

Location:	COLORADO	Slot:	SLOT#03 TEDFORD 4N-28HZ (285'FSL & 1222'FWL, SEC.28)
Field:	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Well:	TEDFORD 4N-28HZ
Facility:	SEC.28-T2N-R66W	Wellbore:	TEDFORD 4N-28HZ PWB

Plot reference wellpath is TEDFORD 4N-28HZ (PERMIT REV-3) PWP

True vertical depths are referenced to PERMIT (17'KB) (RKB)

Measured depths are referenced to PERMIT (17"KB) (RKB)

PERMIT (13) (R) to Mean Sea Level: 1080 feet

PERMIT (17 KB) (RKB) to Mean Sea Level: 4980 feet

Mean Sea Level to Mud line (At Slot: SLO1#03 TEDFORD 4N-28HZ (285FSL & 1222FWL, SEC.28)): 0 feet

Coordinates are in feet referenced to Slot

Grid System: NAD83 / UTM Zone 13 North, US feet

North Reference: True north

Scale: Grid distance = 1000 m

Scale: Grid distance  
 South arrow: 1 foot

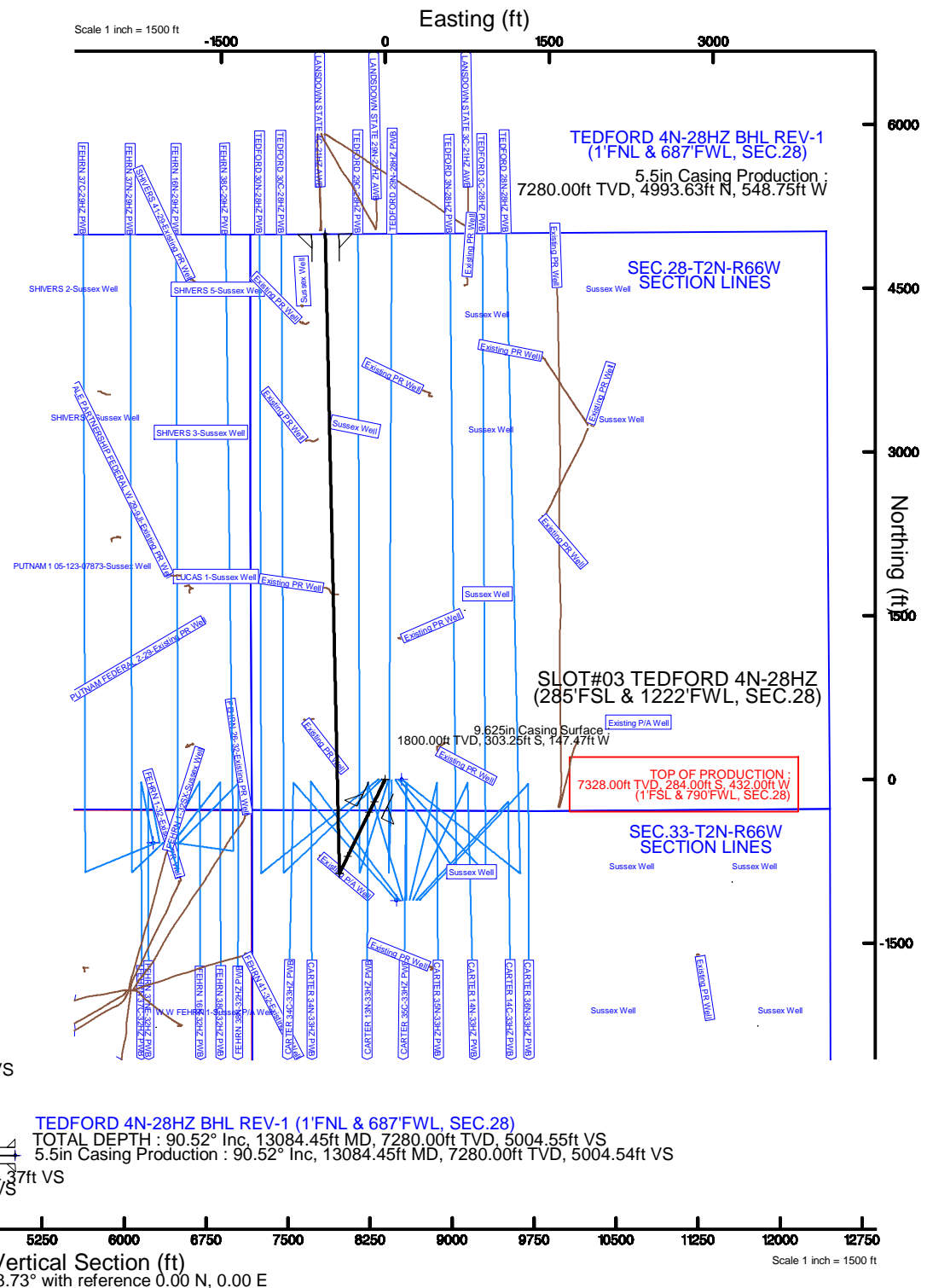
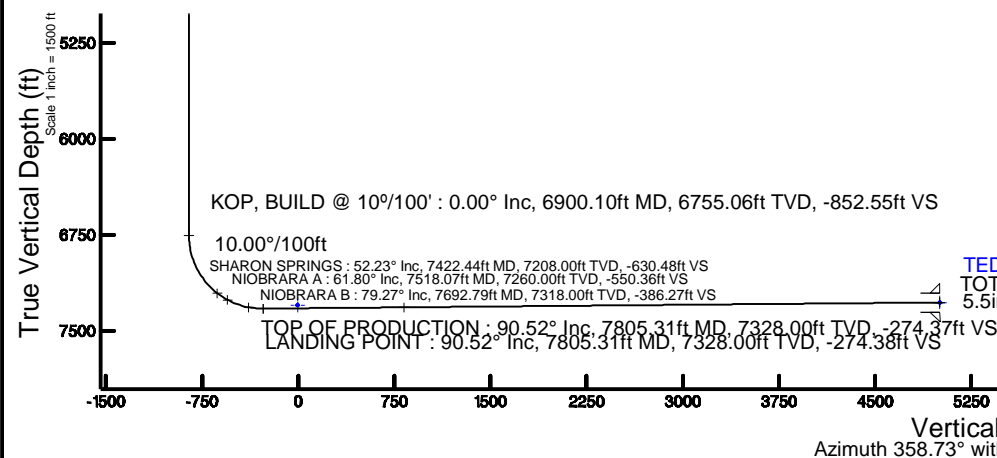
Depths are in feet

