

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#04 TEDFORD 29C-28HZ (285°FSL & 1252°FWL, SEC.28)
Field: WELD COUNTY (UTM (ZONE 13)/NAD83/TN) Well: TEDFORD 29C-28HZ
Facility: SEC.28-T2N-R66W Wellbore: TEDFORD 29C-28HZ PWB

Plot reference wellpath is TEDFORD 29C-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#04 TEDFORD 29C-28HZ (285°FSL & 1252°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#04 TEDFORD 29C-28HZ (285°FSL & 1252°FWL, SEC.28)	-4528.90	-705.99	1699931.547	14564177.139
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#04 TEDFORD 29C-28HZ (285°FSL & 1252°FWL, SEC.28))				4980ft
Mean Sea Level to Mud line (At Slot: SLOT#04 TEDFORD 29C-28HZ (285°FSL & 1252°FWL, SEC.28))				0ft
PERMIT (17KB) (RKB) to Mean Sea Level				4980ft

Survey Program

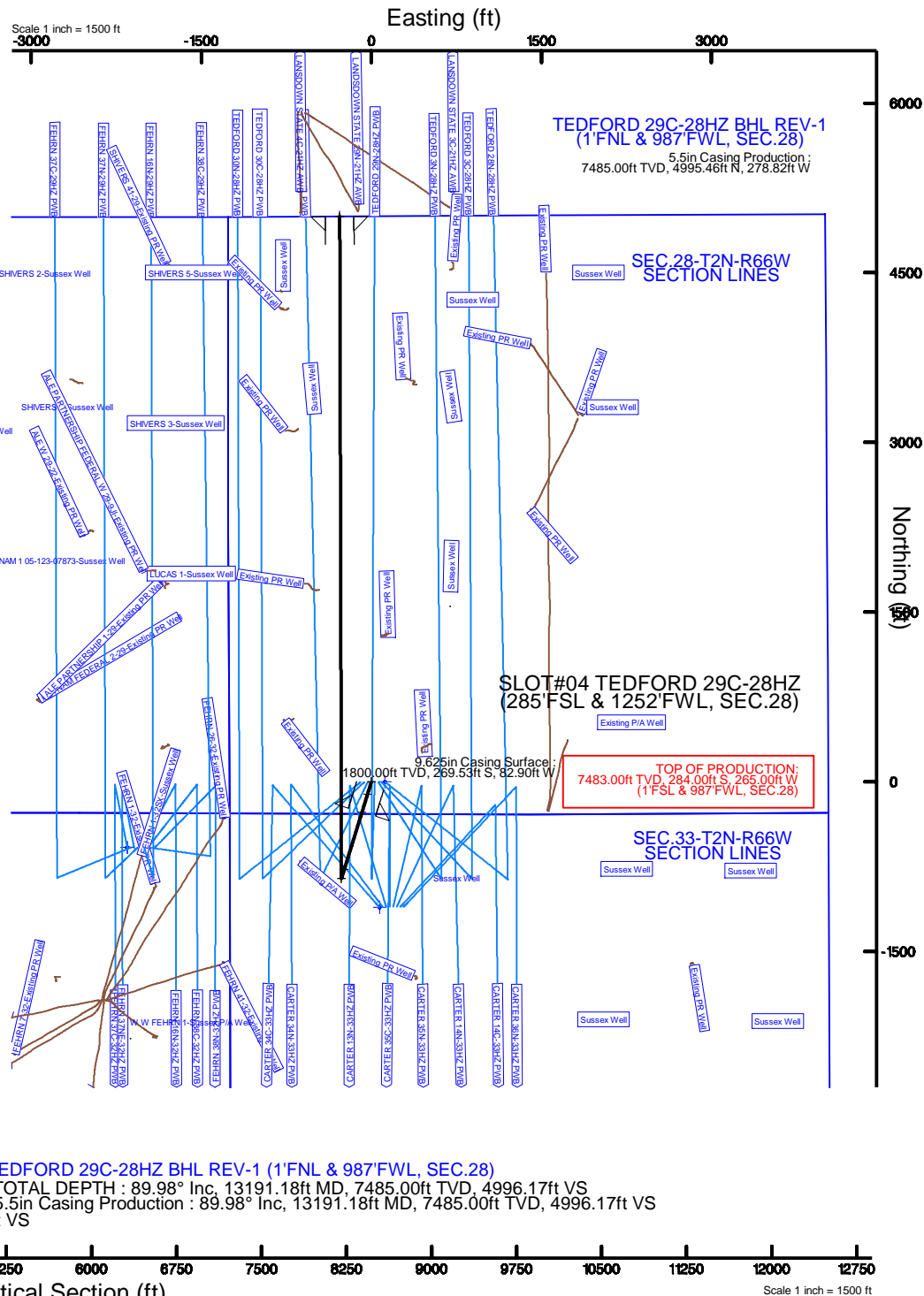
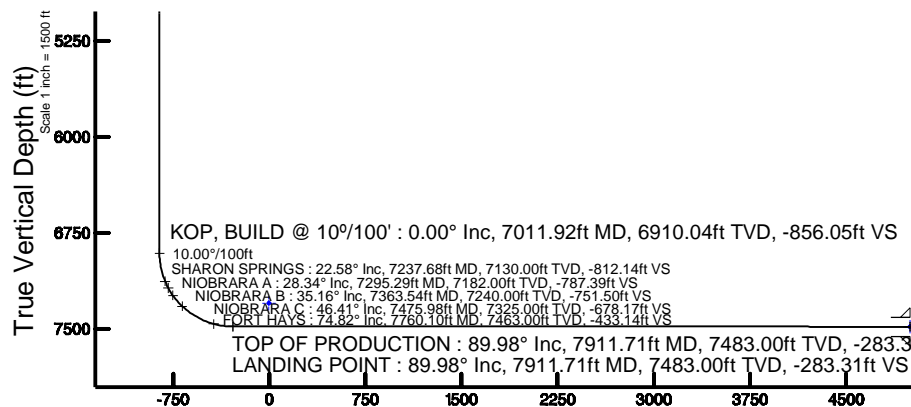
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13191.18	ISCWSAMVD, Rev. 2, axial magnetic correction	Custom APC, ISCWSAREV2 MVD+FR1+SC (approximation)		TEDFORD 29C-28HZ PWB

