

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)
Field: WELD COUNTY (KERR MCGEE) Well: MAVERICK 1N-13HZ
Facility: SEC.13-T3N-R66W Wellbore: MAVERICK 1N-13HZ PWB

Plot reference wellpath is MAVERICK 1N-13HZ (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: 5063 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 15/Nov/2013

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.13-T3N-R66W			3217047.322	1323895.667	40°13'11.568"N	104°43'21.864"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)	-352.66	365.53	3217145.912	1323546.239	40°13'08.083"N	104°43'17.152"W
PERMIT (17RKB) (RKB) to Mud line (At Slot: SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13))					5063ft	
Mean Sea Level to Mud line (At Slot: SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13))					0ft	
PERMIT (17RKB) (RKB) to Mean Sea Level					5063ft	

Survey Program

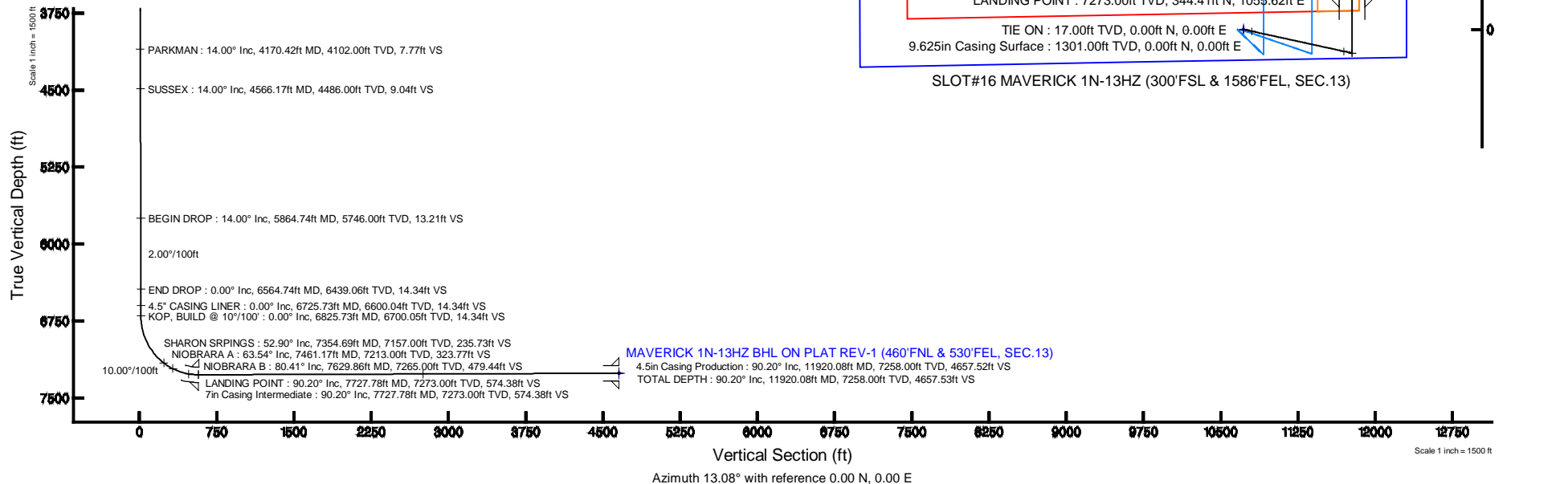
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	11920.08	NaviTrak	NaviTrak (MagCorr)		MAVERICK 1N-13HZ PWB

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
MAVERICK 1N-13HZ BHL ON PLAT REV-1 (460'FNL & 530'FEL, SEC.13)	11920.08	7258.00	4536.68	1054.07	3218430.06	1328091.80	40°13'02.914"N	104°43'03.582"W
MAVERICK 1N-13HZ LANDBOX		7258.00	0.00	0.00	3217415.91	1323546.24	40°13'08.083"N	104°43'17.152"W
SEC.13-T3N-R66W HARDLINES (460' SETBACKS)		7287.00	-6.87	-559.08	3216896.94	1323534.46	40°13'08.010"N	104°43'24.369"W
SEC.13-T3N-R66W SECTION LINES		7287.00	-6.87	-559.08	3216896.94	1323534.46	40°13'08.010"N	104°43'24.369"W