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#03 TEDFORD 4N-28HZ (285FSL & 1222FWL, SEC.28)	-4528.62	-735.97	1699901.558	14564177.351	40°06'09.475"N	104°47'14.186"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#03 TEDFORD 4N-28HZ (285FSL & 1222FWL, SEC.28))					4980ft	
Mean Sea Level to Mud line (At Slot: SLOT#03 TEDFORD 4N-28HZ (285FSL & 1222FWL, 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	13084.45	ISCWSA MWD, Rev. 2, axial magnetic correction	Custom APC_ISCWSA REV 2 MWD+IFR 1+SC (approximation)		TEDFORD 4N-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-R6W SECTION LINES	41.00	-1110.12	102.07	1700006.28	14563067.38	40°05'58.499N	104°47'12.872"W	
SEC.29-T2N-R6W SECTION LINES	41.00	-582.52	-2123.09	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
SEC.32-T2N-R6W SECTION LINES	41.00	-582.52	-2123.09	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
<b>TEDFORD 48-284Z BHL REVI.1 (1FN, &amp; 687FWL SEC.28)</b>	13084.45	7280.00	4993.63	-548.75	1699340.86	14569169.65	40°05'58.842"N	
SEC.28-T2N-R6W SECTION LINES	7300.00	-1.39	149.91	1700051.47	14561746.32	40°06'09.461"N	104°47'12.252"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	205.934	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	200.00	0.000	205.934	200.00	0.00	0.00	0.00	0.00
END NUDGE	1533.33	20.000	205.934	1506.42	-207.16	-100.74	1.50	-204.88
BEGIN DROP	3157.30	20.000	205.934	3032.45	-706.66	-343.65	0.00	-698.88
END DROP	4157.30	0.000	358.733	4012.27	-862.03	-419.21	2.00	-852.55
KOP, BUILD @ 10°/100'	6900.10	0.000	358.733	6755.06	-862.03	-419.21	0.00	-852.55
LANDING POINT	7805.31	90.521	358.733	7328.00	-284.00	-432.00	10.00	-274.38
TOTAL DEPTH	13084.45	90.521	358.733	12800.00	4993.63	-548.75	0.00	5004.55





