

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)
Field: WELD COUNTY (KERR MCGEE) Well: TROUDT 14C-33HZ
Facility: SEC.33-T2N-R67W Wellbore: TROUDT 14C-33HZ PWB

Plot reference wellpath is TROUDT 14C-33HZ (PERMIT REV-1) PWP

True vertical depths are referenced to PERMIT (17 KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17 KB) (RKB)	North Reference: True north
PERMIT (17 KB) (RKB) to Mean Sea Level: 5054 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 18/Sep/2013

Location Information

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.33-T2N-R67W				3170116.037	1275626.243	40°05'18.183"N	104°53'31.139"W
Slot	Local N (ft)	Local E (ft)		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)	5.45	-2113.59		3168002.544	1275617.204	40°05'18.236"N	104°53'58.333"W
PERMIT (17 KB) (RKB) to Mud line (At Slot: SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33))						5054ft	
Mean Sea Level to Mud line (At Slot: SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33))						0ft	
PERMIT (17 KB) (RKB) to Mean Sea Level						5054ft	

Survey Program

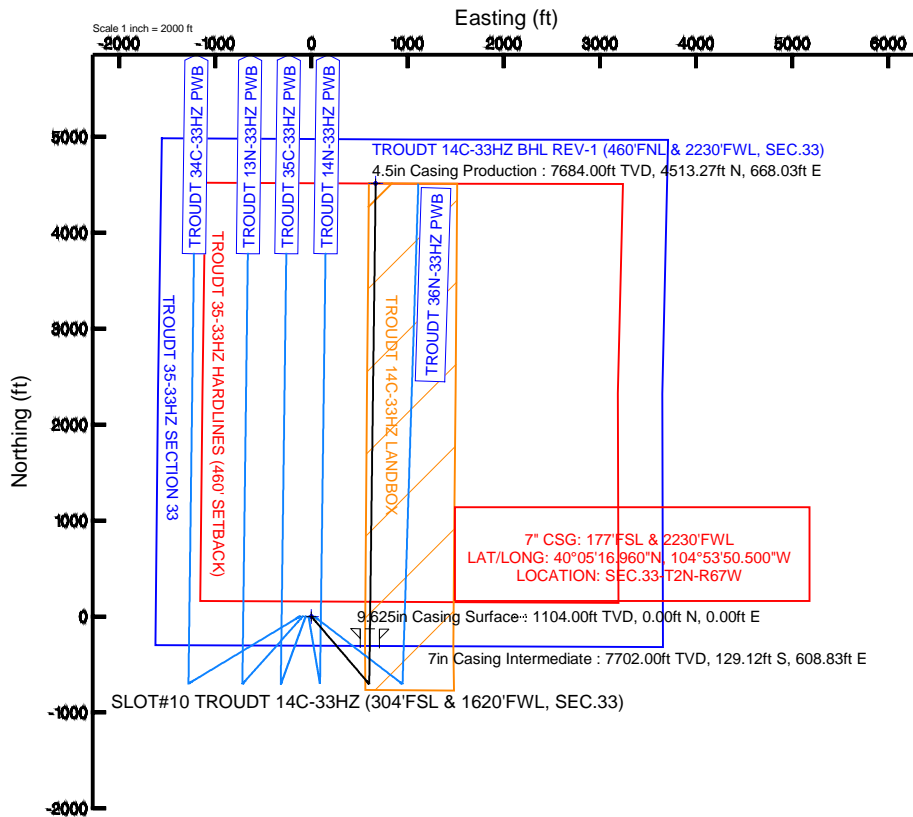
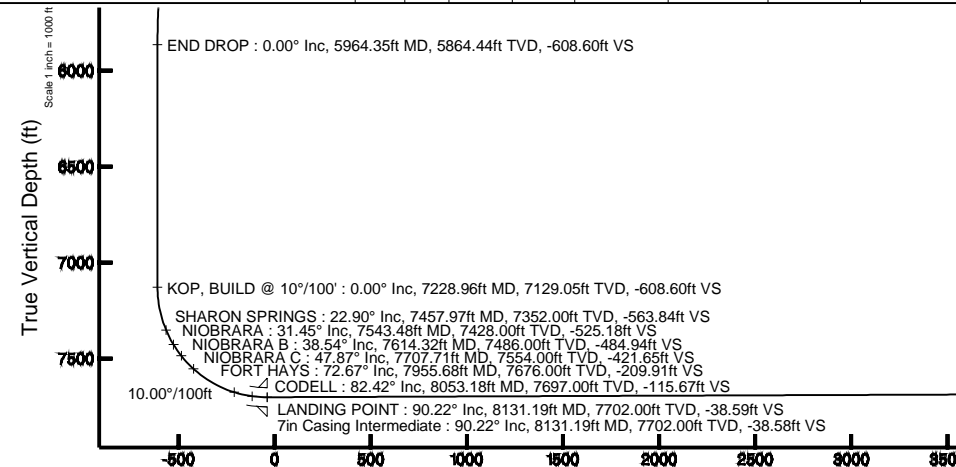
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	8131.19	NaviTrak	NaviTrak (Standard)		TROUDT 14C-33HZ PWB
8131.19	12773.99	OnTrak	OnTrak (Standard)		TROUDT 14C-33HZ PWB

