

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-3) 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: amarc on 22/Jan/2015

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)	Latitude
SLOT#12 GRISWOLD 29-11HZ (560'FSL & 1953'FWL, SEC.11)	-4227.56	1462.57	3210818.723	1265630.330	40°03'36.313"N
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

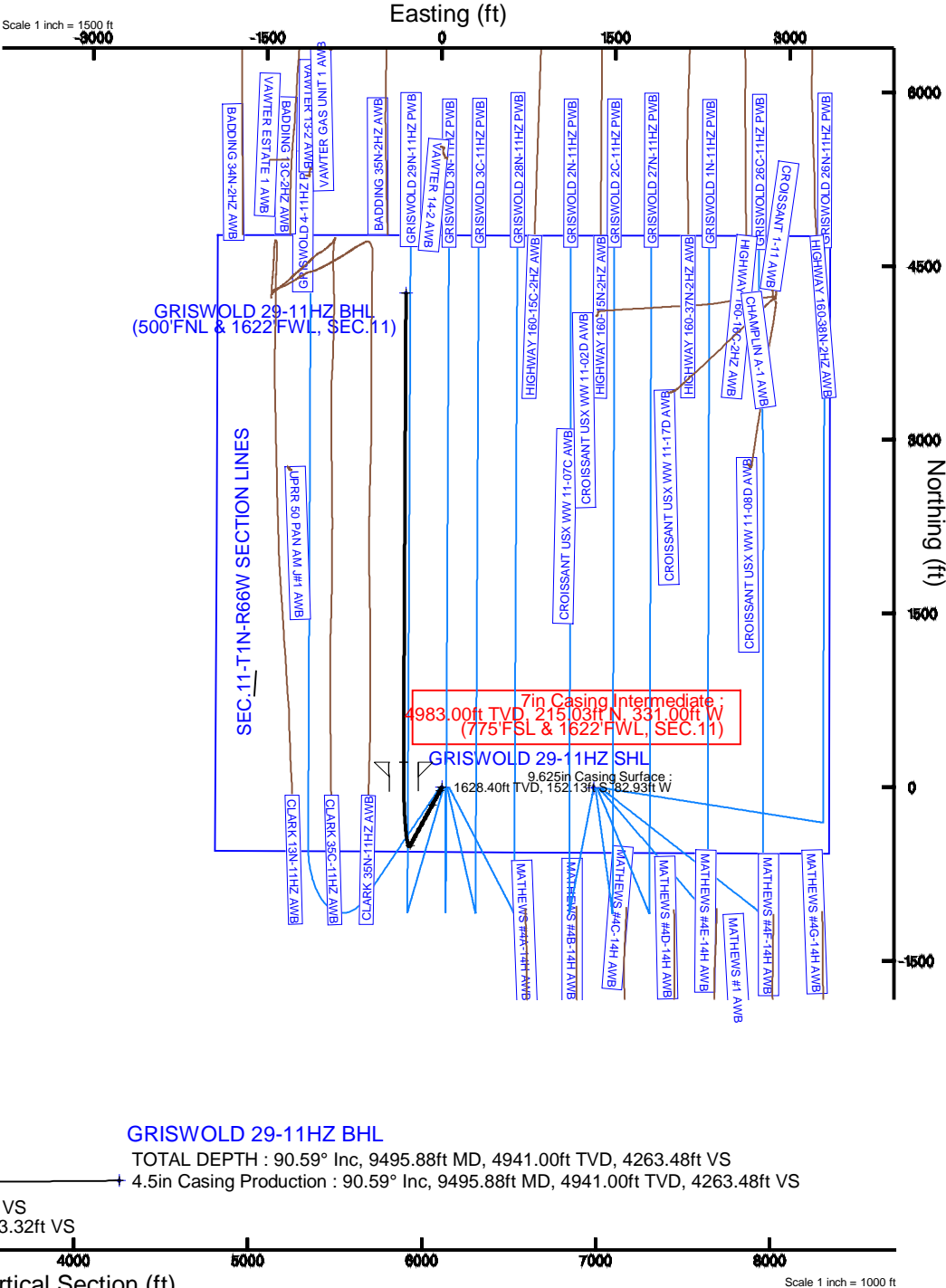
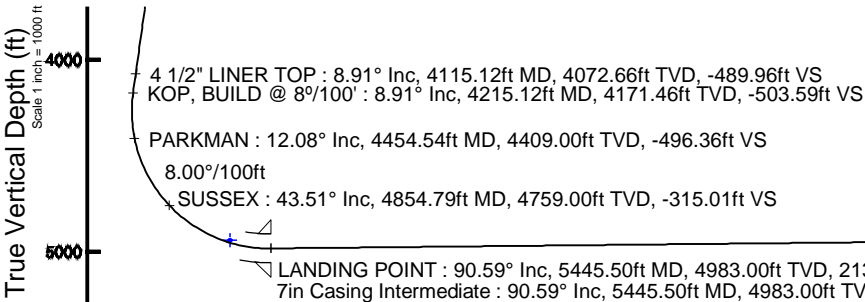
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	9495.88	NaviTrak	NaviTrak	(MAGCORR, IFR)	GRISWOLD 29-11HZ PWB

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	9495.88	4941.00	4265.14	-310.03	3210472.49	1269892.51	40°04'18.462"N	104°44'52.526"W
GRISWOLD 29-11HZ SHL	4941.00	0.00	0.00	0.00	3210818.72	1265630.33	40°03'36.313"N	104°44'48.538"W
SEC.11-T1N-R66W SECTION LINES	4941.00	-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	208.596	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	300.00	0.000	208.596	300.00	0.00	0.00	0.00	0.00
END NUDGE	745.50	8.910	208.596	743.71	-30.35	-16.55	2.00	-30.44
KOP, BUILD @ 8°/100'	4215.12	8.910	208.596	4171.46	-502.19	-273.75	0.00	-503.59
LANDING POINT	5445.50	90.594	0.297	4983.00	215.03	-331.00	8.00	213.32
TOTAL DEPTH	9495.88	90.594	0.297	4941.00	4265.14	-310.03	0.00	4263.48



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	22/Jan/2015 at 12:11
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	0.30°

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 (106 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	208.596	0.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
17.00	0.000	208.596	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	208.596	117.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
217.00†	0.000	208.596	217.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	
300.00	0.000	208.596	300.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.538"W	0.00	BEGIN NUDGE
317.00†	0.340	208.596	317.00	-0.04	-0.04	-0.02	40°03'36.313"N	104°44'48.538"W	2.00	
417.00†	2.340	208.596	416.97	-2.10	-2.10	-1.14	40°03'36.292"N	104°44'48.553"W	2.00	
517.00†	4.340	208.596	516.79	-7.23	-7.21	-3.93	40°03'36.242"N	104°44'48.589"W	2.00	
