

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)  
Field: WELD COUNTY (KERR MCGEE) Well: TROUDT 13N-33HZ  
Facility: SEC.33-T2N-R67W Wellbore: TROUDT 13N-33HZ PWB

Plot reference wellpath is TROUDT 13N-33HZ (PERMIT REV-1) PWB

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#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiate01 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#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)	6.27	-2203.67	3167912.463	1275617.404	40°05'18.244"N	104°53'59.492"W
PERMIT (17 KB) (RKB) to Mud line (At Slot: SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33))					5054ft	
Mean Sea Level to Mud line (At Slot: SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33))					0ft	
PERMIT (17 KB) (RKB) to Mean Sea Level					5054ft	

## Survey Program

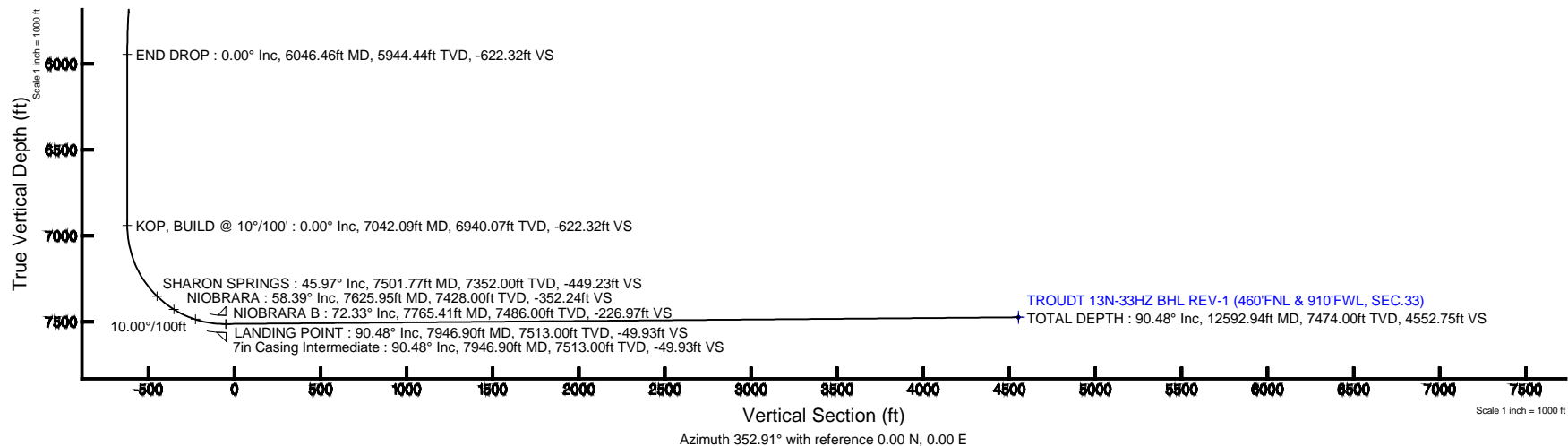
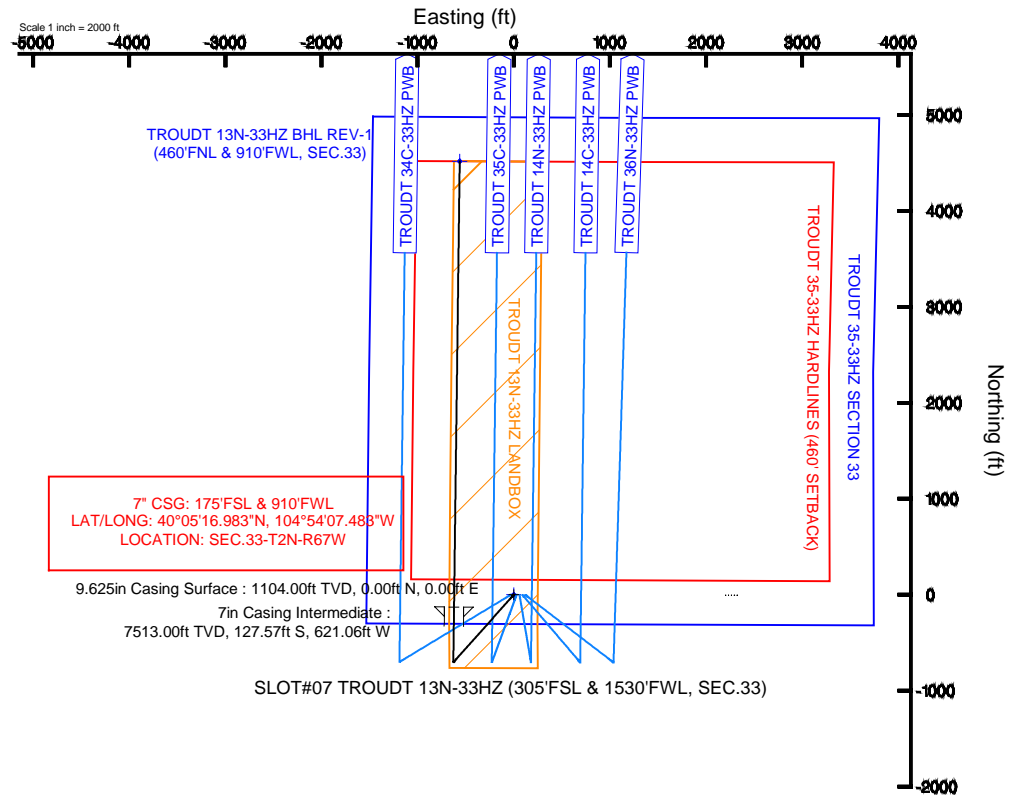
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7946.90	NaviTrak	NaviTrak (Standard)		TROUDT 13N-33HZ PWB
7946.90	12592.94	OnTrak	OnTrak (Standard)		TROUDT 13N-33HZ PWB

