

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28)  
Field: WELD COUNTY (UTM (ZONE 13)/NAD83/TN) Well: TEDFORD 29N-28HZ  
Facility: SEC.28-T2N-R66W Wellbore: TEDFORD 29N-28HZ PWB

Plot reference wellpath is TEDFORD 29N-28HZ (PERMIT REV-3) PWP

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#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: amarcar on 04/May/2015

## Location Information

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)
SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28)	-4529.19	-676.00	1699961.536	14564176.927
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28))			4980ft	
Mean Sea Level to Mud line (At Slot: SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28))			0ft	
PERMIT (17KB) (RKB) to Mean Sea Level			4980ft	

## Survey Program

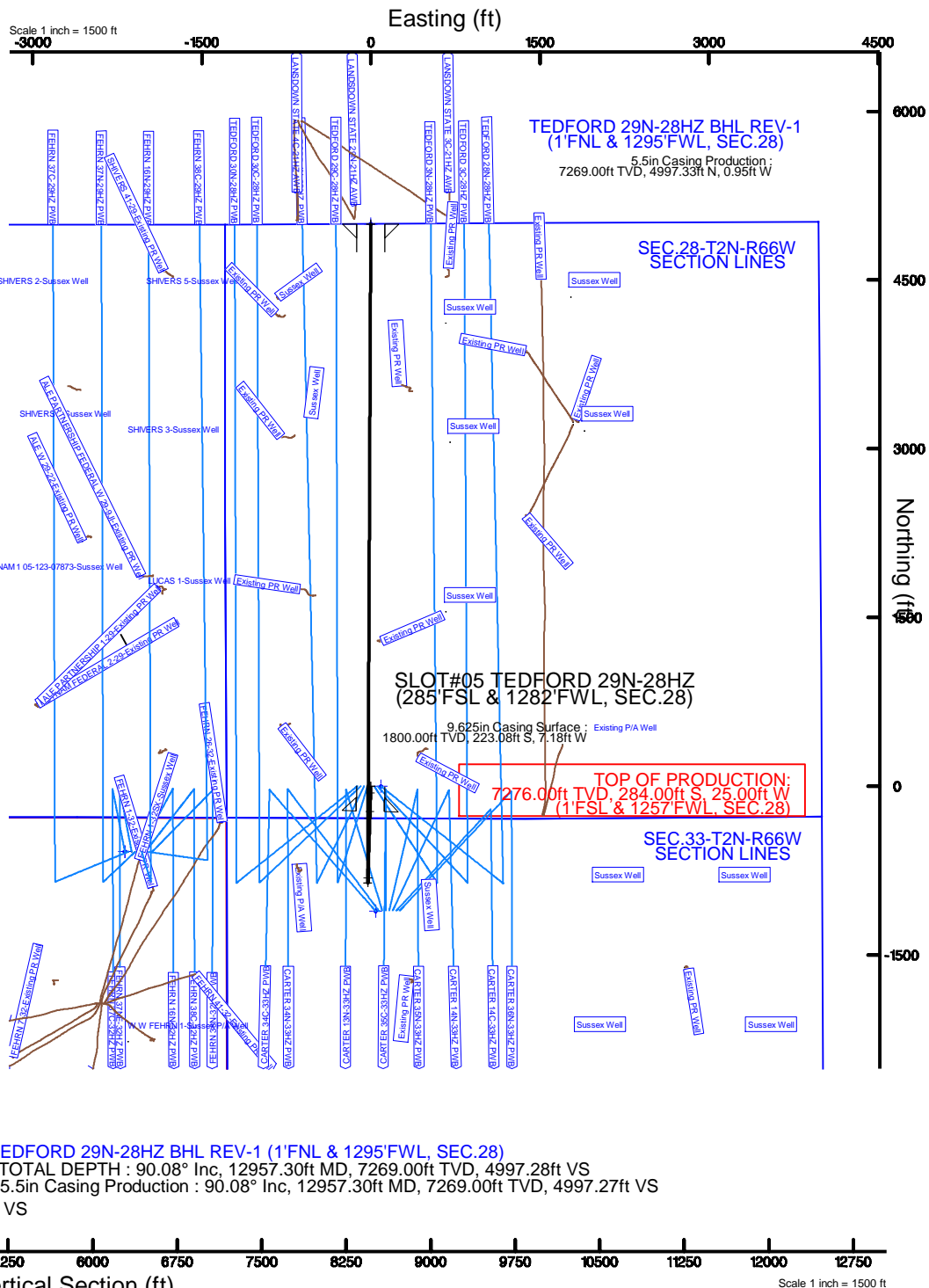
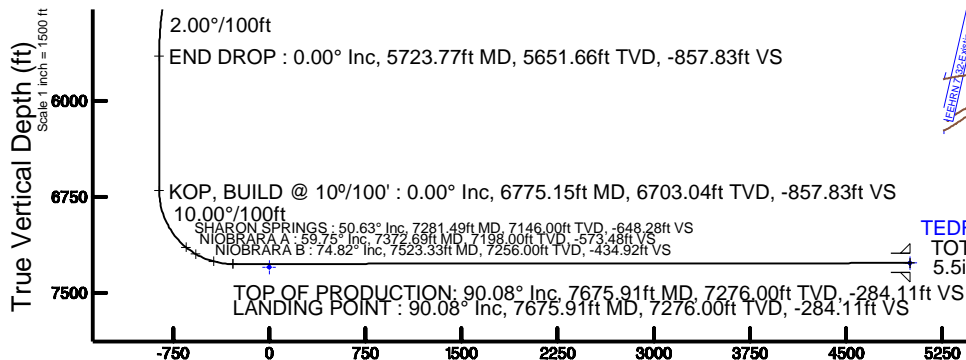
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	12957.30	ISCWSA MWD, Rev. 2, axial magnetic correction	Custom APC, ISCWSA REV 2 MWD+IFR1+SC (approximation)		TEDFORD 29N-28HZ PWB

