

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#11 SICKLER 1N-34HZ (399°FSL & 1449°FEL, SEC.34)  
Field: WELD COUNTY (KERR MCGEE) Well: SICKLER 1N-34HZ  
Facility: SEC.34-T2N-R67W Wellbore: SICKLER 1N-34HZ PWB

Plot reference wellpath is SICKLER 1N-34HZ (PERMIT REV-3) PWP

True vertical depths are referenced to PERMIT (17KB) (KB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17KB) (KB)	North Reference: True north
PERMIT (17KB) to Mean Sea Level: 4966 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#11 SICKLER 1N-34HZ (399°FSL & 1449°FEL, SEC.34): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precin on 19/Mar/2014

## Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.34-T2N-R67W	3172818.756	1280239.992	40°06'03.593"N	104°52'55.951"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#11 SICKLER 1N-34HZ (399°FSL & 1449°FEL, SEC.34)	-4514.97	2618.24	3175468.278	1275743.561
PERMIT (17KB) to Mud line (At Slot: SLOT#11 SICKLER 1N-34HZ (399°FSL & 1449°FEL, SEC.34)				4966R
Mean Sea Level to Mud line (At Slot: SLOT#11 SICKLER 1N-34HZ (399°FSL & 1449°FEL, SEC.34)				0R
PERMIT (17KB) to Mean Sea Level				4966R

## Survey Program

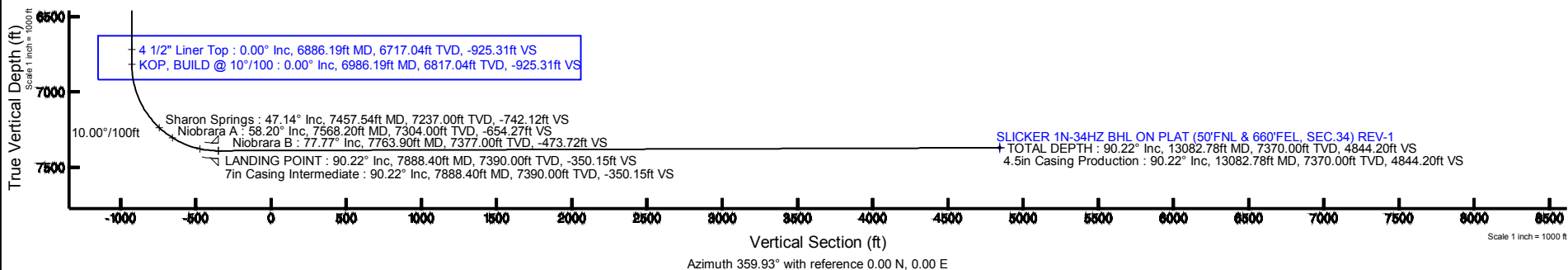
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13194.27	NaviTrak	NaviTrak (MAGCORR, IFR)		SICKLER 1N-34HZ PWB

## 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	139.480	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1320.00	0.000	139.480	1320.00	0.00	0.00	0.00	0.00
END NUDGE	2170.00	17.000	139.480	2157.58	-95.16	81.33	2.00	-95.26
BEGIN DROP	5472.73	17.000	139.480	5316.00	-829.21	708.71	0.00	-830.06
END DROP	6322.73	0.000	359.931	6153.58	-924.36	790.04	2.00	-925.31
KOP, BUILD @ 10°/100	6986.19	0.000	359.931	6817.04	-924.36	790.04	0.00	-925.31
LANDING POINT	7888.40	90.221	359.931	7390.00	-349.20	789.34	10.00	-350.15
TOTAL DEPTH	13082.78	90.221	359.931	7370.00	4845.15	783.04	0.00	4844.20

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.34-T2N-R47W HARD LINES (460° SETBACKS)		4966.00	4515.24	-2617.84	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W
SEC.34-T2N-R67W SECTION LINES		4966.00	4515.24	-2617.84	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W
SICKLER 1N-34HZ LAND BOX		7370.00	0.00	0.00	3175468.28	1275743.56	40°05'18.974"N	104°52'22.264"W
SICKLER 1N-34HZ BHL ON PLAT (50°FNL & 660°FEL, SEC.34) REV-1	13082.78	7370.00	4845.15	783.04	3176217.00	1280593.92	40°06'06.854"N	104°52'12.187"W



