

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)  
Field: WELD COUNTY (KERR MCGEE) Well: GRISWOLD 29-11HZ  
Facility: SEC.11-T1N-R66W Wellbore: GRISWOLD 29-11HZ PWB

Plot reference wellpath is GRISWOLD 29-11HZ (PERMIT REV-2) 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: 5159 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: amarcar on 11/14/2014

## Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.11-T1N-R66W	3209320.605	1269845.229	40°04'18.091"N	104°45'07.348"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)	-4227.56	1462.57	3210818.723	1265630.330
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11))				5159ft
Mean Sea Level to Mud line (At Slot: SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11))				0ft
PERMIT (17KB) (RKB) to Mean Sea Level				5159ft

## Survey Program

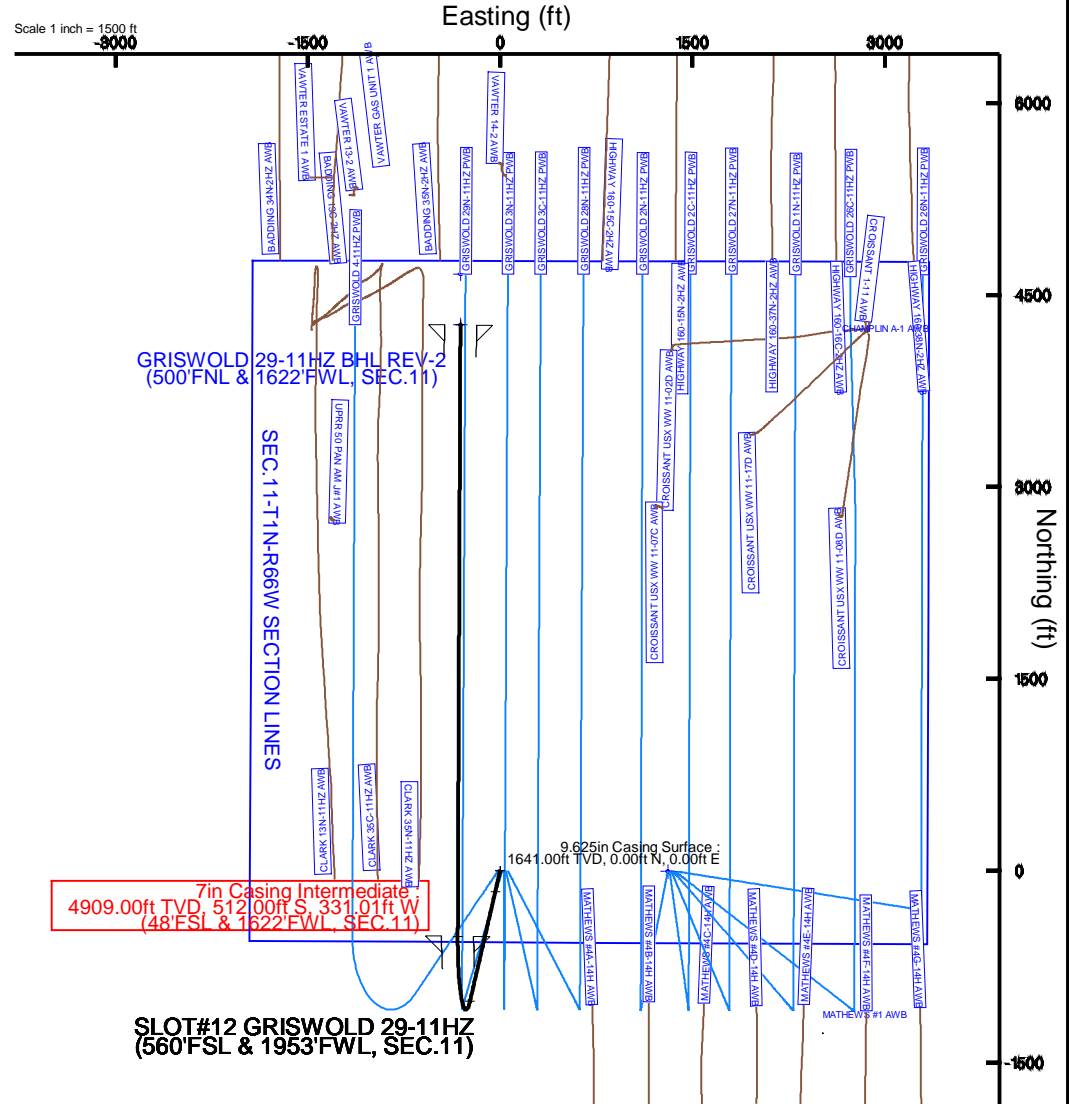
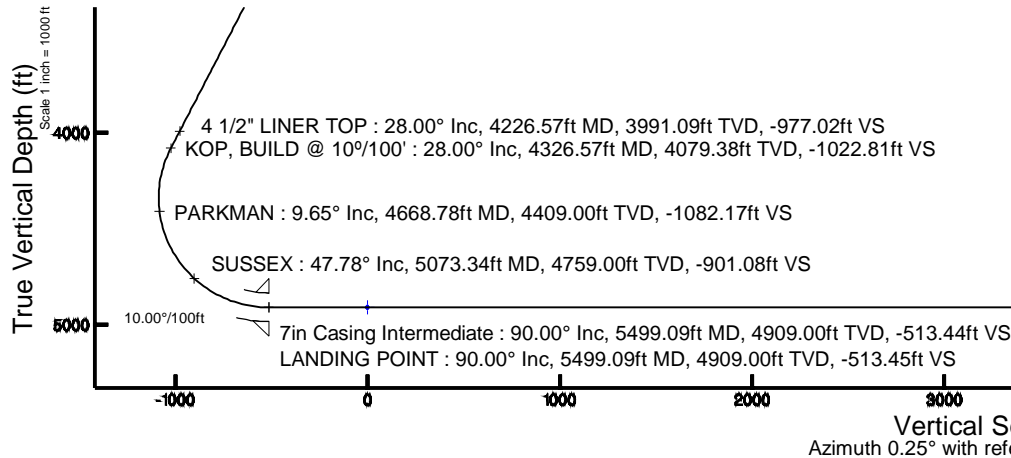
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	10276.27	NaviTrak	NaviTrak	MAGCORR, IFR	GRISWOLD 29-11HZ PWB