## Targets

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	-1109.66	42.09	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	
SEC.29-T2N-R66W SECTION LINES	41.00	-581.95	-2183.07	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
SEC.32-T2N-R66W SECTION LINES	41.00	-581.95	-2183.07	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
TEDFORD 29N-28HZ BHL REV-1 (1' FNL & 1295'FWL, SEC.28)	12957.30	7269.00	4997.33	-0.95	1699948.62	14569174.23	40°06'58.873"N	104°47'13.426"W
SEC.28-T2N-R66W SECTION LINES	7301.00	-0.82	89.93	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"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	181.844	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	200.00	0.000	181.844	200.00	0.00	0.00	0.00	0.00
END NUDGE	866.67	10.000	181.844	863.29	-58.00	-1.87	1.50	-58.01
BEGIN DROP	5223.77	10.000	181.844	5154.19	-814.21	-26.21	0.00	-814.32
END DROP	5723.77	0.000	0.261	5651.66	-857.71	-27.61	2.00	-857.83
KOP, BUILD @ 10°/100'	6775.15	0.000	0.261	6703.04	-857.71	-27.61	0.00	-857.83
LANDING POINT	7675.91	90.076	0.261	7276.00	-284.00	-25.00	10.00	-284.11
TOTAL DEPTH	12957.30	90.076	0.261	7269.00	4997.33	-0.95	0.00	4997.28





# Planned Wellpath Report

TEDFORD 29N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29N-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	04/May/2015 at 09:54
Convergence at slot	0.14° East	Database/Source file	MAP CHECK./_TEDFORD_29N-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	-4529.19	-676.00	1699961.54	14564176.93	40°06'09.469"N	104°47'13.414"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#05 TEDFORD 29N-28HZ (285'FSL & 1282'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	0.26°