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 SICKLER 1N-34HZ (399'FSL & 1449'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 1N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 1N-34HZ PWB
Facility	SEC.34-T2N-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	0.999961	Report Generated	19/Mar/2014 at 09:52
Convergence at slot	n/a	Database/Source file	WellArchitectDB/SICKLER_1N-34HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4514.97	2618.24	3175468.28	1275743.56	40°05'18.974"N	104°52'22.264"W
Facility Reference Pt			3172818.76	1280239.99	40°06'03.593"N	104°52'55.951"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) (KB) to Facility Vertical Datum	4966.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (KB) to Mean Sea Level	4966.00ft
Vertical Reference Pt	PERMIT (17'KB) (KB)	PERMIT (17'KB) (KB) to Mud Line at Slot (SLOT#11 SICKLER 1N-34HZ (399'FSL & 1449'FEL, SEC.34))	4966.00ft
MD Reference Pt	PERMIT (17'KB) (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.93°

# Planned Wellpath Report

## SICKLER 1N-34HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 SICKLER 1N-34HZ (399'FSL & 1449'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 1N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 1N-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (146 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	139.480	0.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
17.00	0.000	139.480	17.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	TIE-ON
117.00†	0.000	139.480	117.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
217.00†	0.000	139.480	217.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
317.00†	0.000	139.480	317.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
417.00†	0.000	139.480	417.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
517.00†	0.000	139.480	517.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
617.00†	0.000	139.480	617.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
717.00†	0.000	139.480	717.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
817.00†	0.000	139.480	817.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
917.00†	0.000	139.480	917.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
1017.00†	0.000	139.480	1017.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
1117.00†	0.000	139.480	1117.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
1158.00†	0.000	139.480	1158.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	Fox Hills Marker
1217.00†	0.000	139.480	1217.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
1317.00†	0.000	139.480	1317.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	
1320.00	0.000	139.480	1320.00	0.00	0.00	0.00	40°05'18.974"N	104°52'22.264"W	0.00	BEGIN NUDGE
1417.00†	1.940	139.480	1416.98	-1.25	-1.25	1.07	40°05'18.962"N	104°52'22.250"W	2.00	
1517.00†	3.940	139.480	1516.84	-5.15	-5.15	4.40	40°05'18.923"N	104°52'22.207"W	2.00	
1617.00†	5.940	139.480	1616.47	-11.70	-11.69	9.99	40°05'18.858"N	104°52'22.135"W	2.00	
1717.00†	7.940	139.480	1715.73	-20.90	-20.88	17.84	40°05'18.768"N	104°52'22.034"W	2.00	
1817.00†	9.940	139.480	1814.51	-32.72	-32.69	27.94	40°05'18.651"N	104°52'21.905"W	2.00	
1917.00†	11.940	139.480	1912.69	-47.16	-47.12	40.27	40°05'18.508"N	104°52'21.746"W	2.00	
2017.00†	13.940	139.480	2010.14	-64.20	-64.14	54.82	40°05'18.340"N	104°52'21.559"W	2.00	
2117.00†	15.940	139.480	2106.76	-83.82	-83.74	71.57	40°05'18.147"N	104°52'21.343"W	2.00	
2170.00	17.000	139.480	2157.58	-95.26	-95.16	81.33	40°05'18.034"N	104°52'21.218"W	2.00	END NUDGE
2217.00†	17.000	139.480	2202.53	-105.71	-105.60	90.26	40°05'17.930"N	104°52'21.103"W	0.00	
2317.00†	17.000	139.480	2298.16	-127.96	-127.83	109.25	40°05'17.711"N	104°52'20.858"W	0.00	
2417.00†	17.000	139.480	2393.79	-150.21	-150.05	128.25	40°05'17.491"N	104°52'20.614"W	0.00	
2517.00†	17.000	139.480	2489.42	-172.46	-172.28	147.24	40°05'17.271"N	104°52'20.370"W	0.00	
2617.00†	17.000	139.480	2585.05	-194.71	-194.51	166.24	40°05'17.052"N	104°52'20.125"W	0.00	
2717.00†	17.000	139.480	2680.68	-216.95	-216.73	185.24	40°05'16.832"N	104°52'19.881"W	0.00	
2817.00†	17.000	139.480	2776.31	-239.20	-238.96	204.23	40°05'16.613"N	104°52'19.636"W	0.00	
2917.00†	17.000	139.480	2871.94	-261.45	-261.18	223.23	40°05'16.393"N	104°52'19.392"W	0.00	
3017.00†	17.000	139.480	2967.57	-283.70	-283.41	242.22	40°05'16.173"N	104°52'19.148"W	0.00	
3117.00†	17.000	139.480	3063.20	-305.95	-305.63	261.22	40°05'15.954"N	104°52'18.903"W	0.00	
3217.00†	17.000	139.480	3158.83	-328.20	-327.86	280.22	40°05'15.734"N	104°52'18.659"W	0.00	
3317.00†	17.000	139.480	3254.46	-350.44	-350.08	299.21	40°05'15.514"N	104°52'18.414"W	0.00	
3417.00†	17.000	139.480	3350.10	-372.69	-372.31	318.21	40°05'15.295"N	104°52'18.170"W	0.00	
3517.00†	17.000	139.480	3445.73	-394.94	-394.53	337.20	40°05'15.075"N	104°52'17.926"W	0.00	
3617.00†	17.000	139.480	3541.36	-417.19	-416.76	356.20	40°05'14.855"N	104°52'17.681"W	0.00	
3717.00†	17.000	139.480	3636.99	-439.44	-438.99	375.19	40°05'14.636"N	104°52'17.437"W	0.00	
3817.00†	17.000	139.480	3732.62	-461.69	-461.21	394.19	40°05'14.416"N	104°52'17.192"W	0.00	
3917.00†	17.000	139.480	3828.25	-483.93	-483.44	413.19	40°05'14.197"N	104°52'16.948"W	0.00	
4002.49†	17.000	139.480	3910.00	-502.95	-502.44	429.42	40°05'14.009"N	104°52'16.739"W	0.00	Parkman

