

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
 Field: WELD COUNTY (KERR MCGEE) Well: JZM 30N-3HZ
 Facility: SEC.10-T1N-R67W Wellbore: JZM 30N-3HZ PWB

Plot reference wellpath is JZM 30N-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#01 JZM 30N-3HZ (355'FSL & 840'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)	Latitude	Longitude
SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)	0.00	0.00	3172614.180	1265028.924	40°03'33.286"N	104°52'59.945"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10))						5083ft
Mean Sea Level to Mud line (At Slot: SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10))						0ft
PERMIT (17KB) (RKB) to Mean Sea Level						5083ft

Survey Program

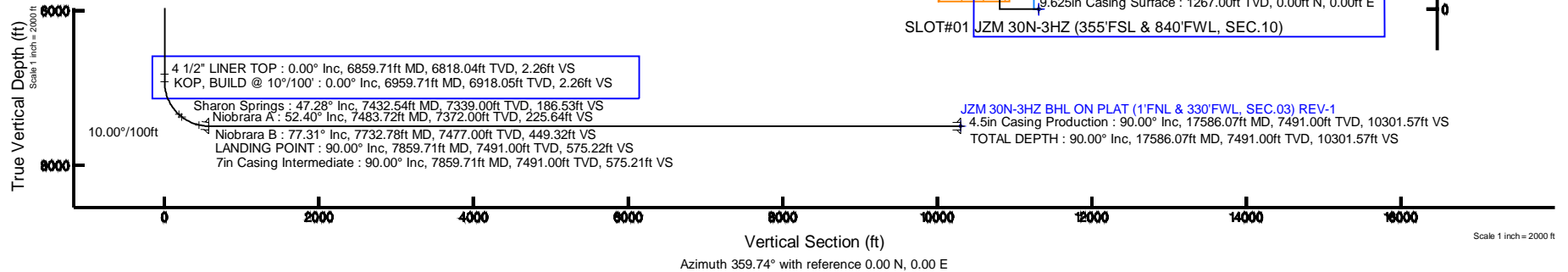
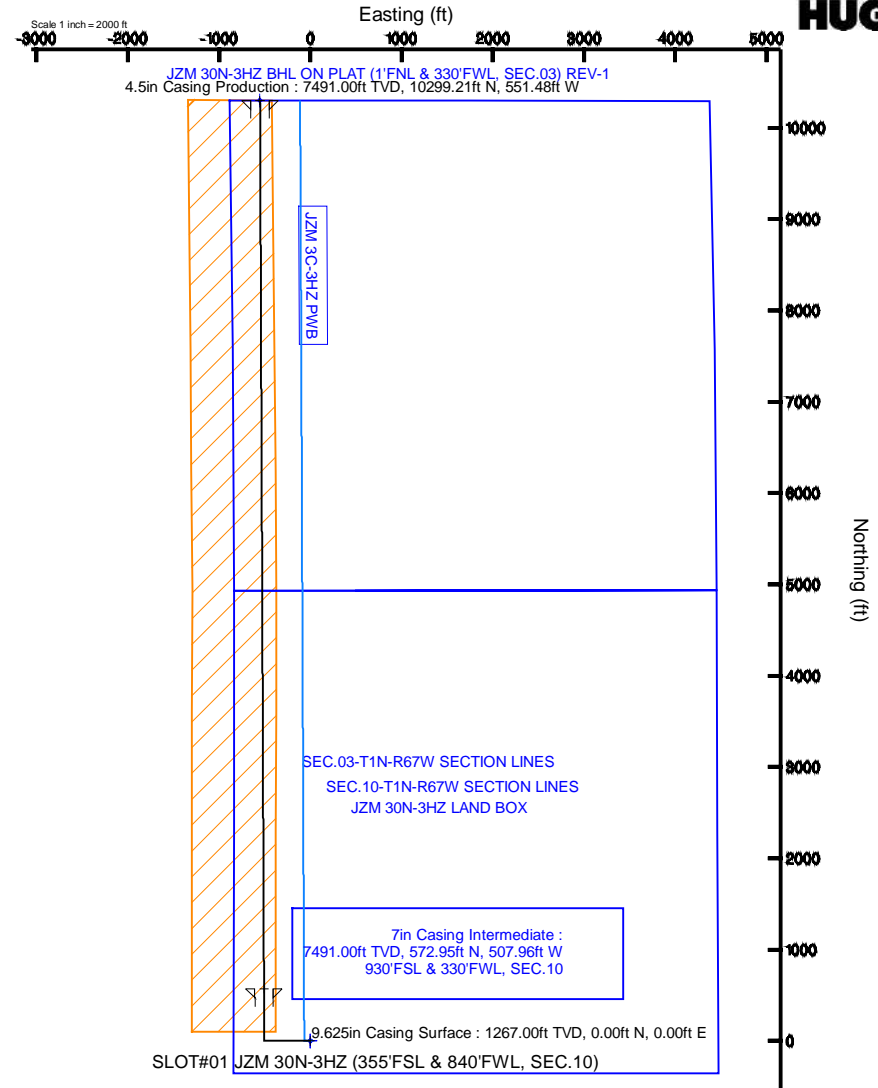
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	17586.07	NaviTrak	NaviTrak (MAGCORR.IFR)		JZM 30N-3HZ PWB