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	139.500	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1200.00	0.000	139.500	1200.00	0.00	0.00	0.00	0.00
END NUDGE	1850.00	13.000	139.500	1844.44	-55.83	47.69	2.00	-48.25
BEGIN DROP	5314.35	13.000	139.500	5220.00	-648.42	553.81	0.00	-560.35
END DROP	5964.35	0.000	0.731	5864.44	-704.26	601.49	2.00	-608.60
KOP, BUILD @ 10°/100'	7228.96	0.000	0.731	7129.05	-704.26	601.49	0.00	-608.60
LANDING POINT	8131.19	90.222	0.731	7702.00	-129.12	608.83	10.00	-38.59
TOTAL DEPTH	12773.99	90.222	0.731	7684.00	4513.27	668.03	0.00	4562.44

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TROUDT 14C-33HZ BHL REV-1 (460'FNL & 2230'FWL, SEC.33)	12773.99	7684.00	4513.27	668.03	3168039.97	1280134.71	40°06'02.837"N	104°53'49.736"W
TROUDT 14C-33HZ LANDBOX		7684.00	0.00	0.00	3168002.54	1275617.20	40°05'18.236"N	104°53'58.333"W
TROUDT 35-33HZ HARDLINES (460' SETBACK)		7684.00	-5.27	2113.59	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W
TROUDT 35-33HZ SECTION 33		7684.00	-5.27	2113.59	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W



Vertical Section (ft)

Azimuth 8.42° with reference 0.00 N, 0.00 E



Planned Wellpath Report

TROUDT 14C-33HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14C-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14C-33HZ PWB
Facility	SEC.33-T2N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Robiale01
Scale	0.999961	Report Generated	18/Sep/2013 at 13:00
Convergence at slot	n/a	Database/Source file	WellArchitectDB/TROUDT_14C-33HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	5.45	-2113.59	3168002.54	1275617.20	40°05'18.236"N	104°53'58.333"W
Facility Reference Pt			3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17' KB) (RKB) to Facility Vertical Datum	5054.00ft
Horizontal Reference Pt	Slot	PERMIT (17' KB) (RKB) to Mean Sea Level	5054.00ft
Vertical Reference Pt	PERMIT (17' KB) (RKB)	PERMIT (17' KB) (RKB) to Mud Line at Slot (SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33))	5054.00ft
MD Reference Pt	PERMIT (17' KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	8.42°



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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14C-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14C-33HZ PWB
Facility	SEC.33-T2N-R67W		