# Planned Wellpath Report

TEDFORD 29N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (145 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	181.844	0.00	0.00	0.00	0.00	40°06'09.469"N	104°47'13.414"W	0.00	
17.00	0.000	181.844	17.00	0.00	0.00	0.00	40°06'09.469"N	104°47'13.414"W	0.00	TIE-ON
117.00†	0.000	181.844	117.00	0.00	0.00	0.00	40°06'09.469"N	104°47'13.414"W	0.00	
200.00	0.000	181.844	200.00	0.00	0.00	0.00	40°06'09.469"N	104°47'13.414"W	0.00	BEGIN NUDGE
217.00†	0.255	181.844	217.00	-0.04	-0.04	0.00	40°06'09.469"N	104°47'13.414"W	1.50	
317.00†	1.755	181.844	316.98	-1.79	-1.79	-0.06	40°06'09.451"N	104°47'13.415"W	1.50	
417.00†	3.255	181.844	416.88	-6.16	-6.16	-0.20	40°06'09.408"N	104°47'13.416"W	1.50	
517.00†	4.755	181.844	516.64	-13.14	-13.14	-0.42	40°06'09.339"N	104°47'13.419"W	1.50	
617.00†	6.255	181.844	616.17	-22.73	-22.73	-0.73	40°06'09.244"N	104°47'13.423"W	1.50	
717.00†	7.755	181.844	715.42	-34.92	-34.92	-1.12	40°06'09.124"N	104°47'13.428"W	1.50	
817.00†	9.255	181.844	814.32	-49.70	-49.70	-1.60	40°06'08.978"N	104°47'13.434"W	1.50	
866.67	10.000	181.844	863.29	-58.01	-58.00	-1.87	40°06'08.896"N	104°47'13.438"W	1.50	END NUDGE
917.00†	10.000	181.844	912.86	-66.74	-66.74	-2.15	40°06'08.809"N	104°47'13.441"W	0.00	
1017.00†	10.000	181.844	1011.34	-84.10	-84.09	-2.71	40°06'08.638"N	104°47'13.449"W	0.00	
1049.15†	10.000	181.844	1043.00	-89.68	-89.67	-2.89	40°06'08.583"N	104°47'13.451"W	0.00	FOX HILLS BASE
1117.00†	10.000	181.844	1109.82	-101.46	-101.45	-3.27	40°06'08.466"N	104°47'13.456"W	0.00	
1217.00†	10.000	181.844	1208.30	-118.82	-118.80	-3.82	40°06'08.295"N	104°47'13.463"W	0.00	
1317.00†	10.000	181.844	1306.78	-136.18	-136.16	-4.38	40°06'08.123"N	104°47'13.470"W	0.00	
1417.00†	10.000	181.844	1405.26	-153.54	-153.51	-4.94	40°06'07.951"N	104°47'13.477"W	0.00	
1517.00†	10.000	181.844	1503.74	-170.89	-170.87	-5.50	40°06'07.780"N	104°47'13.485"W	0.00	
1617.00†	10.000	181.844	1602.22	-188.25	-188.23	-6.06	40°06'07.608"N	104°47'13.492"W	0.00	
1717.00†	10.000	181.844	1700.70	-205.61	-205.58	-6.62	40°06'07.437"N	104°47'13.499"W	0.00	