# Planned Wellpath Report

TEDFORD 4N-28HZ (PERMIT REV-3) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 TEDFORD 4N-28HZ (285'FSL & 1222'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 4N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 4N-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 15:15
Convergence at slot	0.14° East	Database/Source file	MAP CHECK./_TEDFORD_4N-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	-4528.62	-735.97	1699901.56	14564177.35	40°06'09.475"N	104°47'14.186"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#03 TEDFORD 4N-28HZ (285'FSL & 1222'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	358.73°



# Planned Wellpath Report

TEDFORD 4N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 TEDFORD 4N-28HZ (285'FSL & 1222'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 4N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 4N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (147 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	205.934	0.00	0.00	0.00	0.00	40°06'09.475"N	104°47'14.186"W	0.00	
17.00	0.000	205.934	17.00	0.00	0.00	0.00	40°06'09.475"N	104°47'14.186"W	0.00	TIE-ON
117.00†	0.000	205.934	117.00	0.00	0.00	0.00	40°06'09.475"N	104°47'14.186"W	0.00	
200.00	0.000	205.934	200.00	0.00	0.00	0.00	40°06'09.475"N	104°47'14.186"W	0.00	BEGIN NUDGE
217.00†	0.255	205.934	217.00	-0.03	-0.03	-0.02	40°06'09.474"N	104°47'14.186"W	1.50	
317.00†	1.755	205.934	316.98	-1.59	-1.61	-0.78	40°06'09.459"N	104°47'14.196"W	1.50	
417.00†	3.255	205.934	416.88	-5.48	-5.54	-2.70	40°06'09.420"N	104°47'14.221"W	1.50	
517.00†	4.755	205.934	516.64	-11.69	-11.82	-5.75	40°06'09.358"N	104°47'14.260"W	1.50	
617.00†	6.255	205.934	616.17	-20.22	-20.45	-9.94	40°06'09.273"N	104°47'14.314"W	1.50	
717.00†	7.755	205.934	715.42	-31.07	-31.42	-15.28	40°06'09.164"N	104°47'14.383"W	1.50	
817.00†	9.255	205.934	814.32	-44.22	-44.72	-21.75	40°06'09.033"N	104°47'14.466"W	1.50	
917.00†	10.755	205.934	912.80	-59.68	-60.34	-29.34	40°06'08.878"N	104°47'14.564"W	1.50	
1017.00†	12.255	205.934	1010.78	-77.42	-78.28	-38.07	40°06'08.701"N	104°47'14.676"W	1.50	
1050.00†	12.750	205.934	1043.00	-83.77	-84.70	-41.19	40°06'08.637"N	104°47'14.716"W	1.50	FOX HILLS BASE
1117.00†	13.755	205.934	1108.22	-97.43	-98.51	-47.91	40°06'08.501"N	104°47'14.803"W	1.50	
1217.00†	15.255	205.934	1205.03	-119.71	-121.04	-58.86	40°06'08.278"N	104°47'14.944"W	1.50	
1317.00†	16.755	205.934	1301.15	-144.23	-145.83	-70.92	40°06'08.033"N	104°47'15.099"W	1.50	
1417.00†	18.255	205.934	1396.51	-170.98	-172.88	-84.07	40°06'07.766"N	104°47'15.268"W	1.50	
