

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13)
Field: WELD COUNTY (KERR MCGEE) Well: MAVERICK 2N-13HZ
Facility: SEC.13-T3N-R66W Wellbore: MAVERICK 2N-13HZ PWB

Plot reference wellpath is MAVERICK 2N-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: 5076 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'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#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13)	-359.54	-163.37	3216887.116	1323534.721	40°13'08.015"N	104°43'23.970"W
PERMIT (17RKB) (RKB) to Mud line (At Slot: SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13))			5076R			
Mean Sea Level to Mud line (At Slot: SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13))			0R			
PERMIT (17RKB) (RKB) to Mean Sea Level			5076R			

Survey Program

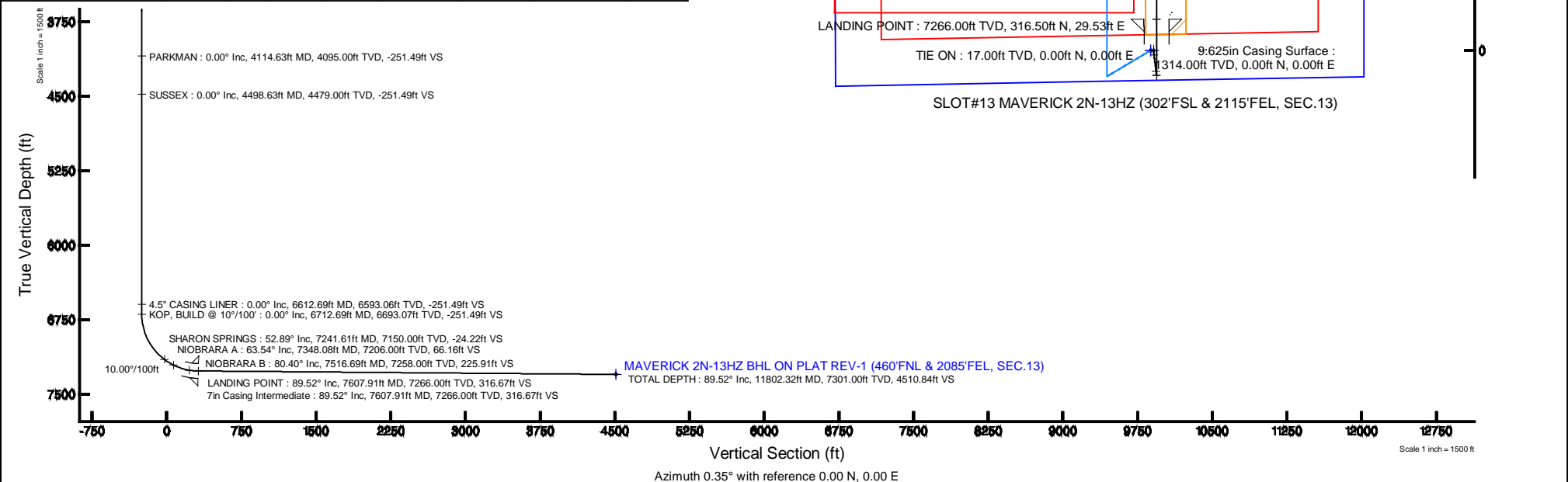
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	11802.32	NaviTrak	NaviTrak (MagCorr)		MAVERICK 2N-13HZ PWB

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)		7300.00	0.00	-30.18	3216886.94	1323534.46	40°13'08.015"N	104°43'24.359"W
SEC.13-T3N-R66W SECTION LINES		7300.00	0.00	-30.18	3216886.94	1323534.46	40°13'08.015"N	104°43'24.359"W
MAVERICK 2N-13HZ BHL ON PLAT REV-1 (460'FNL & 2085'FEL, SEC.13)	11802.32	7301.00	4510.76	27.92	3216875.63	1328045.34	40°13'52.590"N	104°43'23.610"W
MAVERICK 2N-13HZ LANDBOX		7301.00	0.00	0.00	3216887.12	1323534.72	40°13'08.015"N	104°43'23.970"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	173.260	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1414.00	0.000	173.260	1414.00	0.00	0.00	0.00	0.00
END NUDGE	1914.00	10.000	173.260	1911.47	-43.22	5.11	2.00	-43.19
BEGIN DROP	2872.19	10.000	173.260	2855.10	-208.46	24.64	0.00	-208.30
END DROP	3372.19	0.000	359.978	3352.57	-251.68	29.74	2.00	-251.49
KOP, BUILD @ 10°/100'	6712.69	0.000	359.978	6693.07	-251.68	29.74	0.00	-251.49
LANDING POINT	7607.91	89.522	359.978	7266.00	316.50	29.53	10.00	316.67
TOTAL DEPTH	11802.32	89.522	359.978	7301.00	4510.76	27.92	0.00	4510.84





