

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)  
Field: WELD COUNTY (KERR MCGEE) Well: JZM 3C-3HZ  
Facility: SEC.10-T1N-R67W Wellbore: JZM 3C-3HZ PWB

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

True vertical depths are referenced to PERMIT (17KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17KB) (RKB)	North Reference: True north
PERMIT (17KB) (RKB) to Mean Sea Level: 5083 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 03/Jan/2014

## Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.10-T1N-R67W	3172614.180	1265028.924	40°03'33.286"N	104°52'59.945"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)	0.00	29.94	3172644.114	1265029.132
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10))				5083R
Mean Sea Level to Mud line (At Slot: SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10))				0R
PERMIT (17KB) (RKB) to Mean Sea Level				5083R

## Survey Program

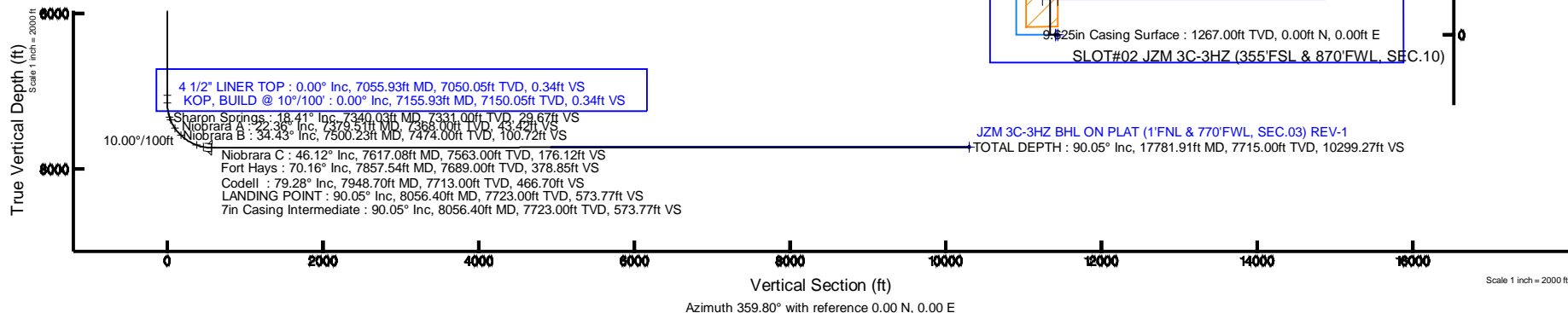
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	17781.91	NaviTrak	NaviTrak (MAGCORR,IFR)		JZM 3C-3HZ PWB

## 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	270.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1400.00	0.000	270.000	1400.00	0.00	0.00	0.00	0.00
END NUDGE	1900.00	10.000	270.000	1897.47	0.00	-43.52	2.00	0.15
BEGIN DROP	1953.35	10.000	270.000	1950.00	0.00	-52.79	0.00	0.19
END DROP	2453.35	0.000	359.748	2447.47	0.00	-96.31	2.00	0.34
KOP, BUILD @ 10°/100'	7155.93	0.000	359.748	7150.05	0.00	-96.31	0.00	0.34
LANDING POINT	8056.40	90.047	359.748	7723.00	573.42	-98.83	10.00	573.77
TOTAL DEPTH	17781.91	90.047	359.748	7715.00	10298.84	-141.55	0.00	10299.27

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
JZM 3C-3HZ BHL ON PLAT (1°FNL & 770'FWL, SEC.03) REV-1	17781.91	7715.00	10298.84	-141.55	3172430.94	1275326.33	40°05'15.061"N	104°53'01.381"W
JZM 3C-3HZ LAND BOX		7715.00	0.00	0.00	3172644.11	1265029.13	40°03'33.286"N	104°52'59.560"W
SEC.03-T1N-R67W SECTION LINES		7715.00	0.00	-29.94	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W
SEC.10-T1N-R67W SECTION LINES		7715.00	0.00	-29.94	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W



