

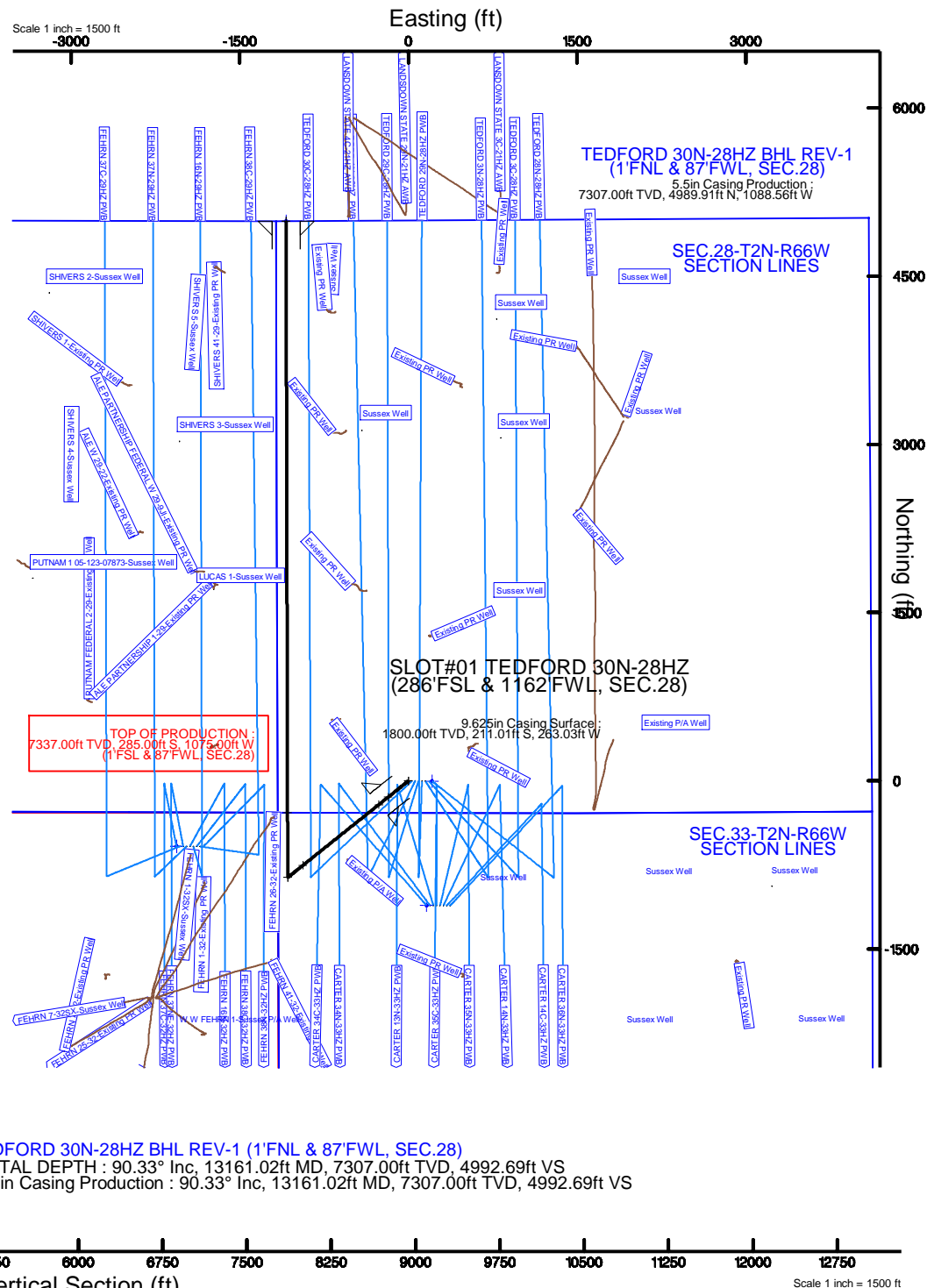
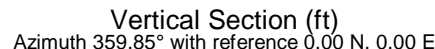
Location: COLORADO	Slot: SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28)
Field: WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Well: TEDFORD 30N-28HZ
Facility: SEC.28-T2N-R66W	Wellbore: TEDFORD 30N-28HZ PWB
<b>Plot reference wellpath is TEDFORD 30N-28HZ (PERMIT REV-3) PWP</b>	
True vertical depths are referenced to PERMIT (17KB) (RKB)	Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to PERMIT (17KB) (RKB)	North Reference: True north
PERMIT (17KB) (RKB) to Mean Sea Level: 4980 feet	Scale: Grid distance
Mean Sea Level to Mud line (At Slot: SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: amarcar on 01/May/2015