617.00†	6.340	208.596	616.35	-15.43	-15.38	-8.39	40°03'36.161"N	104°44'48.646"W	2.00	
717.00†	8.340	208.596	715.53	-26.67	-26.60	-14.50	40°03'36.050"N	104°44'48.724"W	2.00	
745.50	8.910	208.596	743.71	-30.44	-30.35	-16.55	40°03'36.013"N	104°44'48.751"W	2.00	END NUDGE
817.00†	8.910	208.596	814.34	-40.19	-40.08	-21.85	40°03'35.917"N	104°44'48.819"W	0.00	
910.79†	8.910	208.596	907.00	-52.98	-52.83	-28.80	40°03'35.791"N	104°44'48.908"W	0.00	BASE FOX HILLS
917.00†	8.910	208.596	913.14	-53.83	-53.68	-29.26	40°03'35.783"N	104°44'48.914"W	0.00	
1017.00†	8.910	208.596	1011.93	-67.46	-67.27	-36.67	40°03'35.648"N	104°44'49.010"W	0.00	
1117.00†	8.910	208.596	1110.72	-81.10	-80.87	-44.09	40°03'35.514"N	104°44'49.105"W	0.00	
1217.00†	8.910	208.596	1209.52	-94.74	-94.47	-51.50	40°03'35.379"N	104°44'49.200"W	0.00	
1317.00†	8.910	208.596	1308.31	-108.37	-108.07	-58.91	40°03'35.245"N	104°44'49.296"W	0.00	
1417.00†	8.910	208.596	1407.10	-122.01	-121.67	-66.33	40°03'35.111"N	104°44'49.391"W	0.00	
1517.00†	8.910	208.596	1505.90	-135.65	-135.27	-73.74	40°03'34.976"N	104°44'49.486"W	0.00	
1617.00†	8.910	208.596	1604.69	-149.29	-148.87	-81.15	40°03'34.842"N	104°44'49.582"W	0.00	
1641.00†	8.910	208.596	1628.40	-152.56	-152.13	-82.93	40°03'34.810"N	104°44'49.605"W	0.00	SURFACE CSG SETTING DEPTH
1717.00†	8.910	208.596	1703.48	-162.92	-162.47	-88.57	40°03'34.707"N	104°44'49.677"W	0.00	
1817.00†	8.910	208.596	1802.28	-176.56	-176.07	-95.98	40°03'34.573"N	104°44'49.772"W	0.00	
1917.00†	8.910	208.596	1901.07	-190.20	-189.66	-103.39	40°03'34.439"N	104°44'49.868"W	0.00	
2017.00†	8.910	208.596	1999.86	-203.83	-203.26	-110.80	40°03'34.304"N	104°44'49.963"W	0.00	
2117.00†	8.910	208.596	2098.66	-217.47	-216.86	-118.22	40°03'34.170"N	104°44'50.058"W	0.00	
2217.00†	8.910	208.596	2197.45	-231.11	-230.46	-125.63	40°03'34.036"N	104°44'50.154"W	0.00	
2317.00†	8.910	208.596	2296.24	-244.74	-244.06	-133.04	40°03'33.901"N	104°44'50.249"W	0.00	
2417.00†	8.910	208.596	2395.04	-258.38	-257.66	-140.46	40°03'33.767"N	104°44'50.344"W	0.00	
2517.00†	8.910	208.596	2493.83	-272.02	-271.26	-147.87	40°03'33.632"N	104°44'50.440"W	0.00	