# Planned Wellpath Report

JZM 3C-3HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)
Area	COLORADO	Well	JZM 3C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 3C-3HZ PWB
Facility	SEC.10-T1N-R67W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.999962	Report Generated	03/Jan/2014 at 13:55
Convergence at slot	n/a	Database/Source file	WellArchitectDB/JZM_3C-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	0.00	29.94	3172644.11	1265029.13	40°03'33.286"N	104°52'59.560"W
Facility Reference Pt			3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"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'KB) (RKB) to Facility Vertical Datum	5083.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	5083.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10))	5083.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.80°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)
Area	COLORADO	Well	JZM 3C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 3C-3HZ PWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (195 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	270.000	0.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
17.00	0.000	270.000	17.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	TIE-ON
117.00†	0.000	270.000	117.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
217.00†	0.000	270.000	217.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
317.00†	0.000	270.000	317.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
417.00†	0.000	270.000	417.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
517.00†	0.000	270.000	517.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
617.00†	0.000	270.000	617.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
717.00†	0.000	270.000	717.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
817.00†	0.000	270.000	817.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
917.00†	0.000	270.000	917.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
1017.00†	0.000	270.000	1017.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
1117.00†	0.000	270.000	1117.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
1217.00†	0.000	270.000	1217.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	Fox Hills Marker
1317.00†	0.000	270.000	1317.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	
1400.00	0.000	270.000	1400.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.560"W	0.00	BEGIN NUDGE
1417.00†	0.340	270.000	1417.00	0.00	0.00	-0.05	40°03'33.286"N	104°52'59.561"W	2.00	
1517.00†	2.340	270.000	1516.97	0.01	0.00	-2.39	40°03'33.286"N	104°52'59.591"W	2.00	
1617.00†	4.340	270.000	1616.79	0.03	0.00	-8.21	40°03'33.286"N	104°52'59.666"W	2.00	
1717.00†	6.340	270.000	1716.35	0.06	0.00	-17.52	40°03'33.286"N	104°52'59.785"W	2.00	
1817.00†	8.340	270.000	1815.53	0.11	0.00	-30.30	40°03'33.286"N	104°52'59.950"W	2.00	
1900.00	10.000	270.000	1897.47	0.15	0.00	-43.52	40°03'33.286"N	104°53'00.120"W	2.00	END NUDGE
1917.00†	10.000	270.000	1914.21	0.16	0.00	-46.47	40°03'33.286"N	104°53'00.158"W	0.00	
1953.35	10.000	270.000	1950.00	0.19	0.00	-52.79	40°03'33.286"N	104°53'00.239"W	0.00	BEGIN DROP
2017.00†	8.727	270.000	2012.81	0.22	0.00	-63.14	40°03'33.286"N	104°53'00.372"W	2.00	
2117.00†	6.727	270.000	2111.89	0.27	0.00	-76.59	40°03'33.286"N	104°53'00.545"W	2.00	
2217.00†	4.727	270.000	2211.39	0.31	0.00	-86.56	40°03'33.286"N	104°53'00.673"W	2.00	
2317.00†	2.727	270.000	2311.17	0.33	0.00	-93.06	40°03'33.286"N	104°53'00.757"W	2.00	
2417.00†	0.727	270.000	2411.12	0.34	0.00	-96.08	40°03'33.286"N	104°53'00.796"W	2.00	
2453.35	0.000	359.748	2447.47	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	2.00	END DROP
2517.00†	0.000	359.748	2511.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
2617.00†	0.000	359.748	2611.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
2717.00†	0.000	359.748	2711.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
2817.00†	0.000	359.748	2811.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
2917.00†	0.000	359.748	2911.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3017.00†	0.000	359.748	3011.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3117.00†	0.000	359.748	3111.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3217.00†	0.000	359.748	3211.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3317.00†	0.000	359.748	3311.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3417.00†	0.000	359.748	3411.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3517.00†	0.000	359.748	3511.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3617.00†	0.000	359.748	3611.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3717.00†	0.000	359.748	3711.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3817.00†	0.000	359.748	3811.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