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	102.320	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1401.00	0.000	102.320	1401.00	0.00	0.00	0.00	0.00
END NUDGE	2101.00	14.000	102.320	2094.06	-18.16	83.14	2.00	1.13
BEGIN DROP	5864.74	14.000	102.320	5746.00	-212.44	972.70	0.00	13.21
END DROP	6564.74	0.000	359.979	6439.06	-230.60	1055.84	2.00	14.34
KOP, BUILD @ 10°/100'	6825.73	0.000	359.979	6700.05	-230.60	1055.84	0.00	14.34
LANDING POINT	7727.78	90.205	359.979	7273.00	344.41	1055.62	10.00	574.38
TOTAL DEPTH	11920.08	90.205	359.979	7258.00	4536.68	1054.07	0.00	4657.53





Planned Wellpath Report

MAVERICK 1N-13HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1N-13HZ PWB
Facility	SEC.13-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	0.999957	Report Generated	15/Nov/2013 at 14:37
Convergence at slot	n/a	Database/Source file	WellArchitectDB/MAVERICK_1N-13HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-352.66	365.53	3217415.91	1323546.24	40°13'08.083"N	104°43'17.152"W
Facility Reference Pt			3217047.32	1323895.67	40°13'11.568"N	104°43'21.864"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	5063.00ft
Horizontal Reference Pt	Slot	PERMIT (17'RKB) (RKB) to Mean Sea Level	5063.00ft
Vertical Reference Pt	PERMIT (17'RKB) (RKB)	PERMIT (17'RKB) (RKB) to Mud Line at Slot (SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13))	5063.00ft
MD Reference Pt	PERMIT (17'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	13.08°



