

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)
 Field: WELD COUNTY (KERR MCGEE) Well: MAVERICK 1C-13HZ
 Facility: SEC.13-T3N-R66W Wellbore: MAVERICK 1C-13HZ PWB

Plot reference wellpath is MAVERICK 1C-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#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: rnbale01 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#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)	-352.26	335.66	3217386.045	1323546.382	40°13'08.087"N	104°43'17.537"W
PERMIT (17RKB) (RKB) to Mud line (At Slot: SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13))						5063ft
Mean Sea Level to Mud line (At Slot: SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13))						0ft
PERMIT (17RKB) (RKB) to Mean Sea Level						5063ft

Survey Program

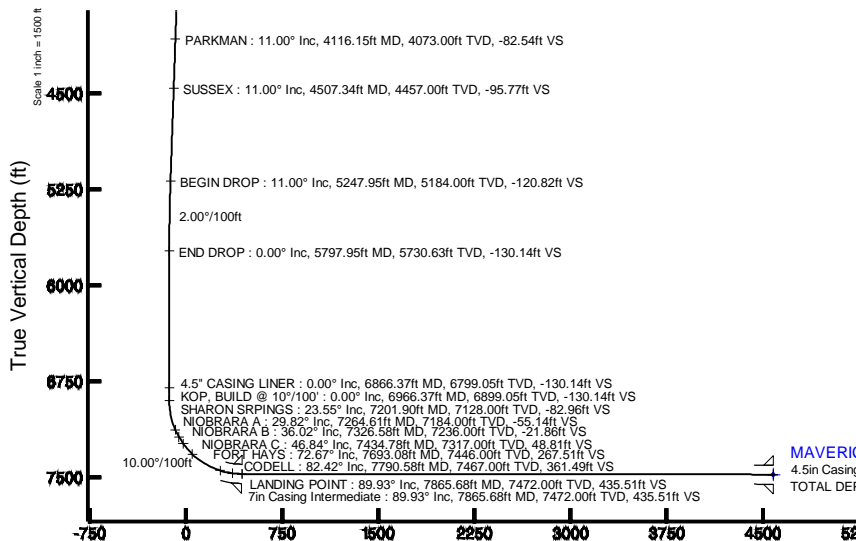
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	12059.29	NaviTrak	NaviTrak (MagCorr)		MAVERICK 1C-13HZ PWB

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.13-T3N-R66W HARDLINES (460' SETBACKS)	7287.00	-7.28	-529.21	3218556.94	1323534.46	40°13'08.015"N	104°43'24.359"W	
SEC.13-T3N-R66W SECTION LINES	7287.00	-7.28	-529.21	3218556.94	1323534.46	40°13'08.015"N	104°43'24.359"W	
MAVERICK 1C-13HZ BHL ON PLAT REV-1 (460'FNL & 921'FEL, SEC.13)	12059.29	7477.00	4527.89	693.03	3218039.27	1328079.97	40°13'52.831"N	104°43'08.602"W
MAVERICK 1C-13HZ LANDBOX	7477.00	0.00	0.00	3217386.05	1323546.38	40°13'08.087"N	104°43'17.537"W	