3917.00†	0.000	359.748	3911.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)
Area	COLORADO	Well	JZM 3C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 3C-3HZ PWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (195 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	0.000	359.748	4011.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4117.00†	0.000	359.748	4111.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4217.00†	0.000	359.748	4211.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4317.00†	0.000	359.748	4311.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4417.00†	0.000	359.748	4411.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4517.00†	0.000	359.748	4511.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4617.00†	0.000	359.748	4611.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4717.00†	0.000	359.748	4711.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4817.00†	0.000	359.748	4811.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
4917.00†	0.000	359.748	4911.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5017.00†	0.000	359.748	5011.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5078.88†	0.000	359.748	5073.00	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	Sussex
5117.00†	0.000	359.748	5111.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5215.88†	0.000	359.748	5210.00	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	Shannon
5217.00†	0.000	359.748	5211.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5317.00†	0.000	359.748	5311.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5417.00†	0.000	359.748	5411.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5517.00†	0.000	359.748	5511.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5617.00†	0.000	359.748	5611.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5717.00†	0.000	359.748	5711.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5817.00†	0.000	359.748	5811.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
5917.00†	0.000	359.748	5911.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6017.00†	0.000	359.748	6011.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6117.00†	0.000	359.748	6111.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6217.00†	0.000	359.748	6211.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6317.00†	0.000	359.748	6311.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6417.00†	0.000	359.748	6411.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6517.00†	0.000	359.748	6511.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6617.00†	0.000	359.748	6611.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6717.00†	0.000	359.748	6711.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6817.00†	0.000	359.748	6811.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
6917.00†	0.000	359.748	6911.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
7017.00†	0.000	359.748	7011.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
7055.93†	0.000	359.748	7050.05	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	4 1/2" LINER TOP
7117.00†	0.000	359.748	7111.12	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	
7155.93	0.000	359.748	7150.05	0.34	0.00	-96.31	40°03'33.286"N	104°53'00.799"W	0.00	KOP, BUILD @ 10°/100'
7217.00†	6.107	359.748	7211.00	3.59	3.25	-96.32	40°03'33.318"N	104°53'00.799"W	10.00	
7317.00†	16.107	359.748	7309.01	22.83	22.49	-96.41	40°03'33.508"N	104°53'00.800"W	10.00	
7340.03†	18.411	359.748	7331.00	29.67	29.33	-96.44	40°03'33.576"N	104°53'00.800"W	10.00	Sharon Springs
7379.51†	22.359	359.748	7368.00	43.42	43.07	-96.50	40°03'33.712"N	104°53'00.801"W	10.00	Niobrara A
7417.00†	26.107	359.748	7402.18	58.80	58.46	-96.57	40°03'33.864"N	104°53'00.802"W	10.00	
7500.23†	34.431	359.748	7474.00	100.72	100.37	-96.75	40°03'34.278"N	104°53'00.804"W	10.00	Niobrara B
7517.00†	36.107	359.748	7487.69	110.40	110.06	-96.79	40°03'34.374"N	104°53'00.805"W	10.00	
7617.00†	46.107	359.748	7562.94	176.06	175.72	-97.08	40°03'35.023"N	104°53'00.809"W	10.00	
7617.08†	46.116	359.748	7563.00	176.12	175.78	-97.08	40°03'35.023"N	104°53'00.809"W	10.00	Niobrara C