1517.00†	19.755	205.934	1491.06	-199.94	-202.17	-98.32	40°06'07.476"N	104°47'15.452"W	1.50	
1533.33	20.000	205.934	1506.42	-204.88	-207.16	-100.74	40°06'07.427"N	104°47'15.483"W	1.50	END NUDGE
1617.00†	20.000	205.934	1585.04	-230.33	-232.89	-113.26	40°06'07.172"N	104°47'15.644"W	0.00	
1717.00†	20.000	205.934	1679.01	-260.75	-263.65	-128.22	40°06'06.868"N	104°47'15.837"W	0.00	
1817.00†	20.000	205.934	1772.98	-291.17	-294.41	-143.17	40°06'06.564"N	104°47'16.029"W	0.00	
1917.00†	20.000	205.934	1866.95	-321.59	-325.17	-158.13	40°06'06.260"N	104°47'16.222"W	0.00	
2017.00†	20.000	205.934	1960.92	-352.01	-355.92	-173.09	40°06'05.956"N	104°47'16.414"W	0.00	
2117.00†	20.000	205.934	2054.89	-382.43	-386.68	-188.05	40°06'05.652"N	104°47'16.607"W	0.00	
2217.00†	20.000	205.934	2148.86	-412.85	-417.44	-203.01	40°06'05.348"N	104°47'16.799"W	0.00	
2317.00†	20.000	205.934	2242.83	-443.27	-448.20	-217.96	40°06'05.044"N	104°47'16.992"W	0.00	
2417.00†	20.000	205.934	2336.80	-473.69	-478.96	-232.92	40°06'04.740"N	104°47'17.185"W	0.00	
2517.00†	20.000	205.934	2430.77	-504.11	-509.71	-247.88	40°06'04.436"N	104°47'17.377"W	0.00	
2617.00†	20.000	205.934	2524.73	-534.53	-540.47	-262.84	40°06'04.132"N	104°47'17.570"W	0.00	
2717.00†	20.000	205.934	2618.70	-564.95	-571.23	-277.80	40°06'03.828"N	104°47'17.762"W	0.00	
2817.00†	20.000	205.934	2712.67	-595.37	-601.99	-292.75	40°06'03.523"N	104°47'17.955"W	0.00	
2917.00†	20.000	205.934	2806.64	-625.79	-632.74	-307.71	40°06'03.219"N	104°47'18.147"W	0.00	
3017.00†	20.000	205.934	2900.61	-656.21	-663.50	-322.67	40°06'02.915"N	104°47'18.340"W	0.00	
3117.00†	20.000	205.934	2994.58	-686.62	-694.26	-337.63	40°06'02.611"N	104°47'18.532"W	0.00	
3157.30	20.000	205.934	3032.45	-698.88	-706.66	-343.65	40°06'02.489"N	104°47'18.610"W	0.00	BEGIN DROP
3217.00†	18.806	205.934	3088.76	-716.52	-724.49	-352.33	40°06'02.312"N	104°47'18.722"W	2.00	
3317.00†	16.806	205.934	3183.96	-743.72	-751.99	-365.70	40°06'02.040"N	104°47'18.894"W	2.00	
3417.00†	14.806	205.934	3280.18	-767.94	-776.48	-377.61	40°06'01.798"N	104°47'19.047"W	2.00	
3517.00†	12.806	205.934	3377.28	-789.17	-797.94	-388.05	40°06'01.586"N	104°47'19.182"W	2.00	
3617.00†	10.806	205.934	3475.16	-807.36	-816.34	-397.00	40°06'01.404"N	104°47'19.297"W	2.00	
3717.00†	8.806	205.934	3573.70	-822.51	-831.66	-404.44	40°06'01.253"N	104°47'19.393"W	2.00	
3817.00†	6.806	205.934	3672.77	-834.59	-843.87	-410.38	40°06'01.132"N	104°47'19.469"W	2.00	
3917.00†	4.806	205.934	3772.25	-843.59	-852.97	-414.81	40°06'01.042"N	104°47'19.526"W	2.00	