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
GRISWOLD 29-11HZ BHL ON PLAT REV-1 (100'FNL & 1622'FWL, SEC.11)		4909.00	4665.13	-308.10	3210471.02	1270292.49	40°04'22.415"N	104°44'52.501"W
GRISWOLD 29-11HZ BHL REV-2 (500'FNL & 1622'FWL, SEC.11)	10276.27	4909.00	4265.14	-310.06	3210472.46	1269892.51	40°03'36.248"N	104°44'52.526"W
SEC.11-T1N-R66W SECTION LINES		4909.00	-6.54	1307.53	3212126.21	1265634.89	40°03'36.248"N	104°44'31.722"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	193.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1750.00	0.000	193.000	1750.00	0.00	0.00	0.00	0.00
END NUDGE	2450.00	28.000	193.000	2422.47	-163.37	-37.72	4.00	-163.53
KOP, BUILD @ 10°/100'	4326.57	28.000	193.000	4079.38	-1021.78	-235.90	0.00	-1022.81
LANDING POINT	5499.09	90.000	0.251	4909.00	-512.00	-331.01	10.00	-513.45
TOTAL DEPTH	10276.27	90.000	0.251	4909.00	4265.14	-310.06	0.00	4263.74



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 29-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 29-11HZ PWB
Facility	SEC.11-T1N-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	Amarcar
Scale	0.999962	Report Generated	11/14/2014 at 2:32:39 PM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/GRISWOLD_29-11HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4227.56	1462.57	3210818.72	1265630.33	40°03'36.313"N	104°44'48.538"W
Facility Reference Pt			3209320.61	1269845.23	40°04'18.091"N	104°45'07.348"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	5159.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	5159.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11))	5159.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.25°

# Planned Wellpath Report

## GRISWOLD 29-11HZ (PERMIT REV-2) PWP

Page 2 of 6

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Area	COLORADO	Well	GRISWOLD 29-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 29-11HZ PWB
Facility	SEC.11-T1N-R66W		