Planned Wellpath Report

MAVERICK 1N-13HZ (PERMIT REV-1) PWP

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (136 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	102.320	0.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
17.00	0.000	102.320	17.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	TIE ON
117.00†	0.000	102.320	117.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
217.00†	0.000	102.320	217.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
317.00†	0.000	102.320	317.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
417.00†	0.000	102.320	417.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
517.00†	0.000	102.320	517.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
617.00†	0.000	102.320	617.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
717.00†	0.000	102.320	717.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
817.00†	0.000	102.320	817.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
917.00†	0.000	102.320	917.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
1017.00†	0.000	102.320	1017.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
1117.00†	0.000	102.320	1117.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
1217.00†	0.000	102.320	1217.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
1251.00†	0.000	102.320	1251.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	FOX HILLS MARKER
1317.00†	0.000	102.320	1317.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	
1401.00	0.000	102.320	1401.00	0.00	0.00	0.00	40°13'08.083"N	104°43'17.152"W	0.00	BEGIN NUDGE
1417.00†	0.320	102.320	1417.00	0.00	-0.01	0.04	40°13'08.083"N	104°43'17.151"W	2.00	
1517.00†	2.320	102.320	1516.97	0.03	-0.50	2.29	40°13'08.078"N	104°43'17.122"W	2.00	
1617.00†	4.320	102.320	1616.80	0.11	-1.74	7.95	40°13'08.066"N	104°43'17.049"W	2.00	
1717.00†	6.320	102.320	1716.36	0.23	-3.71	17.01	40°13'08.046"N	104°43'16.933"W	2.00	
1817.00†	8.320	102.320	1815.54	0.40	-6.43	29.46	40°13'08.019"N	104°43'16.772"W	2.00	
1917.00†	10.320	102.320	1914.21	0.61	-9.89	45.28	40°13'07.985"N	104°43'16.568"W	2.00	
2017.00†	12.320	102.320	2012.26	0.88	-14.08	64.45	40°13'07.944"N	104°43'16.321"W	2.00	
2101.00	14.000	102.320	2094.06	1.13	-18.16	83.14	40°13'07.904"N	104°43'16.080"W	2.00	END NUDGE
2117.00†	14.000	102.320	2109.58	1.18	-18.98	86.92	40°13'07.895"N	104°43'16.032"W	0.00	
2217.00†	14.000	102.320	2206.61	1.50	-24.14	110.55	40°13'07.844"N	104°43'15.727"W	0.00	
2317.00†	14.000	102.320	2303.64	1.82	-29.31	134.19	40°13'07.793"N	104°43'15.422"W	0.00	
2417.00†	14.000	102.320	2400.67	2.14	-34.47	157.82	40°13'07.742"N	104°43'15.118"W	0.00	
2517.00†	14.000	102.320	2497.70	2.46	-39.63	181.46	40°13'07.691"N	104°43'14.813"W	0.00	
2617.00†	14.000	102.320	2594.73	2.79	-44.79	205.09	40°13'07.640"N	104°43'14.508"W	0.00	