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 SICKLER 1N-34HZ (399'FSL & 1449'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 1N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 1N-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	17.000	139.480	3923.88	-506.18	-505.66	432.18	40°05'13.977"N	104°52'16.704"W	0.00	
4117.00†	17.000	139.480	4019.51	-528.43	-527.89	451.18	40°05'13.757"N	104°52'16.459"W	0.00	
4217.00†	17.000	139.480	4115.14	-550.68	-550.11	470.17	40°05'13.538"N	104°52'16.215"W	0.00	
4317.00†	17.000	139.480	4210.77	-572.93	-572.34	489.17	40°05'13.318"N	104°52'15.970"W	0.00	
4417.00†	17.000	139.480	4306.40	-595.18	-594.56	508.16	40°05'13.098"N	104°52'15.726"W	0.00	
4517.00†	17.000	139.480	4402.03	-617.42	-616.79	527.16	40°05'12.879"N	104°52'15.482"W	0.00	
4587.03†	17.000	139.480	4469.00	-633.00	-632.35	540.46	40°05'12.725"N	104°52'15.310"W	0.00	Sussex
4617.00†	17.000	139.480	4497.66	-639.67	-639.02	546.16	40°05'12.659"N	104°52'15.237"W	0.00	
4717.00†	17.000	139.480	4593.29	-661.92	-661.24	565.15	40°05'12.439"N	104°52'14.993"W	0.00	
4817.00†	17.000	139.480	4688.92	-684.17	-683.47	584.15	40°05'12.220"N	104°52'14.748"W	0.00	
4917.00†	17.000	139.480	4784.55	-706.42	-705.69	603.14	40°05'12.000"N	104°52'14.504"W	0.00	
5017.00†	17.000	139.480	4880.18	-728.67	-727.92	622.14	40°05'11.781"N	104°52'14.260"W	0.00	
5117.00†	17.000	139.480	4975.81	-750.91	-750.14	641.14	40°05'11.561"N	104°52'14.015"W	0.00	
5217.00†	17.000	139.480	5071.44	-773.16	-772.37	660.13	40°05'11.341"N	104°52'13.771"W	0.00	
5317.00†	17.000	139.480	5167.07	-795.41	-794.59	679.13	40°05'11.122"N	104°52'13.526"W	0.00	
5417.00†	17.000	139.480	5262.70	-817.66	-816.82	698.12	40°05'10.902"N	104°52'13.282"W	0.00	
5472.73	17.000	139.480	5316.00	-830.06	-829.21	708.71	40°05'10.780"N	104°52'13.146"W	0.00	BEGIN DROP
5517.00†	16.115	139.480	5358.43	-839.66	-838.80	716.91	40°05'10.685"N	104°52'13.040"W	2.00	
5617.00†	14.115	139.480	5454.97	-859.50	-858.62	733.85	40°05'10.489"N	104°52'12.822"W	2.00	
5717.00†	12.115	139.480	5552.36	-876.76	-875.86	748.59	40°05'10.318"N	104°52'12.633"W	2.00	
5817.00†	10.115	139.480	5650.48	-891.43	-890.52	761.11	40°05'10.174"N	104°52'12.472"W	2.00	
5917.00†	8.115	139.480	5749.21	-903.49	-902.56	771.40	40°05'10.055"N	104°52'12.339"W	2.00	
6017.00†	6.115	139.480	5848.43	-912.91	-911.97	779.45	40°05'09.962"N	104°52'12.236"W	2.00	
6117.00†	4.115	139.480	5948.03	-919.69	-918.75	785.24	40°05'09.895"N	104°52'12.161"W	2.00	
6217.00†	2.115	139.480	6047.88	-923.83	-922.88	788.77	40°05'09.854"N	104°52'12.116"W	2.00	
6317.00†	0.115	139.480	6147.85	-925.31	-924.36	790.03	40°05'09.839"N	104°52'12.100"W	2.00	
6322.73	0.000	359.931	6153.58	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	2.00	END DROP
6417.00†	0.000	359.931	6247.85	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	0.00	
6517.00†	0.000	359.931	6347.85	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	0.00	
6617.00†	0.000	359.931	6447.85	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	0.00	
6717.00†	0.000	359.931	6547.85	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	0.00	
6817.00†	0.000	359.931	6647.85	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	0.00	
6886.19†	0.000	359.931	6717.04	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	0.00	4 1/2" Liner Top
6917.00†	0.000	359.931	6747.85	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	0.00	
6986.19	0.000	359.931	6817.04	-925.31	-924.36	790.04	40°05'09.839"N	104°52'12.100"W	0.00	KOP, BUILD @ 10°/100
7017.00†	3.081	359.931	6847.84	-924.49	-923.53	790.04	40°05'09.847"N	104°52'12.100"W	10.00	
7117.00†	13.081	359.931	6946.72	-910.45	-909.50	790.02	40°05'09.986"N	104°52'12.100"W	10.00	
7217.00†	23.081	359.931	7041.66	-879.45	-878.50	789.98	40°05'10.292"N	104°52'12.100"W	10.00	
7317.00†	33.081	359.931	7129.78	-832.44	-831.49	789.93	40°05'10.757"N	104°52'12.101"W	10.00	
7417.00†	43.081	359.931	7208.39	-770.84	-769.89	789.85	40°05'11.366"N	104°52'12.102"W	10.00	
7457.54†	47.135	359.931	7237.00	-742.12	-741.17	789.82	40°05'11.650"N	104°52'12.102"W	10.00	Sharon Springs
7517.00†	53.081	359.931	7275.11	-696.52	-695.57	789.76	40°05'12.100"N	104°52'12.103"W	10.00	
7568.20†	58.201	359.931	7304.00	-654.27	-653.32	789.71	40°05'12.518"N	104°52'12.104"W	10.00	Niobrara A
7617.00†	63.081	359.931	7327.92	-611.75	-610.80	789.66	40°05'12.938"N	104°52'12.104"W	10.00	
7717.00†	73.081	359.931	7365.20	-519.10	-518.15	789.55	40°05'13.853"N	104°52'12.106"W	10.00	