WELLPATH DATA (146 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	139.500	0.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
17.00	0.000	139.500	17.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	TIE ON
117.00†	0.000	139.500	117.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
217.00†	0.000	139.500	217.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
317.00†	0.000	139.500	317.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
417.00†	0.000	139.500	417.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
517.00†	0.000	139.500	517.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
617.00†	0.000	139.500	617.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
717.00†	0.000	139.500	717.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
817.00†	0.000	139.500	817.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
917.00†	0.000	139.500	917.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
1017.00†	0.000	139.500	1017.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
1054.00†	0.000	139.500	1054.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	FOX HILLS BASE
1117.00†	0.000	139.500	1117.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	
1200.00	0.000	139.500	1200.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.333"W	0.00	BEGIN NUDGE
1217.00†	0.340	139.500	1217.00	-0.03	-0.04	0.03	40°05'18.236"N	104°53'58.333"W	2.00	
1317.00†	2.340	139.500	1316.97	-1.57	-1.82	1.55	40°05'18.218"N	104°53'58.313"W	2.00	
1417.00†	4.340	139.500	1416.79	-5.40	-6.25	5.33	40°05'18.174"N	104°53'58.264"W	2.00	
1517.00†	6.340	139.500	1516.35	-11.51	-13.32	11.38	40°05'18.104"N	104°53'58.187"W	2.00	
1617.00†	8.340	139.500	1615.53	-19.91	-23.04	19.68	40°05'18.008"N	104°53'58.080"W	2.00	
1717.00†	10.340	139.500	1714.20	-30.57	-35.38	30.22	40°05'17.886"N	104°53'57.944"W	2.00	
1817.00†	12.340	139.500	1812.24	-43.49	-50.33	42.98	40°05'17.739"N	104°53'57.780"W	2.00	
1850.00	13.000	139.500	1844.44	-48.25	-55.83	47.69	40°05'17.684"N	104°53'57.719"W	2.00	END NUDGE
1917.00†	13.000	139.500	1909.72	-58.15	-67.29	57.47	40°05'17.571"N	104°53'57.594"W	0.00	
2017.00†	13.000	139.500	2007.16	-72.93	-84.40	72.08	40°05'17.402"N	104°53'57.406"W	0.00	
2117.00†	13.000	139.500	2104.59	-87.72	-101.50	86.69	40°05'17.233"N	104°53'57.218"W	0.00	
2217.00†	13.000	139.500	2202.03	-102.50	-118.61	101.30	40°05'17.064"N	104°53'57.030"W	0.00	
2317.00†	13.000	139.500	2299.47	-117.28	-135.71	115.91	40°05'16.895"N	104°53'56.842"W	0.00	
2417.00†	13.000	139.500	2396.91	-132.06	-152.82	130.52	40°05'16.726"N	104°53'56.654"W	0.00	
2517.00†	13.000	139.500	2494.34	-146.84	-169.93	145.13	40°05'16.557"N	104°53'56.466"W	0.00	
2617.00†	13.000	139.500	2591.78	-161.63	-187.03	159.74	40°05'16.388"N	104°53'56.278"W	0.00	
2717.00†	13.000	139.500	2689.22	-176.41	-204.14	174.35	40°05'16.219"N	104°53'56.090"W	0.00	
2817.00†	13.000	139.500	2786.65	-191.19	-221.24	188.96	40°05'16.050"N	104°53'55.902"W	0.00	
2917.00†	13.000	139.500	2884.09	-205.97	-238.35	203.57	40°05'15.881"N	104°53'55.714"W	0.00	
3017.00†	13.000	139.500	2981.53	-220.75	-255.45	218.18	40°05'15.712"N	104°53'55.526"W	0.00	
3117.00†	13.000	139.500	3078.96	-235.54	-272.56	232.79	40°05'15.543"N	104°53'55.338"W	0.00	
3217.00†	13.000	139.500	3176.40	-250.32	-289.66	247.40	40°05'15.373"N	104°53'55.150"W	0.00	
3317.00†	13.000	139.500	3273.84	-265.10	-306.77	262.01	40°05'15.204"N	104°53'54.962"W	0.00	
3417.00†	13.000	139.500	3371.28	-279.88	-323.87	276.61	40°05'15.035"N	104°53'54.774"W	0.00	
3517.00†	13.000	139.500	3468.71	-294.66	-340.98	291.22	40°05'14.866"N	104°53'54.586"W	0.00	
3617.00†	13.000	139.500	3566.15	-309.45	-358.08	305.83	40°05'14.697"N	104°53'54.398"W	0.00	
3717.00†	13.000	139.500	3663.59	-324.23	-375.19	320.44	40°05'14.528"N	104°53'54.210"W	0.00	
3817.00†	13.000	139.500	3761.02	-339.01	-392.30	335.05	40°05'14.359"N	104°53'54.022"W	0.00	
3917.00†	13.000	139.500	3858.46	-353.79	-409.40	349.66	40°05'14.190"N	104°53'53.834"W	0.00	
4017.00†	13.000	139.500	3955.90	-368.57	-426.51	364.27	40°05'14.021"N	104°53'53.646"W	0.00	