2617.00†	8.910	208.596	2592.62	-285.66	-284.86	-155.28	40°03'33.498"N	104°44'50.535"W	0.00	
2717.00†	8.910	208.596	2691.42	-299.29	-298.46	-162.70	40°03'33.364"N	104°44'50.630"W	0.00	
2817.00†	8.910	208.596	2790.21	-312.93	-312.06	-170.11	40°03'33.229"N	104°44'50.726"W	0.00	
2917.00†	8.910	208.596	2889.00	-326.57	-325.65	-177.52	40°03'33.095"N	104°44'50.821"W	0.00	
3017.00†	8.910	208.596	2987.80	-340.20	-339.25	-184.94	40°03'32.960"N	104°44'50.916"W	0.00	
3117.00†	8.910	208.596	3086.59	-353.84	-352.85	-192.35	40°03'32.826"N	104°44'51.012"W	0.00	
3217.00†	8.910	208.596	3185.38	-367.48	-366.45	-199.76	40°03'32.692"N	104°44'51.107"W	0.00	
3317.00†	8.910	208.596	3284.18	-381.12	-380.05	-207.18	40°03'32.557"N	104°44'51.202"W	0.00	
3417.00†	8.910	208.596	3382.97	-394.75	-393.65	-214.59	40°03'32.423"N	104°44'51.298"W	0.00	
3517.00†	8.910	208.596	3481.76	-408.39	-407.25	-222.00	40°03'32.288"N	104°44'51.393"W	0.00	
3617.00†	8.910	208.596	3580.56	-422.03	-420.85	-229.42	40°03'32.154"N	104°44'51.488"W	0.00	
3717.00†	8.910	208.596	3679.35	-435.66	-434.45	-236.83	40°03'32.020"N	104°44'51.584"W	0.00	
3817.00†	8.910	208.596	3778.14	-449.30	-448.05	-244.24	40°03'31.885"N	104°44'51.679"W	0.00	
3917.00†	8.910	208.596	3876.94	-462.94	-461.64	-251.65	40°03'31.751"N	104°44'51.774"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 (106 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	8.910	208.596	3975.73	-476.58	-475.24	-259.07	40°03'31.617"N	104°44'51.870"W	0.00	
4115.12†	8.910	208.596	4072.66	-489.96	-488.59	-266.34	40°03'31.485"N	104°44'51.963"W	0.00	4 1/2" LINER TOP
4117.00†	8.910	208.596	4074.52	-490.21	-488.84	-266.48	40°03'31.482"N	104°44'51.965"W	0.00	
4215.12	8.910	208.596	4171.46	-503.59	-502.19	-273.75	40°03'31.350"N	104°44'52.059"W	0.00	KOP, BUILD @ 8°/100'
4217.00†	8.778	209.068	4173.32	-503.85	-502.44	-273.89	40°03'31.348"N	104°44'52.060"W	8.00	
4317.00†	4.268	274.498	4272.75	-510.27	-508.83	-281.32	40°03'31.285"N	104°44'52.156"W	8.00	
4417.00†	9.335	333.330	4372.11	-502.76	-501.27	-288.69	40°03'31.359"N	104°44'52.251"W	8.00	
4454.54†	12.083	339.907	4409.00	-496.36	-494.86	-291.40	40°03'31.423"N	104°44'52.286"W	8.00	PARKMAN