### WELLPATH DATA (114 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	193.000	0.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
17.00	0.000	193.000	17.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	TIE-ON
117.00†	0.000	193.000	117.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
217.00†	0.000	193.000	217.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
317.00†	0.000	193.000	317.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
417.00†	0.000	193.000	417.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
517.00†	0.000	193.000	517.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
617.00†	0.000	193.000	617.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
717.00†	0.000	193.000	717.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
817.00†	0.000	193.000	817.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
907.00†	0.000	193.000	907.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	BASE FOX HILLS
917.00†	0.000	193.000	917.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1017.00†	0.000	193.000	1017.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1117.00†	0.000	193.000	1117.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1217.00†	0.000	193.000	1217.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1317.00†	0.000	193.000	1317.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1417.00†	0.000	193.000	1417.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1517.00†	0.000	193.000	1517.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1617.00†	0.000	193.000	1617.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1641.00†	0.000	193.000	1641.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	SURFACE CSG SETTING DEPTH
1717.00†	0.000	193.000	1717.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
1750.00	0.000	193.000	1750.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	BEGIN NUDGE
1817.00†	2.680	193.000	1816.98	-1.53	-1.53	-0.35	40°03'36.298"N	104°44'48.543"W	4.00	
1917.00†	6.680	193.000	1916.62	-9.48	-9.47	-2.19	40°03'36.219"N	104°44'48.566"W	4.00	
2017.00†	10.680	193.000	2015.46	-24.20	-24.18	-5.58	40°03'36.074"N	104°44'48.610"W	4.00	
2117.00†	14.680	193.000	2113.00	-45.61	-45.56	-10.52	40°03'35.863"N	104°44'48.673"W	4.00	
2217.00†	18.680	193.000	2208.77	-73.60	-73.52	-16.97	40°03'35.586"N	104°44'48.756"W	4.00	
2317.00†	22.680	193.000	2302.31	-108.03	-107.92	-24.92	40°03'35.246"N	104°44'48.858"W	4.00	
2417.00†	26.680	193.000	2393.16	-148.75	-148.60	-34.31	40°03'34.844"N	104°44'48.979"W	4.00	
2450.00	28.000	193.000	2422.47	-163.53	-163.37	-37.72	40°03'34.699"N	104°44'49.023"W	4.00	END NUDGE
2517.00†	28.000	193.000	2481.63	-194.21	-194.02	-44.79	40°03'34.396"N	104°44'49.114"W	0.00	
2617.00†	28.000	193.000	2569.92	-240.00	-239.76	-55.35	40°03'33.944"N	104°44'49.250"W	0.00	
2717.00†	28.000	193.000	2658.22	-285.79	-285.50	-65.91	40°03'33.492"N	104°44'49.386"W	0.00	
2817.00†	28.000	193.000	2746.51	-331.58	-331.25	-76.47	40°03'33.040"N	104°44'49.522"W	0.00	
2917.00†	28.000	193.000	2834.80	-377.37	-376.99	-87.04	40°03'32.587"N	104°44'49.657"W	0.00	
3017.00†	28.000	193.000	2923.10	-423.16	-422.74	-97.60	40°03'32.135"N	104°44'49.793"W	0.00	
3117.00†	28.000	193.000	3011.39	-468.95	-468.48	-108.16	40°03'31.683"N	104°44'49.929"W	0.00	
3217.00†	28.000	193.000	3099.69	-514.74	-514.22	-118.72	40°03'31.231"N	104°44'50.065"W	0.00	
3317.00†	28.000	193.000	3187.98	-560.53	-559.97	-129.28	40°03'30.779"N	104°44'50.201"W	0.00	
3417.00†	28.000	193.000	3276.28	-606.32	-605.71	-139.84	40°03'30.327"N	104°44'50.336"W	0.00	
3517.00†	28.000	193.000	3364.57	-652.11	-651.46	-150.40	40°03'29.875"N	104°44'50.472"W	0.00	
3617.00†	28.000	193.000	3452.87	-697.90	-697.20	-160.96	40°03'29.423"N	104°44'50.608"W	0.00	
3717.00†	28.000	193.000	3541.16	-743.69	-742.94	-171.52	40°03'28.971"N	104°44'50.744"W	0.00	
3817.00†	28.000	193.000	3629.46	-789.48	-788.69	-182.08	40°03'28.519"N	104°44'50.880"W	0.00	
3917.00†	28.000	193.000	3717.75	-835.27	-834.43	-192.64	40°03'28.067"N	104°44'51.015"W	0.00	

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 29-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 29-11HZ PWB
Facility	SEC.11-T1N-R66W		