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 SICKLER 1N-34HZ (399'FSL & 1449'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 1N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 1N-34HZ PWB
Facility	SEC.34-T2N-R67W		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7763.90†	77.771	359.931	7377.00	-473.72	-472.77	789.49	40°05'14.302"N	104°52'12.106"W	10.00	Niobrara B
7817.00†	83.081	359.931	7385.83	-421.38	-420.43	789.43	40°05'14.819"N	104°52'12.107"W	10.00	
7888.40	90.221	359.931	7390.00	-350.15	-349.20	789.34	40°05'15.523"N	104°52'12.108"W	10.00	LANDING POINT
7917.00†	90.221	359.931	7389.89	-321.55	-320.60	789.31	40°05'15.806"N	104°52'12.109"W	0.00	
8017.00†	90.221	359.931	7389.50	-221.55	-220.60	789.19	40°05'16.794"N	104°52'12.110"W	0.00	
8117.00†	90.221	359.931	7389.12	-121.55	-120.60	789.06	40°05'17.782"N	104°52'12.112"W	0.00	
8217.00†	90.221	359.931	7388.73	-21.55	-20.60	788.94	40°05'18.770"N	104°52'12.113"W	0.00	
8317.00†	90.221	359.931	7388.35	78.45	79.40	788.82	40°05'19.759"N	104°52'12.115"W	0.00	
8417.00†	90.221	359.931	7387.96	178.45	179.40	788.70	40°05'20.747"N	104°52'12.116"W	0.00	
8517.00†	90.221	359.931	7387.58	278.45	279.40	788.58	40°05'21.735"N	104°52'12.118"W	0.00	
8617.00†	90.221	359.931	7387.19	378.45	379.40	788.46	40°05'22.723"N	104°52'12.119"W	0.00	
8717.00†	90.221	359.931	7386.81	478.45	479.40	788.34	40°05'23.711"N	104°52'12.121"W	0.00	
8817.00†	90.221	359.931	7386.42	578.45	579.40	788.21	40°05'24.700"N	104°52'12.122"W	0.00	
8917.00†	90.221	359.931	7386.04	678.45	679.40	788.09	40°05'25.688"N	104°52'12.124"W	0.00	
9017.00†	90.221	359.931	7385.65	778.45	779.39	787.97	40°05'26.676"N	104°52'12.125"W	0.00	
9117.00†	90.221	359.931	7385.27	878.44	879.39	787.85	40°05'27.664"N	104°52'12.127"W	0.00	
9217.00†	90.221	359.931	7384.88	978.44	979.39	787.73	40°05'28.652"N	104°52'12.128"W	0.00	
9317.00†	90.221	359.931	7384.50	1078.44	1079.39	787.61	40°05'29.641"N	104°52'12.130"W	0.00	
9417.00†	90.221	359.931	7384.11	1178.44	1179.39	787.49	40°05'30.629"N	104°52'12.131"W	0.00	
9517.00†	90.221	359.931	7383.73	1278.44	1279.39	787.37	40°05'31.617"N	104°52'12.133"W	0.00	
9617.00†	90.221	359.931	7383.34	1378.44	1379.39	787.24	40°05'32.605"N	104°52'12.135"W	0.00	