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.28-T2N-R66W			1700626.562	14568707.730	40°06'54.245"N	104°47'04.711"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#01 TEDFORD 30N-284Z (286FSL & 1162FWL, SEC.28)	-4528.05	-795.95	1699841.581	14564177.776	40°06'09.480"N	104°47'14.958"W
PERMIT (17KB) (RKB) to Mud line (A Slot: SLOT#01 TEDFORD 30N-284Z (286FSL & 1162FWL, SEC.28))					4980ft	
Mean Sea Level to Mud line (A Slot: SLOT#01 TEDFORD 30N-284Z (286FSL & 1162FWL, SEC.28))					0ft	
PERMIT (17KB) (RKB) to Mean Sea Level					4980ft	

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13161.02	ISCWSA MWD, Rev. 2, axial magnetic correction	Custom APC_ISCWSAREV2 MWD+IFR1+SC (approximation)		TEDFORD 30N-28HZ PWB

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.33-T2N-R66W SECTION LINES	4.00	-1110.79	162.04	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	
SEC.29-T2N-R66W SECTION LINES	41.00	-583.09	-2063.11	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
SEC.32-T2N-R66W SECTION LINES	41.00	-583.09	-2063.11	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
SEC.28-T2N-R66W SECTION LINES	7301.00	-1.96	209.89	1700051.47	14564176.32	40°08'09.461"N	104°47'12.256"W	
<b>TEDFOR 30N-28H2 BHL REV-1 (1" FNL &amp; 87 FPL, SEC. 28-30N-28H2)</b>	7307.00	4989.91	-1088.56	1696741.10	14564165.06	40°08'58.811"N	104°47'28.975"W	

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	231.262	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	200.00	0.000	231.262	200.00	0.00	0.00	0.00	0.00
END NUDGE	1533.33	20.000	231.262	1506.42	-144.15	-179.68	1.50	-143.69
BEGIN DROP	4378.63	20.000	231.262	4180.13	-753.10	-938.76	0.00	-750.69
END DROP	5378.63	0.000	359.853	5159.94	-861.21	-1073.52	2.00	-858.46
KOP, BUILD @ 10°/100'	6982.74	0.000	359.853	6764.05	-861.21	-1073.52	0.00	-858.46
LANDING POINT	7886.00	90.326	359.853	7337.00	-285.00	-1075.00	10.00	-282.24
TOTAL DEPTH	13161.02	90.326	359.853	7307.00	4989.91	-1088.56	0.00	4992.69





# Planned Wellpath Report

TEDFORD 30N-28HZ (PERMIT REV-3) PWP

Page 1 of 6



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30N-28HZ PWB
Facility	SEC.28-T2N-R66W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Amarcar
Scale	0.999604	Report Generated	01/May/2015 at 14:25
Convergence at slot	0.14° East	Database/Source file	MAP CHECK./TEDFORD_30N-28HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4528.05	-795.95	1699841.58	14564177.78	40°06'09.480"N	104°47'14.958"W
Facility Reference Pt			1700626.56	14568707.73	40°06'54.245"N	104°47'04.711"W
Field Reference Pt			1700626.56	14568707.73	40°06'54.245"N	104°47'04.711"W

## WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17'KB) (RKB) to 2N-66W-28 Offsets vertical datum	4980.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	4980.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28))	4980.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.85°



# Planned Wellpath Report

TEDFORD 30N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (149 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	231.262	0.00	0.00	0.00	0.00	40°06'09.480"N	104°47'14.958"W	0.00	
17.00	0.000	231.262	17.00	0.00	0.00	0.00	40°06'09.480"N	104°47'14.958"W	0.00	TIE-ON
117.00†	0.000	231.262	117.00	0.00	0.00	0.00	40°06'09.480"N	104°47'14.958"W	0.00	
200.00	0.000	231.262	200.00	0.00	0.00	0.00	40°06'09.480"N	104°47'14.958"W	0.00	BEGIN NUDGE
217.00†	0.255	231.262	217.00	-0.02	-0.02	-0.03	40°06'09.480"N	104°47'14.958"W	1.50	
317.00†	1.755	231.262	316.98	-1.12	-1.12	-1.40	40°06'09.469"N	104°47'14.976"W	1.50	
417.00†	3.255	231.262	416.88	-3.84	-3.86	-4.81	40°06'09.442"N	104°47'15.020"W	1.50	
517.00†	4.755	231.262	516.64	-8.20	-8.23	-10.25	40°06'09.399"N	104°47'15.090"W	1.50	
617.00†	6.255	231.262	616.17	-14.18	-14.23	-17.74	40°06'09.340"N	104°47'15.186"W	1.50	
717.00†	7.755	231.262	715.42	-21.79	-21.86	-27.25	40°06'09.264"N	104°47'15.309"W	1.50	
817.00†	9.255	231.262	814.32	-31.02	-31.12	-38.79	40°06'09.173"N	104°47'15.457"W	1.50	
917.00†	10.755	231.262	912.80	-41.85	-41.99	-52.34	40°06'09.065"N	104°47'15.632"W	1.50	
1017.00†	12.255	231.262	1010.78	-54.29	-54.47	-67.89	40°06'08.942"N	104°47'15.832"W	1.50	
1050.00†	12.750	231.262	1043.00	-58.75	-58.94	-73.47	40°06'08.898"N	104°47'15.904"W	1.50	FOX HILLS BASE
1117.00†	13.755	231.262	1108.22	-68.33	-68.55	-85.45	40°06'08.803"N	104°47'16.058"W	1.50	
1217.00†	15.255	231.262	1205.03	-83.95	-84.22	-104.98	40°06'08.648"N	104°47'16.310"W	1.50	
1317.00†	16.755	231.262	1301.15	-101.15	-101.47	-126.49	40°06'08.477"N	104°47'16.586"W	1.50	
1417.00†	18.255	231.262	1396.51	-119.91	-120.30	-149.95	40°06'08.291"N	104°47'16.889"W	1.50	
1517.00†	19.755	231.262	1491.06	-140.22	-140.67	-175.35	40°06'08.090"N	104°47'17.216"W	1.50	
1533.33	20.000	231.262	1506.42	-143.69	-144.15	-179.68	40°06'08.055"N	104°47'17.271"W	1.50	END NUDGE
1617.00†	20.000	231.262	1585.04	-161.54	-162.05	-202.00	40°06'07.878"N	104°47'17.559"W	0.00	