## 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	221.700	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1200.00	0.000	221.700	1200.00	0.00	0.00	0.00	0.00
END NUDGE	1850.00	13.000	221.700	1844.44	-54.82	-48.84	2.00	-48.37
BEGIN DROP	5396.46	13.000	221.700	5300.00	-650.47	-579.55	0.00	-573.95
END DROP	6046.46	0.000	0.728	5944.44	-705.30	-628.40	2.00	-622.32
KOP, BUILD @ 10°/100'	7042.09	0.000	0.728	6940.07	-705.30	-628.40	0.00	-622.32
LANDING POINT	7946.90	90.481	0.728	7513.00	-127.57	-621.06	10.00	-49.93
TOTAL DEPTH	12592.94	90.481	0.728	7474.00	4517.92	-562.05	0.00	4552.75

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TROUDT 13N-33HZ BHL REV-1 (460'FNL & 910'FWL, SEC.33)	12592.94	7474.00	4517.92	-562.05	3167319.87	1280131.23	40°06'02.891"N	104°54'06.725"W
TROUDT 13N-33HZ LANDBOX		7474.00	0.00	0.00	3167912.46	1275617.40	40°05'18.244"N	104°53'59.492"W
TROUDT 35-33HZ HARDLINES (460' SETBACK)		7684.00	-6.07	2203.67	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W
TROUDT 35-33HZ SECTION 33		7684.00	-6.07	2203.67	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W





# Planned Wellpath Report

TROUDT 13N-33HZ (PERMIT REV-1) PWP

Page 1 of 6



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 13N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 13N-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 12:58
Convergence at slot	n/a	Database/Source file	WellArchitectDB/TROUDT_13N-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	6.27	-2203.67	3167912.46	1275617.40	40°05'18.244"N	104°53'59.492"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#07 TROUDT 13N-33HZ (305'FSL & 1530'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	352.91°