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	0.19
BEGIN DROP	4309.13	10.000	270.000	4270.00	0.00	-461.86	0.00	2.06
END DROP	4809.13	0.000	359.743	4767.47	0.00	-505.39	2.00	2.26
KOP, BUILD @ 10°/100'	6959.71	0.000	359.743	6918.05	0.00	-505.39	0.00	2.26
LANDING POINT	7859.71	90.000	359.743	7491.00	572.95	-507.96	10.00	575.22
TOTAL DEPTH	17586.07	90.000	359.744	7491.00	10299.21	-551.48	0.00	10301.57

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
JZM 30N-3HZ BHL ON PLAT (1'FNL & 330'FWL, SEC.03) REV-1	17586.07	7491.00	10299.21	-551.48	3171991.11	1275323.64	40°05'15.065"N	104°53'07.040"W
JZM 30N-3HZ LAND BOX		7715.00	0.00	0.00	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W
SEC.03-T1N-R67W SECTION LINES		7715.00	0.00	0.00	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W
SEC.10-T1N-R67W SECTION LINES		7715.00	0.00	0.00	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W



Scale 1 inch = 2000 ft

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
Area	COLORADO	Well	JZM 30N-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 30N-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 13:53
Convergence at slot	n/a	Database/Source file	WellArchitectDB/_JZM_30N-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	0.00	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"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#01 JZM 30N-3HZ (355'FSL & 840'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	359.74°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
Area	COLORADO	Well	JZM 30N-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 30N-3HZ PWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (190 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°52'59.945"W	0.00	
17.00	0.000	270.000	17.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"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°52'59.945"W	0.00	
217.00†	0.000	270.000	217.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
317.00†	0.000	270.000	317.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
417.00†	0.000	270.000	417.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
517.00†	0.000	270.000	517.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
617.00†	0.000	270.000	617.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
717.00†	0.000	270.000	717.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
817.00†	0.000	270.000	817.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
917.00†	0.000	270.000	917.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
1017.00†	0.000	270.000	1017.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
1117.00†	0.000	270.000	1117.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"W	0.00	
1217.00†	0.000	270.000	1217.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"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°52'59.945"W	0.00	
1400.00	0.000	270.000	1400.00	0.00	0.00	0.00	40°03'33.286"N	104°52'59.945"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°52'59.946"W	2.00	
1517.00†	2.340	270.000	1516.97	0.01	0.00	-2.39	40°03'33.286"N	104°52'59.976"W	2.00	
1617.00†	4.340	270.000	1616.79	0.04	0.00	-8.21	40°03'33.286"N	104°53'00.051"W	2.00	
1717.00†	6.340	270.000	1716.35	0.08	0.00	-17.52	40°03'33.286"N	104°53'00.170"W	2.00	
1817.00†	8.340	270.000	1815.53	0.14	0.00	-30.30	40°03'33.286"N	104°53'00.335"W	2.00	
1900.00	10.000	270.000	1897.47	0.19	0.00	-43.52	40°03'33.286"N	104°53'00.505"W	2.00	END NUDGE
1917.00†	10.000	270.000	1914.21	0.21	0.00	-46.47	40°03'33.286"N	104°53'00.543"W	0.00	
2017.00†	10.000	270.000	2012.69	0.29	0.00	-63.84	40°03'33.286"N	104°53'00.766"W	0.00	
2117.00†	10.000	270.000	2111.17	0.36	0.00	-81.20	40°03'33.286"N	104°53'00.989"W	0.00	
2217.00†	10.000	270.000	2209.65	0.44	0.00	-98.57	40°03'33.286"N	104°53'01.213"W	0.00	
2317.00†	10.000	270.000	2308.13	0.52	0.00	-115.93	40°03'33.286"N	104°53'01.436"W	0.00	
2417.00†	10.000	270.000	2406.61	0.60	0.00	-133.30	40°03'33.286"N	104°53'01.659"W	0.00	
2517.00†	10.000	270.000	2505.09	0.67	0.00	-150.66	40°03'33.286"N	104°53'01.883"W	0.00	
2617.00†	10.000	270.000	2603.57	0.75	0.00	-168.03	40°03'33.286"N	104°53'02.106"W	0.00	
2717.00†	10.000	270.000	2702.05	0.83	0.00	-185.39	40°03'33.286"N	104°53'02.329"W	0.00	
2817.00†	10.000	270.000	2800.53	0.91	0.00	-202.76	40°03'33.286"N	104°53'02.553"W	0.00	
2917.00†	10.000	270.000	2899.01	0.98	0.00	-220.12	40°03'33.286"N	104°53'02.776"W	0.00	
3017.00†	10.000	270.000	2997.50	1.06	0.00	-237.49	40°03'33.286"N	104°53'02.999"W	0.00	
3117.00†	10.000	270.000	3095.98	1.14	0.00	-254.85	40°03'33.286"N	104°53'03.223"W	0.00	
3217.00†	10.000	270.000	3194.46	1.22	0.00	-272.22	40°03'33.286"N	104°53'03.446"W	0.00	
3317.00†	10.000	270.000	3292.94	1.29	0.00	-289.58	40°03'33.286"N	104°53'03.669"W	0.00	
3417.00†	10.000	270.000	3391.42	1.37	0.00	-306.95	40°03'33.286"N	104°53'03.893"W	0.00	