1717.00†	20.000	231.262	1679.01	-182.87	-183.46	-228.68	40°06'07.667"N	104°47'17.902"W	0.00	
1817.00†	20.000	231.262	1772.98	-204.20	-204.86	-255.36	40°06'07.455"N	104°47'18.246"W	0.00	
1917.00†	20.000	231.262	1866.95	-225.54	-226.26	-282.04	40°06'07.244"N	104°47'18.589"W	0.00	
2017.00†	20.000	231.262	1960.92	-246.87	-247.66	-308.72	40°06'07.032"N	104°47'18.932"W	0.00	
2117.00†	20.000	231.262	2054.89	-268.20	-269.07	-335.39	40°06'06.820"N	104°47'19.276"W	0.00	
2217.00†	20.000	231.262	2148.86	-289.54	-290.47	-362.07	40°06'06.609"N	104°47'19.619"W	0.00	
2317.00†	20.000	231.262	2242.83	-310.87	-311.87	-388.75	40°06'06.397"N	104°47'19.963"W	0.00	
2417.00†	20.000	231.262	2336.80	-332.20	-333.27	-415.43	40°06'06.186"N	104°47'20.306"W	0.00	
2517.00†	20.000	231.262	2430.77	-353.54	-354.67	-442.11	40°06'05.974"N	104°47'20.650"W	0.00	
2617.00†	20.000	231.262	2524.73	-374.87	-376.08	-468.79	40°06'05.762"N	104°47'20.993"W	0.00	
2717.00†	20.000	231.262	2618.70	-396.21	-397.48	-495.46	40°06'05.551"N	104°47'21.337"W	0.00	
2817.00†	20.000	231.262	2712.67	-417.54	-418.88	-522.14	40°06'05.339"N	104°47'21.680"W	0.00	
2917.00†	20.000	231.262	2806.64	-438.87	-440.28	-548.82	40°06'05.128"N	104°47'22.023"W	0.00	
3017.00†	20.000	231.262	2900.61	-460.21	-461.68	-575.50	40°06'04.916"N	104°47'22.367"W	0.00	
3117.00†	20.000	231.262	2994.58	-481.54	-483.09	-602.18	40°06'04.704"N	104°47'22.710"W	0.00	
3217.00†	20.000	231.262	3088.55	-502.87	-504.49	-628.85	40°06'04.493"N	104°47'23.054"W	0.00	
3317.00†	20.000	231.262	3182.52	-524.21	-525.89	-655.53	40°06'04.281"N	104°47'23.397"W	0.00	
3417.00†	20.000	231.262	3276.49	-545.54	-547.29	-682.21	40°06'04.070"N	104°47'23.741"W	0.00	
3517.00†	20.000	231.262	3370.46	-566.87	-568.70	-708.89	40°06'03.858"N	104°47'24.084"W	0.00	
3617.00†	20.000	231.262	3464.43	-588.21	-590.10	-735.57	40°06'03.647"N	104°47'24.428"W	0.00	
3717.00†	20.000	231.262	3558.40	-609.54	-611.50	-762.24	40°06'03.435"N	104°47'24.771"W	0.00	
3817.00†	20.000	231.262	3652.37	-630.88	-632.90	-788.92	40°06'03.223"N	104°47'25.114"W	0.00	
3917.00†	20.000	231.262	3746.33	-652.21	-654.30	-815.60	40°06'03.012"N	104°47'25.458"W	0.00	
4017.00†	20.000	231.262	3840.30	-673.54	-675.71	-842.28	40°06'02.800"N	104°47'25.801"W	0.00	