4517.00†	16.847	346.024	4469.46	-481.45	-479.93	-295.84	40°03'31.570"N	104°44'52.343"W	8.00	
4617.00†	24.663	350.924	4562.91	-446.77	-445.21	-302.64	40°03'31.913"N	104°44'52.430"W	8.00	
4717.00†	32.565	353.560	4650.63	-399.38	-397.79	-308.96	40°03'32.382"N	104°44'52.511"W	8.00	
4817.00†	40.502	355.253	4730.92	-340.21	-338.59	-314.68	40°03'32.967"N	104°44'52.585"W	8.00	
4854.79†	43.507	355.755	4759.00	-315.01	-313.37	-316.65	40°03'33.216"N	104°44'52.610"W	8.00	SUSSEX
4917.00†	48.456	356.471	4802.21	-270.41	-268.76	-319.67	40°03'33.657"N	104°44'52.649"W	8.00	
5017.00†	56.421	357.420	4863.13	-191.33	-189.66	-323.86	40°03'34.439"N	104°44'52.703"W	8.00	
5117.00†	64.392	358.208	4912.47	-104.53	-102.84	-327.15	40°03'35.297"N	104°44'52.745"W	8.00	
5217.00†	72.366	358.897	4949.29	-11.69	-9.98	-329.48	40°03'36.214"N	104°44'52.775"W	8.00	
5317.00†	80.343	359.527	4972.86	85.40	87.11	-330.81	40°03'37.174"N	104°44'52.793"W	8.00	
5417.00†	88.320	0.127	4982.73	184.82	186.54	-331.10	40°03'38.156"N	104°44'52.796"W	8.00	
5445.50	90.594	0.297	4983.00	213.32	215.03	-331.00	40°03'38.438"N	104°44'52.795"W	8.00	LANDING POINT
5517.00†	90.594	0.297	4982.26	284.82	286.53	-330.63	40°03'39.145"N	104°44'52.790"W	0.00	
5617.00†	90.594	0.297	4981.22	384.81	386.52	-330.11	40°03'40.133"N	104°44'52.784"W	0.00	
5717.00†	90.594	0.297	4980.18	484.80	486.51	-329.59	40°03'41.121"N	104°44'52.777"W	0.00	
5817.00†	90.594	0.297	4979.15	584.80	586.51	-329.08	40°03'42.109"N	104°44'52.770"W	0.00	
5917.00†	90.594	0.297	4978.11	684.79	686.50	-328.56	40°03'43.097"N	104°44'52.764"W	0.00	
6017.00†	90.594	0.297	4977.07	784.79	786.49	-328.04	40°03'44.085"N	104°44'52.757"W	0.00	
6117.00†	90.594	0.297	4976.04	884.78	886.49	-327.52	40°03'45.073"N	104°44'52.750"W	0.00	
6217.00†	90.594	0.297	4975.00	984.78	986.48	-327.01	40°03'46.062"N	104°44'52.744"W	0.00	
6317.00†	90.594	0.297	4973.96	1084.77	1086.47	-326.49	40°03'47.050"N	104°44'52.737"W	0.00	
6417.00†	90.594	0.297	4972.93	1184.77	1186.47	-325.97	40°03'48.038"N	104°44'52.730"W	0.00	
6517.00†	90.594	0.297	4971.89	1284.76	1286.46	-325.45	40°03'49.026"N	104°44'52.724"W	0.00	
6617.00†	90.594	0.297	4970.85	1384.76	1386.45	-324.94	40°03'50.014"N	104°44'52.717"W	0.00	