# Planned Wellpath Report

TEDFORD 4N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 TEDFORD 4N-28HZ (285'FSL & 1222'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 4N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 4N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (147 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	2.806	205.934	3872.02	-849.49	-858.94	-417.71	40°06'00.983"N	104°47'19.563"W	2.00	
4117.00†	0.806	205.934	3971.97	-852.29	-861.77	-419.09	40°06'00.955"N	104°47'19.581"W	2.00	
4157.30	0.000	358.733	4012.27	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	2.00	END DROP
4217.00†	0.000	358.733	4071.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
4218.03†	0.000	358.733	4073.00	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	PARKMAN
4317.00†	0.000	358.733	4171.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
4417.00†	0.000	358.733	4271.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
4517.00†	0.000	358.733	4371.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
4617.00†	0.000	358.733	4471.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
4717.00†	0.000	358.733	4571.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
4729.03†	0.000	358.733	4584.00	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	SUSSEX
4817.00†	0.000	358.733	4671.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
4917.00†	0.000	358.733	4771.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5017.00†	0.000	358.733	4871.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5117.00†	0.000	358.733	4971.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5217.00†	0.000	358.733	5071.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5317.00†	0.000	358.733	5171.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5417.00†	0.000	358.733	5271.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5517.00†	0.000	358.733	5371.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5617.00†	0.000	358.733	5471.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5717.00†	0.000	358.733	5571.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5817.00†	0.000	358.733	5671.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
5917.00†	0.000	358.733	5771.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6017.00†	0.000	358.733	5871.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6117.00†	0.000	358.733	5971.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6217.00†	0.000	358.733	6071.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6317.00†	0.000	358.733	6171.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6417.00†	0.000	358.733	6271.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6517.00†	0.000	358.733	6371.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6617.00†	0.000	358.733	6471.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6717.00†	0.000	358.733	6571.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6817.00†	0.000	358.733	6671.97	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	
6900.10	0.000	358.733	6755.06	-852.55	-862.03	-419.21	40°06'00.953"N	104°47'19.583"W	0.00	KOP, BUILD @ 10°/100'
6917.00†	1.690	358.733	6771.96	-852.30	-861.78	-419.22	40°06'00.955"N	104°47'19.583"W	10.00	
7017.00†	11.690	358.733	6871.16	-840.66	-850.14	-419.48	40°06'01.070"N	104°47'19.586"W	10.00	
7117.00†	21.690	358.733	6966.82	-811.98	-821.47	-420.11	40°06'01.354"N	104°47'19.594"W	10.00	
7217.00†	31.690	358.733	7056.05	-767.12	-776.62	-421.10	40°06'01.797"N	104°47'19.607"W	10.00	
7317.00†	41.690	358.733	7136.14	-707.44	-716.96	-422.42	40°06'02.387"N	104°47'19.624"W	10.00	
7417.00†	51.690	358.733	7204.65	-634.77	-644.30	-424.03	40°06'03.105"N	104°47'19.645"W	10.00	
7422.44†	52.235	358.733	7208.00	-630.48	-640.02	-424.12	40°06'03.147"N	104°47'19.646"W	10.00	SHARON SPRINGS
7517.00†	61.690	358.733	7259.49	-551.30	-560.86	-425.88	40°06'03.930"N	104°47'19.669"W	10.00	
7518.07†	61.798	358.733	7260.00	-550.36	-559.91	-425.90	40°06'03.939"N	104°47'19.669"W	10.00	NIOBRARA A
7617.00†	71.690	358.733	7299.01	-459.58	-469.16	-427.90	40°06'04.837"N	104°47'19.695"W	10.00	
7692.79†	79.269	358.733	7318.00	-386.27	-395.86	-429.53	40°06'05.561"N	104°47'19.716"W	10.00	NIOBRARA B
7717.00†	81.690	358.733	7322.00	-362.39	-371.99	-430.05	40°06'05.797"N	104°47'19.722"W	10.00	