# Planned Wellpath Report

TROUDT 13N-33HZ (PERMIT REV-1) PWP

Page 2 of 6



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 13N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 13N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (141 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	221.700	0.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
17.00	0.000	221.700	17.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	TIE ON
117.00†	0.000	221.700	117.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
217.00†	0.000	221.700	217.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
317.00†	0.000	221.700	317.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
417.00†	0.000	221.700	417.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
517.00†	0.000	221.700	517.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
617.00†	0.000	221.700	617.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
717.00†	0.000	221.700	717.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
817.00†	0.000	221.700	817.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
917.00†	0.000	221.700	917.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
1017.00†	0.000	221.700	1017.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
1054.00†	0.000	221.700	1054.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	FOX HILLS BASE
1117.00†	0.000	221.700	1117.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	
1200.00	0.000	221.700	1200.00	0.00	0.00	0.00	40°05'18.244"N	104°53'59.492"W	0.00	BEGIN NUDGE
1217.00†	0.340	221.700	1217.00	-0.03	-0.04	-0.03	40°05'18.244"N	104°53'59.492"W	2.00	
1317.00†	2.340	221.700	1316.97	-1.57	-1.78	-1.59	40°05'18.226"N	104°53'59.512"W	2.00	
1417.00†	4.340	221.700	1416.79	-5.41	-6.13	-5.46	40°05'18.183"N	104°53'59.562"W	2.00	
1517.00†	6.340	221.700	1516.35	-11.54	-13.08	-11.66	40°05'18.115"N	104°53'59.642"W	2.00	
1617.00†	8.340	221.700	1615.53	-19.96	-22.62	-20.15	40°05'18.020"N	104°53'59.751"W	2.00	
1717.00†	10.340	221.700	1714.20	-30.65	-34.74	-30.95	40°05'17.901"N	104°53'59.890"W	2.00	
1817.00†	12.340	221.700	1812.24	-43.60	-49.42	-44.03	40°05'17.756"N	104°54'00.058"W	2.00	
1850.00	13.000	221.700	1844.44	-48.37	-54.82	-48.84	40°05'17.702"N	104°54'00.120"W	2.00	END NUDGE
1917.00†	13.000	221.700	1909.72	-58.30	-66.07	-58.87	40°05'17.591"N	104°54'00.249"W	0.00	
2017.00†	13.000	221.700	2007.16	-73.12	-82.87	-73.83	40°05'17.425"N	104°54'00.442"W	0.00	
2117.00†	13.000	221.700	2104.59	-87.94	-99.67	-88.80	40°05'17.259"N	104°54'00.635"W	0.00	
2217.00†	13.000	221.700	2202.03	-102.76	-116.46	-103.76	40°05'17.093"N	104°54'00.827"W	0.00	
2317.00†	13.000	221.700	2299.47	-117.58	-133.26	-118.73	40°05'16.927"N	104°54'01.020"W	0.00	
2417.00†	13.000	221.700	2396.91	-132.40	-150.05	-133.69	40°05'16.761"N	104°54'01.212"W	0.00	
2517.00†	13.000	221.700	2494.34	-147.22	-166.85	-148.66	40°05'16.595"N	104°54'01.405"W	0.00	
2617.00†	13.000	221.700	2591.78	-162.04	-183.64	-163.62	40°05'16.429"N	104°54'01.597"W	0.00	
2717.00†	13.000	221.700	2689.22	-176.86	-200.44	-178.59	40°05'16.263"N	104°54'01.790"W	0.00	
2817.00†	13.000	221.700	2786.65	-191.68	-217.24	-193.55	40°05'16.097"N	104°54'01.982"W	0.00	
2917.00†	13.000	221.700	2884.09	-206.50	-234.03	-208.51	40°05'15.931"N	104°54'02.175"W	0.00	
3017.00†	13.000	221.700	2981.53	-221.32	-250.83	-223.48	40°05'15.765"N	104°54'02.367"W	0.00	
3117.00†	13.000	221.700	3078.96	-236.14	-267.62	-238.44	40°05'15.599"N	104°54'02.560"W	0.00	
3217.00†	13.000	221.700	3176.40	-250.96	-284.42	-253.41	40°05'15.433"N	104°54'02.752"W	0.00	
3317.00†	13.000	221.700	3273.84	-265.78	-301.21	-268.37	40°05'15.267"N	104°54'02.945"W	0.00	
3417.00†	13.000	221.700	3371.28	-280.60	-318.01	-283.34	40°05'15.101"N	104°54'03.137"W	0.00	
3517.00†	13.000	221.700	3468.71	-295.42	-334.81	-298.30	40°05'14.935"N	104°54'03.330"W	0.00	
3617.00†	13.000	221.700	3566.15	-310.24	-351.60	-313.27	40°05'14.769"N	104°54'03.522"W	0.00	
3717.00†	13.000	221.700	3663.59	-325.06	-368.40	-328.23	40°05'14.603"N	104°54'03.715"W	0.00	
3817.00†	13.000	221.700	3761.02	-339.88	-385.19	-343.19	40°05'14.437"N	104°54'03.908"W	0.00	
3917.00†	13.000	221.700	3858.46	-354.70	-401.99	-358.16	40°05'14.271"N	104°54'04.100"W	0.00	
4017.00†	13.000	221.700	3955.90	-369.52	-418.78	-373.12	40°05'14.105"N	104°54'04.293"W	0.00	