# Planned Wellpath Report

JZM 3C-3HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)
Area	COLORADO	Well	JZM 3C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 3C-3HZ PWB
Facility	SEC.10-TIN-R67W		

WELLPATH DATA (195 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	56.107	359.748	7625.65	253.80	253.45	-97.42	40°03'35.791"N	104°53'00.813"W	10.00	
7817.00†	66.107	359.748	7673.90	341.24	340.89	-97.81	40°03'36.655"N	104°53'00.818"W	10.00	
7857.54†	70.162	359.748	7689.00	378.85	378.51	-97.97	40°03'37.027"N	104°53'00.820"W	10.00	Fort Hays
7917.00†	76.107	359.748	7706.24	435.73	435.39	-98.22	40°03'37.589"N	104°53'00.823"W	10.00	
7948.70†	79.277	359.748	7713.00	466.70	466.35	-98.36	40°03'37.895"N	104°53'00.825"W	10.00	Codell
8017.00†	86.107	359.748	7721.68	534.40	534.06	-98.65	40°03'38.564"N	104°53'00.829"W	10.00	
8056.40	90.047	359.748	7723.00	573.77	573.42	-98.83	40°03'38.953"N	104°53'00.831"W	10.00	LANDING POINT
8117.00†	90.047	359.748	7722.95	634.37	634.03	-99.09	40°03'39.552"N	104°53'00.834"W	0.00	
8217.00†	90.047	359.748	7722.87	734.37	734.03	-99.53	40°03'40.540"N	104°53'00.840"W	0.00	
8317.00†	90.047	359.748	7722.79	834.37	834.02	-99.97	40°03'41.528"N	104°53'00.846"W	0.00	
8417.00†	90.047	359.748	7722.71	934.37	934.02	-100.41	40°03'42.516"N	104°53'00.851"W	0.00	
8517.00†	90.047	359.748	7722.62	1034.37	1034.02	-100.85	40°03'43.504"N	104°53'00.857"W	0.00	
8617.00†	90.047	359.748	7722.54	1134.37	1134.02	-101.29	40°03'44.493"N	104°53'00.863"W	0.00	
8717.00†	90.047	359.748	7722.46	1234.37	1234.02	-101.73	40°03'45.481"N	104°53'00.868"W	0.00	
8817.00†	90.047	359.748	7722.38	1334.37	1334.02	-102.17	40°03'46.469"N	104°53'00.874"W	0.00	
8917.00†	90.047	359.748	7722.29	1434.37	1434.02	-102.61	40°03'47.457"N	104°53'00.880"W	0.00	
9017.00†	90.047	359.748	7722.21	1534.37	1534.02	-103.05	40°03'48.445"N	104°53'00.885"W	0.00	
9117.00†	90.047	359.748	7722.13	1634.37	1634.02	-103.49	40°03'49.434"N	104°53'00.891"W	0.00	
9217.00†	90.047	359.748	7722.05	1734.37	1734.02	-103.93	40°03'50.422"N	104°53'00.897"W	0.00	
9317.00†	90.047	359.748	7721.97	1834.37	1834.01	-104.37	40°03'51.410"N	104°53'00.902"W	0.00	
9417.00†	90.047	359.748	7721.88	1934.37	1934.01	-104.80	40°03'52.398"N	104°53'00.908"W	0.00	
