

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.03)
 Field: WELD COUNTY (KERR MCGEE) Well: BURKHARDT 36C-3HZ
 Facility: SEC.03-T1N-R66W Wellbore: BURKHARDT 36C-3HZ PWB

Plot reference wellpath is BURKHARDT 36C-3HZ (PERMIT REV-1) PWP

True vertical depths are referenced to PERMIT (17RKB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17RKB) (RKB)	North Reference: True north
PERMIT (17RKB) (RKB) to Mean Sea Level: 5036 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOTR65 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.03)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 14/Nov/2013

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.03-T1N-R66W	3204647.315	1275079.541	40°05'10.203"N	104°46'06.906"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.03)	-0.20	120.01	3204767.315	1275080.329
PERMIT (17RKB) (RKB) to Mud line (At Slot: SLOTR65 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.03))	5036ft			
Mean Sea Level to Mud line (At Slot: SLOTR65 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.03))	0ft			
PERMIT (17RKB) (RKB) to Mean Sea Level	5036ft			

Survey Program

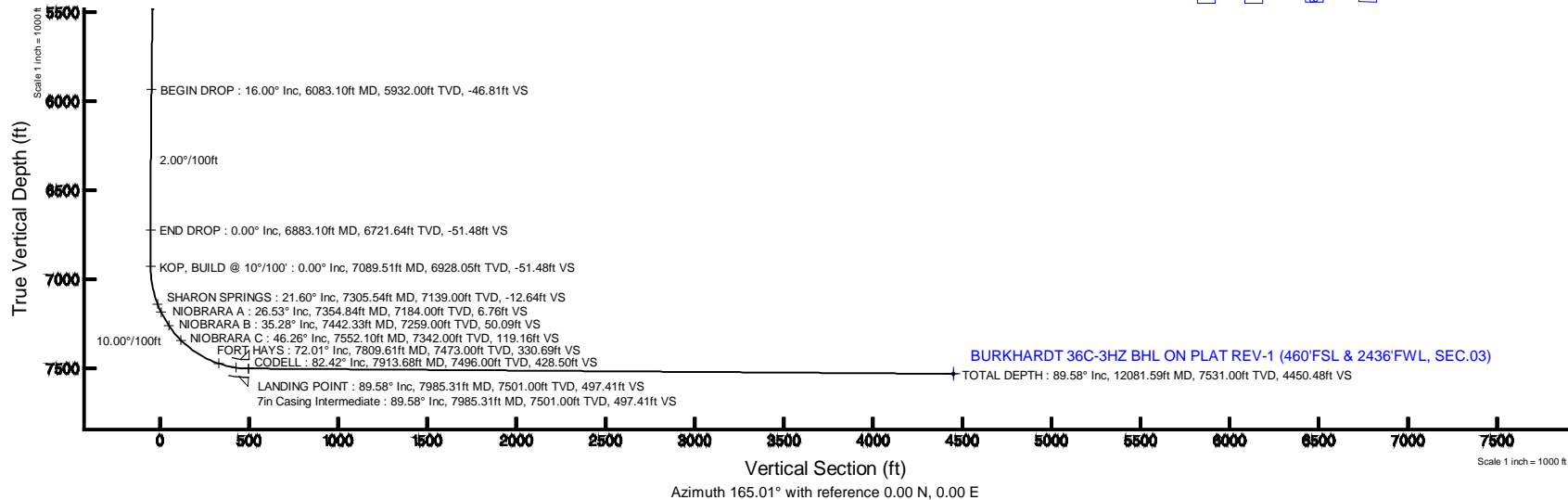
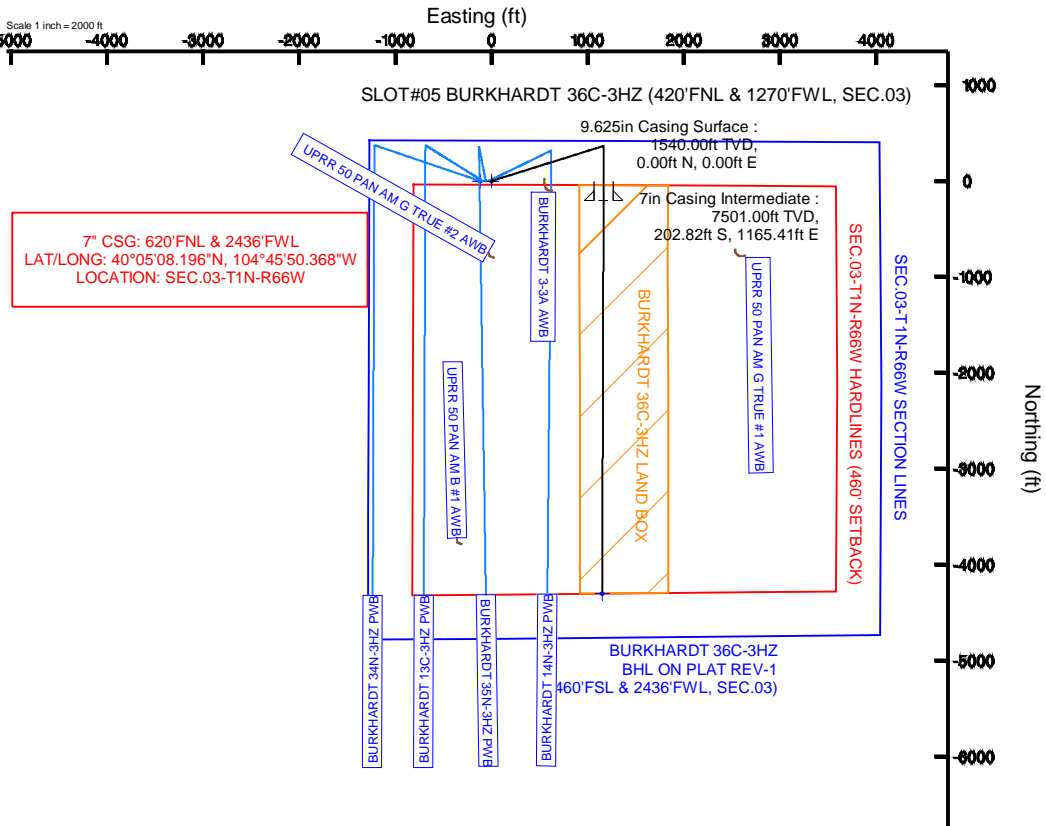