# Planned Wellpath Report

TEDFORD 30N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	20.000	231.262	3934.27	-694.88	-697.11	-868.96	40°06'02.589"N	104°47'26.145"W	0.00	
4183.75†	20.000	231.262	3997.00	-709.12	-711.40	-886.77	40°06'02.447"N	104°47'26.374"W	0.00	PARKMAN
4217.00†	20.000	231.262	4028.24	-716.21	-718.51	-895.64	40°06'02.377"N	104°47'26.488"W	0.00	
4317.00†	20.000	231.262	4122.21	-737.54	-739.91	-922.31	40°06'02.165"N	104°47'26.832"W	0.00	
4378.63	20.000	231.262	4180.13	-750.69	-753.10	-938.76	40°06'02.035"N	104°47'27.043"W	0.00	BEGIN DROP
4417.00†	19.233	231.262	4216.27	-758.73	-761.16	-948.80	40°06'01.955"N	104°47'27.173"W	2.00	
4517.00†	17.233	231.262	4311.24	-778.24	-780.74	-973.21	40°06'01.762"N	104°47'27.487"W	2.00	
4617.00†	15.233	231.262	4407.25	-795.68	-798.23	-995.01	40°06'01.589"N	104°47'27.767"W	2.00	
4717.00†	13.233	231.262	4504.18	-811.01	-813.62	-1014.19	40°06'01.437"N	104°47'28.014"W	2.00	
4720.93†	13.154	231.262	4508.00	-811.57	-814.18	-1014.89	40°06'01.431"N	104°47'28.023"W	2.00	SUSSEX
4817.00†	11.233	231.262	4601.90	-824.23	-826.87	-1030.71	40°06'01.306"N	104°47'28.227"W	2.00	
4917.00†	9.233	231.262	4700.31	-835.31	-837.99	-1044.57	40°06'01.196"N	104°47'28.405"W	2.00	
5017.00†	7.233	231.262	4799.27	-844.24	-846.95	-1055.74	40°06'01.107"N	104°47'28.549"W	2.00	
5117.00†	5.233	231.262	4898.67	-851.01	-853.74	-1064.21	40°06'01.040"N	104°47'28.658"W	2.00	
5217.00†	3.233	231.262	4998.40	-855.61	-858.36	-1069.96	40°06'00.994"N	104°47'28.732"W	2.00	
5317.00†	1.233	231.262	5098.32	-858.04	-860.80	-1073.00	40°06'00.970"N	104°47'28.771"W	2.00	
5378.63	0.000	359.853	5159.94	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	2.00	END DROP
5417.00†	0.000	359.853	5198.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
5517.00†	0.000	359.853	5298.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
5617.00†	0.000	359.853	5398.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
5717.00†	0.000	359.853	5498.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
5817.00†	0.000	359.853	5598.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
5917.00†	0.000	359.853	5698.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6017.00†	0.000	359.853	5798.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6117.00†	0.000	359.853	5898.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6217.00†	0.000	359.853	5998.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6317.00†	0.000	359.853	6098.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6417.00†	0.000	359.853	6198.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6517.00†	0.000	359.853	6298.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6617.00†	0.000	359.853	6398.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6717.00†	0.000	359.853	6498.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6817.00†	0.000	359.853	6598.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6917.00†	0.000	359.853	6698.31	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	
6982.74	0.000	359.853	6764.05	-858.46	-861.21	-1073.52	40°06'00.966"N	104°47'28.778"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	3.426	359.853	6798.29	-857.43	-860.19	-1073.52	40°06'00.976"N	104°47'28.778"W	10.00	
7117.00†	13.426	359.853	6897.09	-842.80	-845.56	-1073.56	40°06'01.121"N	104°47'28.779"W	10.00	
7217.00†	23.426	359.853	6991.84	-811.23	-813.99	-1073.64	40°06'01.433"N	104°47'28.780"W	10.00	
7317.00†	33.426	359.853	7079.67	-763.69	-766.45	-1073.76	40°06'01.903"N	104°47'28.781"W	10.00	
7382.29†	39.955	359.853	7132.00	-724.70	-727.46	-1073.86	40°06'02.288"N	104°47'28.783"W	10.00	SHARON SPRINGS
7417.00†	43.426	359.853	7157.91	-701.62	-704.38	-1073.92	40°06'02.517"N	104°47'28.783"W	10.00	
7454.08†	47.134	359.853	7184.00	-675.28	-678.03	-1073.99	40°06'02.777"N	104°47'28.784"W	10.00	NIOBRARA A
7517.00†	53.426	359.853	7224.19	-626.91	-629.66	-1074.11	40°06'03.255"N	104°47'28.786"W	10.00	
7548.04†	56.530	359.853	7242.00	-601.49	-604.24	-1074.18	40°06'03.507"N	104°47'28.787"W	10.00	NIOBRARA B
7617.00†	63.426	359.853	7276.48	-541.82	-544.58	-1074.33	40°06'04.096"N	104°47'28.789"W	10.00	
7717.00†	73.426	359.853	7313.21	-448.94	-451.70	-1074.57	40°06'05.015"N	104°47'28.792"W	10.00	