6717.00†	90.594	0.297	4969.82	1484.75	1486.45	-324.42	40°03'51.002"N	104°44'52.711"W	0.00	
6817.00†	90.594	0.297	4968.78	1584.75	1586.44	-323.90	40°03'51.991"N	104°44'52.704"W	0.00	
6917.00†	90.594	0.297	4967.74	1684.74	1686.43	-323.38	40°03'52.979"N	104°44'52.697"W	0.00	
7017.00†	90.594	0.297	4966.70	1784.74	1786.43	-322.86	40°03'53.967"N	104°44'52.691"W	0.00	
7117.00†	90.594	0.297	4965.67	1884.73	1886.42	-322.35	40°03'54.955"N	104°44'52.684"W	0.00	
7217.00†	90.594	0.297	4964.63	1984.72	1986.41	-321.83	40°03'55.943"N	104°44'52.677"W	0.00	
7317.00†	90.594	0.297	4963.59	2084.72	2086.41	-321.31	40°03'56.931"N	104°44'52.671"W	0.00	
7417.00†	90.594	0.297	4962.56	2184.71	2186.40	-320.79	40°03'57.919"N	104°44'52.664"W	0.00	
7517.00†	90.594	0.297	4961.52	2284.71	2286.39	-320.28	40°03'58.908"N	104°44'52.657"W	0.00	
7617.00†	90.594	0.297	4960.48	2384.70	2386.39	-319.76	40°03'59.896"N	104°44'52.651"W	0.00	
7717.00†	90.594	0.297	4959.45	2484.70	2486.38	-319.24	40°04'00.884"N	104°44'52.644"W	0.00	
7817.00†	90.594	0.297	4958.41	2584.69	2586.37	-318.72	40°04'01.872"N	104°44'52.638"W	0.00	
7917.00†	90.594	0.297	4957.37	2684.69	2686.37	-318.21	40°04'02.860"N	104°44'52.631"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		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8017.00†	90.594	0.297	4956.34	2784.68	2786.36	-317.69	40°04'03.848"N	104°44'52.624"W	0.00	
8117.00†	90.594	0.297	4955.30	2884.68	2886.35	-317.17	40°04'04.837"N	104°44'52.618"W	0.00	
8217.00†	90.594	0.297	4954.26	2984.67	2986.35	-316.65	40°04'05.825"N	104°44'52.611"W	0.00	
8317.00†	90.594	0.297	4953.22	3084.67	3086.34	-316.14	40°04'06.813"N	104°44'52.604"W	0.00	
8417.00†	90.594	0.297	4952.19	3184.66	3186.33	-315.62	40°04'07.801"N	104°44'52.598"W	0.00	
8517.00†	90.594	0.297	4951.15	3284.65	3286.33	-315.10	40°04'08.789"N	104°44'52.591"W	0.00	
8617.00†	90.594	0.297	4950.11	3384.65	3386.32	-314.58	40°04'09.777"N	104°44'52.584"W	0.00	
8717.00†	90.594	0.297	4949.08	3484.64	3486.31	-314.07	40°04'10.765"N	104°44'52.578"W	0.00	
8817.00†	90.594	0.297	4948.04	3584.64	3586.31	-313.55	40°04'11.754"N	104°44'52.571"W	0.00	
8917.00†	90.594	0.297	4947.00	3684.63	3686.30	-313.03	40°04'12.742"N	104°44'52.564"W	0.00	