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	12081.59	NaviTrak	NaviTrak (Standard)		BURKHARDT 36C-3HZ PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE ON	17.00	0.000	72.595	17.00	0.00	0.00	0.00	0.00
BEGIN NUDEGE	1650.00	0.000	72.595	1650.00	0.00	0.00	0.00	0.00
END NUDEGE	2450.00	16.000	72.595	2439.64	33.20	105.90	2.00	-4.67
BEGIN DROP	6083.10	16.000	72.595	5932.00	332.74	1061.46	0.00	-46.81
END DROP	6883.10	0.000	180.196	6721.64	365.94	1167.36	2.00	-51.48
KOP, BUILD @ 10°/100'	7089.51	0.000	180.196	6928.05	365.94	1167.36	0.00	-51.48
LANDING POINT	7985.31	89.580	180.196	7501.00	-202.82	1165.41	10.00	497.41
TOTAL DEPTH	12081.59	89.580	180.196	7531.00	-4298.96	1151.37	0.00	4450.48

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.03-T1N-R66W HARDLINES (460' SETBACK)	7300.00	0.20	-120.01	-120.01	3204647.31	1275079.54	40°05'10.203"N	104°46'06.906"W
SEC.03-T1N-R66W SECTION LINES	7300.00	0.20	-120.01	-120.01	3204647.31	1275079.54	40°05'10.203"N	104°46'06.906"W
BURKHARDT 36C-3HZ BHL ON PLAT REV-1 (460'FSL & 2436'FWL, SEC.03)	12081.59	7531.00	-4298.96	1151.37	3205954.08	1270791.19	40°04'27.718"N	104°45'50.551"W
BURKHARDT 36C-3HZ LAND BOX	7531.00	0.00	0.00	0.00	3204767.32	1275080.33	40°05'10.201"N	104°46'06.362"W