9517.00†	90.047	359.748	7721.80	2034.37	2034.01	-105.24	40°03'53.387"N	104°53'00.914"W	0.00	
9617.00†	90.047	359.748	7721.72	2134.37	2134.01	-105.68	40°03'54.375"N	104°53'00.919"W	0.00	
9717.00†	90.047	359.748	7721.64	2234.37	2234.01	-106.12	40°03'55.363"N	104°53'00.925"W	0.00	
9817.00†	90.047	359.748	7721.55	2334.37	2334.01	-106.56	40°03'56.351"N	104°53'00.931"W	0.00	
9917.00†	90.047	359.748	7721.47	2434.37	2434.01	-107.00	40°03'57.339"N	104°53'00.936"W	0.00	
10017.00†	90.047	359.748	7721.39	2534.37	2534.01	-107.44	40°03'58.328"N	104°53'00.942"W	0.00	
10117.00†	90.047	359.748	7721.31	2634.37	2634.01	-107.88	40°03'59.316"N	104°53'00.948"W	0.00	
10217.00†	90.047	359.748	7721.23	2734.37	2734.01	-108.32	40°04'00.304"N	104°53'00.953"W	0.00	
10317.00†	90.047	359.748	7721.14	2834.37	2834.00	-108.76	40°04'01.292"N	104°53'00.959"W	0.00	
10417.00†	90.047	359.748	7721.06	2934.37	2934.00	-109.20	40°04'02.280"N	104°53'00.965"W	0.00	
10517.00†	90.047	359.748	7720.98	3034.37	3034.00	-109.64	40°04'03.269"N	104°53'00.970"W	0.00	
10617.00†	90.047	359.748	7720.90	3134.37	3134.00	-110.08	40°04'04.257"N	104°53'00.976"W	0.00	
10717.00†	90.047	359.748	7720.81	3234.37	3234.00	-110.52	40°04'05.245"N	104°53'00.981"W	0.00	
10817.00†	90.047	359.748	7720.73	3334.37	3334.00	-110.95	40°04'06.233"N	104°53'00.987"W	0.00	
10917.00†	90.047	359.748	7720.65	3434.37	3434.00	-111.39	40°04'07.222"N	104°53'00.993"W	0.00	
11017.00†	90.047	359.748	7720.57	3534.37	3534.00	-111.83	40°04'08.210"N	104°53'00.998"W	0.00	
11117.00†	90.047	359.748	7720.48	3634.37	3634.00	-112.27	40°04'09.198"N	104°53'01.004"W	0.00	
11217.00†	90.047	359.748	7720.40	3734.37	3734.00	-112.71	40°04'10.186"N	104°53'01.010"W	0.00	
11317.00†	90.047	359.748	7720.32	3834.37	3833.99	-113.15	40°04'11.174"N	104°53'01.015"W	0.00	
11417.00†	90.047	359.748	7720.24	3934.37	3933.99	-113.59	40°04'12.163"N	104°53'01.021"W	0.00	
11517.00†	90.047	359.748	7720.16	4034.37	4033.99	-114.03	40°04'13.151"N	104°53'01.027"W	0.00	
11617.00†	90.047	359.748	7720.07	4134.37	4133.99	-114.47	40°04'14.139"N	104°53'01.032"W	0.00	
11717.00†	90.047	359.748	7719.99	4234.37	4233.99	-114.91	40°04'15.127"N	104°53'01.038"W	0.00	
11817.00†	90.047	359.748	7719.91	4334.37	4333.99	-115.35	40°04'16.115"N	104°53'01.044"W	0.00	