9017.00†	90.594	0.297	4945.97	3784.63	3786.29	-312.51	40°04'13.730"N	104°44'52.558"W	0.00	
9117.00†	90.594	0.297	4944.93	3884.62	3886.29	-311.99	40°04'14.718"N	104°44'52.551"W	0.00	
9217.00†	90.594	0.297	4943.89	3984.62	3986.28	-311.48	40°04'15.706"N	104°44'52.545"W	0.00	
9317.00†	90.594	0.297	4942.85	4084.61	4086.27	-310.96	40°04'16.694"N	104°44'52.538"W	0.00	
9417.00†	90.594	0.297	4941.82	4184.61	4186.27	-310.44	40°04'17.683"N	104°44'52.531"W	0.00	
9495.88	90.594	0.297	4941.00 [†]	4263.48	4265.14	-310.03	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-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	1641.00	1624.00	17.00	1628.40	0.00	0.00	-152.13	-82.93
9.625in Casing Surface	17.00	1641.00	1624.00	17.00	1628.40	0.00	0.00	-152.13	-82.93
8.75in Open Hole	1641.00	5445.50	3804.50	1628.40	4983.00	-152.13	-82.93	215.03	-331.00
7in Casing Intermediate	17.00	5445.50	5428.50	17.00	4983.00	0.00	0.00	215.03	-331.00
6.125in Open Hole	5445.50	9495.88	4050.38	4983.00	4941.00	215.03	-331.00	4265.14	-310.03
4.5in Casing Production	17.00	9495.88	9478.88	17.00	4941.00	0.00	0.00	4265.14	-310.03

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
1) GRISWOLD 29-11HZ BHL	9495.88	4941.00	4265.14	-310.03	3210472.49	1269892.51	40°04'18.462"N	104°44'52.526"W	point
GRISWOLD 29-11HZ SHL		4941.00	0.00	0.00	3210818.72	1265630.33	40°03'36.313"N	104°44'48.538"W	point
SEC.11-T1N-R66W SECTION LINES		4941.00	-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-3) PWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment	Wellbore
17.00	9495.88	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
910.79	8.910	208.596	907.00	BASE FOX HILLS
1641.00	8.910	208.596	1628.40	SURFACE CSG SETTING DEPTH
4115.12	8.910	208.596	4072.66	4 1/2" LINER TOP
4454.54	12.083	339.907	4409.00	PARKMAN
4854.79	43.507	355.755	4759.00	SUSSEX

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	208.596	17.00	TIE-ON
300.00	0.000	208.596	300.00	BEGIN NUDGE
745.50	8.910	208.596	743.71	END NUDGE
4215.12	8.910	208.596	4171.46	KOP, BUILD @ 8°/100'
5445.50	90.594	0.297	4983.00	LANDING POINT
9495.88	90.594	0.297	4941.00	TOTAL DEPTH