2717.00†	14.000	102.320	2691.76	3.11	-49.95	228.73	40°13'07.589"N	104°43'14.203"W	0.00	
2817.00†	14.000	102.320	2788.79	3.43	-55.12	252.36	40°13'07.538"N	104°43'13.899"W	0.00	
2917.00†	14.000	102.320	2885.82	3.75	-60.28	276.00	40°13'07.487"N	104°43'13.594"W	0.00	
3017.00†	14.000	102.320	2982.85	4.07	-65.44	299.63	40°13'07.436"N	104°43'13.289"W	0.00	
3117.00†	14.000	102.320	3079.88	4.39	-70.60	323.27	40°13'07.385"N	104°43'12.985"W	0.00	
3217.00†	14.000	102.320	3176.91	4.71	-75.76	346.90	40°13'07.334"N	104°43'12.680"W	0.00	
3317.00†	14.000	102.320	3273.93	5.03	-80.93	370.54	40°13'07.283"N	104°43'12.375"W	0.00	
3417.00†	14.000	102.320	3370.96	5.35	-86.09	394.17	40°13'07.232"N	104°43'12.071"W	0.00	
3517.00†	14.000	102.320	3467.99	5.67	-91.25	417.81	40°13'07.181"N	104°43'11.766"W	0.00	
3617.00†	14.000	102.320	3565.02	6.00	-96.41	441.44	40°13'07.130"N	104°43'11.461"W	0.00	
3717.00†	14.000	102.320	3662.05	6.32	-101.57	465.08	40°13'07.079"N	104°43'11.157"W	0.00	
3817.00†	14.000	102.320	3759.08	6.64	-106.74	488.71	40°13'07.028"N	104°43'10.852"W	0.00	
3917.00†	14.000	102.320	3856.11	6.96	-111.90	512.35	40°13'06.977"N	104°43'10.547"W	0.00	
4017.00†	14.000	102.320	3953.14	7.28	-117.06	535.98	40°13'06.926"N	104°43'10.243"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (136 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	14.000	102.320	4050.17	7.60	-122.22	559.62	40°13'06.875"N	104°43'09.938"W	0.00	
4170.42†	14.000	102.320	4102.00	7.77	-124.98	572.24	40°13'06.848"N	104°43'09.775"W	0.00	PARKMAN
4217.00†	14.000	102.320	4147.20	7.92	-127.38	583.25	40°13'06.824"N	104°43'09.633"W	0.00	
4317.00†	14.000	102.320	4244.23	8.24	-132.55	606.89	40°13'06.773"N	104°43'09.329"W	0.00	
4417.00†	14.000	102.320	4341.26	8.56	-137.71	630.53	40°13'06.722"N	104°43'09.024"W	0.00	
4517.00†	14.000	102.320	4438.29	8.88	-142.87	654.16	40°13'06.671"N	104°43'08.719"W	0.00	
4566.17†	14.000	102.320	4486.00	9.04	-145.41	665.78	40°13'06.646"N	104°43'08.570"W	0.00	SUSSEX
4617.00†	14.000	102.320	4535.32	9.21	-148.03	677.80	40°13'06.620"N	104°43'08.415"W	0.00	
4717.00†	14.000	102.320	4632.35	9.53	-153.19	701.43	40°13'06.569"N	104°43'08.110"W	0.00	
4817.00†	14.000	102.320	4729.38	9.85	-158.35	725.07	40°13'06.518"N	104°43'07.805"W	0.00	
4917.00†	14.000	102.320	4826.41	10.17	-163.52	748.70	40°13'06.467"N	104°43'07.501"W	0.00	
5017.00†	14.000	102.320	4923.44	10.49	-168.68	772.34	40°13'06.416"N	104°43'07.196"W	0.00	
5117.00†	14.000	102.320	5020.47	10.81	-173.84	795.97	40°13'06.365"N	104°43'06.891"W	0.00	
5217.00†	14.000	102.320	5117.50	11.13	-179.00	819.61	40°13'06.314"N	104°43'06.587"W	0.00	
5317.00†	14.000	102.320	5214.53	11.45	-184.16	843.24	40°13'06.263"N	104°43'06.282"W	0.00	
5417.00†	14.000	102.320	5311.56	11.77	-189.33	866.88	40°13'06.212"N	104°43'05.977"W	0.00	