9717.00†	90.221	359.931	7382.96	1478.44	1479.39	787.12	40°05'33.593"N	104°52'12.136"W	0.00	
9817.00†	90.221	359.931	7382.57	1578.44	1579.39	787.00	40°05'34.582"N	104°52'12.138"W	0.00	
9917.00†	90.221	359.931	7382.19	1678.44	1679.39	786.88	40°05'35.570"N	104°52'12.139"W	0.00	
10017.00†	90.221	359.931	7381.80	1778.44	1779.39	786.76	40°05'36.558"N	104°52'12.141"W	0.00	
10117.00†	90.221	359.931	7381.42	1878.44	1879.39	786.64	40°05'37.546"N	104°52'12.142"W	0.00	
10217.00†	90.221	359.931	7381.03	1978.44	1979.39	786.52	40°05'38.534"N	104°52'12.144"W	0.00	
10317.00†	90.221	359.931	7380.65	2078.44	2079.38	786.40	40°05'39.523"N	104°52'12.145"W	0.00	
10417.00†	90.221	359.931	7380.26	2178.44	2179.38	786.27	40°05'40.511"N	104°52'12.147"W	0.00	
10517.00†	90.221	359.931	7379.88	2278.43	2279.38	786.15	40°05'41.499"N	104°52'12.148"W	0.00	
10617.00†	90.221	359.931	7379.49	2378.43	2379.38	786.03	40°05'42.487"N	104°52'12.150"W	0.00	
10717.00†	90.221	359.931	7379.11	2478.43	2479.38	785.91	40°05'43.476"N	104°52'12.151"W	0.00	
10817.00†	90.221	359.931	7378.72	2578.43	2579.38	785.79	40°05'44.464"N	104°52'12.153"W	0.00	
10917.00†	90.221	359.931	7378.34	2678.43	2679.38	785.67	40°05'45.452"N	104°52'12.154"W	0.00	
11017.00†	90.221	359.931	7377.95	2778.43	2779.38	785.55	40°05'46.440"N	104°52'12.156"W	0.00	
11117.00†	90.221	359.931	7377.57	2878.43	2879.38	785.43	40°05'47.428"N	104°52'12.157"W	0.00	
11217.00†	90.221	359.931	7377.18	2978.43	2979.38	785.30	40°05'48.417"N	104°52'12.159"W	0.00	
11317.00†	90.221	359.931	7376.80	3078.43	3079.38	785.18	40°05'49.405"N	104°52'12.160"W	0.00	
11417.00†	90.221	359.931	7376.41	3178.43	3179.38	785.06	40°05'50.393"N	104°52'12.162"W	0.00	
11517.00†	90.221	359.931	7376.03	3278.43	3279.37	784.94	40°05'51.381"N	104°52'12.163"W	0.00	
11617.00†	90.221	359.931	7375.64	3378.43	3379.37	784.82	40°05'52.369"N	104°52'12.165"W	0.00	
11717.00†	90.221	359.931	7375.26	3478.43	3479.37	784.70	40°05'53.358"N	104°52'12.166"W	0.00	
11817.00†	90.221	359.931	7374.87	3578.42	3579.37	784.58	40°05'54.346"N	104°52'12.168"W	0.00	
11917.00†	90.221	359.931	7374.49	3678.42	3679.37	784.46	40°05'55.334"N	104°52'12.169"W	0.00	
12017.00†	90.221	359.931	7374.10	3778.42	3779.37	784.33	40°05'56.322"N	104°52'12.171"W	0.00	