# Planned Wellpath Report

TROUDT 13N-33HZ (PERMIT REV-1) PWP

Page 3 of 6



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 13N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 13N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (141 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	221.700	4053.33	-384.34	-435.58	-388.09	40°05'13.939"N	104°54'04.485"W	0.00	
4217.00†	13.000	221.700	4150.77	-399.16	-452.38	-403.05	40°05'13.774"N	104°54'04.678"W	0.00	
4317.00†	13.000	221.700	4248.21	-413.98	-469.17	-418.02	40°05'13.608"N	104°54'04.870"W	0.00	
4417.00†	13.000	221.700	4345.65	-428.80	-485.97	-432.98	40°05'13.442"N	104°54'05.063"W	0.00	
4517.00†	13.000	221.700	4443.08	-443.62	-502.76	-447.95	40°05'13.276"N	104°54'05.255"W	0.00	
4617.00†	13.000	221.700	4540.52	-458.44	-519.56	-462.91	40°05'13.110"N	104°54'05.448"W	0.00	
4717.00†	13.000	221.700	4637.96	-473.26	-536.35	-477.87	40°05'12.944"N	104°54'05.640"W	0.00	
4780.68†	13.000	221.700	4700.00	-482.69	-547.05	-487.40	40°05'12.838"N	104°54'05.763"W	0.00	SUSSEX
4817.00†	13.000	221.700	4735.39	-488.08	-553.15	-492.84	40°05'12.778"N	104°54'05.833"W	0.00	
4917.00†	13.000	221.700	4832.83	-502.90	-569.95	-507.80	40°05'12.612"N	104°54'06.025"W	0.00	
5017.00†	13.000	221.700	4930.27	-517.72	-586.74	-522.77	40°05'12.446"N	104°54'06.218"W	0.00	
5117.00†	13.000	221.700	5027.70	-532.54	-603.54	-537.73	40°05'12.280"N	104°54'06.410"W	0.00	
5210.70†	13.000	221.700	5119.00	-546.42	-619.27	-551.75	40°05'12.124"N	104°54'06.591"W	0.00	SHANNON
5217.00†	13.000	221.700	5125.14	-547.36	-620.33	-552.70	40°05'12.114"N	104°54'06.603"W	0.00	
5317.00†	13.000	221.700	5222.58	-562.18	-637.13	-567.66	40°05'11.948"N	104°54'06.795"W	0.00	
5396.46	13.000	221.700	5300.00	-573.95	-650.47	-579.55	40°05'11.816"N	104°54'06.948"W	0.00	BEGIN DROP
5417.00†	12.589	221.700	5320.03	-576.95	-653.87	-582.58	40°05'11.782"N	104°54'06.987"W	2.00	
5517.00†	10.589	221.700	5417.99	-590.18	-668.87	-595.94	40°05'11.634"N	104°54'07.159"W	2.00	
5617.00†	8.589	221.700	5516.59	-601.16	-681.31	-607.02	40°05'11.511"N	104°54'07.302"W	2.00	
5717.00†	6.589	221.700	5615.70	-609.86	-691.17	-615.81	40°05'11.414"N	104°54'07.415"W	2.00	
5817.00†	4.589	221.700	5715.22	-616.27	-698.44	-622.29	40°05'11.342"N	104°54'07.498"W	2.00	
5917.00†	2.589	221.700	5815.02	-620.40	-703.11	-626.45	40°05'11.296"N	104°54'07.552"W	2.00	
6017.00†	0.589	221.700	5914.98	-622.22	-705.18	-628.29	40°05'11.275"N	104°54'07.576"W	2.00	
6046.46	0.000	0.728	5944.44	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	2.00	END DROP
6117.00†	0.000	0.728	6014.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
6217.00†	0.000	0.728	6114.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
6317.00†	0.000	0.728	6214.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
6417.00†	0.000	0.728	6314.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
6517.00†	0.000	0.728	6414.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
6617.00†	0.000	0.728	6514.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
6717.00†	0.000	0.728	6614.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
6817.00†	0.000	0.728	6714.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
6917.00†	0.000	0.728	6814.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
7017.00†	0.000	0.728	6914.98	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	
7042.09	0.000	0.728	6940.07	-622.32	-705.30	-628.40	40°05'11.274"N	104°54'07.577"W	0.00	KOP, BUILD @ 10°/100'
7117.00†	7.491	0.728	7014.77	-617.48	-700.41	-628.33	40°05'11.322"N	104°54'07.576"W	10.00	
7217.00†	17.491	0.728	7112.27	-596.08	-678.81	-628.06	40°05'11.536"N	104°54'07.573"W	10.00	
7317.00†	27.491	0.728	7204.55	-558.23	-640.60	-627.57	40°05'11.913"N	104°54'07.566"W	10.00	
7417.00†	37.491	0.728	7288.79	-505.08	-586.96	-626.89	40°05'12.443"N	104°54'07.558"W	10.00	
7501.77†	45.969	0.728	7352.00	-449.23	-530.59	-626.18	40°05'13.001"N	104°54'07.548"W	10.00	SHARON SPRINGS
7517.00†	47.491	0.728	7362.44	-438.24	-519.50	-626.04	40°05'13.110"N	104°54'07.547"W	10.00	
7617.00†	57.491	0.728	7423.25	-359.75	-440.28	-625.03	40°05'13.893"N	104°54'07.534"W	10.00	
7625.95†	58.386	0.728	7428.00	-352.24	-432.70	-624.93	40°05'13.968"N	104°54'07.532"W	10.00	NIOBRARA
7717.00†	67.491	0.728	7469.38	-272.00	-351.71	-623.90	40°05'14.768"N	104°54'07.519"W	10.00	
7765.41†	72.332	0.728	7486.00	-226.97	-306.26	-623.33	40°05'15.217"N	104°54'07.512"W	10.00	NIOBRARA B