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TROUDT 14C-33HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14C-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14C-33HZ PWB
Facility	SEC.33-T2N-R67W		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	13.000	139.500	4053.33	-383.36	-443.61	378.88	40°05'13.852"N	104°53'53.458"W	0.00	
4217.00†	13.000	139.500	4150.77	-398.14	-460.72	393.49	40°05'13.683"N	104°53'53.270"W	0.00	
4317.00†	13.000	139.500	4248.21	-412.92	-477.82	408.10	40°05'13.514"N	104°53'53.082"W	0.00	
4417.00†	13.000	139.500	4345.65	-427.70	-494.93	422.71	40°05'13.345"N	104°53'52.894"W	0.00	
4517.00†	13.000	139.500	4443.08	-442.48	-512.03	437.32	40°05'13.176"N	104°53'52.706"W	0.00	
4617.00†	13.000	139.500	4540.52	-457.27	-529.14	451.93	40°05'13.007"N	104°53'52.519"W	0.00	
4717.00†	13.000	139.500	4637.96	-472.05	-546.24	466.54	40°05'12.838"N	104°53'52.331"W	0.00	
4780.68†	13.000	139.500	4700.00	-481.46	-557.14	475.84	40°05'12.730"N	104°53'52.211"W	0.00	SUSSEX
4817.00†	13.000	139.500	4735.39	-486.83	-563.35	481.15	40°05'12.669"N	104°53'52.143"W	0.00	
4917.00†	13.000	139.500	4832.83	-501.61	-580.46	495.76	40°05'12.500"N	104°53'51.955"W	0.00	
5017.00†	13.000	139.500	4930.27	-516.39	-597.56	510.37	40°05'12.331"N	104°53'51.767"W	0.00	
5117.00†	13.000	139.500	5027.70	-531.18	-614.67	524.97	40°05'12.162"N	104°53'51.579"W	0.00	
5210.70†	13.000	139.500	5119.00	-545.03	-630.69	538.66	40°05'12.003"N	104°53'51.403"W	0.00	SHANNON
5217.00†	13.000	139.500	5125.14	-545.96	-631.77	539.58	40°05'11.993"N	104°53'51.391"W	0.00	
5314.35	13.000	139.500	5220.00	-560.35	-648.42	553.81	40°05'11.828"N	104°53'51.208"W	0.00	BEGIN DROP
5317.00†	12.947	139.500	5222.58	-560.74	-648.88	554.19	40°05'11.824"N	104°53'51.203"W	2.00	
5417.00†	10.947	139.500	5320.41	-574.34	-664.62	567.64	40°05'11.668"N	104°53'51.030"W	2.00	
5517.00†	8.947	139.500	5418.90	-585.69	-677.75	578.85	40°05'11.538"N	104°53'50.886"W	2.00	
5617.00†	6.947	139.500	5517.93	-594.78	-688.26	587.83	40°05'11.434"N	104°53'50.770"W	2.00	
5717.00†	4.947	139.500	5617.39	-601.58	-696.14	594.56	40°05'11.357"N	104°53'50.683"W	2.00	
5817.00†	2.947	139.500	5717.15	-606.11	-701.38	599.03	40°05'11.305"N	104°53'50.626"W	2.00	
5917.00†	0.947	139.500	5817.09	-608.34	-703.96	601.24	40°05'11.279"N	104°53'50.598"W	2.00	
5964.35	0.000	0.731	5864.44	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	2.00	END DROP
6017.00†	0.000	0.731	5917.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6117.00†	0.000	0.731	6017.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6217.00†	0.000	0.731	6117.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6317.00†	0.000	0.731	6217.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6417.00†	0.000	0.731	6317.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6517.00†	0.000	0.731	6417.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6617.00†	0.000	0.731	6517.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6717.00†	0.000	0.731	6617.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6817.00†	0.000	0.731	6717.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
6917.00†	0.000	0.731	6817.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
7017.00†	0.000	0.731	6917.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
7117.00†	0.000	0.731	7017.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
7217.00†	0.000	0.731	7117.08	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	
7228.96	0.000	0.731	7129.05	-608.60	-704.26	601.49	40°05'11.276"N	104°53'50.594"W	0.00	KOP, BUILD @ 10°/100'
7317.00†	8.804	0.731	7216.74	-601.91	-697.51	601.58	40°05'11.343"N	104°53'50.593"W	10.00	
7417.00†	18.804	0.731	7313.73	-578.29	-673.68	601.88	40°05'11.579"N	104°53'50.589"W	10.00	
7457.97†	22.900	0.731	7352.00	-563.84	-659.10	602.07	40°05'11.723"N	104°53'50.587"W	10.00	SHARON SPRINGS
7517.00†	28.804	0.731	7405.10	-538.35	-633.37	602.40	40°05'11.977"N	104°53'50.583"W	10.00	
7543.48†	31.451	0.731	7428.00	-525.18	-620.09	602.57	40°05'12.108"N	104°53'50.580"W	10.00	NIOBRARA
7614.32†	38.536	0.731	7486.00	-484.94	-579.49	603.08	40°05'12.509"N	104°53'50.574"W	10.00	NIOBRARA B
7617.00†	38.804	0.731	7488.09	-483.28	-577.81	603.10	40°05'12.526"N	104°53'50.573"W	10.00	
7707.71†	47.875	0.731	7554.00	-421.65	-515.63	603.90	40°05'13.140"N	104°53'50.563"W	10.00	NIOBRARA C