Planned Wellpath Report

MAVERICK 2N-13HZ (PERMIT REV-1) PWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 2N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 2N-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 13:58
Convergence at slot	n/a	Database/Source file	WellArchitectDB/MAVERICK_2N-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	-359.54	-163.37	3216887.12	1323534.72	40°13'08.015"N	104°43'23.970"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	5076.00ft
Horizontal Reference Pt	Slot	PERMIT (17'RKB) (RKB) to Mean Sea Level	5076.00ft
Vertical Reference Pt	PERMIT (17'RKB) (RKB)	PERMIT (17'RKB) (RKB) to Mud Line at Slot (SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13))	5076.00ft
MD Reference Pt	PERMIT (17'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.35°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 2N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 2N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (133 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	173.260	0.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
17.00	0.000	173.260	17.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	TIE ON
117.00†	0.000	173.260	117.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
217.00†	0.000	173.260	217.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
317.00†	0.000	173.260	317.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
417.00†	0.000	173.260	417.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
517.00†	0.000	173.260	517.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
617.00†	0.000	173.260	617.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
717.00†	0.000	173.260	717.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
817.00†	0.000	173.260	817.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
917.00†	0.000	173.260	917.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
1017.00†	0.000	173.260	1017.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
1117.00†	0.000	173.260	1117.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
1217.00†	0.000	173.260	1217.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
1264.00†	0.000	173.260	1264.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	FOX HILLS MARKER
1317.00†	0.000	173.260	1317.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	
1414.00	0.000	173.260	1414.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	0.00	BEGIN NUDGE
1417.00†	0.060	173.260	1417.00	0.00	0.00	0.00	40°13'08.015"N	104°43'23.970"W	2.00	
1517.00†	2.060	173.260	1516.98	-1.84	-1.84	0.22	40°13'07.997"N	104°43'23.967"W	2.00	
1617.00†	4.060	173.260	1616.83	-7.13	-7.14	0.84	40°13'07.944"N	104°43'23.959"W	2.00	
1717.00†	6.060	173.260	1716.44	-15.89	-15.90	1.88	40°13'07.858"N	104°43'23.946"W	2.00	
1817.00†	8.060	173.260	1815.67	-28.08	-28.10	3.32	40°13'07.737"N	104°43'23.927"W	2.00	
1914.00	10.000	173.260	1911.47	-43.19	-43.22	5.11	40°13'07.588"N	104°43'23.904"W	2.00	END NUDGE
1917.00†	10.000	173.260	1914.42	-43.71	-43.74	5.17	40°13'07.583"N	104°43'23.903"W	0.00	
2017.00†	10.000	173.260	2012.90	-60.94	-60.98	7.21	40°13'07.412"N	104°43'23.877"W	0.00	
2117.00†	10.000	173.260	2111.38	-78.17	-78.23	9.25	40°13'07.242"N	104°43'23.851"W	0.00	
2217.00†	10.000	173.260	2209.86	-95.40	-95.47	11.28	40°13'07.072"N	104°43'23.825"W	0.00	
2317.00†	10.000	173.260	2308.34	-112.63	-112.72	13.32	40°13'06.901"N	104°43'23.798"W	0.00	
2417.00†	10.000	173.260	2406.82	-129.87	-129.96	15.36	40°13'06.731"N	104°43'23.772"W	0.00	
2517.00†	10.000	173.260	2505.30	-147.10	-147.21	17.40	40°13'06.560"N	104°43'23.746"W	0.00	
2617.00†	10.000	173.260	2603.79	-164.33	-164.45	19.44	40°13'06.390"N	104°43'23.719"W	0.00	
2717.00†	10.000	173.260	2702.27	-181.56	-181.70	21.47	40°13'06.219"N	104°43'23.693"W	0.00	
2817.00†	10.000	173.260	2800.75	-198.79	-198.94	23.51	40°13'06.049"N	104°43'23.667"W	0.00	
2872.19	10.000	173.260	2855.10	-208.30	-208.46	24.64	40°13'05.955"N	104°43'23.652"W	0.00	BEGIN DROP
2917.00†	9.104	173.260	2899.29	-215.68	-215.84	25.51	40°13'05.882"N	104°43'23.641"W	2.00	
3017.00†	7.104	173.260	2998.28	-229.67	-229.84	27.16	40°13'05.744"N	104°43'23.620"W	2.00	
3117.00†	5.104	173.260	3097.71	-240.22	-240.40	28.41	40°13'05.639"N	104°43'23.604"W	2.00	
3217.00†	3.104	173.260	3197.45	-247.32	-247.51	29.25	40°13'05.569"N	104°43'23.593"W	2.00	
3317.00†	1.104	173.260	3297.38	-250.97	-251.15	29.68	40°13'05.533"N	104°43'23.587"W	2.00	
3372.19	0.000	359.978	3352.57	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	2.00	END DROP