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	-1109.94	72.08	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W
SEC.29-T2N-R66W SECTION LINES		41.00	-582.23	-2153.08	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W
SEC.32-T2N-R66W SECTION LINES		41.00	-582.23	-2153.08	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W
SEC.28-T2N-R66W SECTION LINES		7301.00	-1.11	119.92	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W
TEDFORD 29C-28HZ BHL REV-1 (1°FNL & 987°FWSL, SEC.28)	13191.18	7485.00	4995.46	-278.83	1699640.76	14569171.91	40°06'58.857"N	104°47'17.390"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	197.096	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	200.00	0.000	197.096	200.00	0.00	0.00	0.00	0.00
END NUDGE	1133.33	14.000	197.096	1124.07	-108.45	-33.35	1.50	-108.36
BEGIN DROP	4017.68	14.000	197.096	3922.74	-775.40	-238.48	0.00	-774.78
END DROP	4717.68	0.000	359.850	4615.80	-856.74	-263.50	2.00	-856.05
KOP, BUILD @ 10°/100'	7011.92	0.000	359.850	6910.04	-856.74	-263.50	0.00	-856.05
LANDING POINT	7911.71	89.978	359.850	7483.00	-284.00	-265.00	10.00	-283.31
TOTAL DEPTH	13191.18	89.978	359.850	7485.00	4995.46	-278.82	0.00	4996.17





Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 TEDFORD 29C-28HZ (285'FSL & 1252'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29C-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 09:34
Convergence at slot	0.14° East	Database/Source file	MAP CHECK./TEDFORD_29C-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	-4528.90	-705.99	1699931.55	14564177.14	40°06'09.472"N	104°47'13.800"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#04 TEDFORD 29C-28HZ (285'FSL & 1252'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 29C-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 TEDFORD 29C-28HZ (285'FSL & 1252'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29C-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	197.096	0.00	0.00	0.00	0.00	40°06'09.472"N	104°47'13.800"W	0.00	
17.00	0.000	197.096	17.00	0.00	0.00	0.00	40°06'09.472"N	104°47'13.800"W	0.00	TIE-ON
117.00†	0.000	197.096	117.00	0.00	0.00	0.00	40°06'09.472"N	104°47'13.800"W	0.00	
200.00	0.000	197.096	200.00	0.00	0.00	0.00	40°06'09.472"N	104°47'13.800"W	0.00	BEGIN NUDGE
217.00†	0.255	197.096	217.00	-0.04	-0.04	-0.01	40°06'09.472"N	104°47'13.800"W	1.50	
317.00†	1.755	197.096	316.98	-1.71	-1.71	-0.53	40°06'09.455"N	104°47'13.807"W	1.50	
417.00†	3.255	197.096	416.88	-5.89	-5.89	-1.81	40°06'09.414"N	104°47'13.823"W	1.50	
517.00†	4.755	197.096	516.64	-12.56	-12.57	-3.86	40°06'09.348"N	104°47'13.850"W	1.50	
617.00†	6.255	197.096	616.17	-21.72	-21.73	-6.68	40°06'09.257"N	104°47'13.886"W	1.50	
717.00†	7.755	197.096	715.42	-33.36	-33.39	-10.27	40°06'09.142"N	104°47'13.932"W	1.50	
817.00†	9.255	197.096	814.32	-47.49	-47.53	-14.62	40°06'09.002"N	104°47'13.988"W	1.50	
917.00†	10.755	197.096	912.80	-64.08	-64.13	-19.72	40°06'08.838"N	104°47'14.054"W	1.50	
1017.00†	12.255	197.096	1010.78	-83.13	-83.20	-25.59	40°06'08.649"N	104°47'14.129"W	1.50	
1050.00†	12.750	197.096	1043.00	-89.95	-90.02	-27.69	40°06'08.582"N	104°47'14.156"W	1.50	FOX HILLS BASE
1117.00†	13.755	197.096	1108.22	-104.62	-104.70	-32.20	40°06'08.437"N	104°47'14.214"W	1.50	
1133.33	14.000	197.096	1124.07	-108.36	-108.45	-33.35	40°06'08.400"N	104°47'14.229"W	1.50	END NUDGE
1217.00†	14.000	197.096	1205.25	-127.69	-127.79	-39.30	40°06'08.209"N	104°47'14.306"W	0.00	
1317.00†	14.000	197.096	1302.28	-150.80	-150.92	-46.42	40°06'07.980"N	104°47'14.397"W	0.00	
1417.00†	14.000	197.096	1399.31	-173.90	-174.04	-53.53	40°06'07.751"N	104°47'14.489"W	0.00	
1517.00†	14.000	197.096	1496.34	-197.01	-197.16	-60.64	40°06'07.523"N	104°47'14.581"W	0.00	
1617.00†	14.000	197.096	1593.37	-220.11	-220.29	-67.75	40°06'07.294"N	104°47'14.672"W	0.00	
1717.00†	14.000	197.096	1690.40	-243.21	-243.41	-74.86	40°06'07.066"N	104°47'14.764"W	0.00	
1817.00†	14.000	197.096	1787.43	-266.32	-266.53	-81.98	40°06'06.837"N	104°47'14.855"W	0.00	
1917.00†	14.000	197.096	1884.46	-289.42	-289.66	-89.09	40°06'06.608"N	104°47'14.947"W	0.00	
2017.00†	14.000	197.096	1981.49	-312.53	-312.78	-96.20	40°06'06.380"N	104°47'15.038"W	0.00	
2117.00†	14.000	197.096	2078.52	-335.63	-335.90	-103.31	40°06'06.151"N	104°47'15.130"W	0.00	
2217.00†	14.000	197.096	2175.55	-358.74	-359.03	-110.42	40°06'05.923"N	104°47'15.221"W	0.00	
2317.00†	14.000	197.096	2272.58	-381.84	-382.15	-117.54	40°06'05.694"N	104°47'15.313"W	0.00	
2417.00†	14.000	197.096	2369.61	-404.95	-405.27	-124.65	40°06'05.465"N	104°47'15.405"W	0.00	
2517.00†	14.000	197.096	2466.64	-428.05	-428.40	-131.76	40°06'05.237"N	104°47'15.496"W	0.00	
2617.00†	14.000	197.096	2563.67	-451.16	-451.52	-138.87	40°06'05.008"N	104°47'15.588"W	0.00	
2717.00†	14.000	197.096	2660.70	-474.26	-474.64	-145.98	40°06'04.780"N	104°47'15.679"W	0.00	
2817.00†	14.000	197.096	2757.73	-497.36	-497.77	-153.09	40°06'04.551"N	104°47'15.771"W	0.00	
2917.00†	14.000	197.096	2854.76	-520.47	-520.89	-160.21	40°06'04.322"N	104°47'15.862"W	0.00	
3017.00†	14.000	197.096	2951.79	-543.57	-544.01	-167.32	40°06'04.094"N	104°47'15.954"W	0.00	
3117.00†	14.000	197.096	3048.82	-566.68	-567.14	-174.43	40°06'03.865"N	104°47'16.045"W	0.00	
3217.00†	14.000	197.096	3145.85	-589.78	-590.26	-181.54	40°06'03.637"N	104°47'16.137"W	0.00	
3317.00†	14.000	197.096	3242.88	-612.89	-613.38	-188.65	40°06'03.408"N	104°47'16.229"W	0.00	
3417.00†	14.000	197.096	3339.91	-635.99	-636.51	-195.77	40°06'03.179"N	104°47'16.320"W	0.00	
3517.00†	14.000	197.096	3436.94	-659.10	-659.63	-202.88	40°06'02.951"N	104°47'16.412"W	0.00	
3617.00†	14.000	197.096	3533.96	-682.20	-682.75	-209.99	40°06'02.722"N	104°47'16.503"W	0.00	
3717.00†	14.000	197.096	3630.99	-705.30	-705.88	-217.10	40°06'02.494"N	104°47'16.595"W	0.00	
3817.00†	14.000	197.096	3728.02	-728.41	-729.00	-224.21	40°06'02.265"N	104°47'16.686"W	0.00	
3917.00†	14.000	197.096	3825.05	-751.51	-752.12	-231.32	40°06'02.036"N	104°47'16.778"W	0.00	
4017.00†	14.000	197.096	3922.08	-774.62	-775.25	-238.44	40°06'01.808"N	104°47'16.869"W	0.00	