# Planned Wellpath Report

TEDFORD 30N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7775.48†	79.274	359.853	7327.00	-392.14	-394.90	-1074.72	40°06'05.576"N	104°47'28.794"W	10.00	NIOBRARA C
7817.00†	83.426	359.853	7333.24	-351.10	-353.86	-1074.82	40°06'05.982"N	104°47'28.795"W	10.00	
7886.00†	90.326	359.853	7337.00	-282.24	-285.00	-1075.00	40°06'06.663"N	104°47'28.797"W	10.00	TOP OF PRODUCTION
7886.00	90.326	359.853	7337.00	-282.24	-285.00	-1075.00	40°06'06.663"N	104°47'28.797"W	10.00	LANDING POINT
7917.00†	90.326	359.853	7336.83	-251.24	-254.00	-1075.08	40°06'06.969"N	104°47'28.799"W	0.00	
8017.00†	90.326	359.853	7336.26	-151.24	-154.00	-1075.34	40°06'07.958"N	104°47'28.802"W	0.00	
8117.00†	90.326	359.853	7335.69	-51.25	-54.01	-1075.59	40°06'08.946"N	104°47'28.805"W	0.00	
8217.00†	90.326	359.853	7335.12	48.75	45.99	-1075.85	40°06'09.935"N	104°47'28.809"W	0.00	
8317.00†	90.326	359.853	7334.55	148.75	145.99	-1076.11	40°06'10.923"N	104°47'28.812"W	0.00	
8417.00†	90.326	359.853	7333.98	248.75	245.99	-1076.37	40°06'11.912"N	104°47'28.815"W	0.00	
8517.00†	90.326	359.853	7333.41	348.75	345.99	-1076.62	40°06'12.901"N	104°47'28.819"W	0.00	
8617.00†	90.326	359.853	7332.84	448.75	445.98	-1076.88	40°06'13.889"N	104°47'28.822"W	0.00	
8717.00†	90.326	359.853	7332.28	548.74	545.98	-1077.14	40°06'14.878"N	104°47'28.825"W	0.00	
8817.00†	90.326	359.853	7331.71	648.74	645.98	-1077.39	40°06'15.866"N	104°47'28.829"W	0.00	
8917.00†	90.326	359.853	7331.14	748.74	745.98	-1077.65	40°06'16.855"N	104°47'28.832"W	0.00	
9017.00†	90.326	359.853	7330.57	848.74	845.98	-1077.91	40°06'17.843"N	104°47'28.836"W	0.00	
9117.00†	90.326	359.853	7330.00	948.74	945.97	-1078.16	40°06'18.832"N	104°47'28.839"W	0.00	
9217.00†	90.326	359.853	7329.43	1048.74	1045.97	-1078.42	40°06'19.821"N	104°47'28.842"W	0.00	
9317.00†	90.326	359.853	7328.86	1148.73	1145.97	-1078.68	40°06'20.809"N	104°47'28.846"W	0.00	
9417.00†	90.326	359.853	7328.29	1248.73	1245.97	-1078.94	40°06'21.798"N	104°47'28.849"W	0.00	
9517.00†	90.326	359.853	7327.73	1348.73	1345.97	-1079.19	40°06'22.786"N	104°47'28.852"W	0.00	
9617.00†	90.326	359.853	7327.16	1448.73	1445.96	-1079.45	40°06'23.775"N	104°47'28.856"W	0.00	