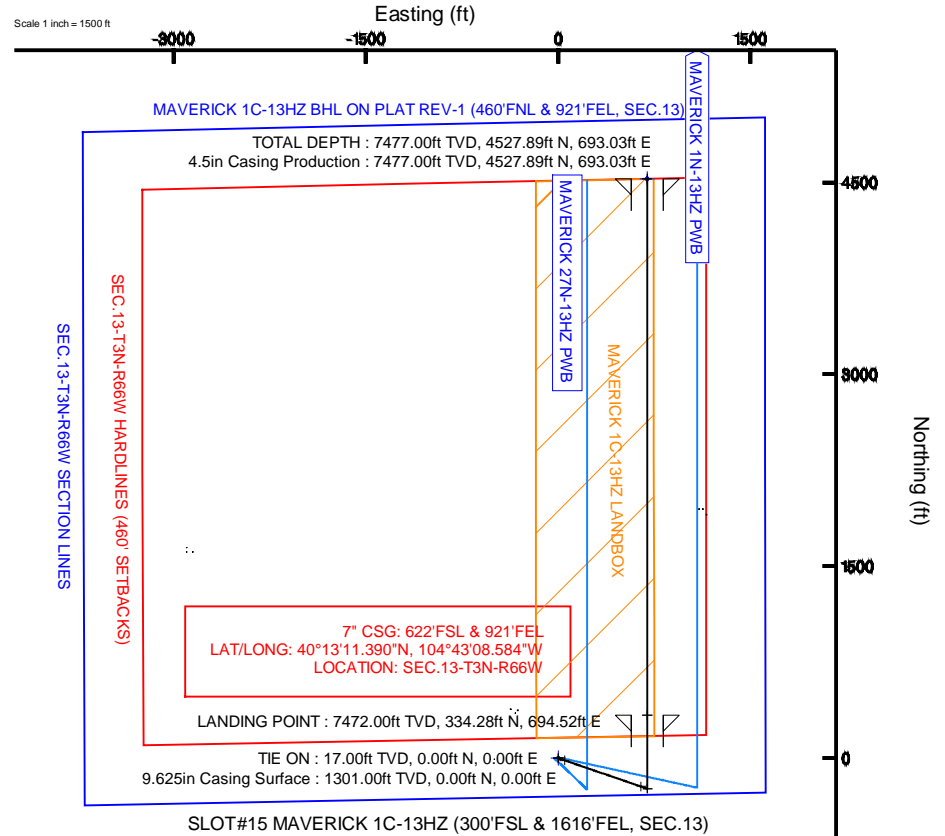
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE ON	17.00	0.000	108.910	17.00	0.00	0.00	0.00	0.00
BEGIN NUDDGE	1401.00	0.000	108.910	1401.00	0.00	0.00	0.00	0.00
END NUDDGE	1951.00	11.000	108.910	1947.63	-17.06	49.79	2.00	-9.33
BEGIN DROP	5247.95	11.000	108.910	5184.00	-220.93	644.93	0.00	-120.82
END DROP	5797.95	0.000	359.980	5730.63	-237.99	694.72	2.00	-130.14
KOP, BUILD @ 10°/100'	6966.37	0.000	359.980	6899.05	-237.99	694.72	0.00	-130.14
LANDING POINT	7865.68	89.932	359.980	7472.00	334.28	694.52	10.00	435.51
TOTAL DEPTH	12059.29	89.932	359.980	7477.00	4527.89	693.03	0.00	4580.62



MAVERICK 1C-13HZ BHL ON PLAT REV-1 (460'FNL & 921'FEL, SEC.13)
 4.5in Casing Production : 89.93° Inc, 12059.29ft MD, 7477.00ft TVD, 4580.62ft VS
 TOTAL DEPTH : 89.93° Inc, 12059.29ft MD, 7477.00ft TVD, 4580.62ft VS

Vertical Section (ft)
 Azimuth 8.70° with reference 0.00 N, 0.00 E



Scale 1 inch = 1500 ft



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1C-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1C-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 14:09
Convergence at slot	n/a	Database/Source file	WellArchitectDB/MAVERICK_1C-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	-352.26	335.66	3217386.05	1323546.38	40°13'08.087"N	104°43'17.537"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#15 MAVERICK 1C-13HZ (300'FSL & 1616'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	8.70°