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14C-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14C-33HZ PWB
Facility	SEC.33-T2N-R67W		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	48.804	0.731	7560.17	-414.77	-508.69	603.99	40°05'13.209"N	104°53'50.562"W	10.00	
7817.00†	58.804	0.731	7619.15	-334.90	-428.10	605.01	40°05'14.005"N	104°53'50.549"W	10.00	
7917.00†	68.804	0.731	7663.24	-246.09	-338.49	606.16	40°05'14.891"N	104°53'50.534"W	10.00	
7955.68†	72.671	0.731	7676.00	-209.91	-301.99	606.62	40°05'15.252"N	104°53'50.528"W	10.00	FORT HAYS
8017.00†	78.804	0.731	7691.10	-151.04	-242.59	607.38	40°05'15.839"N	104°53'50.518"W	10.00	
8053.18†	82.421	0.731	7697.00	-115.68	-206.91	607.83	40°05'16.191"N	104°53'50.513"W	10.00	CODELL
8117.00†	88.804	0.731	7701.88	-52.65	-143.31	608.65	40°05'16.820"N	104°53'50.502"W	10.00	
8131.19	90.222	0.731	7702.00	-38.59	-129.12	608.83	40°05'16.960"N	104°53'50.500"W	10.00	LANDING POINT
8217.00†	90.222	0.731	7701.67	46.45	-43.32	609.92	40°05'17.808"N	104°53'50.486"W	0.00	
8317.00†	90.222	0.731	7701.28	145.55	56.67	611.20	40°05'18.796"N	104°53'50.469"W	0.00	
8417.00†	90.222	0.731	7700.89	244.65	156.67	612.47	40°05'19.784"N	104°53'50.453"W	0.00	
8517.00†	90.222	0.731	7700.50	343.75	256.66	613.75	40°05'20.772"N	104°53'50.436"W	0.00	
8617.00†	90.222	0.731	7700.12	442.85	356.65	615.02	40°05'21.760"N	104°53'50.420"W	0.00	
8717.00†	90.222	0.731	7699.73	541.95	456.64	616.30	40°05'22.749"N	104°53'50.403"W	0.00	
8817.00†	90.222	0.731	7699.34	641.06	556.63	617.57	40°05'23.737"N	104°53'50.387"W	0.00	
8917.00†	90.222	0.731	7698.95	740.16	656.62	618.85	40°05'24.725"N	104°53'50.371"W	0.00	
9017.00†	90.222	0.731	7698.57	839.26	756.61	620.12	40°05'25.713"N	104°53'50.354"W	0.00	
9117.00†	90.222	0.731	7698.18	938.36	856.60	621.40	40°05'26.701"N	104°53'50.338"W	0.00	
9217.00†	90.222	0.731	7697.79	1037.46	956.59	622.67	40°05'27.689"N	104°53'50.321"W	0.00	
9317.00†	90.222	0.731	7697.40	1136.56	1056.59	623.95	40°05'28.677"N	104°53'50.305"W	0.00	
9417.00†	90.222	0.731	7697.02	1235.66	1156.58	625.22	40°05'29.665"N	104°53'50.288"W	0.00	