9644.57†	90.326	359.853	7327.00	1476.30	1473.54	-1079.52	40°06'24.048"N	104°47'28.857"W	0.00	NIOBRARA C
9717.00†	90.326	359.853	7326.59	1548.73	1545.96	-1079.71	40°06'24.764"N	104°47'28.859"W	0.00	
9817.00†	90.326	359.853	7326.02	1648.73	1645.96	-1079.96	40°06'25.752"N	104°47'28.862"W	0.00	
9917.00†	90.326	359.853	7325.45	1748.72	1745.96	-1080.22	40°06'26.741"N	104°47'28.866"W	0.00	
10017.00†	90.326	359.853	7324.88	1848.72	1845.96	-1080.48	40°06'27.729"N	104°47'28.869"W	0.00	
10117.00†	90.326	359.853	7324.31	1948.72	1945.95	-1080.74	40°06'28.718"N	104°47'28.873"W	0.00	
10217.00†	90.326	359.853	7323.74	2048.72	2045.95	-1080.99	40°06'29.707"N	104°47'28.876"W	0.00	
10317.00†	90.326	359.853	7323.18	2148.72	2145.95	-1081.25	40°06'30.695"N	104°47'28.879"W	0.00	
10417.00†	90.326	359.853	7322.61	2248.72	2245.95	-1081.51	40°06'31.684"N	104°47'28.883"W	0.00	
10517.00†	90.326	359.853	7322.04	2348.71	2345.95	-1081.76	40°06'32.672"N	104°47'28.886"W	0.00	
10617.00†	90.326	359.853	7321.47	2448.71	2445.94	-1082.02	40°06'33.661"N	104°47'28.889"W	0.00	
10717.00†	90.326	359.853	7320.90	2548.71	2545.94	-1082.28	40°06'34.649"N	104°47'28.893"W	0.00	
10817.00†	90.326	359.853	7320.33	2648.71	2645.94	-1082.54	40°06'35.638"N	104°47'28.896"W	0.00	
10917.00†	90.326	359.853	7319.76	2748.71	2745.94	-1082.79	40°06'36.627"N	104°47'28.899"W	0.00	
11017.00†	90.326	359.853	7319.19	2848.71	2845.94	-1083.05	40°06'37.615"N	104°47'28.903"W	0.00	
11117.00†	90.326	359.853	7318.63	2948.70	2945.94	-1083.31	40°06'38.604"N	104°47'28.906"W	0.00	
11217.00†	90.326	359.853	7318.06	3048.70	3045.93	-1083.56	40°06'39.592"N	104°47'28.910"W	0.00	
11317.00†	90.326	359.853	7317.49	3148.70	3145.93	-1083.82	40°06'40.581"N	104°47'28.913"W	0.00	
11417.00†	90.326	359.853	7316.92	3248.70	3245.93	-1084.08	40°06'41.570"N	104°47'28.916"W	0.00	
11517.00†	90.326	359.853	7316.35	3348.70	3345.93	-1084.34	40°06'42.558"N	104°47'28.920"W	0.00	
11617.00†	90.326	359.853	7315.78	3448.70	3445.93	-1084.59	40°06'43.547"N	104°47'28.923"W	0.00	
11717.00†	90.326	359.853	7315.21	3548.70	3545.92	-1084.85	40°06'44.535"N	104°47'28.926"W	0.00	
11817.00†	90.326	359.853	7314.64	3648.69	3645.92	-1085.11	40°06'45.524"N	104°47'28.930"W	0.00	





