587"N	104°47'55.152"W	0.95	
11958.00	90.800	179.200	7158.04	4637.78	-4595.85	-624.38	40°09'43.659"N	104°47'55.150"W	1.83	
12147.00	87.600	178.000	7160.68	4824.66	-4784.75	-619.77	40°09'41.792"N	104°47'55.091"W	1.81	
12250.00	88.300	178.300	7164.36	4926.34	-4887.63	-616.44	40°09'40.775"N	104°47'55.048"W	0.74	LAST BHI MWD SURVEY
12305.00	88.300	178.300	7165.99	4980.67	-4942.58	-614.81	40°09'40.232"N	104°47'55.027"W	0.00	PROJECTION TO BIT



Actual Wellpath Report

HERMAN 15N-5HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL. SEC.32)
Area	COLORADO	Well	HERMAN 15N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 15N-5HZ AWB
Facility	SEC.32-T3N-R66W		

HOLE & CASING SECTIONS - Ref Wellbore: HERMAN 15N-5HZ AWB Ref Wellpath: HERMAN 15N-5HZ 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]
13.5in Open Hole	13.00	1030.00	1017.00	13.00	1029.99	0.00	0.00	1.36	-2.04
9.625in Casing Surface	13.00	1030.00	1017.00	13.00	1029.99	0.00	0.00	1.36	-2.04
8.75in Open Hole	1030.00	7723.00	6693.00	1029.99	7184.17	1.36	-2.04	-361.85	-643.22
7in Casing Intermediate	13.00	7713.00	7700.00	13.00	7183.87	0.00	0.00	-351.85	-643.01
6.125in Open Hole	7723.00	12305.00	4582.00	7184.17	7165.99	-361.85	-643.22	-4942.58	-614.81



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HERMAN 15N-5HZ AWP

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Area	COLORADO	Well	HERMAN 15N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 15N-5HZ AWB
Facility	SEC.32-T3N-R66W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BLUFFS RED W 5-3 (150' RADIUS)		0.00	-869.20	-1840.72	3194769.96	1306398.03	40°10'20.485"N	104°48'10.820"W	circle
BLUFFS RED W 5-6 (150' RADIUS)		0.00	-2149.33	-1850.32	3194770.52	1305117.92	40°10'07.835"N	104°48'10.943"W	circle
HERMAN 32-15K (150' RADIUS)		0.00	431.28	-836.82	3195763.47	1307706.37	40°10'33.337"N	104°47'57.889"W	circle
HERMAN 32-16K (150' RADIUS)		0.00	457.13	748.53	3197348.49	1307744.80	40°10'33.592"N	104°47'37.465"W	circle
HERMAN L 32-14 (150' RADIUS)		0.00	381.44	-1949.61	3194651.16	1307647.71	40°10'32.844"N	104°48'12.224"W	circle
KUNZMAN W 05-09 (150' RADIUS)		0.00	-3278.69	842.92	3197472.52	1304010.01	40°09'56.675"N	104°47'36.251"W	circle
UPRC 5-10K6 (150' RADIUS)		0.00	-3598.93	-865.76	3195766.51	1303676.24	40°09'53.510"N	104°47'58.260"W	circle
UPRC 5-15K6 (150' RADIUS)		0.00	-4915.13	-881.74	3195760.97	1302360.02	40°09'40.503"N	104°47'58.465"W	circle
UPRC 5-160 (150' RADIUS)		0.00	-4957.77	470.27	3197113.22	1302328.10	40°09'40.082"N	104°47'41.051"W	circle
UPRC 5-90 (150' RADIUS)		0.00	-3821.53	341.69	3196975.63	1303463.23	40°09'51.310"N	104°47'42.707"W	circle
UPRC W 5-10 JI (150' RADIUS)		0.00	-3287.46	-812.36	3195817.43	1303988.11	40°09'56.588"N	104°47'57.572"W	circle
HERMAN 15N-5HZ BHL ON PLAT (460'FSL & 1835'FEL, SEC.5) REV-1	7144.00		-4970.13	-505.67	3196137.45	1302308.01	40°09'39.960"N	104°47'53.621"W	point
HERMAN 15N-5HZ BHL REV-2 (460'FSL & 1935'FEL, SEC.5)	7144.00		-4967.58	-605.65	3196037.46	1302309.76	40°09'39.985"N	104°47'54.909"W	point
HERMAN 15N-5HZ BHL REV-3 (460'FSL & 1935'FEL, SEC.5)	7159.00		-4967.58	-605.65	3196037.46	1302309.76	40°09'39.985"N	104°47'54.909"W	point
HERMAN 15N-5HZ LAND BOX	7500.00	0.00	0.00	0.00	3196603.65	1307281.77	40°10'29.075"N	104°47'47.108"W	polygon
HERMAN SEC.5 HARDLINES (460' SETBACKS)	7500.00		-0.40	77.93	3196681.58	1307281.98	40°10'29.071"N	104°47'46.104"W	polygon
HERMAN SECTION 32 LINES	7500.00		-0.40	77.93	3196681.58	1307281.98	40°10'29.071"N	104°47'46.104"W	polygon
HERMAN SECTION 5 LINES	7500.00		-0.40	77.93	3196681.58	1307281.98	40°10'29.071"N	104°47'46.104"W	polygon



Actual Wellpath Report

HERMAN 15N-5HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HERMAN 15N-5HZ (217'FSL & 1338'FEL. SEC.32)
Area	COLORADO	Well	HERMAN 15N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 15N-5HZ AWB
Facility	SEC.32-T3N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: HERMAN 15N-5HZ AWB Ref Wellpath: HERMAN 15N-5HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	949.00	Generic gyro - continuous (Standard)	MS GYRODATA SURVEYS <113-949>	HERMAN 15N-5HZ AWB
949.00	7666.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 8 3/4" <1079-7666>	HERMAN 15N-5HZ AWB
7666.00	12250.00	OnTrak (MAGCORR,IFR)	BHI ONTRAK MWD+IFR 6 1/8" <7731-12250>	HERMAN 15N-5HZ AWB
12250.00	12305.00	Blind Drilling (std)	Projection to bit	HERMAN 15N-5HZ AWB



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Area	COLORADO	Well	HERMAN 15N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 15N-5HZ AWB
Facility	SEC.32-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	265.800	13.00	TIE-ON
113.00	0.200	265.800	113.00	BEGIN GYRO SURVEYS
949.00	0.250	46.650	948.99	TIE ONTO GYRO SURVEYS
1079.00	0.900	346.200	1078.99	BEGIN BHI MWD SURVEYS
7713.00	88.118	181.151	7183.87	7" CASING POINT
12250.00	88.300	178.300	7164.36	LAST BHI MWD SURVEY
12305.00	88.300	178.300	7165.99	PROJECTION TO BIT