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1C-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1C-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (139 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	108.910	0.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
17.00	0.000	108.910	17.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	TIE ON
117.00†	0.000	108.910	117.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
217.00†	0.000	108.910	217.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
317.00†	0.000	108.910	317.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
417.00†	0.000	108.910	417.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
517.00†	0.000	108.910	517.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
617.00†	0.000	108.910	617.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
717.00†	0.000	108.910	717.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
817.00†	0.000	108.910	817.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
917.00†	0.000	108.910	917.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
1017.00†	0.000	108.910	1017.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
1117.00†	0.000	108.910	1117.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
1217.00†	0.000	108.910	1217.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
1251.00†	0.000	108.910	1251.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	FOX HILLS MARKER
1317.00†	0.000	108.910	1317.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	
1401.00	0.000	108.910	1401.00	0.00	0.00	0.00	40°13'08.087"N	104°43'17.537"W	0.00	BEGIN NUDGE
1417.00†	0.320	108.910	1417.00	-0.01	-0.01	0.04	40°13'08.087"N	104°43'17.536"W	2.00	
1517.00†	2.320	108.910	1516.97	-0.42	-0.76	2.22	40°13'08.079"N	104°43'17.508"W	2.00	
1617.00†	4.320	108.910	1616.80	-1.44	-2.64	7.70	40°13'08.061"N	104°43'17.438"W	2.00	
1717.00†	6.320	108.910	1716.36	-3.09	-5.64	16.47	40°13'08.031"N	104°43'17.325"W	2.00	
1817.00†	8.320	108.910	1815.54	-5.34	-9.77	28.52	40°13'07.990"N	104°43'17.169"W	2.00	
1917.00†	10.320	108.910	1914.21	-8.21	-15.02	43.84	40°13'07.939"N	104°43'16.972"W	2.00	
1951.00	11.000	108.910	1947.63	-9.33	-17.06	49.79	40°13'07.918"N	104°43'16.895"W	2.00	END NUDGE
2017.00†	11.000	108.910	2012.41	-11.56	-21.14	61.71	40°13'07.878"N	104°43'16.742"W	0.00	
2117.00†	11.000	108.910	2110.58	-14.94	-27.32	79.76	40°13'07.817"N	104°43'16.509"W	0.00	
2217.00†	11.000	108.910	2208.74	-18.32	-33.51	97.81	40°13'07.756"N	104°43'16.276"W	0.00	
2317.00†	11.000	108.910	2306.90	-21.70	-39.69	115.86	40°13'07.695"N	104°43'16.043"W	0.00	
2417.00†	11.000	108.910	2405.07	-25.09	-45.87	133.91	40°13'07.634"N	104°43'15.811"W	0.00	
2517.00†	11.000	108.910	2503.23	-28.47	-52.06	151.96	40°13'07.573"N	104°43'15.578"W	0.00	
2617.00†	11.000	108.910	2601.39	-31.85	-58.24	170.01	40°13'07.511"N	104°43'15.345"W	0.00	
2717.00†	11.000	108.910	2699.55	-35.23	-64.43	188.06	40°13'07.450"N	104°43'15.113"W	0.00	
2817.00†	11.000	108.910	2797.72	-38.61	-70.61	206.12	40°13'07.389"N	104°43'14.880"W	0.00	
2917.00†	11.000	108.910	2895.88	-41.99	-76.79	224.17	40°13'07.328"N	104°43'14.647"W	0.00	
3017.00†	11.000	108.910	2994.04	-45.38	-82.98	242.22	40°13'07.267"N	104°43'14.415"W	0.00	
3117.00†	11.000	108.910	3092.20	-48.76	-89.16	260.27	40°13'07.206"N	104°43'14.182"W	0.00	
3217.00†	11.000	108.910	3190.37	-52.14	-95.34	278.32	40°13'07.145"N	104°43'13.949"W	0.00	
3317.00†	11.000	108.910	3288.53	-55.52	-101.53	296.37	40°13'07.084"N	104°43'13.717"W	0.00	
3417.00†	11.000	108.910	3386.69	-58.90	-107.71	314.42	40°13'07.023"N	104°43'13.484"W	0.00	
3517.00†	11.000	108.910	3484.86	-62.28	-113.90	332.47	40°13'06.961"N	104°43'13.251"W	0.00	
3617.00†	11.000	108.910	3583.02	-65.66	-120.08	350.52	40°13'06.900"N	104°43'13.018"W	0.00	
3717.00†	11.000	108.910	3681.18	-69.05	-126.26	368.58	40°13'06.839"N	104°43'12.786"W	0.00	
3817.00†	11.000	108.910	3779.34	-72.43	-132.45	386.63	40°13'06.778"N	104°43'12.553"W	0.00	
3917.00†	11.000	108.910	3877.51	-75.81	-138.63	404.68	40°13'06.717"N	104°43'12.320"W	0.00	
4017.00†	11.000	108.910	3975.67	-79.19	-144.81	422.73	40°13'06.656"N	104°43'12.088"W	0.00	