3417.00†	0.000	359.978	3397.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
3517.00†	0.000	359.978	3497.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
3617.00†	0.000	359.978	3597.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
3717.00†	0.000	359.978	3697.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
3817.00†	0.000	359.978	3797.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 2N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 2N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (133 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3917.00†	0.000	359.978	3897.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4017.00†	0.000	359.978	3997.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4114.63†	0.000	359.978	4095.00	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	PARKMAN
4117.00†	0.000	359.978	4097.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4217.00†	0.000	359.978	4197.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4317.00†	0.000	359.978	4297.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4417.00†	0.000	359.978	4397.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4498.63†	0.000	359.978	4479.00	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	SUSSEX
4517.00†	0.000	359.978	4497.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4617.00†	0.000	359.978	4597.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4717.00†	0.000	359.978	4697.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4817.00†	0.000	359.978	4797.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
4917.00†	0.000	359.978	4897.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5017.00†	0.000	359.978	4997.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5117.00†	0.000	359.978	5097.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5217.00†	0.000	359.978	5197.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5317.00†	0.000	359.978	5297.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5417.00†	0.000	359.978	5397.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5517.00†	0.000	359.978	5497.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5617.00†	0.000	359.978	5597.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5717.00†	0.000	359.978	5697.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5817.00†	0.000	359.978	5797.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
5917.00†	0.000	359.978	5897.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
6017.00†	0.000	359.978	5997.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
6117.00†	0.000	359.978	6097.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
6217.00†	0.000	359.978	6197.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
6317.00†	0.000	359.978	6297.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
6417.00†	0.000	359.978	6397.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
6517.00†	0.000	359.978	6497.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
6612.69†	0.000	359.978	6593.06	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	4.5" CASING LINER
6617.00†	0.000	359.978	6597.37	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	
6712.69	0.000	359.978	6693.07	-251.49	-251.68	29.74	40°13'05.528"N	104°43'23.587"W	0.00	KOP, BUILD @ 10°/100'
6717.00†	0.431	359.978	6697.37	-251.48	-251.67	29.74	40°13'05.528"N	104°43'23.587"W	10.00	
6817.00†	10.431	359.978	6796.80	-242.02	-242.21	29.74	40°13'05.621"N	104°43'23.587"W	10.00	
6917.00†	20.431	359.978	6893.07	-215.45	-215.64	29.73	40°13'05.884"N	104°43'23.587"W	10.00	
7017.00†	30.431	359.978	6983.27	-172.56	-172.75	29.71	40°13'06.308"N	104°43'23.587"W	10.00	
7117.00†	40.431	359.978	7064.65	-114.67	-114.85	29.69	40°13'06.880"N	104°43'23.587"W	10.00	
7217.00†	50.431	359.978	7134.73	-43.52	-43.70	29.66	40°13'07.583"N	104°43'23.588"W	10.00	
7241.61†	52.892	359.978	7150.00	-24.22	-24.40	29.66	40°13'07.774"N	104°43'23.588"W	10.00	SHARON SPRINGS
7317.00†	60.431	359.978	7191.40	38.72	38.54	29.63	40°13'08.396"N	104°43'23.588"W	10.00	
7348.08†	63.539	359.978	7206.00	66.16	65.97	29.62	40°13'08.667"N	104°43'23.588"W	10.00	NIOBRARA A
7417.00†	70.431	359.978	7232.93	129.55	129.37	29.60	40°13'09.293"N	104°43'23.588"W	10.00	
7516.69†	80.400	359.978	7258.00	225.91	225.73	29.56	40°13'10.246"N	104°43'23.589"W	10.00	NIOBRARA B
7517.00†	80.431	359.978	7258.05	226.21	226.03	29.56	40°13'10.249"N	104°43'23.589"W	10.00	
7607.91	89.522	359.978	7266.00	316.67	316.50	29.53	40°13'11.143"N	104°43'23.589"W	10.00	LANDING POINT