1817.00†	10.000	181.844	1799.18	-222.97	-222.94	-7.18	40°06'07.265"N	104°47'13.506"W	0.00	
1917.00†	10.000	181.844	1897.66	-240.33	-240.29	-7.74	40°06'07.094"N	104°47'13.513"W	0.00	
2017.00†	10.000	181.844	1996.14	-257.69	-257.65	-8.29	40°06'06.922"N	104°47'13.521"W	0.00	
2117.00†	10.000	181.844	2094.63	-275.04	-275.01	-8.85	40°06'06.750"N	104°47'13.528"W	0.00	
2217.00†	10.000	181.844	2193.11	-292.40	-292.36	-9.41	40°06'06.579"N	104°47'13.535"W	0.00	
2317.00†	10.000	181.844	2291.59	-309.76	-309.72	-9.97	40°06'06.407"N	104°47'13.542"W	0.00	
2417.00†	10.000	181.844	2390.07	-327.12	-327.07	-10.53	40°06'06.236"N	104°47'13.549"W	0.00	
2517.00†	10.000	181.844	2488.55	-344.48	-344.43	-11.09	40°06'06.064"N	104°47'13.557"W	0.00	
2617.00†	10.000	181.844	2587.03	-361.83	-361.78	-11.65	40°06'05.892"N	104°47'13.564"W	0.00	
2717.00†	10.000	181.844	2685.51	-379.19	-379.14	-12.21	40°06'05.721"N	104°47'13.571"W	0.00	
2817.00†	10.000	181.844	2783.99	-396.55	-396.50	-12.76	40°06'05.549"N	104°47'13.578"W	0.00	
2917.00†	10.000	181.844	2882.47	-413.91	-413.85	-13.32	40°06'05.378"N	104°47'13.585"W	0.00	
3017.00†	10.000	181.844	2980.95	-431.27	-431.21	-13.88	40°06'05.206"N	104°47'13.593"W	0.00	
3117.00†	10.000	181.844	3079.43	-448.63	-448.56	-14.44	40°06'05.035"N	104°47'13.600"W	0.00	
3217.00†	10.000	181.844	3177.91	-465.98	-465.92	-15.00	40°06'04.863"N	104°47'13.607"W	0.00	
3317.00†	10.000	181.844	3276.39	-483.34	-483.28	-15.56	40°06'04.691"N	104°47'13.614"W	0.00	
3417.00†	10.000	181.844	3374.88	-500.70	-500.63	-16.12	40°06'04.520"N	104°47'13.621"W	0.00	
3517.00†	10.000	181.844	3473.36	-518.06	-517.99	-16.68	40°06'04.348"N	104°47'13.628"W	0.00	
3617.00†	10.000	181.844	3571.84	-535.42	-535.34	-17.23	40°06'04.177"N	104°47'13.636"W	0.00	
3717.00†	10.000	181.844	3670.32	-552.77	-552.70	-17.79	40°06'04.005"N	104°47'13.643"W	0.00	
3817.00†	10.000	181.844	3768.80	-570.13	-570.05	-18.35	40°06'03.834"N	104°47'13.650"W	0.00	
3917.00†	10.000	181.844	3867.28	-587.49	-587.41	-18.91	40°06'03.662"N	104°47'13.657"W	0.00	
4017.00†	10.000	181.844	3965.76	-604.85	-604.77	-19.47	40°06'03.490"N	104°47'13.664"W	0.00	