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)
Area	COLORADO	Well	JZM 3C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 3C-3HZ PWB
Facility	SEC.10-T1N-R67W		

## WELLPATH DATA (195 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11917.00†	90.047	359.748	7719.83	4434.37	4433.99	-115.79	40°04'17.104"N	104°53'01.049"W	0.00	
12017.00†	90.047	359.748	7719.74	4534.37	4533.99	-116.23	40°04'18.092"N	104°53'01.055"W	0.00	
12117.00†	90.047	359.748	7719.66	4634.37	4633.99	-116.67	40°04'19.080"N	104°53'01.061"W	0.00	
12217.00†	90.047	359.748	7719.58	4734.37	4733.99	-117.10	40°04'20.068"N	104°53'01.066"W	0.00	
12317.00†	90.047	359.748	7719.50	4834.37	4833.98	-117.54	40°04'21.056"N	104°53'01.072"W	0.00	
12417.00†	90.047	359.748	7719.41	4934.37	4933.98	-117.98	40°04'22.045"N	104°53'01.078"W	0.00	
12517.00†	90.047	359.748	7719.33	5034.37	5033.98	-118.42	40°04'23.033"N	104°53'01.083"W	0.00	
12617.00†	90.047	359.748	7719.25	5134.37	5133.98	-118.86	40°04'24.021"N	104°53'01.089"W	0.00	
12717.00†	90.047	359.748	7719.17	5234.37	5233.98	-119.30	40°04'25.009"N	104°53'01.095"W	0.00	
12817.00†	90.047	359.748	7719.09	5334.37	5333.98	-119.74	40°04'25.998"N	104°53'01.100"W	0.00	
12917.00†	90.047	359.748	7719.00	5434.37	5433.98	-120.18	40°04'26.986"N	104°53'01.106"W	0.00	
13017.00†	90.047	359.748	7718.92	5534.37	5533.98	-120.62	40°04'27.974"N	104°53'01.112"W	0.00	
13117.00†	90.047	359.748	7718.84	5634.37	5633.98	-121.06	40°04'28.962"N	104°53'01.117"W	0.00	
13217.00†	90.047	359.748	7718.76	5734.37	5733.98	-121.50	40°04'29.950"N	104°53'01.123"W	0.00	
13317.00†	90.047	359.748	7718.67	5834.37	5833.97	-121.94	40°04'30.939"N	104°53'01.129"W	0.00	
13417.00†	90.047	359.748	7718.59	5934.37	5933.97	-122.38	40°04'31.927"N	104°53'01.134"W	0.00	
13517.00†	90.047	359.748	7718.51	6034.37	6033.97	-122.82	40°04'32.915"N	104°53'01.140"W	0.00	
13617.00†	90.047	359.748	7718.43	6134.37	6133.97	-123.25	40°04'33.903"N	104°53'01.146"W	0.00	
13717.00†	90.047	359.748	7718.34	6234.37	6233.97	-123.69	40°04'34.891"N	104°53'01.151"W	0.00	
13817.00†	90.047	359.748	7718.26	6334.37	6333.97	-124.13	40°04'35.880"N	104°53'01.157"W	0.00	
13917.00†	90.047	359.748	7718.18	6434.37	6433.97	-124.57	40°04'36.868"N	104°53'01.163"W	0.00	
14017.00†	90.047	359.748	7718.10	6534.37	6533.97	-125.01	40°04'37.856"N	104°53'01.168"W	0.00	
14117.00†	90.047	359.748	7718.02	6634.37	6633.97	-125.45	40°04'38.844"N	104°53'01.174"W	0.00	
14217.00†	90.047	359.748	7717.93	6734.37	6733.97	-125.89	40°04'39.832"N	104°53'01.179"W	0.00	
14317.00†	90.047	359.748	7717.85	6834.37	6833.96	-126.33	40°04'40.821"N	104°53'01.185"W	0.00	
14417.00†	90.047	359.748	7717.77	6934.37	6933.96	-126.77	40°04'41.809"N	104°53'01.191"W	0.00	
14517.00†	90.047	359.748	7717.69	7034.37	7033.96	-127.21	40°04'42.797"N	104°53'01.196"W	0.00	
14617.00†	90.047	359.748	7717.60	7134.37	7133.96	-127.65	40°04'43.785"N	104°53'01.202"W	0.00	
14717.00†	90.047	359.748	7717.52	7234.37	7233.96	-128.09	40°04'44.774"N	104°53'01.208"W	0.00	
14817.00†	90.047	359.748	7717.44	7334.37	7333.96	-128.53	40°04'45.762"N	104°53'01.213"W	0.00	
14917.00†	90.047	359.748	7717.36	7434.37	7433.96	-128.97	40°04'46.750"N	104°53'01.219"W	0.00	
15017.00†	90.047	359.748	7717.28	7534.37	7533.96	-129.40	40°04'47.738"N	104°53'01.225"W	0.00	
15117.00†	90.047	359.748	7717.19	7634.37	7633.96	-129.84	40°04'48.726"N	104°53'01.230"W	0.00	
15217.00†	90.047	359.748	7717.11	7734.37	7733.96	-130.28	40°04'49.715"N	104°53'01.236"W	0.00	
15317.00†	90.047	359.748	7717.03	7834.37	7833.95	-130.72	40°04'50.703"N	104°53'01.242"W	0.00	
15417.00†	90.047	359.748	7716.95	7934.37	7933.95	-131.16	40°04'51.691"N	104°53'01.247"W	0.00	
15517.00†	90.047	359.748	7716.86	8034.37	8033.95	-131.60	40°04'52.679"N	104°53'01.253"W	0.00	
15617.00†	90.047	359.748	7716.78	8134.37	8133.95	-132.04	40°04'53.667"N	104°53'01.259"W	0.00	
15717.00†	90.047	359.748	7716.70	8234.37	8233.95	-132.48	40°04'54.656"N	104°53'01.264"W	0.00	
15817.00†	90.047	359.748	7716.62	8334.37	8333.95	-132.92	40°04'55.644"N	104°53'01.270"W	0.00	
15917.00†	90.047	359.748	7716.53	8434.37	8433.95	-133.36	40°04'56.632"N	104°53'01.276"W	0.00	
16017.00†	90.047	359.748	7716.45	8534.37	8533.95	-133.80	40°04'57.620"N	104°53'01.281"W	0.00	
16117.00†	90.047	359.748	7716.37	8634.37	8633.95	-134.24	40°04'58.608"N	104°53'01.287"W	0.00	
16217.00†	90.047	359.748	7716.29	8734.37	8733.95	-134.68	40°04'59.597"N	104°53'01.293"W	0.00	
16317.00†	90.047	359.748	7716.21	8834.37	8833.94	-135.12	40°05'00.585"N	104°53'01.298"W	0.00	