3517.00†	10.000	270.000	3489.90	1.45	0.00	-324.31	40°03'33.286"N	104°53'04.116"W	0.00	
3617.00†	10.000	270.000	3588.38	1.53	0.00	-341.68	40°03'33.286"N	104°53'04.339"W	0.00	
3717.00†	10.000	270.000	3686.86	1.60	0.00	-359.04	40°03'33.286"N	104°53'04.563"W	0.00	
3817.00†	10.000	270.000	3785.34	1.68	0.00	-376.41	40°03'33.286"N	104°53'04.786"W	0.00	
3917.00†	10.000	270.000	3883.82	1.76	0.00	-393.77	40°03'33.286"N	104°53'05.009"W	0.00	
4017.00†	10.000	270.000	3982.30	1.84	0.00	-411.14	40°03'33.286"N	104°53'05.233"W	0.00	
4117.00†	10.000	270.000	4080.78	1.91	0.00	-428.50	40°03'33.286"N	104°53'05.456"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
Area	COLORADO	Well	JZM 30N-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 30N-3HZ PWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVL [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4217.00†	10.000	270.000	4179.26	1.99	0.00	-445.87	40°03'33.286"N	104°53'05.679"W	0.00	
4309.13	10.000	270.000	4270.00	2.06	0.00	-461.86	40°03'33.286"N	104°53'05.885"W	0.00	BEGIN DROP
4317.00†	9.843	270.000	4277.75	2.07	0.00	-463.22	40°03'33.286"N	104°53'05.902"W	2.00	
4417.00†	7.843	270.000	4376.55	2.14	0.00	-478.59	40°03'33.286"N	104°53'06.100"W	2.00	
4517.00†	5.843	270.000	4475.84	2.19	0.00	-490.50	40°03'33.286"N	104°53'06.253"W	2.00	
4617.00†	3.843	270.000	4575.47	2.23	0.00	-498.95	40°03'33.286"N	104°53'06.362"W	2.00	
4717.00†	1.843	270.000	4675.35	2.25	0.00	-503.91	40°03'33.286"N	104°53'06.426"W	2.00	
4809.13	0.000	359.743	4767.47	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	2.00	END DROP
4817.00†	0.000	359.743	4775.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
4917.00†	0.000	359.743	4875.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5017.00†	0.000	359.743	4975.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5114.67†	0.000	359.743	5073.00	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	Sussex
5117.00†	0.000	359.743	5075.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5217.00†	0.000	359.743	5175.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5251.67†	0.000	359.743	5210.00	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	Shannon
5317.00†	0.000	359.743	5275.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5417.00†	0.000	359.743	5375.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5517.00†	0.000	359.743	5475.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5617.00†	0.000	359.743	5575.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5717.00†	0.000	359.743	5675.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5817.00†	0.000	359.743	5775.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
5917.00†	0.000	359.743	5875.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6017.00†	0.000	359.743	5975.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6117.00†	0.000	359.743	6075.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6217.00†	0.000	359.743	6175.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6317.00†	0.000	359.743	6275.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6417.00†	0.000	359.743	6375.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6517.00†	0.000	359.743	6475.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6617.00†	0.000	359.743	6575.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6717.00†	0.000	359.743	6675.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6817.00†	0.000	359.743	6775.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6859.71†	0.000	359.743	6818.04	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	4 1/2" LINER TOP
6917.00†	0.000	359.743	6875.33	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	
6959.71	0.000	359.743	6918.05	2.26	0.00	-505.39	40°03'33.286"N	104°53'06.445"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	5.729	359.743	6975.24	5.12	2.86	-505.40	40°03'33.314"N	104°53'06.445"W	10.00	
7117.00†	15.729	359.743	7073.36	23.71	21.45	-505.48	40°03'33.498"N	104°53'06.446"W	10.00	
7217.00†	25.729	359.743	7166.77	59.06	56.80	-505.64	40°03'33.847"N	104°53'06.448"W	10.00	
7317.00†	35.729	359.743	7252.62	110.09	107.83	-505.87	40°03'34.352"N	104°53'06.451"W	10.00	
7417.00†	45.729	359.743	7328.31	175.26	173.00	-506.16	40°03'34.996"N	104°53'06.455"W	10.00	
7432.54†	47.282	359.743	7339.00	186.53	184.27	-506.21	40°03'35.107"N	104°53'06.455"W	10.00	Sharon Springs
7483.72†	52.401	359.743	7372.00	225.64	223.38	-506.39	40°03'35.493"N	104°53'06.458"W	10.00	Niobrara A
7517.00†	55.729	359.743	7391.53	252.57	250.31	-506.51	40°03'35.760"N	104°53'06.459"W	10.00	
7617.00†	65.729	359.743	7440.36	339.70	337.43	-506.90	40°03'36.621"N	104°53'06.464"W	10.00	
7717.00†	75.729	359.743	7473.32	433.97	431.71	-507.32	40°03'37.552"N	104°53'06.470"W	10.00	
7732.78†	77.307	359.743	7477.00	449.32	447.06	-507.39	40°03'37.704"N	104°53'06.471"W	10.00	Niobrara B