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 SICKLER 1N-34HZ (399'FSL & 1449'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 1N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 1N-34HZ PWB
Facility	SEC.34-T2N-R67W		

## WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.221	359.931	7373.72	3878.42	3879.37	784.21	40°05'57.310"N	104°52'12.173"W	0.00	
12217.00†	90.221	359.931	7373.33	3978.42	3979.37	784.09	40°05'58.299"N	104°52'12.174"W	0.00	
12317.00†	90.221	359.931	7372.95	4078.42	4079.37	783.97	40°05'59.287"N	104°52'12.176"W	0.00	
12417.00†	90.221	359.931	7372.56	4178.42	4179.37	783.85	40°06'00.275"N	104°52'12.177"W	0.00	
12517.00†	90.221	359.931	7372.18	4278.42	4279.37	783.73	40°06'01.263"N	104°52'12.179"W	0.00	
12617.00†	90.221	359.931	7371.79	4378.42	4379.37	783.61	40°06'02.251"N	104°52'12.180"W	0.00	
12717.00†	90.221	359.931	7371.41	4478.42	4479.36	783.49	40°06'03.240"N	104°52'12.182"W	0.00	
12817.00†	90.221	359.931	7371.02	4578.42	4579.36	783.36	40°06'04.228"N	104°52'12.183"W	0.00	
12917.00†	90.221	359.931	7370.64	4678.42	4679.36	783.24	40°06'05.216"N	104°52'12.185"W	0.00	
13017.00†	90.221	359.931	7370.25	4778.42	4779.36	783.12	40°06'06.204"N	104°52'12.186"W	0.00	
13082.78	90.221	359.931	7370.00 <sup>1</sup>	4844.20	4845.15	783.04	40°06'06.854"N	104°52'12.187"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS - Ref Wellbore: SICKLER 1N-34HZ PWB Ref Wellpath: SICKLER 1N-34HZ (PERMIT REV-3) 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	1208.00	1191.00	17.00	1208.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1208.00	1191.00	17.00	1208.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1208.00	7888.40	6680.40	1208.00	7390.00	0.00	0.00	-349.20	789.34
7in Casing Intermediate	17.00	7888.40	7871.40	17.00	7390.00	0.00	0.00	-349.20	789.34
6.125in Open Hole	7888.40	13082.78	5194.38	7390.00	7370.00	-349.20	789.34	4845.15	783.04
4.5in Casing Production	17.00	13082.78	13065.78	17.00	7370.00	0.00	0.00	4845.15	783.04