# Planned Wellpath Report

TEDFORD 30N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11917.00†	90.326	359.853	7314.08	3748.69	3745.92	-1085.36	40°06'46.512"N	104°47'28.933"W	0.00	
12017.00†	90.326	359.853	7313.51	3848.69	3845.92	-1085.62	40°06'47.501"N	104°47'28.937"W	0.00	
12117.00†	90.326	359.853	7312.94	3948.69	3945.92	-1085.88	40°06'48.490"N	104°47'28.940"W	0.00	
12217.00†	90.326	359.853	7312.37	4048.69	4045.91	-1086.14	40°06'49.478"N	104°47'28.943"W	0.00	
12317.00†	90.326	359.853	7311.80	4148.69	4145.91	-1086.39	40°06'50.467"N	104°47'28.947"W	0.00	
12417.00†	90.326	359.853	7311.23	4248.68	4245.91	-1086.65	40°06'51.455"N	104°47'28.950"W	0.00	
12517.00†	90.326	359.853	7310.66	4348.68	4345.91	-1086.91	40°06'52.444"N	104°47'28.953"W	0.00	
12617.00†	90.326	359.853	7310.09	4448.68	4445.91	-1087.16	40°06'53.433"N	104°47'28.957"W	0.00	
12717.00†	90.326	359.853	7309.53	4548.68	4545.90	-1087.42	40°06'54.421"N	104°47'28.960"W	0.00	
12817.00†	90.326	359.853	7308.96	4648.68	4645.90	-1087.68	40°06'55.410"N	104°47'28.963"W	0.00	
12917.00†	90.326	359.853	7308.39	4748.68	4745.90	-1087.93	40°06'56.398"N	104°47'28.967"W	0.00	
13017.00†	90.326	359.853	7307.82	4848.67	4845.90	-1088.19	40°06'57.387"N	104°47'28.970"W	0.00	
13117.00†	90.326	359.853	7307.25	4948.67	4945.90	-1088.45	40°06'58.375"N	104°47'28.974"W	0.00	
13161.02	90.326	359.853	7307.00†	4992.69	4989.91	-1088.56	40°06'58.811"N	104°47'28.975"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS

- Ref Wellbore: TEDFORD 30N-28HZ PWB Ref Wellpath: TEDFORD 30N-28HZ (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	1845.75	1828.75	17.00	1800.00	0.00	0.00	-211.01	-263.03
9.625in Casing Surface	17.00	1845.75	1828.75	17.00	1800.00	0.00	0.00	-211.01	-263.03
7.875in Open Hole	1845.75	13161.02	11315.27	1800.00	7307.00	-211.01	-263.03	4989.91	-1088.56
5.5in Casing Production	17.00	13161.02	13144.02	17.00	7307.00	0.00	0.00	4989.91	-1088.56

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.33-T2N-R66W SECTION LINES		4.00	-1110.79	162.04	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
SEC.29-T2N-R66W SECTION LINES		41.00	-583.09	-2063.11	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.32-T2N-R66W SECTION LINES		41.00	-583.09	-2063.11	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.28-T2N-R66W SECTION LINES		7301.00	-1.96	209.89	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W	polygon
1) TEDFORD 30N-28HZ BHL REV-1 (1'FNL & 87'FWL, SEC.28)	13161.02	7307.00	4989.91	-1088.56	1698741.10	14569165.06	40°06'58.811"N	104°47'28.975"W	point

## SURVEY PROGRAM -

Ref Wellbore: TEDFORD 30N-28HZ PWB Ref Wellpath: TEDFORD 30N-28HZ (PERMIT REV-3) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13161.02	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)		TEDFORD 30N-28HZ PWB



# Planned Wellpath Report

TEDFORD 30N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 TEDFORD 30N-28HZ (286'FSL & 1162'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1050.00	12.750	231.262	1043.00	FOX HILLS BASE
4183.75	20.000	231.262	3997.00	PARKMAN
4720.93	13.154	231.262	4508.00	SUSSEX
7382.29	39.955	359.853	7132.00	SHARON SPRINGS
7454.08	47.134	359.853	7184.00	NIOBRARA A
7548.04	56.530	359.853	7242.00	NIOBRARA B
7775.48	79.274	359.853	7327.00	NIOBRARA C
7886.00	90.326	359.853	7337.00	TOP OF PRODUCTION
9644.57	90.326	359.853	7327.00	NIOBRARA C

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	231.262	17.00	TIE-ON
200.00	0.000	231.262	200.00	BEGIN NUDGE
1533.33	20.000	231.262	1506.42	END NUDGE
4378.63	20.000	231.262	4180.13	BEGIN DROP
5378.63	0.000	359.853	5159.94	END DROP
6982.74	0.000	359.853	6764.05	KOP, BUILD @ 10°/100'
7886.00	90.326	359.853	7337.00	LANDING POINT
13161.02	90.326	359.853	7307.00	TOTAL DEPTH