# Planned Wellpath Report

TEDFORD 29N-28HZ (PERMIT REV-3) PWP

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Area	Compass Import	Well	TEDFORD 29N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4062.94†	10.000	181.844	4011.00	-612.82	-612.74	-19.73	40°06'03.412"N	104°47'13.668"W	0.00	PARKMAN
4117.00†	10.000	181.844	4064.24	-622.21	-622.12	-20.03	40°06'03.319"N	104°47'13.672"W	0.00	
4217.00†	10.000	181.844	4162.72	-639.57	-639.48	-20.59	40°06'03.147"N	104°47'13.679"W	0.00	
4317.00†	10.000	181.844	4261.20	-656.92	-656.83	-21.15	40°06'02.976"N	104°47'13.686"W	0.00	
4417.00†	10.000	181.844	4359.68	-674.28	-674.19	-21.70	40°06'02.804"N	104°47'13.693"W	0.00	
4517.00†	10.000	181.844	4458.16	-691.64	-691.55	-22.26	40°06'02.632"N	104°47'13.700"W	0.00	
4581.82†	10.000	181.844	4522.00	-702.89	-702.80	-22.63	40°06'02.521"N	104°47'13.705"W	0.00	SUSSEX
4617.00†	10.000	181.844	4556.64	-709.00	-708.90	-22.82	40°06'02.461"N	104°47'13.708"W	0.00	
4717.00†	10.000	181.844	4655.13	-726.36	-726.26	-23.38	40°06'02.289"N	104°47'13.715"W	0.00	
4817.00†	10.000	181.844	4753.61	-743.71	-743.61	-23.94	40°06'02.118"N	104°47'13.722"W	0.00	
4917.00†	10.000	181.844	4852.09	-761.07	-760.97	-24.50	40°06'01.946"N	104°47'13.729"W	0.00	
5017.00†	10.000	181.844	4950.57	-778.43	-778.32	-25.06	40°06'01.775"N	104°47'13.736"W	0.00	
5117.00†	10.000	181.844	5049.05	-795.79	-795.68	-25.62	40°06'01.603"N	104°47'13.744"W	0.00	
5217.00†	10.000	181.844	5147.53	-813.15	-813.04	-26.17	40°06'01.431"N	104°47'13.751"W	0.00	
5223.77	10.000	181.844	5154.19	-814.32	-814.21	-26.21	40°06'01.420"N	104°47'13.751"W	0.00	BEGIN DROP
5317.00†	8.135	181.844	5246.26	-829.01	-828.90	-26.68	40°06'01.275"N	104°47'13.757"W	2.00	
5417.00†	6.135	181.844	5345.48	-841.43	-841.31	-27.08	40°06'01.152"N	104°47'13.762"W	2.00	
5517.00†	4.135	181.844	5445.07	-850.37	-850.26	-27.37	40°06'01.063"N	104°47'13.766"W	2.00	
5617.00†	2.135	181.844	5544.92	-855.84	-855.72	-27.55	40°06'01.009"N	104°47'13.768"W	2.00	
5717.00†	0.135	181.844	5644.89	-857.82	-857.70	-27.61	40°06'00.990"N	104°47'13.769"W	2.00	
5723.77	0.000	0.261	5651.66	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	2.00	END DROP
5817.00†	0.000	0.261	5744.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
5917.00†	0.000	0.261	5844.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6017.00†	0.000	0.261	5944.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6117.00†	0.000	0.261	6044.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6217.00†	0.000	0.261	6144.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6317.00†	0.000	0.261	6244.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6417.00†	0.000	0.261	6344.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6517.00†	0.000	0.261	6444.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6617.00†	0.000	0.261	6544.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6717.00†	0.000	0.261	6644.89	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	
6775.15	0.000	0.261	6703.04	-857.83	-857.71	-27.61	40°06'00.990"N	104°47'13.769"W	0.00	KOP, BUILD @ 10°/100'
6817.00†	4.185	0.261	6744.85	-856.30	-856.18	-27.61	40°06'01.005"N	104°47'13.769"W	10.00	
6917.00†	14.185	0.261	6843.45	-840.36	-840.24	-27.53	40°06'01.162"N	104°47'13.768"W	10.00	
7017.00†	24.185	0.261	6937.77	-807.54	-807.42	-27.38	40°06'01.487"N	104°47'13.766"W	10.00	
7117.00†	34.185	0.261	7024.97	-758.84	-758.72	-27.16	40°06'01.968"N	104°47'13.763"W	10.00	
7217.00†	44.185	0.261	7102.38	-695.73	-695.62	-26.87	40°06'02.592"N	104°47'13.760"W	10.00	
7281.49†	50.634	0.261	7146.00	-648.28	-648.16	-26.66	40°06'03.061"N	104°47'13.757"W	10.00	SHARON SPRINGS
7317.00†	54.185	0.261	7167.66	-620.15	-620.03	-26.53	40°06'03.339"N	104°47'13.755"W	10.00	
7372.69†	59.754	0.261	7198.00	-573.48	-573.36	-26.32	40°06'03.801"N	104°47'13.753"W	10.00	NIOBRARA A
7417.00†	64.185	0.261	7218.82	-534.37	-534.26	-26.14	40°06'04.187"N	104°47'13.750"W	10.00	
7517.00†	74.185	0.261	7254.31	-441.02	-440.90	-25.71	40°06'05.110"N	104°47'13.745"W	10.00	
7523.33†	74.818	0.261	7256.00	-434.92	-434.81	-25.69	40°06'05.171"N	104°47'13.744"W	10.00	NIOBRARA B
7617.00†	84.185	0.261	7273.05	-342.92	-342.81	-25.27	40°06'06.080"N	104°47'13.739"W	10.00	
7675.91	90.076	0.261	7276.00	-284.11	-284.00	-25.00	40°06'06.661"N	104°47'13.736"W	10.00	LANDING POINT