BURKHARDT 36C-3HZ BHL ON PLAT REV-1 (460'FSL & 2436'FWL, SEC.03)
 TOTAL DEPTH : 89.58° Inc, 12081.59ft MD, 7531.00ft TVD, 4450.48ft VS

Scale 1 inch = 1000 ft
 Azimuth 165.01° with reference 0.00 N, 0.00 E





Planned Wellpath Report

BURKHARDT 36C-3HZ (PERMIT REV-1) PWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.
Area	COLORADO	Well	BURKHARDT 36C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BURKHARDT 36C-3HZ PWB
Facility	SEC.03-T1N-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	0.999961	Report Generated	13/Nov/2013 at 16:32
Convergence at slot	n/a	Database/Source file	WellArchitectDB/BURKHARDT_36C-3HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.20	120.01	3204767.32	1275080.33	40°05'10.201"N	104°46'05.362"W
Facility Reference Pt			3204647.32	1275079.54	40°05'10.203"N	104°46'06.906"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17'RKB) (RKB) to Facility Vertical Datum	5036.00ft
Horizontal Reference Pt	Slot	PERMIT (17'RKB) (RKB) to Mean Sea Level	5036.00ft
Vertical Reference Pt	PERMIT (17'RKB) (RKB)	PERMIT (17'RKB) (RKB) to Mud Line at Slot (SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.03))	5036.00ft
MD Reference Pt	PERMIT (17'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	165.01°



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BURKHARDT 36C-3HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.
Area	COLORADO	Well	BURKHARDT 36C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BURKHARDT 36C-3HZ PWB
Facility	SEC.03-T1N-R66W		