# Planned Wellpath Report

TEDFORD 4N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 TEDFORD 4N-28HZ (285'FSL & 1222'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 4N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 4N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (147 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7805.31	90.521	358.733	7328.00	-274.38	-284.00	-432.00	40°06'06.667"N	104°47'19.747"W	10.00	LANDING POINT
7805.31†	90.521	358.733	7328.00	-274.37	-284.00	-432.00	40°06'06.667"N	104°47'19.747"W	0.00	TOP OF PRODUCTION
7817.00†	90.521	358.733	7327.89	-262.68	-272.31	-432.26	40°06'06.783"N	104°47'19.751"W	0.00	
7917.00†	90.521	358.733	7326.98	-162.69	-172.34	-434.47	40°06'07.771"N	104°47'19.779"W	0.00	
8017.00†	90.521	358.733	7326.07	-62.69	-72.37	-436.68	40°06'08.759"N	104°47'19.808"W	0.00	
8117.00†	90.521	358.733	7325.16	37.30	27.61	-438.89	40°06'09.748"N	104°47'19.836"W	0.00	
8217.00†	90.521	358.733	7324.25	137.30	127.58	-441.11	40°06'10.736"N	104°47'19.865"W	0.00	
8317.00†	90.521	358.733	7323.34	237.30	227.55	-443.32	40°06'11.724"N	104°47'19.893"W	0.00	
8417.00†	90.521	358.733	7322.43	337.29	327.52	-445.53	40°06'12.713"N	104°47'19.922"W	0.00	
8517.00†	90.521	358.733	7321.53	437.29	427.49	-447.74	40°06'13.701"N	104°47'19.950"W	0.00	
8617.00†	90.521	358.733	7320.62	537.28	527.46	-449.95	40°06'14.689"N	104°47'19.979"W	0.00	
8717.00†	90.521	358.733	7319.71	637.28	627.43	-452.16	40°06'15.678"N	104°47'20.007"W	0.00	
8817.00†	90.521	358.733	7318.80	737.27	727.41	-454.37	40°06'16.666"N	104°47'20.036"W	0.00	
8904.75†	90.521	358.733	7318.00	825.02	815.13	-456.32	40°06'17.533"N	104°47'20.061"W	0.00	NIOBRARA B
8917.00†	90.521	358.733	7317.89	837.27	827.38	-456.59	40°06'17.654"N	104°47'20.064"W	0.00	
9017.00†	90.521	358.733	7316.98	937.27	927.35	-458.80	40°06'18.643"N	104°47'20.093"W	0.00	
9117.00†	90.521	358.733	7316.07	1037.26	1027.32	-461.01	40°06'19.631"N	104°47'20.121"W	0.00	
9217.00†	90.521	358.733	7315.16	1137.26	1127.29	-463.22	40°06'20.619"N	104°47'20.150"W	0.00	
9317.00†	90.521	358.733	7314.25	1237.25	1227.26	-465.43	40°06'21.607"N	104°47'20.178"W	0.00	
9417.00†	90.521	358.733	7313.34	1337.25	1327.23	-467.64	40°06'22.596"N	104°47'20.207"W	0.00	
9517.00†	90.521	358.733	7312.43	1437.25	1427.21	-469.86	40°06'23.584"N	104°47'20.235"W	0.00	