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1C-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1C-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4116.15†	11.000	108.910	4073.00	-82.54	-150.95	440.63	40°13'06.595"N	104°43'11.857"W	0.00	PARKMAN
4117.00†	11.000	108.910	4073.83	-82.57	-151.00	440.78	40°13'06.595"N	104°43'11.855"W	0.00	
4217.00†	11.000	108.910	4171.99	-85.95	-157.18	458.83	40°13'06.534"N	104°43'11.622"W	0.00	
4317.00†	11.000	108.910	4270.16	-89.34	-163.37	476.88	40°13'06.473"N	104°43'11.390"W	0.00	
4417.00†	11.000	108.910	4368.32	-92.72	-169.55	494.93	40°13'06.411"N	104°43'11.157"W	0.00	
4507.34†	11.000	108.910	4457.00	-95.77	-175.14	511.24	40°13'06.356"N	104°43'10.947"W	0.00	SUSSEX
4517.00†	11.000	108.910	4466.48	-96.10	-175.73	512.98	40°13'06.350"N	104°43'10.924"W	0.00	
4617.00†	11.000	108.910	4564.65	-99.48	-181.92	531.04	40°13'06.289"N	104°43'10.692"W	0.00	
4717.00†	11.000	108.910	4662.81	-102.86	-188.10	549.09	40°13'06.228"N	104°43'10.459"W	0.00	
4817.00†	11.000	108.910	4760.97	-106.24	-194.29	567.14	40°13'06.167"N	104°43'10.226"W	0.00	
4917.00†	11.000	108.910	4859.13	-109.62	-200.47	585.19	40°13'06.106"N	104°43'09.993"W	0.00	
5017.00†	11.000	108.910	4957.30	-113.01	-206.65	603.24	40°13'06.045"N	104°43'09.761"W	0.00	
5117.00†	11.000	108.910	5055.46	-116.39	-212.84	621.29	40°13'05.984"N	104°43'09.528"W	0.00	
5217.00†	11.000	108.910	5153.62	-119.77	-219.02	639.34	40°13'05.923"N	104°43'09.295"W	0.00	
5247.95	11.000	108.910	5184.00	-120.82	-220.93	644.93	40°13'05.904"N	104°43'09.223"W	0.00	BEGIN DROP
5317.00†	9.619	108.910	5251.94	-123.01	-224.94	656.62	40°13'05.864"N	104°43'09.073"W	2.00	
5417.00†	7.619	108.910	5350.80	-125.66	-229.80	670.80	40°13'05.816"N	104°43'08.890"W	2.00	
5517.00†	5.619	108.910	5450.13	-127.70	-233.53	681.70	40°13'05.779"N	104°43'08.749"W	2.00	
5617.00†	3.619	108.910	5549.80	-129.13	-236.14	689.32	40°13'05.753"N	104°43'08.651"W	2.00	
5717.00†	1.619	108.910	5649.69	-129.94	-237.62	693.64	40°13'05.739"N	104°43'08.595"W	2.00	
5797.95	0.000	359.980	5730.63	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	2.00	END DROP
5817.00†	0.000	359.980	5749.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
5917.00†	0.000	359.980	5849.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6017.00†	0.000	359.980	5949.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6117.00†	0.000	359.980	6049.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6217.00†	0.000	359.980	6149.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6317.00†	0.000	359.980	6249.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6417.00†	0.000	359.980	6349.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6517.00†	0.000	359.980	6449.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6617.00†	0.000	359.980	6549.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6717.00†	0.000	359.980	6649.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6817.00†	0.000	359.980	6749.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6866.37†	0.000	359.980	6799.05	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	4.5" CASING LINER
6917.00†	0.000	359.980	6849.68	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	
6966.37	0.000	359.980	6899.05	-130.14	-237.99	694.72	40°13'05.735"N	104°43'08.582"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	5.063	359.980	6949.61	-127.93	-235.76	694.72	40°13'05.757"N	104°43'08.582"W	10.00	
7117.00†	15.063	359.980	7047.95	-110.68	-218.30	694.71	40°13'05.930"N	104°43'08.582"W	10.00	
7201.90†	23.553	359.980	7128.00	-82.96	-190.26	694.70	40°13'06.207"N	104°43'08.582"W	10.00	SHARON SRPINGS
7217.00†	25.063	359.980	7141.76	-76.82	-184.04	694.70	40°13'06.268"N	104°43'08.582"W	10.00	
7264.61†	29.824	359.980	7184.00	-55.14	-162.11	694.69	40°13'06.485"N	104°43'08.582"W	10.00	NIOBRARA A
7317.00†	35.063	359.980	7228.20	-27.36	-134.01	694.68	40°13'06.763"N	104°43'08.582"W	10.00	
7326.58†	36.022	359.980	7236.00	-21.86	-128.44	694.68	40°13'06.818"N	104°43'08.582"W	10.00	NIOBRARA B
7417.00†	45.063	359.980	7304.64	36.17	-69.73	694.66	40°13'07.398"N	104°43'08.582"W	10.00	
7434.78†	46.842	359.980	7317.00	48.81	-56.95	694.66	40°13'07.524"N	104°43'08.582"W	10.00	NIOBRARA C
7517.00†	55.063	359.980	7368.75	111.87	6.85	694.63	40°13'08.155"N	104°43'08.583"W	10.00	