5517.00†	14.000	102.320	5408.59	12.09	-194.49	890.51	40°13'06.161"N	104°43'05.673"W	0.00	
5617.00†	14.000	102.320	5505.61	12.42	-199.65	914.15	40°13'06.110"N	104°43'05.368"W	0.00	
5717.00†	14.000	102.320	5602.64	12.74	-204.81	937.78	40°13'06.059"N	104°43'05.063"W	0.00	
5817.00†	14.000	102.320	5699.67	13.06	-209.97	961.42	40°13'06.008"N	104°43'04.759"W	0.00	
5864.74	14.000	102.320	5746.00	13.21	-212.44	972.70	40°13'05.984"N	104°43'04.613"W	0.00	BEGIN DROP
5917.00†	12.955	102.320	5796.82	13.37	-215.04	984.60	40°13'05.958"N	104°43'04.460"W	2.00	
6017.00†	10.955	102.320	5894.64	13.65	-219.46	1004.83	40°13'05.914"N	104°43'04.199"W	2.00	
6117.00†	8.955	102.320	5993.13	13.88	-223.15	1021.72	40°13'05.878"N	104°43'03.981"W	2.00	
6217.00†	6.955	102.320	6092.16	14.06	-226.10	1035.24	40°13'05.848"N	104°43'03.807"W	2.00	
6317.00†	4.955	102.320	6191.62	14.20	-228.31	1045.38	40°13'05.827"N	104°43'03.676"W	2.00	
6417.00†	2.955	102.320	6291.38	14.29	-229.78	1052.12	40°13'05.812"N	104°43'03.589"W	2.00	
6517.00†	0.955	102.320	6391.31	14.33	-230.51	1055.45	40°13'05.805"N	104°43'03.546"W	2.00	
6564.74	0.000	359.979	6439.06	14.34	-230.60	1055.84	40°13'05.804"N	104°43'03.541"W	2.00	END DROP
6617.00†	0.000	359.979	6491.31	14.34	-230.60	1055.84	40°13'05.804"N	104°43'03.541"W	0.00	
6717.00†	0.000	359.979	6591.31	14.34	-230.60	1055.84	40°13'05.804"N	104°43'03.541"W	0.00	
6725.73†	0.000	359.979	6600.04	14.34	-230.60	1055.84	40°13'05.804"N	104°43'03.541"W	0.00	4.5" CASING LINER
6817.00†	0.000	359.979	6691.31	14.34	-230.60	1055.84	40°13'05.804"N	104°43'03.541"W	0.00	
6825.73	0.000	359.979	6700.05	14.34	-230.60	1055.84	40°13'05.804"N	104°43'03.541"W	0.00	KOP, BUILD @ 10°/100'
6917.00†	9.127	359.979	6790.93	21.40	-223.34	1055.83	40°13'05.876"N	104°43'03.541"W	10.00	
7017.00†	19.127	359.979	6887.78	45.15	-198.97	1055.83	40°13'06.117"N	104°43'03.542"W	10.00	
7117.00†	29.127	359.979	6978.93	84.91	-158.14	1055.81	40°13'06.520"N	104°43'03.542"W	10.00	
7217.00†	39.127	359.979	7061.60	139.48	-102.11	1055.79	40°13'07.074"N	104°43'03.542"W	10.00	
7317.00†	49.127	359.979	7133.29	207.20	-32.58	1055.76	40°13'07.761"N	104°43'03.542"W	10.00	
7354.69†	52.896	359.979	7157.00	235.73	-3.29	1055.75	40°13'08.050"N	104°43'03.542"W	10.00	SHARON SRPINGS
7417.00†	59.127	359.979	7191.82	286.03	48.35	1055.73	40°13'08.561"N	104°43'03.543"W	10.00	
7461.17†	63.544	359.979	7213.00	323.77	87.10	1055.72	40°13'08.944"N	104°43'03.543"W	10.00	NIOBRARA A
7517.00†	69.127	359.979	7235.40	373.55	138.21	1055.70	40°13'09.449"N	104°43'03.543"W	10.00	
7617.00†	79.127	359.979	7262.72	467.11	234.28	1055.66	40°13'10.398"N	104°43'03.543"W	10.00	
7629.86†	80.412	359.979	7265.00	479.44	246.93	1055.66	40°13'10.523"N	104°43'03.543"W	10.00	NIOBRARA B