WELLPATH DATA (138 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	72.595	0.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
17.00	0.000	72.595	17.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	TIE ON
117.00†	0.000	72.595	117.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
217.00†	0.000	72.595	217.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
317.00†	0.000	72.595	317.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
417.00†	0.000	72.595	417.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
517.00†	0.000	72.595	517.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
617.00†	0.000	72.595	617.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
717.00†	0.000	72.595	717.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
817.00†	0.000	72.595	817.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
917.00†	0.000	72.595	917.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
1017.00†	0.000	72.595	1017.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
1117.00†	0.000	72.595	1117.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
1217.00†	0.000	72.595	1217.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
1317.00†	0.000	72.595	1317.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
1417.00†	0.000	72.595	1417.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
1490.00†	0.000	72.595	1490.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	FOX HILLS MARKER
1517.00†	0.000	72.595	1517.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
1617.00†	0.000	72.595	1617.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	
1650.00	0.000	72.595	1650.00	0.00	0.00	0.00	40°05'10.201"N	104°46'05.362"W	0.00	BEGIN NUDGE
1717.00†	1.340	72.595	1716.99	-0.03	0.23	0.75	40°05'10.203"N	104°46'05.352"W	2.00	
1817.00†	3.340	72.595	1816.91	-0.20	1.46	4.64	40°05'10.215"N	104°46'05.302"W	2.00	
1917.00†	5.340	72.595	1916.61	-0.52	3.72	11.86	40°05'10.238"N	104°46'05.209"W	2.00	
2017.00†	7.340	72.595	2016.00	-0.99	7.02	22.40	40°05'10.270"N	104°46'05.074"W	2.00	
2117.00†	9.340	72.595	2114.93	-1.60	11.36	36.24	40°05'10.313"N	104°46'04.896"W	2.00	
2217.00†	11.340	72.595	2213.31	-2.35	16.73	53.37	40°05'10.366"N	104°46'04.675"W	2.00	
2317.00†	13.340	72.595	2310.99	-3.25	23.12	73.76	40°05'10.429"N	104°46'04.413"W	2.00	
2417.00†	15.340	72.595	2407.87	-4.29	30.53	97.39	40°05'10.503"N	104°46'04.109"W	2.00	
2450.00	16.000	72.595	2439.64	-4.67	33.20	105.90	40°05'10.529"N	104°46'04.000"W	2.00	END NUDGE
2517.00†	16.000	72.595	2504.05	-5.45	38.72	123.52	40°05'10.584"N	104°46'03.773"W	0.00	
2617.00†	16.000	72.595	2600.17	-6.61	46.97	149.82	40°05'10.665"N	104°46'03.434"W	0.00	
2717.00†	16.000	72.595	2696.30	-7.77	55.21	176.12	40°05'10.747"N	104°46'03.096"W	0.00	
2817.00†	16.000	72.595	2792.43	-8.93	63.45	202.42	40°05'10.828"N	104°46'02.758"W	0.00	
2917.00†	16.000	72.595	2888.55	-10.09	71.70	228.72	40°05'10.910"N	104°46'02.419"W	0.00	
3017.00†	16.000	72.595	2984.68	-11.25	79.94	255.03	40°05'10.991"N	104°46'02.081"W	0.00	
3117.00†	16.000	72.595	3080.80	-12.41	88.19	281.33	40°05'11.072"N	104°46'01.742"W	0.00	
3217.00†	16.000	72.595	3176.93	-13.57	96.43	307.63	40°05'11.154"N	104°46'01.404"W	0.00	
3317.00†	16.000	72.595	3273.06	-14.73	104.68	333.93	40°05'11.235"N	104°46'01.066"W	0.00	
3417.00†	16.000	72.595	3369.18	-15.89	112.92	360.23	40°05'11.317"N	104°46'00.727"W	0.00	
3517.00†	16.000	72.595	3465.31	-17.04	121.17	386.54	40°05'11.398"N	104°46'00.389"W	0.00	
3617.00†	16.000	72.595	3561.44	-18.20	129.41	412.84	40°05'11.480"N	104°46'00.050"W	0.00	
3717.00†	16.000	72.595	3657.56	-19.36	137.66	439.14	40°05'11.561"N	104°45'59.712"W	0.00	
3817.00†	16.000	72.595	3753.69	-20.52	145.90	465.44	40°05'11.643"N	104°45'59.374"W	0.00	
3917.00†	16.000	72.595	3849.81	-21.68	154.15	491.74	40°05'11.724"N	104°45'59.035"W	0.00	
4017.00†	16.000	72.595	3945.94	-22.84	162.39	518.04	40°05'11.806"N	104°45'58.697"W	0.00	



Planned Wellpath Report

BURKHARDT 36C-3HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.)
Area	COLORADO	Well	BURKHARDT 36C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BURKHARDT 36C-3HZ PWB
Facility	SEC.03-T1N-R66W		