### WELLPATH DATA (114 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	28.000	193.000	3806.05	-881.06	-880.18	-203.20	40°03'27.615"N	104°44'51.151"W	0.00	
4117.00†	28.000	193.000	3894.34	-926.85	-925.92	-213.77	40°03'27.163"N	104°44'51.287"W	0.00	
4217.00†	28.000	193.000	3982.64	-972.64	-971.66	-224.33	40°03'26.711"N	104°44'51.423"W	0.00	
4226.57†	28.000	193.000	3991.09	-977.02	-976.04	-225.34	40°03'26.668"N	104°44'51.436"W	0.00	4 1/2" LINER TOP
4317.00†	28.000	193.000	4070.93	-1018.43	-1017.41	-234.89	40°03'26.259"N	104°44'51.559"W	0.00	
4326.57	28.000	193.000	4079.38	-1022.81	-1021.78	-235.90	40°03'26.215"N	104°44'51.572"W	0.00	KOP, BUILD @ 10°/100'
4417.00†	19.360	199.759	4162.13	-1057.71	-1056.65	-245.76	40°03'25.871"N	104°44'51.699"W	10.00	
4517.00†	10.576	219.185	4258.70	-1080.53	-1079.42	-257.19	40°03'25.646"N	104°44'51.846"W	10.00	
4617.00†	6.927	285.274	4357.74	-1086.12	-1084.96	-268.84	40°03'25.591"N	104°44'51.995"W	10.00	
4668.78†	9.651	316.620	4409.00	-1082.17	-1080.98	-274.83	40°03'25.631"N	104°44'52.072"W	10.00	PARKMAN
4717.00†	13.535	331.078	4456.24	-1074.31	-1073.10	-280.34	40°03'25.708"N	104°44'52.143"W	10.00	
4817.00†	22.748	344.000	4551.20	-1045.46	-1044.19	-291.36	40°03'25.994"N	104°44'52.285"W	10.00	
4917.00†	32.416	349.603	4639.74	-1000.44	-999.13	-301.55	40°03'26.439"N	104°44'52.416"W	10.00	
5017.00†	42.226	352.823	4719.18	-940.63	-939.28	-310.61	40°03'27.031"N	104°44'52.533"W	10.00	
5073.34†	47.783	354.140	4759.00	-901.08	-899.71	-315.11	40°03'27.422"N	104°44'52.590"W	10.00	SUSSEX
5117.00†	52.098	355.010	4787.09	-867.83	-866.45	-318.26	40°03'27.751"N	104°44'52.631"W	10.00	
5217.00†	62.001	356.674	4841.42	-784.27	-782.86	-324.27	40°03'28.577"N	104°44'52.708"W	10.00	
5317.00†	71.920	358.056	4880.51	-692.48	-691.05	-328.45	40°03'29.484"N	104°44'52.762"W	10.00	
5417.00†	81.848	359.288	4903.17	-595.25	-593.81	-330.69	40°03'30.445"N	104°44'52.791"W	10.00	
5499.09	90.000	0.251	4909.00	-513.45	-512.00	-331.01	40°03'31.253"N	104°44'52.795"W	10.00	LANDING POINT
5517.00†	90.000	0.251	4909.00	-495.53	-494.09	-330.93	40°03'31.430"N	104°44'52.794"W	0.00	
5617.00†	90.000	0.251	4909.00	-395.53	-394.09	-330.49	40°03'32.419"N	104°44'52.788"W	0.00	
5717.00†	90.000	0.251	4909.00	-295.53	-294.09	-330.06	40°03'33.407"N	104°44'52.783"W	0.00	
5817.00†	90.000	0.251	4909.00	-195.53	-194.09	-329.62	40°03'34.395"N	104°44'52.777"W	0.00	
5917.00†	90.000	0.251	4909.00	-95.53	-94.09	-329.18	40°03'35.383"N	104°44'52.772"W	0.00	
6017.00†	90.000	0.251	4909.00	4.47	5.91	-328.74	40°03'36.371"N	104°44'52.766"W	0.00	
6117.00†	90.000	0.251	4909.00	104.47	105.91	-328.30	40°03'37.360"N	104°44'52.760"W	0.00	
6217.00†	90.000	0.251	4909.00	204.47	205.91	-327.87	40°03'38.348"N	104°44'52.755"W	0.00	
6317.00†	90.000	0.251	4909.00	304.47	305.91	-327.43	40°03'39.336"N	104°44'52.749"W	0.00	
6417.00†	90.000	0.251	4909.00	404.47	405.91	-326.99	40°03'40.324"N	104°44'52.743"W	0.00	
6517.00†	90.000	0.251	4909.00	504.47	505.90	-326.55	40°03'41.312"N	104°44'52.738"W	0.00	
6617.00†	90.000	0.251	4909.00	604.47	605.90	-326.11	40°03'42.301"N	104°44'52.732"W	0.00	
6717.00†	90.000	0.251	4909.00	704.47	705.90	-325.67	40°03'43.289"N	104°44'52.727"W	0.00	
6817.00†	90.000	0.251	4909.00	804.47	805.90	-325.24	40°03'44.277"N	104°44'52.721"W	0.00	
6917.00†	90.000	0.251	4909.00	904.47	905.90	-324.80	40°03'45.265"N	104°44'52.715"W	0.00	
7017.00†	90.000	0.251	4909.00	1004.47	1005.90	-324.36	40°03'46.253"N	104°44'52.710"W	0.00	
7117.00†	90.000	0.251	4909.00	1104.47	1105.90	-323.92	40°03'47.242"N	104°44'52.704"W	0.00	
7217.00†	90.000	0.251	4909.00	1204.47	1205.90	-323.48	40°03'48.230"N	104°44'52.698"W	0.00	
7317.00†	90.000	0.251	4909.00	1304.47	1305.90	-323.04	40°03'49.218"N	104°44'52.693"W	0.00	
7417.00†	90.000	0.251	4909.00	1404.47	1405.90	-322.61	40°03'50.206"N	104°44'52.687"W	0.00	
7517.00†	90.000	0.251	4909.00	1504.47	1505.89	-322.17	40°03'51.195"N	104°44'52.682"W	0.00	
7617.00†	90.000	0.251	4909.00	1604.47	1605.89	-321.73	40°03'52.183"N	104°44'52.676"W	0.00	
7717.00†	90.000	0.251	4909.00	1704.47	1705.89	-321.29	40°03'53.171"N	104°44'52.670"W	0.00	
7817.00†	90.000	0.251	4909.00	1804.47	1805.89	-320.85	40°03'54.159"N	104°44'52.665"W	0.00	
7917.00†	90.000	0.251	4909.00	1904.47	1905.89	-320.41	40°03'55.147"N	104°44'52.659"W	0.00	