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION			
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Area	Compass Import	Well	TEDFORD 29C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29C-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
4017.68	14.000	197.096	3922.74	-774.78	-775.40	-238.48	40°06'01.806"N	104°47'16.870"W	0.00	BEGIN DROP
4091.92†	12.515	197.096	3995.00	-791.03	-791.67	-243.49	40°06'01.645"N	104°47'16.934"W	2.00	PARKMAN
4117.00†	12.014	197.096	4019.51	-796.12	-796.77	-245.06	40°06'01.595"N	104°47'16.955"W	2.00	
4217.00†	10.014	197.096	4117.66	-814.37	-815.03	-250.67	40°06'01.415"N	104°47'17.027"W	2.00	
4317.00†	8.014	197.096	4216.42	-829.33	-830.00	-255.28	40°06'01.266"N	104°47'17.086"W	2.00	
4417.00†	6.014	197.096	4315.67	-840.99	-841.67	-258.87	40°06'01.151"N	104°47'17.132"W	2.00	
4517.00†	4.014	197.096	4415.28	-849.34	-850.02	-261.44	40°06'01.069"N	104°47'17.165"W	2.00	
4607.86†	2.196	197.096	4506.00	-854.04	-854.73	-262.88	40°06'01.022"N	104°47'17.184"W	2.00	SUSSEX
4617.00†	2.014	197.096	4515.14	-854.36	-855.05	-262.98	40°06'01.019"N	104°47'17.185"W	2.00	
4717.00†	0.014	197.096	4615.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	2.00	
4717.68	0.000	359.850	4615.80	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	2.00	END DROP
4817.00†	0.000	359.850	4715.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
4917.00†	0.000	359.850	4815.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5017.00†	0.000	359.850	4915.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5117.00†	0.000	359.850	5015.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5217.00†	0.000	359.850	5115.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5317.00†	0.000	359.850	5215.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5417.00†	0.000	359.850	5315.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5517.00†	0.000	359.850	5415.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5617.00†	0.000	359.850	5515.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5717.00†	0.000	359.850	5615.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5817.00†	0.000	359.850	5715.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
5917.00†	0.000	359.850	5815.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6017.00†	0.000	359.850	5915.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6117.00†	0.000	359.850	6015.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6217.00†	0.000	359.850	6115.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6317.00†	0.000	359.850	6215.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6417.00†	0.000	359.850	6315.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6517.00†	0.000	359.850	6415.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6617.00†	0.000	359.850	6515.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6717.00†	0.000	359.850	6615.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6817.00†	0.000	359.850	6715.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
6917.00†	0.000	359.850	6815.12	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	
7011.92	0.000	359.850	6910.04	-856.05	-856.74	-263.50	40°06'01.002"N	104°47'17.192"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	0.508	359.850	6915.12	-856.02	-856.72	-263.50	40°06'01.002"N	104°47'17.192"W	10.00	
7117.00†	10.508	359.850	7014.53	-846.44	-847.13	-263.53	40°06'01.097"N	104°47'17.192"W	10.00	
7217.00†	20.508	359.850	7110.77	-819.73	-820.43	-263.60	40°06'01.361"N	104°47'17.193"W	10.00	
7237.68†	22.576	359.850	7130.00	-812.14	-812.84	-263.62	40°06'01.436"N	104°47'17.194"W	10.00	SHARON SPRINGS
7295.29†	28.337	359.850	7182.00	-787.39	-788.08	-263.68	40°06'01.681"N	104°47'17.194"W	10.00	NIOBRARA A
7317.00†	30.508	359.850	7200.91	-776.73	-777.42	-263.71	40°06'01.786"N	104°47'17.195"W	10.00	
7363.54†	35.162	359.850	7240.00	-751.50	-752.19	-263.77	40°06'02.036"N	104°47'17.196"W	10.00	NIOBRARA B
7417.00†	40.508	359.850	7282.21	-718.72	-719.41	-263.86	40°06'02.360"N	104°47'17.197"W	10.00	
7475.98†	46.406	359.850	7325.00	-678.17	-678.86	-263.97	40°06'02.761"N	104°47'17.198"W	10.00	NIOBRARA C
7517.00†	50.508	359.850	7352.20	-647.47	-648.17	-264.05	40°06'03.064"N	104°47'17.199"W	10.00	
7617.00†	60.508	359.850	7408.76	-565.16	-565.85	-264.26	40°06'03.878"N	104°47'17.202"W	10.00	