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1C-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1C-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7617.00†	65.063	359.980	7418.59	197.41	93.40	694.60	40°13'09.010"N	104°43'08.583"W	10.00	
7693.08†	72.671	359.980	7446.00	267.51	164.31	694.58	40°13'09.711"N	104°43'08.583"W	10.00	FORT HAYS
7717.00†	75.063	359.980	7452.65	290.22	187.29	694.57	40°13'09.938"N	104°43'08.583"W	10.00	
7790.58†	82.421	359.980	7467.00	361.49	259.40	694.54	40°13'10.650"N	104°43'08.584"W	10.00	CODELL
7817.00†	85.063	359.980	7469.88	387.45	285.66	694.54	40°13'10.910"N	104°43'08.584"W	10.00	
7865.68	89.932	359.980	7472.00	435.51	334.28	694.52	40°13'11.390"N	104°43'08.584"W	10.00	LANDING POINT
7917.00†	89.932	359.980	7472.07	486.24	385.60	694.50	40°13'11.897"N	104°43'08.584"W	0.00	
8017.00†	89.932	359.980	7472.19	585.08	485.60	694.46	40°13'12.886"N	104°43'08.585"W	0.00	
8117.00†	89.932	359.980	7472.30	683.92	585.60	694.43	40°13'13.874"N	104°43'08.585"W	0.00	
8217.00†	89.932	359.980	7472.42	782.77	685.60	694.39	40°13'14.862"N	104°43'08.585"W	0.00	
8317.00†	89.932	359.980	7472.54	881.61	785.60	694.36	40°13'15.850"N	104°43'08.586"W	0.00	
8417.00†	89.932	359.980	7472.66	980.45	885.60	694.32	40°13'16.838"N	104°43'08.586"W	0.00	
8517.00†	89.932	359.980	7472.78	1079.30	985.60	694.29	40°13'17.827"N	104°43'08.587"W	0.00	
8617.00†	89.932	359.980	7472.90	1178.14	1085.60	694.25	40°13'18.815"N	104°43'08.587"W	0.00	
8717.00†	89.932	359.980	7473.02	1276.98	1185.60	694.22	40°13'19.803"N	104°43'08.588"W	0.00	
8817.00†	89.932	359.980	7473.14	1375.83	1285.60	694.18	40°13'20.791"N	104°43'08.588"W	0.00	
8917.00†	89.932	359.980	7473.26	1474.67	1385.60	694.14	40°13'21.779"N	104°43'08.588"W	0.00	
9017.00†	89.932	359.980	7473.38	1573.51	1485.60	694.11	40°13'22.768"N	104°43'08.589"W	0.00	
9117.00†	89.932	359.980	7473.50	1672.36	1585.60	694.07	40°13'23.756"N	104°43'08.589"W	0.00	
9217.00†	89.932	359.980	7473.61	1771.20	1685.60	694.04	40°13'24.744"N	104°43'08.590"W	0.00	
9317.00†	89.932	359.980	7473.73	1870.04	1785.60	694.00	40°13'25.732"N	104°43'08.590"W	0.00	
9417.00†	89.932	359.980	7473.85	1968.89	1885.60	693.97	40°13'26.720"N	104°43'08.590"W	0.00	
9517.00†	89.932	359.980	7473.97	2067.73	1985.60	693.93	40°13'27.708"N	104°43'08.591"W	0.00	
9617.00†	89.932	359.980	7474.09	2166.57	2085.60	693.90	40°13'28.697"N	104°43'08.591"W	0.00	
9717.00†	89.932	359.980	7474.21	2265.42	2185.60	693.86	40°13'29.685"N	104°43'08.592"W	0.00	