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
Area	COLORADO	Well	JZM 30N-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 30N-3HZ PWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7817.00†	85.729	359.743	7489.41	532.54	530.28	-507.77	40°03'38.526"N	104°53'06.475"W	10.00	
7859.71	90.000	359.743	7491.00	575.22	572.95	-507.96	40°03'38.948"N	104°53'06.478"W	10.00	LANDING POINT
7917.00†	90.000	359.743	7491.00	632.50	630.24	-508.21	40°03'39.514"N	104°53'06.481"W	0.00	
8017.00†	90.000	359.743	7491.00	732.50	730.24	-508.66	40°03'40.502"N	104°53'06.487"W	0.00	
8117.00†	90.000	359.743	7491.00	832.50	830.23	-509.11	40°03'41.491"N	104°53'06.493"W	0.00	
8217.00†	90.000	359.743	7491.00	932.50	930.23	-509.56	40°03'42.479"N	104°53'06.499"W	0.00	
8317.00†	90.000	359.743	7491.00	1032.50	1030.23	-510.01	40°03'43.467"N	104°53'06.504"W	0.00	
8417.00†	90.000	359.743	7491.00	1132.50	1130.23	-510.46	40°03'44.455"N	104°53'06.510"W	0.00	
8517.00†	90.000	359.743	7491.00	1232.50	1230.23	-510.90	40°03'45.443"N	104°53'06.516"W	0.00	
8617.00†	90.000	359.743	7491.00	1332.50	1330.23	-511.35	40°03'46.432"N	104°53'06.522"W	0.00	
8717.00†	90.000	359.743	7491.00	1432.50	1430.23	-511.80	40°03'47.420"N	104°53'06.528"W	0.00	
8817.00†	90.000	359.743	7491.00	1532.50	1530.23	-512.25	40°03'48.408"N	104°53'06.533"W	0.00	
8917.00†	90.000	359.743	7491.00	1632.50	1630.23	-512.70	40°03'49.396"N	104°53'06.539"W	0.00	
9017.00†	90.000	359.743	7491.00	1732.50	1730.23	-513.15	40°03'50.384"N	104°53'06.545"W	0.00	
9117.00†	90.000	359.743	7491.00	1832.50	1830.22	-513.59	40°03'51.373"N	104°53'06.551"W	0.00	
9217.00†	90.000	359.743	7491.00	1932.50	1930.22	-514.04	40°03'52.361"N	104°53'06.556"W	0.00	
9317.00†	90.000	359.743	7491.00	2032.50	2030.22	-514.49	40°03'53.349"N	104°53'06.562"W	0.00	
9417.00†	90.000	359.743	7491.00	2132.50	2130.22	-514.94	40°03'54.337"N	104°53'06.568"W	0.00	
9517.00†	90.000	359.743	7491.00	2232.50	2230.22	-515.39	40°03'55.325"N	104°53'06.574"W	0.00	
9617.00†	90.000	359.743	7491.00	2332.50	2330.22	-515.84	40°03'56.314"N	104°53'06.580"W	0.00	
9717.00†	90.000	359.743	7491.00	2432.50	2430.22	-516.28	40°03'57.302"N	104°53'06.585"W	0.00	
9817.00†	90.000	359.743	7491.00	2532.50	2530.22	-516.73	40°03'58.290"N	104°53'06.591"W	0.00	
9917.00†	90.000	359.743	7491.00	2632.50	2630.22	-517.18	40°03'59.278"N	104°53'06.597"W	0.00	
10017.00†	90.000	359.743	7491.00	2732.50	2730.22	-517.63	40°04'00.267"N	104°53'06.603"W	0.00	
10117.00†	90.000	359.743	7491.00	2832.50	2830.21	-518.08	40°04'01.255"N	104°53'06.609"W	0.00	
10217.00†	90.000	359.743	7491.00	2932.50	2930.21	-518.52	40°04'02.243"N	104°53'06.614"W	0.00	