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 2N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 2N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH DATA (133 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7617.00†	89.522	359.978	7266.08	325.76	325.58	29.52	40°13'11.232"N	104°43'23.589"W	0.00	
7717.00†	89.522	359.978	7266.91	425.75	425.58	29.48	40°13'12.221"N	104°43'23.590"W	0.00	
7817.00†	89.522	359.978	7267.75	525.75	525.58	29.45	40°13'13.209"N	104°43'23.590"W	0.00	
7917.00†	89.522	359.978	7268.58	625.74	625.57	29.41	40°13'14.197"N	104°43'23.591"W	0.00	
8017.00†	89.522	359.978	7269.42	725.74	725.57	29.37	40°13'15.185"N	104°43'23.591"W	0.00	
8117.00†	89.522	359.978	7270.25	825.73	825.57	29.33	40°13'16.173"N	104°43'23.592"W	0.00	
8217.00†	89.522	359.978	7271.09	925.73	925.56	29.29	40°13'17.161"N	104°43'23.592"W	0.00	
8317.00†	89.522	359.978	7271.92	1025.72	1025.56	29.26	40°13'18.150"N	104°43'23.593"W	0.00	
8417.00†	89.522	359.978	7272.75	1125.72	1125.56	29.22	40°13'19.138"N	104°43'23.593"W	0.00	
8517.00†	89.522	359.978	7273.59	1225.71	1225.55	29.18	40°13'20.126"N	104°43'23.594"W	0.00	
8617.00†	89.522	359.978	7274.42	1325.70	1325.55	29.14	40°13'21.114"N	104°43'23.594"W	0.00	
8717.00†	89.522	359.978	7275.26	1425.70	1425.55	29.10	40°13'22.102"N	104°43'23.595"W	0.00	
8817.00†	89.522	359.978	7276.09	1525.69	1525.54	29.06	40°13'23.090"N	104°43'23.595"W	0.00	
8917.00†	89.522	359.978	7276.93	1625.69	1625.54	29.03	40°13'24.078"N	104°43'23.596"W	0.00	
9017.00†	89.522	359.978	7277.76	1725.68	1725.54	28.99	40°13'25.067"N	104°43'23.596"W	0.00	
9117.00†	89.522	359.978	7278.59	1825.68	1825.53	28.95	40°13'26.055"N	104°43'23.597"W	0.00	
9217.00†	89.522	359.978	7279.43	1925.67	1925.53	28.91	40°13'27.043"N	104°43'23.597"W	0.00	
9317.00†	89.522	359.978	7280.26	2025.66	2025.52	28.87	40°13'28.031"N	104°43'23.598"W	0.00	
9417.00†	89.522	359.978	7281.10	2125.66	2125.52	28.83	40°13'29.019"N	104°43'23.598"W	0.00	
9517.00†	89.522	359.978	7281.93	2225.65	2225.52	28.80	40°13'30.007"N	104°43'23.599"W	0.00	
9617.00†	89.522	359.978	7282.77	2325.65	2325.51	28.76	40°13'30.996"N	104°43'23.599"W	0.00	
9717.00†	89.522	359.978	7283.60	2425.64	2425.51	28.72	40°13'31.984"N	104°43'23.600"W	0.00	
9817.00†	89.522	359.978	7284.44	2525.64	2525.51	28.68	40°13'32.972"N	104°43'23.600"W	0.00	
9917.00†	89.522	359.978	7285.27	2625.63	2625.50	28.64	40°13'33.960"N	104°43'23.601"W	0.00	
10017.00†	89.522	359.978	7286.10	2725.63	2725.50	28.60	40°13'34.948"N	104°43'23.601"W	0.00	
10117.00†	89.522	359.978	7286.94	2825.62	2825.50	28.57	40°13'35.936"N	104°43'23.602"W	0.00	
10217.00†	89.522	359.978	7287.77	2925.61	2925.49	28.53	40°13'36.925"N	104°43'23.602"W	0.00	
10317.00†	89.522	359.978	7288.61	3025.61	3025.49	28.49	40°13'37.913"N	104°43'23.603"W	0.00	
10417.00†	89.522	359.978	7289.44	3125.60	3125.49	28.45	40°13'38.901"N	104°43'23.603"W	0.00	
10517.00†	89.522	359.978	7290.28	3225.60	3225.48	28.41	40°13'39.889"N	104°43'23.604"W	0.00	
10617.00†	89.522	359.978	7291.11	3325.59	3325.48	28.38	40°13'40.877"N	104°43'23.604"W	0.00	
10717.00†	89.522	359.978	7291.94	3425.59	3425.48	28.34	40°13'41.865"N	104°43'23.605"W	0.00	
10817.00†	89.522	359.978	7292.78	3525.58	3525.47	28.30	40°13'42.854"N	104°43'23.605"W	0.00	
10917.00†	89.522	359.978	7293.61	3625.57	3625.47	28.26	40°13'43.842"N	104°43'23.606"W	0.00	
11017.00†	89.522	359.978	7294.45	3725.57	3725.47	28.22	40°13'44.830"N	104°43'23.606"W	0.00	
11117.00†	89.522	359.978	7295.28	3825.56	3825.46	28.18	40°13'45.818"N	104°43'23.607"W	0.00	
11217.00†	89.522	359.978	7296.12	3925.56	3925.46	28.15	40°13'46.806"N	104°43'23.607"W	0.00	
11317.00†	89.522	359.978	7296.95	4025.55	4025.45	28.11	40°13'47.794"N	104°43'23.608"W	0.00	
11417.00†	89.522	359.978	7297.79	4125.55	4125.45	28.07	40°13'48.782"N	104°43'23.608"W	0.00	
11517.00†	89.522	359.978	7298.62	4225.54	4225.45	28.03	40°13'49.771"N	104°43'23.609"W	0.00	
11617.00†	89.522	359.978	7299.45	4325.53	4325.44	27.99	40°13'50.759"N	104°43'23.609"W	0.00	
11717.00†	89.522	359.978	7300.29	4425.53	4425.44	27.95	40°13'51.747"N	104°43'23.610"W	0.00	
11802.32	89.522	359.978	7301.00 [†]	4510.84	4510.76	27.92	40°13'52.590"N	104°43'23.610"W	0.00	TOTAL DEPTH