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 29-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 29-11HZ PWB
Facility	SEC.11-T1N-R66W		

### WELLPATH DATA (114 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8017.00†	90.000	0.251	4909.00	2004.47	2005.89	-319.98	40°03'56.136"N	104°44'52.654"W	0.00	
8117.00†	90.000	0.251	4909.00	2104.47	2105.89	-319.54	40°03'57.124"N	104°44'52.648"W	0.00	
8217.00†	90.000	0.251	4909.00	2204.47	2205.89	-319.10	40°03'58.112"N	104°44'52.642"W	0.00	
8317.00†	90.000	0.251	4909.00	2304.47	2305.89	-318.66	40°03'59.100"N	104°44'52.637"W	0.00	
8417.00†	90.000	0.251	4909.00	2404.47	2405.89	-318.22	40°04'00.088"N	104°44'52.631"W	0.00	
8517.00†	90.000	0.251	4909.00	2504.47	2505.89	-317.78	40°04'01.077"N	104°44'52.625"W	0.00	
8617.00†	90.000	0.251	4909.00	2604.47	2605.88	-317.34	40°04'02.065"N	104°44'52.620"W	0.00	
8717.00†	90.000	0.251	4909.00	2704.47	2705.88	-316.91	40°04'03.053"N	104°44'52.614"W	0.00	
8817.00†	90.000	0.251	4909.00	2804.47	2805.88	-316.47	40°04'04.041"N	104°44'52.609"W	0.00	
8917.00†	90.000	0.251	4909.00	2904.47	2905.88	-316.03	40°04'05.030"N	104°44'52.603"W	0.00	
9017.00†	90.000	0.251	4909.00	3004.47	3005.88	-315.59	40°04'06.018"N	104°44'52.597"W	0.00	
9117.00†	90.000	0.251	4909.00	3104.47	3105.88	-315.15	40°04'07.006"N	104°44'52.592"W	0.00	
9217.00†	90.000	0.251	4909.00	3204.47	3205.88	-314.71	40°04'07.994"N	104°44'52.586"W	0.00	
9317.00†	90.000	0.251	4909.00	3304.47	3305.88	-314.27	40°04'08.982"N	104°44'52.580"W	0.00	
9417.00†	90.000	0.251	4909.00	3404.47	3405.88	-313.84	40°04'09.971"N	104°44'52.575"W	0.00	
9517.00†	90.000	0.251	4909.00	3504.47	3505.88	-313.40	40°04'10.959"N	104°44'52.569"W	0.00	
9617.00†	90.000	0.251	4909.00	3604.47	3605.87	-312.96	40°04'11.947"N	104°44'52.564"W	0.00	
9717.00†	90.000	0.251	4909.00	3704.47	3705.87	-312.52	40°04'12.935"N	104°44'52.558"W	0.00	
9817.00†	90.000	0.251	4909.00	3804.47	3805.87	-312.08	40°04'13.923"N	104°44'52.552"W	0.00	
9917.00†	90.000	0.251	4909.00	3904.47	3905.87	-311.64	40°04'14.912"N	104°44'52.547"W	0.00	
10017.00†	90.000	0.251	4909.00	4004.47	4005.87	-311.20	40°04'15.900"N	104°44'52.541"W	0.00	
10117.00†	90.000	0.251	4909.00	4104.47	4105.87	-310.76	40°04'16.888"N	104°44'52.535"W	0.00	
10217.00†	90.000	0.251	4909.00	4204.47	4205.87	-310.32	40°04'17.876"N	104°44'52.530"W	0.00	
10276.27	90.000	0.251	4909.00 <sup>†</sup>	4263.74	4265.14	-310.06	40°04'18.462"N	104°44'52.526"W	0.00	TOTAL DEPTH