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 SICKLER 1N-34HZ (399'FSL & 1449'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 1N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 1N-34HZ PWB
Facility	SEC.34-T2N-R67W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.34-T2N-R47W HARD LINES (460' SETBACKS)		4966.00	4515.24	-2617.84	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W	polygon
SEC.34-T2N-R67W SECTION LINES		4966.00	4515.24	-2617.84	3172818.68	1280239.99	40°06'03.593"N	104°52'55.952"W	polygon
SICKLER 1N-34HZ LAND BOX		7370.00	0.00	0.00	3175468.28	1275743.56	40°05'18.974"N	104°52'22.264"W	polygon
1) SLICKER 1N-34HZ BHL ON PLAT (50'FNL & 660'FEL, SEC.34) REV-1	13082.78	7370.00	4845.15	783.04	3176217.00	1280593.92	40°06'06.854"N	104°52'12.187"W	point

SURVEY PROGRAM - Ref Wellbore: SICKLER 1N-34HZ PWB Ref Wellpath: SICKLER 1N-34HZ (PERMIT REV-3) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13194.27	NaviTrak (MAGCORR,IFR)		SICKLER 1N-34HZ PWB

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 SICKLER 1N-34HZ (399'FSL & 1449'FEL, SEC.34)
Area	COLORADO	Well	SICKLER 1N-34HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	SICKLER 1N-34HZ PWB
Facility	SEC.34-T2N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1158.00	0.000	139.480	1158.00	Fox Hills Marker
4002.49	17.000	139.480	3910.00	Parkman
4587.03	17.000	139.480	4469.00	Sussex
6886.19	0.000	359.931	6717.04	4 1/2" Liner Top
7457.54	47.135	359.931	7237.00	Sharon Springs
7568.20	58.201	359.931	7304.00	Niobrara A
7763.90	77.771	359.931	7377.00	Niobrara B

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	139.480	17.00	TIE-ON
1320.00	0.000	139.480	1320.00	BEGIN NUDGE
2170.00	17.000	139.480	2157.58	END NUDGE
5472.73	17.000	139.480	5316.00	BEGIN DROP
6322.73	0.000	359.931	6153.58	END DROP
6986.19	0.000	359.931	6817.04	KOP, BUILD @ 10°/100
7888.40	90.221	359.931	7390.00	LANDING POINT
13082.78	90.221	359.931	7370.00	TOTAL DEPTH