10317.00†	90.000	359.743	7491.00	3032.50	3030.21	-518.97	40°04'03.231"N	104°53'06.620"W	0.00	
10417.00†	90.000	359.743	7491.00	3132.50	3130.21	-519.42	40°04'04.219"N	104°53'06.626"W	0.00	
10517.00†	90.000	359.743	7491.00	3232.50	3230.21	-519.87	40°04'05.208"N	104°53'06.632"W	0.00	
10617.00†	90.000	359.743	7491.00	3332.50	3330.21	-520.32	40°04'06.196"N	104°53'06.638"W	0.00	
10717.00†	90.000	359.743	7491.00	3432.50	3430.21	-520.76	40°04'07.184"N	104°53'06.643"W	0.00	
10817.00†	90.000	359.743	7491.00	3532.50	3530.21	-521.21	40°04'08.172"N	104°53'06.649"W	0.00	
10917.00†	90.000	359.743	7491.00	3632.50	3630.21	-521.66	40°04'09.160"N	104°53'06.655"W	0.00	
11017.00†	90.000	359.743	7491.00	3732.50	3730.21	-522.11	40°04'10.149"N	104°53'06.661"W	0.00	
11117.00†	90.000	359.743	7491.00	3832.50	3830.20	-522.56	40°04'11.137"N	104°53'06.667"W	0.00	
11217.00†	90.000	359.743	7491.00	3932.50	3930.20	-523.00	40°04'12.125"N	104°53'06.672"W	0.00	
11317.00†	90.000	359.743	7491.00	4032.50	4030.20	-523.45	40°04'13.113"N	104°53'06.678"W	0.00	
11417.00†	90.000	359.743	7491.00	4132.50	4130.20	-523.90	40°04'14.101"N	104°53'06.684"W	0.00	
11517.00†	90.000	359.743	7491.00	4232.50	4230.20	-524.35	40°04'15.090"N	104°53'06.690"W	0.00	
11617.00†	90.000	359.743	7491.00	4332.50	4330.20	-524.79	40°04'16.078"N	104°53'06.695"W	0.00	
11717.00†	90.000	359.743	7491.00	4432.50	4430.20	-525.24	40°04'17.066"N	104°53'06.701"W	0.00	
11817.00†	90.000	359.743	7491.00	4532.50	4530.20	-525.69	40°04'18.054"N	104°53'06.707"W	0.00	
11917.00†	90.000	359.744	7491.00	4632.50	4630.20	-526.14	40°04'19.043"N	104°53'06.713"W	0.00	
12017.00†	90.000	359.744	7491.00	4732.50	4730.20	-526.59	40°04'20.031"N	104°53'06.719"W	0.00	
12117.00†	90.000	359.744	7491.00	4832.50	4830.19	-527.03	40°04'21.019"N	104°53'06.724"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
Area	COLORADO	Well	JZM 30N-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 30N-3HZ PWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12217.00†	90.000	359.744	7491.00	4932.50	4930.19	-527.48	40°04'22.007"N	104°53'06.730"W	0.00	
12317.00†	90.000	359.744	7491.00	5032.50	5030.19	-527.93	40°04'22.995"N	104°53'06.736"W	0.00	
12417.00†	90.000	359.744	7491.00	5132.50	5130.19	-528.38	40°04'23.984"N	104°53'06.742"W	0.00	
12517.00†	90.000	359.744	7491.00	5232.50	5230.19	-528.82	40°04'24.972"N	104°53'06.748"W	0.00	
12617.00†	90.000	359.744	7491.00	5332.50	5330.19	-529.27	40°04'25.960"N	104°53'06.753"W	0.00	
12717.00†	90.000	359.744	7491.00	5432.50	5430.19	-529.72	40°04'26.948"N	104°53'06.759"W	0.00	
12817.00†	90.000	359.744	7491.00	5532.50	5530.19	-530.17	40°04'27.936"N	104°53'06.765"W	0.00	