WELLPATH DATA (138 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	16.000	72.595	4042.07	-24.00	170.64	544.35	40°05'11.887"N	104°45'58.359"W	0.00	
4122.13†	16.000	72.595	4047.00	-24.06	171.06	545.70	40°05'11.891"N	104°45'58.341"W	0.00	PARKMAN
4217.00†	16.000	72.595	4138.19	-25.16	178.88	570.65	40°05'11.969"N	104°45'58.020"W	0.00	
4317.00†	16.000	72.595	4234.32	-26.32	187.13	596.95	40°05'12.050"N	104°45'57.682"W	0.00	
4417.00†	16.000	72.595	4330.44	-27.48	195.37	623.25	40°05'12.132"N	104°45'57.343"W	0.00	
4517.00†	16.000	72.595	4426.57	-28.64	203.62	649.55	40°05'12.213"N	104°45'57.005"W	0.00	
4617.00†	16.000	72.595	4522.70	-29.80	211.86	675.85	40°05'12.295"N	104°45'56.667"W	0.00	
4683.89†	16.000	72.595	4587.00	-30.58	217.38	693.45	40°05'12.349"N	104°45'56.440"W	0.00	SUSSEX
4717.00†	16.000	72.595	4618.82	-30.96	220.11	702.16	40°05'12.376"N	104°45'56.328"W	0.00	
4817.00†	16.000	72.595	4714.95	-32.12	228.35	728.46	40°05'12.458"N	104°45'55.990"W	0.00	
4917.00†	16.000	72.595	4811.08	-33.28	236.60	754.76	40°05'12.539"N	104°45'55.651"W	0.00	
5017.00†	16.000	72.595	4907.20	-34.44	244.84	781.06	40°05'12.620"N	104°45'55.313"W	0.00	
5117.00†	16.000	72.595	5003.33	-35.60	253.09	807.36	40°05'12.702"N	104°45'54.975"W	0.00	
5217.00†	16.000	72.595	5099.45	-36.76	261.33	833.66	40°05'12.783"N	104°45'54.636"W	0.00	
5317.00†	16.000	72.595	5195.58	-37.92	269.58	859.97	40°05'12.865"N	104°45'54.298"W	0.00	
5417.00†	16.000	72.595	5291.71	-39.08	277.82	886.27	40°05'12.946"N	104°45'53.959"W	0.00	
5517.00†	16.000	72.595	5387.83	-40.24	286.07	912.57	40°05'13.028"N	104°45'53.621"W	0.00	
5617.00†	16.000	72.595	5483.96	-41.40	294.31	938.87	40°05'13.109"N	104°45'53.283"W	0.00	
5717.00†	16.000	72.595	5580.08	-42.56	302.56	965.17	40°05'13.191"N	104°45'52.944"W	0.00	
5817.00†	16.000	72.595	5676.21	-43.72	310.80	991.47	40°05'13.272"N	104°45'52.606"W	0.00	
5917.00†	16.000	72.595	5772.34	-44.88	319.05	1017.78	40°05'13.354"N	104°45'52.267"W	0.00	
6017.00†	16.000	72.595	5868.46	-46.04	327.29	1044.08	40°05'13.435"N	104°45'51.929"W	0.00	
6083.10	16.000	72.595	5932.00	-46.81	332.74	1061.46	40°05'13.489"N	104°45'51.705"W	0.00	BEGIN DROP
6117.00†	15.322	72.595	5964.64	-47.19	335.48	1070.20	40°05'13.516"N	104°45'51.593"W	2.00	
6217.00†	13.322	72.595	6061.53	-48.23	342.88	1093.80	40°05'13.589"N	104°45'51.289"W	2.00	
6317.00†	11.322	72.595	6159.22	-49.13	349.26	1114.16	40°05'13.652"N	104°45'51.027"W	2.00	
6417.00†	9.322	72.595	6257.60	-49.88	354.62	1131.26	40°05'13.705"N	104°45'50.807"W	2.00	
6517.00†	7.322	72.595	6356.54	-50.49	358.95	1145.07	40°05'13.748"N	104°45'50.630"W	2.00	
6617.00†	5.322	72.595	6455.93	-50.96	362.25	1155.57	40°05'13.781"N	104°45'50.494"W	2.00	
6717.00†	3.322	72.595	6555.64	-51.27	364.50	1162.77	40°05'13.803"N	104°45'50.402"W	2.00	
6817.00†	1.322	72.595	6655.55	-51.44	365.71	1166.63	40°05'13.815"N	104°45'50.352"W	2.00	
6883.10	0.000	180.196	6721.64	-51.48	365.94	1167.36	40°05'13.817"N	104°45'50.343"W	2.00	END DROP
6917.00†	0.000	180.196	6755.55	-51.48	365.94	1167.36	40°05'13.817"N	104°45'50.343"W	0.00	
7017.00†	0.000	180.196	6855.55	-51.48	365.94	1167.36	40°05'13.817"N	104°45'50.343"W	0.00	
7089.51	0.000	180.196	6928.05	-51.48	365.94	1167.36	40°05'13.817"N	104°45'50.343"W	0.00	KOP, BUILD @ 10°/100'
7117.00†	2.749	180.196	6955.54	-50.84	365.28	1167.36	40°05'13.810"N	104°45'50.343"W	10.00	
7217.00†	12.749	180.196	7054.50	-37.84	351.81	1167.31	40°05'13.677"N	104°45'50.343"W	10.00	
7305.54†	21.603	180.196	7139.00	-12.64	325.69	1167.22	40°05'13.419"N	104°45'50.345"W	10.00	SHARON SPRINGS
7317.00†	22.749	180.196	7149.62	-8.46	321.37	1167.21	40°05'13.377"N	104°45'50.345"W	10.00	
7354.84†	26.533	180.196	7184.00	6.76	305.60	1167.15	40°05'13.221"N	104°45'50.345"W	10.00	NIOBRARA A
7417.00†	32.749	180.196	7238.00	36.42	274.87	1167.05	40°05'12.917"N	104°45'50.347"W	10.00	
7442.33†	35.283	180.196	7259.00	50.09	260.69	1167.00	40°05'12.777"N	104°45'50.347"W	10.00	NIOBRARA B
7517.00†	42.749	180.196	7316.97	95.42	213.72	1166.84	40°05'12.313"N	104°45'50.350"W	10.00	
7552.10†	46.259	180.196	7342.00	119.16	189.12	1166.75	40°05'12.070"N	104°45'50.351"W	10.00	NIOBRARA C
7617.00†	52.749	180.196	7384.12	166.77	139.80	1166.58	40°05'11.582"N	104°45'50.353"W	10.00	