9421.00†	90.222	0.731	7697.00	1239.62	1160.58	625.27	40°05'29.705"N	104°53'50.288"W	0.00	CODELL
9517.00†	90.222	0.731	7696.63	1334.76	1256.57	626.50	40°05'30.654"N	104°53'50.272"W	0.00	
9617.00†	90.222	0.731	7696.24	1433.86	1356.56	627.77	40°05'31.642"N	104°53'50.255"W	0.00	
9717.00†	90.222	0.731	7695.85	1532.96	1456.55	629.05	40°05'32.630"N	104°53'50.239"W	0.00	
9817.00†	90.222	0.731	7695.46	1632.06	1556.54	630.32	40°05'33.618"N	104°53'50.223"W	0.00	
9917.00†	90.222	0.731	7695.08	1731.16	1656.53	631.60	40°05'34.606"N	104°53'50.206"W	0.00	
10017.00†	90.222	0.731	7694.69	1830.26	1756.52	632.87	40°05'35.594"N	104°53'50.190"W	0.00	
10117.00†	90.222	0.731	7694.30	1929.36	1856.51	634.15	40°05'36.582"N	104°53'50.173"W	0.00	
10217.00†	90.222	0.731	7693.91	2028.46	1956.51	635.42	40°05'37.570"N	104°53'50.157"W	0.00	
10317.00†	90.222	0.731	7693.53	2127.56	2056.50	636.70	40°05'38.559"N	104°53'50.140"W	0.00	
10417.00†	90.222	0.731	7693.14	2226.66	2156.49	637.97	40°05'39.547"N	104°53'50.124"W	0.00	
10517.00†	90.222	0.731	7692.75	2325.76	2256.48	639.25	40°05'40.535"N	104°53'50.108"W	0.00	
10617.00†	90.222	0.731	7692.36	2424.86	2356.47	640.52	40°05'41.523"N	104°53'50.091"W	0.00	
10717.00†	90.222	0.731	7691.98	2523.96	2456.46	641.80	40°05'42.511"N	104°53'50.075"W	0.00	
10817.00†	90.222	0.731	7691.59	2623.06	2556.45	643.08	40°05'43.499"N	104°53'50.058"W	0.00	
10917.00†	90.222	0.731	7691.20	2722.16	2656.44	644.35	40°05'44.487"N	104°53'50.042"W	0.00	
11017.00†	90.222	0.731	7690.81	2821.26	2756.43	645.63	40°05'45.475"N	104°53'50.025"W	0.00	
11117.00†	90.222	0.731	7690.42	2920.36	2856.43	646.90	40°05'46.464"N	104°53'50.009"W	0.00	
11217.00†	90.222	0.731	7690.04	3019.46	2956.42	648.18	40°05'47.452"N	104°53'49.992"W	0.00	
11317.00†	90.222	0.731	7689.65	3118.56	3056.41	649.45	40°05'48.440"N	104°53'49.976"W	0.00	
11417.00†	90.222	0.731	7689.26	3217.66	3156.40	650.73	40°05'49.428"N	104°53'49.960"W	0.00	
11517.00†	90.222	0.731	7688.87	3316.76	3256.39	652.00	40°05'50.416"N	104°53'49.943"W	0.00	
11617.00†	90.222	0.731	7688.49	3415.86	3356.38	653.28	40°05'51.404"N	104°53'49.927"W	0.00	
11717.00†	90.222	0.731	7688.10	3514.96	3456.37	654.55	40°05'52.392"N	104°53'49.910"W	0.00	