Planned Wellpath Report

MAVERICK 1N-13HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (136 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	89.127	359.979	7272.94	563.88	333.63	1055.63	40°13'11.380"N	104°43'03.544"W	10.00	
7727.78	90.205	359.979	7273.00	574.38	344.41	1055.62	40°13'11.486"N	104°43'03.544"W	10.00	LANDING POINT
7817.00†	90.205	359.979	7272.68	661.27	433.63	1055.59	40°13'12.368"N	104°43'03.544"W	0.00	
7917.00†	90.205	359.979	7272.32	758.67	533.63	1055.55	40°13'13.356"N	104°43'03.545"W	0.00	
8017.00†	90.205	359.979	7271.96	856.07	633.63	1055.52	40°13'14.344"N	104°43'03.545"W	0.00	
8117.00†	90.205	359.979	7271.61	953.46	733.63	1055.48	40°13'15.332"N	104°43'03.546"W	0.00	
8217.00†	90.205	359.979	7271.25	1050.86	833.62	1055.44	40°13'16.321"N	104°43'03.546"W	0.00	
8317.00†	90.205	359.979	7270.89	1148.25	933.62	1055.41	40°13'17.309"N	104°43'03.546"W	0.00	
8417.00†	90.205	359.979	7270.53	1245.65	1033.62	1055.37	40°13'18.297"N	104°43'03.547"W	0.00	
8517.00†	90.205	359.979	7270.18	1343.05	1133.62	1055.33	40°13'19.285"N	104°43'03.547"W	0.00	
8617.00†	90.205	359.979	7269.82	1440.44	1233.62	1055.29	40°13'20.273"N	104°43'03.548"W	0.00	
8717.00†	90.205	359.979	7269.46	1537.84	1333.62	1055.26	40°13'21.262"N	104°43'03.548"W	0.00	
8817.00†	90.205	359.979	7269.10	1635.24	1433.62	1055.22	40°13'22.250"N	104°43'03.548"W	0.00	
8917.00†	90.205	359.979	7268.74	1732.63	1533.62	1055.18	40°13'23.238"N	104°43'03.549"W	0.00	
9017.00†	90.205	359.979	7268.39	1830.03	1633.62	1055.15	40°13'24.226"N	104°43'03.549"W	0.00	
9117.00†	90.205	359.979	7268.03	1927.43	1733.62	1055.11	40°13'25.214"N	104°43'03.550"W	0.00	
9217.00†	90.205	359.979	7267.67	2024.82	1833.62	1055.07	40°13'26.202"N	104°43'03.550"W	0.00	
9317.00†	90.205	359.979	7267.31	2122.22	1933.62	1055.04	40°13'27.191"N	104°43'03.551"W	0.00	
9417.00†	90.205	359.979	7266.96	2219.62	2033.62	1055.00	40°13'28.179"N	104°43'03.551"W	0.00	
9517.00†	90.205	359.979	7266.60	2317.01	2133.62	1054.96	40°13'29.167"N	104°43'03.551"W	0.00	
9617.00†	90.205	359.979	7266.24	2414.41	2233.62	1054.92	40°13'30.155"N	104°43'03.552"W	0.00	
9717.00†	90.205	359.979	7265.88	2511.80	2333.61	1054.89	40°13'31.143"N	104°43'03.552"W	0.00	
9817.00†	90.205	359.979	7265.52	2609.20	2433.61	1054.85	40°13'32.132"N	104°43'03.553"W	0.00	
9917.00†	90.205	359.979	7265.17	2706.60	2533.61	1054.81	40°13'33.120"N	104°43'03.553"W	0.00	
9963.59†	90.205	359.979	7265.00	2751.97	2580.20	1054.80	40°13'33.580"N	104°43'03.553"W	0.00	NIOBRARA B
10017.00†	90.205	359.979	7264.81	2803.99	2633.61	1054.78	40°13'34.108"N	104°43'03.554"W	0.00	
10117.00†	90.205	359.979	7264.45	2901.39	2733.61	1054.74	40°13'35.096"N	104°43'03.554"W	0.00	
10217.00†	90.205	359.979	7264.09	2998.79	2833.61	1054.70	40°13'36.084"N	104°43'03.554"W	0.00	
10317.00†	90.205	359.979	7263.74	3096.18	2933.61	1054.66	40°13'37.073"N	104°43'03.555"W	0.00	
10417.00†	90.205	359.979	7263.38	3193.58	3033.61	1054.63	40°13'38.061"N	104°43'03.555"W	0.00	
10517.00†	90.205	359.979	7263.02	3290.98	3133.61	1054.59	40°13'39.049"N	104°43'03.556"W	0.00	
10617.00†	90.205	359.979	7262.66	3388.37	3233.61	1054.55	40°13'40.037"N	104°43'03.556"W	0.00	
10717.00†	90.205	359.979	7262.30	3485.77	3333.61	1054.52	40°13'41.025"N	104°43'03.557"W	0.00	
10817.00†	90.205	359.979	7261.95	3583.16	3433.61	1054.48	40°13'42.013"N	104°43'03.557"W	0.00	
10917.00†	90.205	359.979	7261.59	3680.56	3533.61	1054.44	40°13'43.002"N	104°43'03.557"W	0.00	
11017.00†	90.205	359.979	7261.23	3777.96	3633.61	1054.41	40°13'43.990"N	104°43'03.558"W	0.00	
11117.00†	90.205	359.979	7260.87	3875.35	3733.61	1054.37	40°13'44.978"N	104°43'03.558"W	0.00	
11217.00†	90.205	359.979	7260.52	3972.75	3833.61	1054.33	40°13'45.966"N	104°43'03.559"W	0.00	
11317.00†	90.205	359.979	7260.16	4070.15	3933.60	1054.29	40°13'46.954"N	104°43'03.559"W	0.00	
11417.00†	90.205	359.979	7259.80	4167.54	4033.60	1054.26	40°13'47.943"N	104°43'03.559"W	0.00	
11517.00†	90.205	359.979	7259.44	4264.94	4133.60	1054.22	40°13'48.931"N	104°43'03.560"W	0.00	
11617.00†	90.205	359.979	7259.08	4362.34	4233.60	1054.18	40°13'49.919"N	104°43'03.560"W	0.00	
11717.00†	90.205	359.979	7258.73	4459.73	4333.60	1054.15	40°13'50.907"N	104°43'03.561"W	0.00	
11817.00†	90.205	359.979	7258.37	4557.13	4433.60	1054.11	40°13'51.895"N	104°43'03.561"W	0.00	
11917.00†	90.205	359.979	7258.01	4654.52	4533.60	1054.07	40°13'52.884"N	104°43'03.562"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (136 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11920.08	90.205	359.979	7258.00 ¹	4657.53	4536.68	1054.07	40°13'52.914"N	104°43'03.562"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS -