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.
Area	COLORADO	Well	BURKHARDT 36C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BURKHARDT 36C-3HZ PWB
Facility	SEC.03-T1N-R66W		

WELLPATH DATA (138 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	62.749	180.196	7437.42	248.28	55.33	1166.29	40°05'10.748"N	104°45'50.357"W	10.00	
7809.61†	72.010	180.196	7473.00	330.69	-30.06	1166.00	40°05'09.904"N	104°45'50.360"W	10.00	FORT HAYS
7817.00†	72.749	180.196	7475.24	337.49	-37.10	1165.98	40°05'09.834"N	104°45'50.361"W	10.00	
7913.68†	82.417	180.196	7496.00	428.50	-131.41	1165.65	40°05'08.902"N	104°45'50.365"W	10.00	CODELL
7917.00†	82.749	180.196	7496.43	431.68	-134.70	1165.64	40°05'08.870"N	104°45'50.365"W	10.00	
7985.31	89.580	180.196	7501.00	497.41	-202.82	1165.41	40°05'08.196"N	104°45'50.368"W	10.00	LANDING POINT
8017.00†	89.580	180.196	7501.23	528.00	-234.51	1165.30	40°05'07.883"N	104°45'50.370"W	0.00	
8117.00†	89.580	180.196	7501.96	624.50	-334.50	1164.96	40°05'06.895"N	104°45'50.374"W	0.00	
8217.00†	89.580	180.196	7502.69	721.00	-434.50	1164.62	40°05'05.907"N	104°45'50.379"W	0.00	
8317.00†	89.580	180.196	7503.42	817.51	-534.50	1164.27	40°05'04.919"N	104°45'50.383"W	0.00	
8417.00†	89.580	180.196	7504.16	914.01	-634.49	1163.93	40°05'03.931"N	104°45'50.387"W	0.00	
8517.00†	89.580	180.196	7504.89	1010.51	-734.49	1163.59	40°05'02.942"N	104°45'50.392"W	0.00	
8617.00†	89.580	180.196	7505.62	1107.02	-834.49	1163.24	40°05'01.954"N	104°45'50.396"W	0.00	
8717.00†	89.580	180.196	7506.35	1203.52	-934.48	1162.90	40°05'00.966"N	104°45'50.401"W	0.00	
8817.00†	89.580	180.196	7507.09	1300.03	-1034.48	1162.56	40°04'59.978"N	104°45'50.405"W	0.00	
8917.00†	89.580	180.196	7507.82	1396.53	-1134.48	1162.22	40°04'58.990"N	104°45'50.410"W	0.00	
9017.00†	89.580	180.196	7508.55	1493.03	-1234.47	1161.87	40°04'58.001"N	104°45'50.414"W	0.00	
9117.00†	89.580	180.196	7509.28	1589.54	-1334.47	1161.53	40°04'57.013"N	104°45'50.419"W	0.00	
9217.00†	89.580	180.196	7510.02	1686.04	-1434.47	1161.19	40°04'56.025"N	104°45'50.423"W	0.00	
9317.00†	89.580	180.196	7510.75	1782.54	-1534.46	1160.85	40°04'55.037"N	104°45'50.428"W	0.00	
9417.00†	89.580	180.196	7511.48	1879.05	-1634.46	1160.50	40°04'54.049"N	104°45'50.432"W	0.00	