# Planned Wellpath Report

JZM 3C-3HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)
Area	COLORADO	Well	JZM 3C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 3C-3HZ PWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (195 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16417.00†	90.047	359.748	7716.12	8934.37	8933.94	-135.55	40°05'01.573"N	104°53'01.304"W	0.00	
16517.00†	90.047	359.748	7716.04	9034.37	9033.94	-135.99	40°05'02.561"N	104°53'01.310"W	0.00	
16617.00†	90.047	359.748	7715.96	9134.37	9133.94	-136.43	40°05'03.549"N	104°53'01.315"W	0.00	
16717.00†	90.047	359.748	7715.88	9234.37	9233.94	-136.87	40°05'04.538"N	104°53'01.321"W	0.00	
16817.00†	90.047	359.748	7715.79	9334.37	9333.94	-137.31	40°05'05.526"N	104°53'01.327"W	0.00	
16917.00†	90.047	359.748	7715.71	9434.37	9433.94	-137.75	40°05'06.514"N	104°53'01.332"W	0.00	
17017.00†	90.047	359.748	7715.63	9534.37	9533.94	-138.19	40°05'07.502"N	104°53'01.338"W	0.00	
17117.00†	90.047	359.748	7715.55	9634.37	9633.94	-138.63	40°05'08.491"N	104°53'01.344"W	0.00	
17217.00†	90.047	359.748	7715.46	9734.37	9733.94	-139.07	40°05'09.479"N	104°53'01.349"W	0.00	
17317.00†	90.047	359.748	7715.38	9834.37	9833.93	-139.51	40°05'10.467"N	104°53'01.355"W	0.00	
17417.00†	90.047	359.748	7715.30	9934.37	9933.93	-139.95	40°05'11.455"N	104°53'01.361"W	0.00	
17517.00†	90.047	359.748	7715.22	10034.37	10033.93	-140.39	40°05'12.443"N	104°53'01.366"W	0.00	
17617.00†	90.047	359.748	7715.14	10134.37	10133.93	-140.83	40°05'13.432"N	104°53'01.372"W	0.00	
17717.00†	90.047	359.748	7715.05	10234.37	10233.93	-141.27	40°05'14.420"N	104°53'01.378"W	0.00	
17781.91	90.047	359.748	7715.00 <sup>1</sup>	10299.27	10298.84	-141.55	40°05'15.061"N	104°53'01.381"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: JZM 3C-3HZ PWB Ref Wellpath: JZM 3C-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	1267.00	1250.00	17.00	1267.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1267.00	1250.00	17.00	1267.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1267.00	8056.40	6789.40	1267.00	7723.00	0.00	0.00	573.43	-98.83
7in Casing Intermediate	17.00	8056.40	8039.40	17.00	7723.00	0.00	0.00	573.43	-98.83
6.125in Open Hole	8056.40	17781.91	9725.51	7723.00	7715.00	573.43	-98.83	10298.84	-141.55
4.5in Casing Production	17.00	17781.91	17764.91	17.00	7715.00	0.00	0.00	10298.84	-141.55

# Planned Wellpath Report

JZM 3C-3HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)
Area	COLORADO	Well	JZM 3C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 3C-3HZ PWB
Facility	SEC.10-T1N-R67W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) JZM 3C-3HZ BHL ON PLAT (1'FNL & 770'FWL, SEC.03) REV-1	17781.91	7715.00	10298.84	-141.55	3172430.94	1275326.33	40°05'15.061"N	104°53'01.381"W	point
JZM 3C-3HZ LAND BOX		7715.00	0.00	0.00	3172644.11	1265029.13	40°03'33.286"N	104°52'59.560"W	polygon
SEC.03-T1N-R67W SECTION LINES		7715.00	0.00	-29.94	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W	polygon
SEC.10-T1N-R67W SECTION LINES		7715.00	0.00	-29.94	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W	polygon

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	17781.91	NaviTrak (MAGCORR,IFR)		JZM 3C-3HZ PWB



# Planned Wellpath Report

JZM 3C-3HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 JZM 3C-3HZ (355'FSL & 870'FWL, SEC.10)
Area	COLORADO	Well	JZM 3C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 3C-3HZ PWB
Facility	SEC.10-T1N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1217.00	0.000	270.000	1217.00	Fox Hills Marker
5078.88	0.000	359.748	5073.00	Sussex
5215.88	0.000	359.748	5210.00	Shannon
7055.93	0.000	359.748	7050.05	4 1/2" LINER TOP
7340.03	18.411	359.748	7331.00	Sharon Springs
7379.51	22.359	359.748	7368.00	Niobrara A
7500.23	34.431	359.748	7474.00	Niobrara B
7617.08	46.116	359.748	7563.00	Niobrara C
7857.54	70.162	359.748	7689.00	Fort Hays
7948.70	79.277	359.748	7713.00	Codell

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	270.000	17.00	TIE-ON
1400.00	0.000	270.000	1400.00	BEGIN NUDGE
1900.00	10.000	270.000	1897.47	END NUDGE
1953.35	10.000	270.000	1950.00	BEGIN DROP
2453.35	0.000	359.748	2447.47	END DROP
7155.93	0.000	359.748	7150.05	KOP, BUILD @ 10°/100'
8056.40	90.047	359.748	7723.00	LANDING POINT
17781.91	90.047	359.748	7715.00	TOTAL DEPTH