### HOLE & CASING SECTIONS -

Ref Wellbore: GRISWOLD 29-11HZ PWB      Ref Wellpath: GRISWOLD 29-11HZ (PERMIT REV-2) 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	1641.00	1624.00	17.00	1641.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1641.00	1624.00	17.00	1641.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1641.00	5499.09	3858.09	1641.00	4909.00	0.00	0.00	-512.00	-331.01
7in Casing Intermediate	17.00	5499.09	5482.09	17.00	4909.00	0.00	0.00	-512.00	-331.01
6.125in Open Hole	5499.09	10276.27	4777.18	4909.00	4909.00	-512.00	-331.01	4265.14	-310.06
4.5in Casing Production	17.00	10276.27	10259.27	17.00	4909.00	0.00	0.00	4265.14	-310.06

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 29-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 29-11HZ PWB
Facility	SEC.11-T1N-R66W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
GRISWOLD 29-11HZ BHL ON PLAT REV-1 (100'FNL & 1622'FWL, SEC.11)		4909.00	4665.13	-308.10	3210471.02	1270292.49	40°04'22.415"N	104°44'52.501"W	point
1) GRISWOLD 29-11HZ BHL REV-2 (500'FNL & 1622'FWL, SEC.11)	10276.27	4909.00	4265.14	-310.06	3210472.46	1269892.51	40°04'18.462"N	104°44'52.526"W	point
SEC.11-T1N-R66W SECTION LINES		4909.00	-6.54	1307.53	3212126.21	1265634.89	40°03'36.248"N	104°44'31.722"W	polygon

SURVEY PROGRAM - Ref Wellbore: GRISWOLD 29-11HZ PWB				Ref Wellpath: GRISWOLD 29-11HZ (PERMIT REV-2) PWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
17.00	10276.27	NaviTrak (MAGCORR,IFR)		GRISWOLD 29-11HZ PWB	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)	
Area	COLORADO	Well	GRISWOLD 29-11HZ	
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 29-11HZ PWB	
Facility	SEC.11-T1N-R66W			

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
907.00	0.000	193.000	907.00	BASE FOX HILLS
1641.00	0.000	193.000	1641.00	SURFACE CSG SETTING DEPTH
4226.57	28.000	193.000	3991.09	4 1/2" LINER TOP
4668.78	9.651	316.620	4409.00	PARKMAN
5073.34	47.783	354.140	4759.00	SUSSEX

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	193.000	17.00	TIE-ON
1750.00	0.000	193.000	1750.00	BEGIN NUDGE
2450.00	28.000	193.000	2422.47	END NUDGE
4326.57	28.000	193.000	4079.38	KOP, BUILD @ 10°/100'
5499.09	90.000	0.251	4909.00	LANDING POINT
10276.27	90.000	0.251	4909.00	TOTAL DEPTH