9617.00†	90.521	358.733	7311.52	1537.24	1527.18	-472.07	40°06'24.572"N	104°47'20.264"W	0.00	
9717.00†	90.521	358.733	7310.62	1637.24	1627.15	-474.28	40°06'25.561"N	104°47'20.292"W	0.00	
9817.00†	90.521	358.733	7309.71	1737.23	1727.12	-476.49	40°06'26.549"N	104°47'20.321"W	0.00	
9917.00†	90.521	358.733	7308.80	1837.23	1827.09	-478.70	40°06'27.537"N	104°47'20.349"W	0.00	
10017.00†	90.521	358.733	7307.89	1937.23	1927.06	-480.91	40°06'28.526"N	104°47'20.378"W	0.00	
10117.00†	90.521	358.733	7306.98	2037.22	2027.03	-483.13	40°06'29.514"N	104°47'20.406"W	0.00	
10217.00†	90.521	358.733	7306.07	2137.22	2127.01	-485.34	40°06'30.502"N	104°47'20.435"W	0.00	
10317.00†	90.521	358.733	7305.16	2237.21	2226.98	-487.55	40°06'31.491"N	104°47'20.463"W	0.00	
10417.00†	90.521	358.733	7304.25	2337.21	2326.95	-489.76	40°06'32.479"N	104°47'20.492"W	0.00	
10517.00†	90.521	358.733	7303.34	2437.20	2426.92	-491.97	40°06'33.467"N	104°47'20.520"W	0.00	
10617.00†	90.521	358.733	7302.43	2537.20	2526.89	-494.18	40°06'34.456"N	104°47'20.549"W	0.00	
10717.00†	90.521	358.733	7301.52	2637.20	2626.86	-496.40	40°06'35.444"N	104°47'20.577"W	0.00	
10817.00†	90.521	358.733	7300.61	2737.19	2726.83	-498.61	40°06'36.432"N	104°47'20.606"W	0.00	
10917.00†	90.521	358.733	7299.71	2837.19	2826.81	-500.82	40°06'37.421"N	104°47'20.634"W	0.00	
11017.00†	90.521	358.733	7298.80	2937.18	2926.78	-503.03	40°06'38.409"N	104°47'20.663"W	0.00	
11117.00†	90.521	358.733	7297.89	3037.18	3026.75	-505.24	40°06'39.397"N	104°47'20.691"W	0.00	
11217.00†	90.521	358.733	7296.98	3137.18	3126.72	-507.45	40°06'40.386"N	104°47'20.720"W	0.00	
11317.00†	90.521	358.733	7296.07	3237.17	3226.69	-509.67	40°06'41.374"N	104°47'20.748"W	0.00	
11417.00†	90.521	358.733	7295.16	3337.17	3326.66	-511.88	40°06'42.362"N	104°47'20.777"W	0.00	
11517.00†	90.521	358.733	7294.25	3437.16	3426.63	-514.09	40°06'43.351"N	104°47'20.805"W	0.00	
11617.00†	90.521	358.733	7293.34	3537.16	3526.61	-516.30	40°06'44.339"N	104°47'20.834"W	0.00	
11717.00†	90.521	358.733	7292.43	3637.15	3626.58	-518.51	40°06'45.327"N	104°47'20.862"W	0.00	
11817.00†	90.521	358.733	7291.52	3737.15	3726.55	-520.72	40°06'46.316"N	104°47'20.891"W	0.00	
11917.00†	90.521	358.733	7290.61	3837.15	3826.52	-522.93	40°06'47.304"N	104°47'20.919"W	0.00	