Ref Wellbore: MAVERICK 1N-13HZ PWB Ref Wellpath: MAVERICK 1N-13HZ (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	1301.00	1284.00	17.00	1301.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1301.00	1284.00	17.00	1301.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1301.00	7727.78	6426.78	1301.00	7273.00	0.00	0.00	344.41	1055.62
7in Casing Intermediate	17.00	7727.78	7710.78	17.00	7273.00	0.00	0.00	344.41	1055.62
6.125in Open Hole	7727.78	11920.08	4192.30	7273.00	7258.00	344.41	1055.62	4536.68	1054.07
4.5in Casing Production	17.00	11920.08	11903.08	17.00	7258.00	0.00	0.00	4536.68	1054.07

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) MAVERICK 1N-13HZ BHL ON PLAT REV-1 (460'FNL & 530'FEL, SEC.13)	11920.08	7258.00	4536.68	1054.07	3218430.06	1328091.80	40°13'52.914"N	104°43'03.562"W	point
MAVERICK 1N-13HZ LANDBOX		7258.00	0.00	0.00	3217415.91	1323546.24	40°13'08.083"N	104°43'17.152"W	polygon
SEC.13-T3N-R66W HARDLINES (460' SETBACKS)		7287.00	-6.87	-559.08	3216856.94	1323534.46	40°13'08.015"N	104°43'24.359"W	polygon
SEC.13-T3N-R66W SECTION LINES		7287.00	-6.87	-559.08	3216856.94	1323534.46	40°13'08.015"N	104°43'24.359"W	polygon

SURVEY PROGRAM - Ref Wellbore: MAVERICK 1N-13HZ PWB Ref Wellpath: MAVERICK 1N-13HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	11920.08	NaviTrak (MagCorr)		MAVERICK 1N-13HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 MAVERICK 1N-13HZ (300'FSL & 1586'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1251.00	0.000	102.320	1251.00	FOX HILLS MARKER
4170.42	14.000	102.320	4102.00	PARKMAN
4566.17	14.000	102.320	4486.00	SUSSEX
6725.73	0.000	359.979	6600.04	4.5" CASING LINER
7354.69	52.896	359.979	7157.00	SHARON SRPINGS
7461.17	63.544	359.979	7213.00	NIOBRARA A
7629.86	80.412	359.979	7265.00	NIOBRARA B
9963.59	90.205	359.979	7265.00	NIOBRARA B

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	102.320	17.00	TIE ON
1401.00	0.000	102.320	1401.00	BEGIN NUDGE
2101.00	14.000	102.320	2094.06	END NUDGE
5864.74	14.000	102.320	5746.00	BEGIN DROP
6564.74	0.000	359.979	6439.06	END DROP
6825.73	0.000	359.979	6700.05	KOP, BUILD @ 10°/100'
7727.78	90.205	359.979	7273.00	LANDING POINT
11920.08	90.205	359.979	7258.00	TOTAL DEPTH