# Planned Wellpath Report

TEDFORD 29N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7675.91†	90.076	0.261	7276.00	-284.11	-284.00	-25.00	40°06'06.662"N	104°47'13.736"W	0.00	PRODUCTION TOP
7717.00†	90.076	0.261	7275.94	-243.02	-242.91	-24.81	40°06'07.068"N	104°47'13.733"W	0.00	
7817.00†	90.076	0.261	7275.81	-143.02	-142.91	-24.36	40°06'08.056"N	104°47'13.727"W	0.00	
7917.00†	90.076	0.261	7275.68	-43.02	-42.91	-23.90	40°06'09.045"N	104°47'13.722"W	0.00	
8017.00†	90.076	0.261	7275.54	56.98	57.09	-23.45	40°06'10.034"N	104°47'13.716"W	0.00	
8117.00†	90.076	0.261	7275.41	156.98	157.09	-22.99	40°06'11.022"N	104°47'13.710"W	0.00	
8217.00†	90.076	0.261	7275.28	256.98	257.09	-22.54	40°06'12.011"N	104°47'13.704"W	0.00	
8317.00†	90.076	0.261	7275.15	356.98	357.09	-22.08	40°06'12.999"N	104°47'13.698"W	0.00	
8417.00†	90.076	0.261	7275.01	456.98	457.09	-21.63	40°06'13.988"N	104°47'13.692"W	0.00	
8517.00†	90.076	0.261	7274.88	556.98	557.08	-21.17	40°06'14.976"N	104°47'13.686"W	0.00	
8617.00†	90.076	0.261	7274.75	656.98	657.08	-20.71	40°06'15.965"N	104°47'13.680"W	0.00	
8717.00†	90.076	0.261	7274.62	756.98	757.08	-20.26	40°06'16.954"N	104°47'13.675"W	0.00	
8817.00†	90.076	0.261	7274.48	856.98	857.08	-19.80	40°06'17.942"N	104°47'13.669"W	0.00	
8917.00†	90.076	0.261	7274.35	956.98	957.08	-19.35	40°06'18.931"N	104°47'13.663"W	0.00	
9017.00†	90.076	0.261	7274.22	1056.98	1057.08	-18.89	40°06'19.919"N	104°47'13.657"W	0.00	
9117.00†	90.076	0.261	7274.09	1156.98	1157.08	-18.44	40°06'20.908"N	104°47'13.651"W	0.00	
9217.00†	90.076	0.261	7273.95	1256.98	1257.08	-17.98	40°06'21.897"N	104°47'13.645"W	0.00	
9317.00†	90.076	0.261	7273.82	1356.98	1357.08	-17.53	40°06'22.885"N	104°47'13.639"W	0.00	
9417.00†	90.076	0.261	7273.69	1456.98	1457.07	-17.07	40°06'23.874"N	104°47'13.634"W	0.00	
9517.00†	90.076	0.261	7273.56	1556.98	1557.07	-16.62	40°06'24.862"N	104°47'13.628"W	0.00	
9617.00†	90.076	0.261	7273.42	1656.98	1657.07	-16.16	40°06'25.851"N	104°47'13.622"W	0.00	
9717.00†	90.076	0.261	7273.29	1756.98	1757.07	-15.71	40°06'26.840"N	104°47'13.616"W	0.00	