12917.00†	90.000	359.744	7491.00	5632.50	5630.19	-530.61	40°04'28.925"N	104°53'06.771"W	0.00	
13017.00†	90.000	359.744	7491.00	5732.50	5730.19	-531.06	40°04'29.913"N	104°53'06.776"W	0.00	
13117.00†	90.000	359.744	7491.00	5832.50	5830.18	-531.51	40°04'30.901"N	104°53'06.782"W	0.00	
13217.00†	90.000	359.744	7491.00	5932.50	5930.18	-531.96	40°04'31.889"N	104°53'06.788"W	0.00	
13317.00†	90.000	359.744	7491.00	6032.50	6030.18	-532.40	40°04'32.877"N	104°53'06.794"W	0.00	
13417.00†	90.000	359.744	7491.00	6132.50	6130.18	-532.85	40°04'33.866"N	104°53'06.800"W	0.00	
13517.00†	90.000	359.744	7491.00	6232.50	6230.18	-533.30	40°04'34.854"N	104°53'06.805"W	0.00	
13617.00†	90.000	359.744	7491.00	6332.50	6330.18	-533.74	40°04'35.842"N	104°53'06.811"W	0.00	
13717.00†	90.000	359.744	7491.00	6432.50	6430.18	-534.19	40°04'36.830"N	104°53'06.817"W	0.00	
13817.00†	90.000	359.744	7491.00	6532.50	6530.18	-534.64	40°04'37.819"N	104°53'06.823"W	0.00	
13917.00†	90.000	359.744	7491.00	6632.50	6630.18	-535.09	40°04'38.807"N	104°53'06.828"W	0.00	
14017.00†	90.000	359.744	7491.00	6732.50	6730.18	-535.53	40°04'39.795"N	104°53'06.834"W	0.00	
14117.00†	90.000	359.744	7491.00	6832.50	6830.17	-535.98	40°04'40.783"N	104°53'06.840"W	0.00	
14217.00†	90.000	359.744	7491.00	6932.50	6930.17	-536.43	40°04'41.771"N	104°53'06.846"W	0.00	
14317.00†	90.000	359.744	7491.00	7032.50	7030.17	-536.88	40°04'42.760"N	104°53'06.852"W	0.00	
14417.00†	90.000	359.744	7491.00	7132.50	7130.17	-537.32	40°04'43.748"N	104°53'06.857"W	0.00	
14517.00†	90.000	359.744	7491.00	7232.50	7230.17	-537.77	40°04'44.736"N	104°53'06.863"W	0.00	
14617.00†	90.000	359.744	7491.00	7332.50	7330.17	-538.22	40°04'45.724"N	104°53'06.869"W	0.00	
14717.00†	90.000	359.744	7491.00	7432.50	7430.17	-538.66	40°04'46.712"N	104°53'06.875"W	0.00	
14817.00†	90.000	359.744	7491.00	7532.50	7530.17	-539.11	40°04'47.701"N	104°53'06.880"W	0.00	
14917.00†	90.000	359.744	7491.00	7632.50	7630.17	-539.56	40°04'48.689"N	104°53'06.886"W	0.00	
15017.00†	90.000	359.744	7491.00	7732.50	7730.17	-540.00	40°04'49.677"N	104°53'06.892"W	0.00	
15117.00†	90.000	359.744	7491.00	7832.50	7830.16	-540.45	40°04'50.665"N	104°53'06.898"W	0.00	
15217.00†	90.000	359.744	7491.00	7932.50	7930.16	-540.90	40°04'51.653"N	104°53'06.904"W	0.00	
15317.00†	90.000	359.744	7491.00	8032.50	8030.16	-541.35	40°04'52.642"N	104°53'06.909"W	0.00	
15417.00†	90.000	359.744	7491.00	8132.50	8130.16	-541.79	40°04'53.630"N	104°53'06.915"W	0.00	
15517.00†	90.000	359.744	7491.00	8232.50	8230.16	-542.24	40°04'54.618"N	104°53'06.921"W	0.00	
15617.00†	90.000	359.744	7491.00	8332.50	8330.16	-542.69	40°04'55.606"N	104°53'06.927"W	0.00	