# Planned Wellpath Report

TEDFORD 4N-28HZ (PERMIT REV-3) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 TEDFORD 4N-28HZ (285'FSL & 1222'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 4N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 4N-28HZ PWB
Facility	SEC.28-T2N-R66W		

## WELLPATH DATA (147 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12017.00†	90.521	358.733	7289.70	3937.14	3926.49	-525.15	40°06'48.292"N	104°47'20.948"W	0.00	
12117.00†	90.521	358.733	7288.80	4037.14	4026.46	-527.36	40°06'49.280"N	104°47'20.976"W	0.00	
12217.00†	90.521	358.733	7287.89	4137.13	4126.43	-529.57	40°06'50.269"N	104°47'21.005"W	0.00	
12317.00†	90.521	358.733	7286.98	4237.13	4226.40	-531.78	40°06'51.257"N	104°47'21.033"W	0.00	
12417.00†	90.521	358.733	7286.07	4337.13	4326.38	-533.99	40°06'52.245"N	104°47'21.062"W	0.00	
12517.00†	90.521	358.733	7285.16	4437.12	4426.35	-536.20	40°06'53.234"N	104°47'21.090"W	0.00	
12617.00†	90.521	358.733	7284.25	4537.12	4526.32	-538.42	40°06'54.222"N	104°47'21.119"W	0.00	
12717.00†	90.521	358.733	7283.34	4637.11	4626.29	-540.63	40°06'55.210"N	104°47'21.147"W	0.00	
12817.00†	90.521	358.733	7282.43	4737.11	4726.26	-542.84	40°06'56.199"N	104°47'21.176"W	0.00	
12917.00†	90.521	358.733	7281.52	4837.11	4826.23	-545.05	40°06'57.187"N	104°47'21.204"W	0.00	
13017.00†	90.521	358.733	7280.61	4937.10	4926.20	-547.26	40°06'58.175"N	104°47'21.233"W	0.00	
13084.45	90.521	358.733	7280.00†	5004.55	4993.63	-548.75	40°06'58.842"N	104°47'21.252"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS

- Ref Wellbore: TEDFORD 4N-28HZ PWB Ref Wellpath: TEDFORD 4N-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	-303.25	-147.47
9.625in Casing Surface	17.00	1845.75	1828.75	17.00	1800.00	0.00	0.00	-303.25	-147.47
7.875in Open Hole	1845.75	13084.45	11238.70	1800.00	7280.00	-303.25	-147.47	4993.63	-548.75
5.5in Casing Production	17.00	13084.45	13067.45	17.00	7280.00	0.00	0.00	4993.63	-548.75

## 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	-1110.22	102.07	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
SEC.29-T2N-R66W SECTION LINES		41.00	-582.52	-2123.09	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.32-T2N-R66W SECTION LINES		41.00	-582.52	-2123.09	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
1) TEDFORD 4N-28HZ BHL REV-1 (1'FNL & 687'FWL, SEC.28)	13084.45	7280.00	4993.63	-548.75	1699340.86	14569169.65	40°06'58.842"N	104°47'21.252"W	point
SEC.28-T2N-R66W SECTION LINES		7301.00	-1.39	149.91	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W	polygon

## SURVEY PROGRAM -

Ref Wellbore: TEDFORD 4N-28HZ PWB Ref Wellpath: TEDFORD 4N-28HZ (PERMIT REV-3) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13084.45	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)		TEDFORD 4N-28HZ PWB



# Planned Wellpath Report

TEDFORD 4N-28HZ (PERMIT REV-3) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 TEDFORD 4N-28HZ (285'FSL & 1222'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 4N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 4N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1050.00	12.750	205.934	1043.00	FOX HILLS BASE
4218.03	0.000	358.733	4073.00	PARKMAN
4729.03	0.000	358.733	4584.00	SUSSEX
7422.44	52.235	358.733	7208.00	SHARON SPRINGS
7518.07	61.798	358.733	7260.00	NIOBRARA A
7692.79	79.269	358.733	7318.00	NIOBRARA B
7805.31	90.521	358.733	7328.00	TOP OF PRODUCTION
8904.75	90.521	358.733	7318.00	NIOBRARA B

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	205.934	17.00	TIE-ON
200.00	0.000	205.934	200.00	BEGIN NUDGE
1533.33	20.000	205.934	1506.42	END NUDGE
3157.30	20.000	205.934	3032.45	BEGIN DROP
4157.30	0.000	358.733	4012.27	END DROP
6900.10	0.000	358.733	6755.06	KOP, BUILD @ 10°/100'
7805.31	90.521	358.733	7328.00	LANDING POINT
13084.45	90.521	358.733	7280.00	TOTAL DEPTH