Planned Wellpath Report

TROUDT 14C-33HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14C-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14C-33HZ PWB
Facility	SEC.33-T2N-R67W		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	90.222	0.731	7687.71	3614.06	3556.36	655.83	40°05'53.380"N	104°53'49.894"W	0.00	
11917.00†	90.222	0.731	7687.32	3713.16	3656.35	657.10	40°05'54.369"N	104°53'49.877"W	0.00	
12017.00†	90.222	0.731	7686.93	3812.26	3756.35	658.38	40°05'55.357"N	104°53'49.861"W	0.00	
12117.00†	90.222	0.731	7686.55	3911.36	3856.34	659.65	40°05'56.345"N	104°53'49.844"W	0.00	
12217.00†	90.222	0.731	7686.16	4010.46	3956.33	660.93	40°05'57.333"N	104°53'49.828"W	0.00	
12317.00†	90.222	0.731	7685.77	4109.56	4056.32	662.20	40°05'58.321"N	104°53'49.812"W	0.00	
12417.00†	90.222	0.731	7685.38	4208.66	4156.31	663.48	40°05'59.309"N	104°53'49.795"W	0.00	
12517.00†	90.222	0.731	7685.00	4307.76	4256.30	664.75	40°06'00.297"N	104°53'49.779"W	0.00	
12617.00†	90.222	0.731	7684.61	4406.86	4356.29	666.03	40°06'01.286"N	104°53'49.762"W	0.00	
12717.00†	90.222	0.731	7684.22	4505.96	4456.28	667.30	40°06'02.274"N	104°53'49.746"W	0.00	
12773.99	90.222	0.731	7684.00 ¹	4562.44	4513.27	668.03	40°06'02.837"N	104°53'49.736"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: TROUDT 14C-33HZ PWB Ref Wellpath: TROUDT 14C-33HZ (PERMIT REV-1) 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	1104.00	1087.00	17.00	1104.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1104.00	1087.00	17.00	1104.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1104.00	8131.19	7027.19	1104.00	7702.00	0.00	0.00	-129.12	608.83
7in Casing Intermediate	17.00	8131.19	8114.19	17.00	7702.00	0.00	0.00	-129.12	608.83
6.125in Open Hole	8131.19	12773.99	4642.80	7702.00	7684.00	-129.12	608.83	4513.27	668.03
4.5in Casing Production	17.00	12773.99	12756.99	17.00	7684.00	0.00	0.00	4513.27	668.03



Planned Wellpath Report

TROUDT 14C-33HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14C-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14C-33HZ PWB
Facility	SEC.33-T2N-R67W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) TROUDT 14C-33HZ BHL REV-1 (460'FNL & 2230'FWL, SEC.33)	12773.99	7684.00	4513.27	668.03	3168639.97	1280134.71	40°06'02.837"N	104°53'49.736"W	point
TROUDT 14C-33HZ LANDBOX		7684.00	0.00	0.00	3168002.54	1275617.20	40°05'18.236"N	104°53'58.333"W	polygon
TROUDT 35-33HZ HARDLINES (460' SETBACK)		7684.00	-5.27	2113.59	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W	polygon
TROUDT 35-33HZ SECTION 33		7684.00	-5.27	2113.59	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W	polygon

SURVEY PROGRAM - Ref Wellbore: TROUDT 14C-33HZ PWB Ref Wellpath: TROUDT 14C-33HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	8131.19	NaviTrak (Standard)		TROUDT 14C-33HZ PWB
8131.19	12773.99	OnTrak (Standard)		TROUDT 14C-33HZ PWB



Planned Wellpath Report

TROUDT 14C-33HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 TROUDT 14C-33HZ (304'FSL & 1620'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14C-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14C-33HZ PWB
Facility	SEC.33-T2N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1054.00	0.000	139.500	1054.00	FOX HILLS BASE
4780.68	13.000	139.500	4700.00	SUSSEX
5210.70	13.000	139.500	5119.00	SHANNON
7457.97	22.900	0.731	7352.00	SHARON SPRINGS
7543.48	31.451	0.731	7428.00	NIOBRARA
7614.32	38.536	0.731	7486.00	NIOBRARA B
7707.71	47.875	0.731	7554.00	NIOBRARA C
7955.68	72.671	0.731	7676.00	FORT HAYS
8053.18	82.421	0.731	7697.00	CODELL
9421.00	90.222	0.731	7697.00	CODELL

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	139.500	17.00	TIE ON
1200.00	0.000	139.500	1200.00	BEGIN NUDGE
1850.00	13.000	139.500	1844.44	END NUDGE
5314.35	13.000	139.500	5220.00	BEGIN DROP
5964.35	0.000	0.731	5864.44	END DROP
7228.96	0.000	0.731	7129.05	KOP, BUILD @ 10°/100'
8131.19	90.222	0.731	7702.00	LANDING POINT
12773.99	90.222	0.731	7684.00	TOTAL DEPTH