9517.00†	89.580	180.196	7512.21	1975.55	-1734.46	1160.16	40°04'53.061"N	104°45'50.437"W	0.00	
9617.00†	89.580	180.196	7512.95	2072.06	-1834.45	1159.82	40°04'52.072"N	104°45'50.441"W	0.00	
9717.00†	89.580	180.196	7513.68	2168.56	-1934.45	1159.48	40°04'51.084"N	104°45'50.446"W	0.00	
9817.00†	89.580	180.196	7514.41	2265.06	-2034.45	1159.13	40°04'50.096"N	104°45'50.450"W	0.00	
9917.00†	89.580	180.196	7515.14	2361.57	-2134.44	1158.79	40°04'49.108"N	104°45'50.454"W	0.00	
10017.00†	89.580	180.196	7515.88	2458.07	-2234.44	1158.45	40°04'48.120"N	104°45'50.459"W	0.00	
10117.00†	89.580	180.196	7516.61	2554.57	-2334.44	1158.11	40°04'47.131"N	104°45'50.463"W	0.00	
10217.00†	89.580	180.196	7517.34	2651.08	-2434.43	1157.76	40°04'46.143"N	104°45'50.468"W	0.00	
10317.00†	89.580	180.196	7518.07	2747.58	-2534.43	1157.42	40°04'45.155"N	104°45'50.472"W	0.00	
10417.00†	89.580	180.196	7518.81	2844.09	-2634.43	1157.08	40°04'44.167"N	104°45'50.477"W	0.00	
10517.00†	89.580	180.196	7519.54	2940.59	-2734.42	1156.73	40°04'43.179"N	104°45'50.481"W	0.00	
10617.00†	89.580	180.196	7520.27	3037.09	-2834.42	1156.39	40°04'42.190"N	104°45'50.486"W	0.00	
10717.00†	89.580	180.196	7521.00	3133.60	-2934.42	1156.05	40°04'41.202"N	104°45'50.490"W	0.00	
10817.00†	89.580	180.196	7521.74	3230.10	-3034.41	1155.71	40°04'40.214"N	104°45'50.495"W	0.00	
10917.00†	89.580	180.196	7522.47	3326.60	-3134.41	1155.36	40°04'39.226"N	104°45'50.499"W	0.00	
11017.00†	89.580	180.196	7523.20	3423.11	-3234.41	1155.02	40°04'38.238"N	104°45'50.504"W	0.00	
11117.00†	89.580	180.196	7523.93	3519.61	-3334.41	1154.68	40°04'37.250"N	104°45'50.508"W	0.00	
11217.00†	89.580	180.196	7524.67	3616.12	-3434.40	1154.34	40°04'36.261"N	104°45'50.513"W	0.00	
11317.00†	89.580	180.196	7525.40	3712.62	-3534.40	1153.99	40°04'35.273"N	104°45'50.517"W	0.00	
11417.00†	89.580	180.196	7526.13	3809.12	-3634.40	1153.65	40°04'34.285"N	104°45'50.522"W	0.00	
11517.00†	89.580	180.196	7526.86	3905.63	-3734.39	1153.31	40°04'33.297"N	104°45'50.526"W	0.00	
11617.00†	89.580	180.196	7527.60	4002.13	-3834.39	1152.97	40°04'32.309"N	104°45'50.530"W	0.00	
11717.00†	89.580	180.196	7528.33	4098.63	-3934.39	1152.62	40°04'31.320"N	104°45'50.535"W	0.00	
11817.00†	89.580	180.196	7529.06	4195.14	-4034.38	1152.28	40°04'30.332"N	104°45'50.539"W	0.00	