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 2N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 2N-13HZ PWB
Facility	SEC.13-T3N-R66W		

HOLE & CASING SECTIONS -

Ref Wellbore: MAVERICK 2N-13HZ PWB Ref Wellpath: MAVERICK 2N-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	1314.00	1297.00	17.00	1314.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1314.00	1297.00	17.00	1314.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1314.00	7607.91	6293.91	1314.00	7266.00	0.00	0.00	316.49	29.53
7in Casing Intermediate	17.00	7607.91	7590.91	17.00	7266.00	0.00	0.00	316.49	29.53
6.125in Open Hole	7607.91	11802.32	4194.41	7266.00	NA	316.49	29.53	NA	NA
4.5in Casing Production	17.00	11802.32	11785.32	17.00	NA	0.00	0.00	NA	NA

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T3N-R66W HARDLINES (460' SETBACKS)		7300.00	0.00	-30.18	3216856.94	1323534.46	40°13'08.015"N	104°43'24.359"W	polygon
SEC.13-T3N-R66W SECTION LINES		7300.00	0.00	-30.18	3216856.94	1323534.46	40°13'08.015"N	104°43'24.359"W	polygon
1) MAVERICK 2N-13HZ BHL ON PLAT REV-1 (460'FNL & 2085'FEL, SEC.13)	11802.32	7301.00	4510.76	27.92	3216875.53	1328045.34	40°13'52.590"N	104°43'23.610"W	point
MAVERICK 2N-13HZ LANDBOX		7301.00	0.00	0.00	3216887.12	1323534.72	40°13'08.015"N	104°43'23.970"W	polygon

SURVEY PROGRAM - Ref Wellbore: MAVERICK 2N-13HZ PWB Ref Wellpath: MAVERICK 2N-13HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	11802.32	NaviTrak (MagCorr)		MAVERICK 2N-13HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 MAVERICK 2N-13HZ (302'FSL & 2115'FEL, SEC.13)
Area	COLORADO	Well	MAVERICK 2N-13HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MAVERICK 2N-13HZ PWB
Facility	SEC.13-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1264.00	0.000	173.260	1264.00	FOX HILLS MARKER
4114.63	0.000	359.978	4095.00	PARKMAN
4498.63	0.000	359.978	4479.00	SUSSEX
6612.69	0.000	359.978	6593.06	4.5" CASING LINER
7241.61	52.892	359.978	7150.00	SHARON SPRINGS
7348.08	63.539	359.978	7206.00	NIOBRARA A
7516.69	80.400	359.978	7258.00	NIOBRARA B

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	173.260	17.00	TIE ON
1414.00	0.000	173.260	1414.00	BEGIN NUDGE
1914.00	10.000	173.260	1911.47	END NUDGE
2872.19	10.000	173.260	2855.10	BEGIN DROP
3372.19	0.000	359.978	3352.57	END DROP
6712.69	0.000	359.978	6693.07	KOP, BUILD @ 10°/100'
7607.91	89.522	359.978	7266.00	LANDING POINT
11802.32	89.522	359.978	7301.00	TOTAL DEPTH