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 TEDFORD 29C-28HZ (285'FSL & 1252'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29C-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
7717.00†	70.508	359.850	7450.16	-474.27	-474.97	-264.50	40°06'04.776"N	104°47'17.205"W	10.00	
7760.10†	74.818	359.850	7463.00	-433.14	-433.84	-264.61	40°06'05.183"N	104°47'17.206"W	10.00	FORT HAYS
7817.00†	80.508	359.850	7475.15	-377.58	-378.27	-264.75	40°06'05.732"N	104°47'17.208"W	10.00	
7911.71	89.978	359.850	7483.00	-283.31	-284.00	-265.00	40°06'06.664"N	104°47'17.211"W	10.00	LANDING POINT
7911.71†	89.978	359.850	7483.00	-283.30	-284.00	-265.00	40°06'06.664"N	104°47'17.211"W	0.00	TOP OF PRODUCTION
7917.00†	89.978	359.850	7483.00	-278.01	-278.71	-265.01	40°06'06.717"N	104°47'17.212"W	0.00	
8017.00†	89.978	359.850	7483.04	-178.01	-178.71	-265.28	40°06'07.705"N	104°47'17.215"W	0.00	
8117.00†	89.978	359.850	7483.08	-78.01	-78.71	-265.54	40°06'08.694"N	104°47'17.218"W	0.00	
8217.00†	89.978	359.850	7483.11	21.99	21.29	-265.80	40°06'09.682"N	104°47'17.222"W	0.00	
8317.00†	89.978	359.850	7483.15	121.99	121.29	-266.06	40°06'10.671"N	104°47'17.225"W	0.00	
8417.00†	89.978	359.850	7483.19	221.99	221.29	-266.32	40°06'11.660"N	104°47'17.229"W	0.00	
8517.00†	89.978	359.850	7483.23	321.99	321.29	-266.58	40°06'12.648"N	104°47'17.232"W	0.00	
8617.00†	89.978	359.850	7483.27	421.99	421.29	-266.85	40°06'13.637"N	104°47'17.235"W	0.00	
8717.00†	89.978	359.850	7483.30	521.99	521.29	-267.11	40°06'14.625"N	104°47'17.239"W	0.00	
8817.00†	89.978	359.850	7483.34	621.99	621.29	-267.37	40°06'15.614"N	104°47'17.242"W	0.00	
8917.00†	89.978	359.850	7483.38	721.99	721.29	-267.63	40°06'16.603"N	104°47'17.245"W	0.00	
9017.00†	89.978	359.850	7483.42	821.99	821.29	-267.89	40°06'17.591"N	104°47'17.249"W	0.00	
9117.00†	89.978	359.850	7483.46	921.99	921.29	-268.16	40°06'18.580"N	104°47'17.252"W	0.00	
9217.00†	89.978	359.850	7483.49	1021.99	1021.29	-268.42	40°06'19.568"N	104°47'17.256"W	0.00	
9317.00†	89.978	359.850	7483.53	1121.99	1121.29	-268.68	40°06'20.557"N	104°47'17.259"W	0.00	
9417.00†	89.978	359.850	7483.57	1221.99	1221.29	-268.94	40°06'21.546"N	104°47'17.262"W	0.00	
9517.00†	89.978	359.850	7483.61	1321.99	1321.29	-269.20	40°06'22.534"N	104°47'17.266"W	0.00	
9617.00†	89.978	359.850	7483.64	1421.99	1421.29	-269.46	40°06'23.523"N	104°47'17.269"W	0.00	
9717.00†	89.978	359.850	7483.68	1521.99	1521.29	-269.73	40°06'24.511"N	104°47'17.273"W	0.00	
9817.00†	89.978	359.850	7483.72	1621.99	1621.29	-269.99	40°06'25.500"N	104°47'17.276"W	0.00	
9917.00†	89.978	359.850	7483.76	1721.99	1721.29	-270.25	40°06'26.489"N	104°47'17.279"W	0.00	
10017.00†	89.978	359.850	7483.80	1821.99	1821.29	-270.51	40°06'27.477"N	104°47'17.283"W	0.00	
10117.00†	89.978	359.850	7483.83	1921.99	1921.29	-270.77	40°06'28.466"N	104°47'17.286"W	0.00	
10217.00†	89.978	359.850	7483.87	2021.99	2021.29	-271.03	40°06'29.454"N	104°47'17.289"W	0.00	
10317.00†	89.978	359.850	7483.91	2121.99	2121.29	-271.30	40°06'30.443"N	104°47'17.293"W	0.00	
10417.00†	89.978	359.850	7483.95	2221.99	2221.29	-271.56	40°06'31.432"N	104°47'17.296"W	0.00	
10517.00†	89.978	359.850	7483.99	2321.99	2321.29	-271.82	40°06'32.420"N	104°47'17.300"W	0.00	
10617.00†	89.978	359.850	7484.02	2421.99	2421.29	-272.08	40°06'33.409"N	104°47'17.303"W	0.00	
10717.00†	89.978	359.850	7484.06	2521.99	2521.29	-272.34	40°06'34.397"N	104°47'17.306"W	0.00	
10817.00†	89.978	359.850	7484.10	2621.99	2621.28	-272.61	40°06'35.386"N	104°47'17.310"W	0.00	
10917.00†	89.978	359.850	7484.14	2721.99	2721.28	-272.87	40°06'36.375"N	104°47'17.313"W	0.00	
11017.00†	89.978	359.850	7484.18	2821.99	2821.28	-273.13	40°06'37.363"N	104°47'17.317"W	0.00	
11117.00†	89.978	359.850	7484.21	2921.99	2921.28	-273.39	40°06'38.352"N	104°47'17.320"W	0.00	
11217.00†	89.978	359.850	7484.25	3021.99	3021.28	-273.65	40°06'39.340"N	104°47'17.323"W	0.00	
11317.00†	89.978	359.850	7484.29	3121.99	3121.28	-273.91	40°06'40.329"N	104°47'17.327"W	0.00	
11417.00†	89.978	359.850	7484.33	3221.99	3221.28	-274.18	40°06'41.318"N	104°47'17.330"W	0.00	
11517.00†	89.978	359.850	7484.37	3321.99	3321.28	-274.44	40°06'42.306"N	104°47'17.333"W	0.00	
11617.00†	89.978	359.850	7484.40	3421.99	3421.28	-274.70	40°06'43.295"N	104°47'17.337"W	0.00	
11717.00†	89.978	359.850	7484.44	3521.99	3521.28	-274.96	40°06'44.283"N	104°47'17.340"W	0.00	
11817.00†	89.978	359.850	7484.48	3621.99	3621.28	-275.22	40°06'45.272"N	104°47'17.344"W	0.00	