9817.00†	90.076	0.261	7273.16	1856.98	1857.07	-15.25	40°06'27.828"N	104°47'13.610"W	0.00	
9917.00†	90.076	0.261	7273.03	1956.98	1957.07	-14.79	40°06'28.817"N	104°47'13.604"W	0.00	
10017.00†	90.076	0.261	7272.90	2056.98	2057.07	-14.34	40°06'29.805"N	104°47'13.598"W	0.00	
10117.00†	90.076	0.261	7272.76	2156.98	2157.07	-13.88	40°06'30.794"N	104°47'13.593"W	0.00	
10217.00†	90.076	0.261	7272.63	2256.98	2257.07	-13.43	40°06'31.783"N	104°47'13.587"W	0.00	
10317.00†	90.076	0.261	7272.50	2356.98	2357.06	-12.97	40°06'32.771"N	104°47'13.581"W	0.00	
10417.00†	90.076	0.261	7272.37	2456.98	2457.06	-12.52	40°06'33.760"N	104°47'13.575"W	0.00	
10517.00†	90.076	0.261	7272.23	2556.98	2557.06	-12.06	40°06'34.748"N	104°47'13.569"W	0.00	
10617.00†	90.076	0.261	7272.10	2656.98	2657.06	-11.61	40°06'35.737"N	104°47'13.563"W	0.00	
10717.00†	90.076	0.261	7271.97	2756.98	2757.06	-11.15	40°06'36.726"N	104°47'13.557"W	0.00	
10817.00†	90.076	0.261	7271.84	2856.98	2857.06	-10.70	40°06'37.714"N	104°47'13.552"W	0.00	
10917.00†	90.076	0.261	7271.70	2956.98	2957.06	-10.24	40°06'38.703"N	104°47'13.546"W	0.00	
11017.00†	90.076	0.261	7271.57	3056.98	3057.06	-9.79	40°06'39.691"N	104°47'13.540"W	0.00	
11117.00†	90.076	0.261	7271.44	3156.98	3157.05	-9.33	40°06'40.680"N	104°47'13.534"W	0.00	
11217.00†	90.076	0.261	7271.31	3256.98	3257.05	-8.87	40°06'41.669"N	104°47'13.528"W	0.00	
11317.00†	90.076	0.261	7271.17	3356.98	3357.05	-8.42	40°06'42.657"N	104°47'13.522"W	0.00	
11417.00†	90.076	0.261	7271.04	3456.98	3457.05	-7.96	40°06'43.646"N	104°47'13.516"W	0.00	
11517.00†	90.076	0.261	7270.91	3556.98	3557.05	-7.51	40°06'44.634"N	104°47'13.510"W	0.00	
11617.00†	90.076	0.261	7270.78	3656.98	3657.05	-7.05	40°06'45.623"N	104°47'13.505"W	0.00	
11717.00†	90.076	0.261	7270.64	3756.98	3757.05	-6.60	40°06'46.611"N	104°47'13.499"W	0.00	
11817.00†	90.076	0.261	7270.51	3856.98	3857.05	-6.14	40°06'47.600"N	104°47'13.493"W	0.00	
11917.00†	90.076	0.261	7270.38	3956.98	3957.05	-5.69	40°06'48.589"N	104°47'13.487"W	0.00	
12017.00†	90.076	0.261	7270.25	4056.98	4057.04	-5.23	40°06'49.577"N	104°47'13.481"W	0.00	