15717.00†	90.000	359.744	7491.00	8432.50	8430.16	-543.13	40°04'56.595"N	104°53'06.932"W	0.00	
15817.00†	90.000	359.744	7491.00	8532.50	8530.16	-543.58	40°04'57.583"N	104°53'06.938"W	0.00	
15917.00†	90.000	359.744	7491.00	8632.50	8630.16	-544.03	40°04'58.571"N	104°53'06.944"W	0.00	
16017.00†	90.000	359.744	7491.00	8732.50	8730.16	-544.47	40°04'59.559"N	104°53'06.950"W	0.00	
16117.00†	90.000	359.744	7491.00	8832.50	8830.15	-544.92	40°05'00.547"N	104°53'06.956"W	0.00	
16217.00†	90.000	359.744	7491.00	8932.50	8930.15	-545.37	40°05'01.536"N	104°53'06.961"W	0.00	
16317.00†	90.000	359.744	7491.00	9032.50	9030.15	-545.81	40°05'02.524"N	104°53'06.967"W	0.00	
16417.00†	90.000	359.744	7491.00	9132.50	9130.15	-546.26	40°05'03.512"N	104°53'06.973"W	0.00	
16517.00†	90.000	359.744	7491.00	9232.50	9230.15	-546.71	40°05'04.500"N	104°53'06.979"W	0.00	
16617.00†	90.000	359.744	7491.00	9332.50	9330.15	-547.15	40°05'05.488"N	104°53'06.984"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
Area	COLORADO	Well	JZM 30N-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 30N-3HZ PWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (190 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16717.00†	90.000	359.744	7491.00	9432.50	9430.15	-547.60	40°05'06.477"N	104°53'06.990"W	0.00	
16817.00†	90.000	359.744	7491.00	9532.50	9530.15	-548.05	40°05'07.465"N	104°53'06.996"W	0.00	
16917.00†	90.000	359.744	7491.00	9632.50	9630.15	-548.49	40°05'08.453"N	104°53'07.002"W	0.00	
17017.00†	90.000	359.744	7491.00	9732.50	9730.15	-548.94	40°05'09.441"N	104°53'07.008"W	0.00	
17117.00†	90.000	359.744	7491.00	9832.50	9830.14	-549.39	40°05'10.429"N	104°53'07.013"W	0.00	
17217.00†	90.000	359.744	7491.00	9932.50	9930.14	-549.83	40°05'11.418"N	104°53'07.019"W	0.00	
17317.00†	90.000	359.744	7491.00	10032.50	10030.14	-550.28	40°05'12.406"N	104°53'07.025"W	0.00	
17417.00†	90.000	359.744	7491.00	10132.50	10130.14	-550.73	40°05'13.394"N	104°53'07.031"W	0.00	
17517.00†	90.000	359.744	7491.00	10232.50	10230.14	-551.17	40°05'14.382"N	104°53'07.036"W	0.00	
17586.07	90.000	359.744	7491.00 ¹	10301.57	10299.21	-551.48	40°05'15.065"N	104°53'07.040"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: JZM 30N-3HZ PWB Ref Wellpath: JZM 30N-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	7859.71	6592.71	1267.00	7491.00	0.00	0.00	572.95	-507.96
7in Casing Intermediate	17.00	7859.71	7842.71	17.00	7491.00	0.00	0.00	572.95	-507.96
6.125in Open Hole	7859.71	17586.07	9726.36	7491.00	7491.00	572.95	-507.96	10299.21	-551.48
4.5in Casing Production	17.00	17586.07	17569.07	17.00	7491.00	0.00	0.00	10299.21	-551.48