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 TEDFORD 29C-28HZ (285'FSL & 1252'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29C-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†	89.978	359.850	7484.52	3721.99	3721.28	-275.48	40°06'46.261"N	104°47'17.347"W	0.00	
12017.00†	89.978	359.850	7484.55	3821.99	3821.28	-275.75	40°06'47.249"N	104°47'17.350"W	0.00	
12117.00†	89.978	359.850	7484.59	3921.99	3921.28	-276.01	40°06'48.238"N	104°47'17.354"W	0.00	
12217.00†	89.978	359.850	7484.63	4021.99	4021.28	-276.27	40°06'49.226"N	104°47'17.357"W	0.00	
12317.00†	89.978	359.850	7484.67	4121.99	4121.28	-276.53	40°06'50.215"N	104°47'17.361"W	0.00	
12417.00†	89.978	359.850	7484.71	4221.99	4221.28	-276.79	40°06'51.204"N	104°47'17.364"W	0.00	
12517.00†	89.978	359.850	7484.74	4321.99	4321.28	-277.06	40°06'52.192"N	104°47'17.367"W	0.00	
12617.00†	89.978	359.850	7484.78	4421.99	4421.28	-277.32	40°06'53.181"N	104°47'17.371"W	0.00	
12717.00†	89.978	359.850	7484.82	4521.99	4521.28	-277.58	40°06'54.170"N	104°47'17.374"W	0.00	
12817.00†	89.978	359.850	7484.86	4621.99	4621.28	-277.84	40°06'55.158"N	104°47'17.377"W	0.00	
12917.00†	89.978	359.850	7484.90	4721.99	4721.28	-278.10	40°06'56.147"N	104°47'17.381"W	0.00	
13017.00†	89.978	359.850	7484.93	4821.99	4821.28	-278.36	40°06'57.135"N	104°47'17.384"W	0.00	
13117.00†	89.978	359.850	7484.97	4921.99	4921.28	-278.63	40°06'58.124"N	104°47'17.388"W	0.00	
13191.18	89.978	359.850	7485.00†	4996.17	4995.46	-278.82	40°06'58.857"N	104°47'17.390"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS

- Ref Wellbore: TEDFORD 29C-28HZ PWB Ref Wellpath: TEDFORD 29C-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	1829.95	1812.95	17.00	1800.00	0.00	0.00	-269.53	-82.90
9.625in Casing Surface	17.00	1829.95	1812.95	17.00	1800.00	0.00	0.00	-269.53	-82.90
7.875in Open Hole	1829.95	13191.18	11361.23	1800.00	7485.00	-269.53	-82.90	4995.46	-278.82
5.5in Casing Production	17.00	13191.18	13174.18	17.00	7485.00	0.00	0.00	4995.46	-278.82

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	-1109.94	72.08	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
SEC.29-T2N-R66W SECTION LINES		41.00	-582.23	-2153.08	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.32-T2N-R66W SECTION LINES		41.00	-582.23	-2153.08	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.28-T2N-R66W SECTION LINES		7301.00	-1.11	119.92	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W	polygon
1) TEDFORD 29C-28HZ BHL REV-1 (1'FNL & 987'FWL, SEC.28)	13191.18	7485.00	4995.46	-278.83	1699640.76	14569171.91	40°06'58.857"N	104°47'17.390"W	point

SURVEY PROGRAM -

Ref Wellbore: TEDFORD 29C-28HZ PWB Ref Wellpath: TEDFORD 29C-28HZ (PERMIT REV-3) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13191.18	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)		TEDFORD 29C-28HZ PWB



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 TEDFORD 29C-28HZ (285'FSL & 1252'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 29C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 29C-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1050.00	12.750	197.096	1043.00	FOX HILLS BASE
4091.92	12.515	197.096	3995.00	PARKMAN
4607.86	2.196	197.096	4506.00	SUSSEX
7237.68	22.576	359.850	7130.00	SHARON SPRINGS
7295.29	28.337	359.850	7182.00	NIOBRARA A
7363.54	35.162	359.850	7240.00	NIOBRARA B
7475.98	46.406	359.850	7325.00	NIOBRARA C
7760.10	74.818	359.850	7463.00	FORT HAYS
7911.71	89.978	359.850	7483.00	TOP OF PRODUCTION

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	197.096	17.00	TIE-ON
200.00	0.000	197.096	200.00	BEGIN NUDGE
1133.33	14.000	197.096	1124.07	END NUDGE
4017.68	14.000	197.096	3922.74	BEGIN DROP
4717.68	0.000	359.850	4615.80	END DROP
7011.92	0.000	359.850	6910.04	KOP, BUILD @ 10°/100'
7911.71	89.978	359.850	7483.00	LANDING POINT
13191.18	89.978	359.850	7485.00	TOTAL DEPTH