# Planned Wellpath Report

TEDFORD 29N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.076	0.261	7270.11	4156.98	4157.04	-4.78	40°06'50.566"N	104°47'13.475"W	0.00	
12217.00†	90.076	0.261	7269.98	4256.98	4257.04	-4.32	40°06'51.554"N	104°47'13.469"W	0.00	
12317.00†	90.076	0.261	7269.85	4356.98	4357.04	-3.87	40°06'52.543"N	104°47'13.464"W	0.00	
12417.00†	90.076	0.261	7269.72	4456.98	4457.04	-3.41	40°06'53.532"N	104°47'13.458"W	0.00	
12517.00†	90.076	0.261	7269.58	4556.98	4557.04	-2.95	40°06'54.520"N	104°47'13.452"W	0.00	
12617.00†	90.076	0.261	7269.45	4656.98	4657.04	-2.50	40°06'55.509"N	104°47'13.446"W	0.00	
12717.00†	90.076	0.261	7269.32	4756.98	4757.04	-2.04	40°06'56.497"N	104°47'13.440"W	0.00	
12817.00†	90.076	0.261	7269.19	4856.98	4857.04	-1.59	40°06'57.486"N	104°47'13.434"W	0.00	
12917.00†	90.076	0.261	7269.05	4956.98	4957.03	-1.13	40°06'58.475"N	104°47'13.428"W	0.00	
12957.30	90.076	0.261	7269.00	4997.28	4997.33	-0.95	40°06'58.873"N	104°47'13.426"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS

- Ref Wellbore: TEDFORD 29N-28HZ PWB      Ref Wellpath: TEDFORD 29N-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	1817.83	1800.83	17.00	1800.00	0.00	0.00	-223.08	-7.18
9.625in Casing Surface	17.00	1817.83	1800.83	17.00	1800.00	0.00	0.00	-223.08	-7.18
7.875in Open Hole	1817.83	12957.30	11139.47	1800.00	7269.00	-223.08	-7.18	4997.33	-0.95
5.5in Casing Production	17.00	12957.30	12940.30	17.00	7269.00	0.00	0.00	4997.33	-0.95

## 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	-1109.66	42.09	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
SEC.29-T2N-R66W SECTION LINES		41.00	-581.95	-2183.07	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.32-T2N-R66W SECTION LINES		41.00	-581.95	-2183.07	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
1) TEDFORD 29N-28HZ BHL REV-1 (1'FNL & 1295'FWL, SEC.28)	12957.30	7269.00	4997.33	-0.95	1699948.62	14569174.23	40°06'58.873"N	104°47'13.426"W	point
SEC.28-T2N-R66W SECTION LINES		7301.00	-0.82	89.93	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W	polygon

## SURVEY PROGRAM -

Ref Wellbore: TEDFORD 29N-28HZ PWB      Ref Wellpath: TEDFORD 29N-28HZ (PERMIT REV-3) PWP									
Start MD [ft]	End MD [ft]	Positional Uncertainty Model				Log Name/Comment		Wellbore	
17.00	12957.30	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)						TEDFORD 29N-28HZ PWB	



# Planned Wellpath Report

TEDFORD 29N-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 TEDFORD 29N-28HZ (285'FSL & 1282'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1049.15	10.000	181.844	1043.00	FOX HILLS BASE
4062.94	10.000	181.844	4011.00	PARKMAN
4581.82	10.000	181.844	4522.00	SUSSEX
7281.49	50.634	0.261	7146.00	SHARON SPRINGS
7372.69	59.754	0.261	7198.00	NIOBRARA A
7523.33	74.818	0.261	7256.00	NIOBRARA B
7675.91	90.076	0.261	7276.00	PRODUCTION TOP

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	181.844	17.00	TIE-ON
200.00	0.000	181.844	200.00	BEGIN NUDGE
866.67	10.000	181.844	863.29	END NUDGE
5223.77	10.000	181.844	5154.19	BEGIN DROP
5723.77	0.000	0.261	5651.66	END DROP
6775.15	0.000	0.261	6703.04	KOP, BUILD @ 10°/100'
7675.91	90.076	0.261	7276.00	LANDING POINT
12957.30	90.076	0.261	7269.00	TOTAL DEPTH