Planned Wellpath Report

BURKHARDT 36C-3HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.
Area	COLORADO	Well	BURKHARDT 36C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BURKHARDT 36C-3HZ PWB
Facility	SEC.03-T1N-R66W		

WELLPATH DATA (138 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11917.00†	89.580	180.196	7529.79	4291.64	-4134.38	1151.94	40°04'29.344"N	104°45'50.544"W	0.00	
12017.00†	89.580	180.196	7530.53	4388.15	-4234.38	1151.59	40°04'28.356"N	104°45'50.548"W	0.00	
12081.59	89.580	180.196	7531.00 ¹	4450.48	-4298.96	1151.37	40°04'27.718"N	104°45'50.551"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: BURKHARDT 36C-3HZ PWB Ref Wellpath: BURKHARDT 36C-3HZ (PERMIT REV-1) PWP

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	17.00	1540.00	1523.00	17.00	1540.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1540.00	1523.00	17.00	1540.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1540.00	7985.31	6445.31	1540.00	7501.00	0.00	0.00	-202.82	1165.41
7in Casing Intermediate	17.00	7985.31	7968.31	17.00	7501.00	0.00	0.00	-202.82	1165.41
6.125in Open Hole	7985.31	12081.59	4096.28	7501.00	NA	-202.82	1165.41	NA	NA
4.5in Casing Production	17.00	12081.59	12064.59	17.00	NA	0.00	0.00	NA	NA

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.03-T1N-R66W HARDLINES (460' SETBACK)		7300.00	0.20	-120.01	3204647.31	1275079.54	40°05'10.203"N	104°46'06.906"W	polygon
SEC.03-T1N-R66W SECTION LINES		7300.00	0.20	-120.01	3204647.31	1275079.54	40°05'10.203"N	104°46'06.906"W	polygon
1) BURKHARDT 36C-3HZ BHL ON PLAT REV-1 (460'FSL & 2436'FWL, SEC.03)	12081.59	7531.00	-4298.96	1151.37	3205954.08	1270791.19	40°04'27.718"N	104°45'50.551"W	point
BURKHARDT 36C-3HZ LAND BOX		7531.00	0.00	0.00	3204767.32	1275080.33	40°05'10.201"N	104°46'05.362"W	polygon

SURVEY PROGRAM - Ref Wellbore: BURKHARDT 36C-3HZ PWB Ref Wellpath: BURKHARDT 36C-3HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12081.59	NaviTrak (Standard)		BURKHARDT 36C-3HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BURKHARDT 36C-3HZ (420'FNL & 1270'FWL, SEC.
Area	COLORADO	Well	BURKHARDT 36C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BURKHARDT 36C-3HZ PWB
Facility	SEC.03-T1N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1490.00	0.000	72.595	1490.00	FOX HILLS MARKER
4122.13	16.000	72.595	4047.00	PARKMAN
4683.89	16.000	72.595	4587.00	SUSSEX
7305.54	21.603	180.196	7139.00	SHARON SPRINGS
7354.84	26.533	180.196	7184.00	NIOBRARA A
7442.33	35.283	180.196	7259.00	NIOBRARA B
7552.10	46.259	180.196	7342.00	NIOBRARA C
7809.61	72.010	180.196	7473.00	FORT HAYS
7913.68	82.417	180.196	7496.00	CODELL

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	72.595	17.00	TIE ON
1650.00	0.000	72.595	1650.00	BEGIN NUDGE
2450.00	16.000	72.595	2439.64	END NUDGE
6083.10	16.000	72.595	5932.00	BEGIN DROP
6883.10	0.000	180.196	6721.64	END DROP
7089.51	0.000	180.196	6928.05	KOP, BUILD @ 10°/100'
7985.31	89.580	180.196	7501.00	LANDING POINT
12081.59	89.580	180.196	7531.00	TOTAL DEPTH