Planned Wellpath Report

JZM 30N-3HZ (PERMIT REV-1) PWP

Page 7 of 8

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
Area	COLORADO	Well	JZM 30N-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 30N-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 30N-3HZ BHL ON PLAT (1'FNL & 330'FWL, SEC.03) REV-1	17586.07	7491.00	10299.21	-551.48	3171991.11	1275323.64	40°05'15.065"N	104°53'07.040"W	point
JZM 30N-3HZ LAND BOX		7715.00	0.00	0.00	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W	polygon
SEC.03-T1N-R67W SECTION LINES		7715.00	0.00	0.00	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	0.00	3172614.18	1265028.92	40°03'33.286"N	104°52'59.945"W	polygon

SURVEY PROGRAM - Ref Wellbore: JZM 30N-3HZ PWB Ref Wellpath: JZM 30N-3HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	17586.07	NaviTrak (MAGCORR,IFR)		JZM 30N-3HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 JZM 30N-3HZ (355'FSL & 840'FWL, SEC.10)
Area	COLORADO	Well	JZM 30N-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	JZM 30N-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
5114.67	0.000	359.743	5073.00	Sussex
5251.67	0.000	359.743	5210.00	Shannon
6859.71	0.000	359.743	6818.04	4 1/2" LINER TOP
7432.54	47.282	359.743	7339.00	Sharon Springs
7483.72	52.401	359.743	7372.00	Niobrara A
7732.78	77.307	359.743	7477.00	Niobrara B

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
4309.13	10.000	270.000	4270.00	BEGIN DROP
4809.13	0.000	359.743	4767.47	END DROP
6959.71	0.000	359.743	6918.05	KOP, BUILD @ 10°/100'
7859.71	90.000	359.743	7491.00	LANDING POINT
17586.07	90.000	359.744	7491.00	TOTAL DEPTH