9817.00†	89.932	359.980	7474.33	2364.26	2285.60	693.83	40°13'30.673"N	104°43'08.592"W	0.00	
9917.00†	89.932	359.980	7474.45	2463.10	2385.60	693.79	40°13'31.661"N	104°43'08.593"W	0.00	
10017.00†	89.932	359.980	7474.57	2561.95	2485.60	693.75	40°13'32.649"N	104°43'08.593"W	0.00	
10117.00†	89.932	359.980	7474.69	2660.79	2585.60	693.72	40°13'33.638"N	104°43'08.593"W	0.00	
10217.00†	89.932	359.980	7474.81	2759.63	2685.60	693.68	40°13'34.626"N	104°43'08.594"W	0.00	
10317.00†	89.932	359.980	7474.92	2858.48	2785.60	693.65	40°13'35.614"N	104°43'08.594"W	0.00	
10417.00†	89.932	359.980	7475.04	2957.32	2885.60	693.61	40°13'36.602"N	104°43'08.595"W	0.00	
10517.00†	89.932	359.980	7475.16	3056.16	2985.60	693.58	40°13'37.590"N	104°43'08.595"W	0.00	
10617.00†	89.932	359.980	7475.28	3155.01	3085.60	693.54	40°13'38.579"N	104°43'08.596"W	0.00	
10717.00†	89.932	359.980	7475.40	3253.85	3185.60	693.51	40°13'39.567"N	104°43'08.596"W	0.00	
10817.00†	89.932	359.980	7475.52	3352.69	3285.60	693.47	40°13'40.555"N	104°43'08.596"W	0.00	
10917.00†	89.932	359.980	7475.64	3451.54	3385.60	693.43	40°13'41.543"N	104°43'08.597"W	0.00	
11017.00†	89.932	359.980	7475.76	3550.38	3485.60	693.40	40°13'42.531"N	104°43'08.597"W	0.00	
11117.00†	89.932	359.980	7475.88	3649.22	3585.60	693.36	40°13'43.520"N	104°43'08.598"W	0.00	
11217.00†	89.932	359.980	7476.00	3748.07	3685.60	693.33	40°13'44.508"N	104°43'08.598"W	0.00	
11317.00†	89.932	359.980	7476.12	3846.91	3785.60	693.29	40°13'45.496"N	104°43'08.598"W	0.00	
11417.00†	89.932	359.980	7476.23	3945.75	3885.60	693.26	40°13'46.484"N	104°43'08.599"W	0.00	
11517.00†	89.932	359.980	7476.35	4044.60	3985.60	693.22	40°13'47.472"N	104°43'08.599"W	0.00	
11617.00†	89.932	359.980	7476.47	4143.44	4085.60	693.19	40°13'48.461"N	104°43'08.600"W	0.00	
11717.00†	89.932	359.980	7476.59	4242.28	4185.60	693.15	40°13'49.449"N	104°43'08.600"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1C-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1C-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	89.932	359.980	7476.71	4341.13	4285.60	693.12	40°13'50.437"N	104°43'08.601"W	0.00	
11917.00†	89.932	359.980	7476.83	4439.97	4385.60	693.08	40°13'51.425"N	104°43'08.601"W	0.00	
12017.00†	89.932	359.980	7476.95	4538.81	4485.60	693.04	40°13'52.413"N	104°43'08.601"W	0.00	
12059.29	89.932	359.980	7477.00 ¹	4580.62	4527.89	693.03	40°13'52.831"N	104°43'08.602"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS -

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	7865.68	6564.68	1301.00	7472.00	0.00	0.00	334.28	694.52
7in Casing Intermediate	17.00	7865.68	7848.68	17.00	7472.00	0.00	0.00	334.28	694.52
6.125in Open Hole	7865.68	12059.29	4193.61	7472.00	7477.00	334.28	694.52	4527.89	693.03
4.5in Casing Production	17.00	12059.29	12042.29	17.00	7477.00	0.00	0.00	4527.89	693.03

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T3N-R66W HARDLINES (460' SETBACKS)		7287.00	-7.28	-529.21	3216856.94	1323534.46	40°13'08.015"N	104°43'24.359"W	polygon
SEC.13-T3N-R66W SECTION LINES		7287.00	-7.28	-529.21	3216856.94	1323534.46	40°13'08.015"N	104°43'24.359"W	polygon
1) MAVERICK 1C-13HZ BHL ON PLAT REV-1 (460'FNL & 921'FEL, SEC.13)	12059.29	7477.00	4527.89	693.03	3218039.27	1328079.97	40°13'52.831"N	104°43'08.602"W	point
MAVERICK 1C-13HZ LANDBOX		7477.00	0.00	0.00	3217386.05	1323546.38	40°13'08.087"N	104°43'17.537"W	polygon

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12059.29	NaviTrak (MagCorr)		MAVERICK 1C-13HZ PWB



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MAVERICK 1C-13HZ (300'FSL & 1616'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 1C-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 1C-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1251.00	0.000	108.910	1251.00	FOX HILLS MARKER
4116.15	11.000	108.910	4073.00	PARKMAN
4507.34	11.000	108.910	4457.00	SUSSEX
6866.37	0.000	359.980	6799.05	4.5" CASING LINER
7201.90	23.553	359.980	7128.00	SHARON SRPINGS
7264.61	29.824	359.980	7184.00	NIOBRARA A
7326.58	36.022	359.980	7236.00	NIOBRARA B
7434.78	46.842	359.980	7317.00	NIOBRARA C
7693.08	72.671	359.980	7446.00	FORT HAYS
7790.58	82.421	359.980	7467.00	CODELL

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	108.910	17.00	TIE ON
1401.00	0.000	108.910	1401.00	BEGIN NUDGE
1951.00	11.000	108.910	1947.63	END NUDGE
5247.95	11.000	108.910	5184.00	BEGIN DROP
5797.95	0.000	359.980	5730.63	END DROP
6966.37	0.000	359.980	6899.05	KOP, BUILD @ 10°/100'
7865.68	89.932	359.980	7472.00	LANDING POINT
12059.29	89.932	359.980	7477.00	TOTAL DEPTH