# Planned Wellpath Report

TROUDT 13N-33HZ (PERMIT REV-1) PWP

Page 4 of 6



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 13N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 13N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7817.00†	77.491	0.728	7499.42	-177.64	-256.47	-622.69	40°05'15.709"N	104°54'07.504"W	10.00	
7917.00†	87.491	0.728	7512.48	-79.54	-157.46	-621.44	40°05'16.688"N	104°54'07.488"W	10.00	
7946.90	90.481	0.728	7513.00	-49.93	-127.57	-621.06	40°05'16.983"N	104°54'07.483"W	10.00	LANDING POINT
8017.00†	90.481	0.728	7512.42	19.52	-57.48	-620.17	40°05'17.676"N	104°54'07.471"W	0.00	
8117.00†	90.481	0.728	7511.58	118.59	42.51	-618.90	40°05'18.664"N	104°54'07.455"W	0.00	
8217.00†	90.481	0.728	7510.74	217.65	142.50	-617.63	40°05'19.652"N	104°54'07.439"W	0.00	
8317.00†	90.481	0.728	7509.90	316.72	242.48	-616.36	40°05'20.640"N	104°54'07.422"W	0.00	
8417.00†	90.481	0.728	7509.06	415.79	342.47	-615.09	40°05'21.628"N	104°54'07.406"W	0.00	
8517.00†	90.481	0.728	7508.22	514.85	442.46	-613.82	40°05'22.616"N	104°54'07.390"W	0.00	
8617.00†	90.481	0.728	7507.38	613.92	542.45	-612.55	40°05'23.605"N	104°54'07.373"W	0.00	
8717.00†	90.481	0.728	7506.54	712.99	642.44	-611.28	40°05'24.593"N	104°54'07.357"W	0.00	
8817.00†	90.481	0.728	7505.70	812.05	742.43	-610.01	40°05'25.581"N	104°54'07.341"W	0.00	
8917.00†	90.481	0.728	7504.86	911.12	842.42	-608.74	40°05'26.569"N	104°54'07.324"W	0.00	
9017.00†	90.481	0.728	7504.02	1010.19	942.40	-607.47	40°05'27.557"N	104°54'07.308"W	0.00	
9117.00†	90.481	0.728	7503.18	1109.25	1042.39	-606.20	40°05'28.545"N	104°54'07.292"W	0.00	
9217.00†	90.481	0.728	7502.34	1208.32	1142.38	-604.93	40°05'29.533"N	104°54'07.275"W	0.00	
9317.00†	90.481	0.728	7501.50	1307.39	1242.37	-603.66	40°05'30.521"N	104°54'07.259"W	0.00	
9417.00†	90.481	0.728	7500.66	1406.46	1342.36	-602.39	40°05'31.509"N	104°54'07.243"W	0.00	
9517.00†	90.481	0.728	7499.82	1505.52	1442.35	-601.12	40°05'32.497"N	104°54'07.227"W	0.00	
9617.00†	90.481	0.728	7498.98	1604.59	1542.33	-599.85	40°05'33.486"N	104°54'07.210"W	0.00	
9717.00†	90.481	0.728	7498.14	1703.66	1642.32	-598.58	40°05'34.474"N	104°54'07.194"W	0.00	
9817.00†	90.481	0.728	7497.30	1802.72	1742.31	-597.31	40°05'35.462"N	104°54'07.178"W	0.00	
9917.00†	90.481	0.728	7496.47	1901.79	1842.30	-596.04	40°05'36.450"N	104°54'07.161"W	0.00	
10017.00†	90.481	0.728	7495.63	2000.86	1942.29	-594.77	40°05'37.438"N	104°54'07.145"W	0.00	
10117.00†	90.481	0.728	7494.79	2099.92	2042.28	-593.50	40°05'38.426"N	104°54'07.129"W	0.00	
10217.00†	90.481	0.728	7493.95	2198.99	2142.26	-592.23	40°05'39.414"N	104°54'07.112"W	0.00	
10317.00†	90.481	0.728	7493.11	2298.06	2242.25	-590.96	40°05'40.402"N	104°54'07.096"W	0.00	
10417.00†	90.481	0.728	7492.27	2397.12	2342.24	-589.69	40°05'41.390"N	104°54'07.080"W	0.00	
10517.00†	90.481	0.728	7491.43	2496.19	2442.23	-588.42	40°05'42.378"N	104°54'07.063"W	0.00	
10617.00†	90.481	0.728	7490.59	2595.26	2542.22	-587.15	40°05'43.367"N	104°54'07.047"W	0.00	
10717.00†	90.481	0.728	7489.75	2694.32	2642.21	-585.88	40°05'44.355"N	104°54'07.031"W	0.00	
10817.00†	90.481	0.728	7488.91	2793.39	2742.19	-584.61	40°05'45.343"N	104°54'07.015"W	0.00	
10917.00†	90.481	0.728	7488.07	2892.46	2842.18	-583.34	40°05'46.331"N	104°54'06.998"W	0.00	
11017.00†	90.481	0.728	7487.23	2991.52	2942.17	-582.07	40°05'47.319"N	104°54'06.982"W	0.00	
11117.00†	90.481	0.728	7486.39	3090.59	3042.16	-580.80	40°05'48.307"N	104°54'06.966"W	0.00	
11163.57†	90.481	0.728	7486.00	3136.72	3088.72	-580.20	40°05'48.767"N	104°54'06.958"W	0.00	NIOBRARA B
11217.00†	90.481	0.728	7485.55	3189.66	3142.15	-579.53	40°05'49.295"N	104°54'06.949"W	0.00	
11317.00†	90.481	0.728	7484.71	3288.72	3242.14	-578.26	40°05'50.283"N	104°54'06.933"W	0.00	
11417.00†	90.481	0.728	7483.87	3387.79	3342.13	-576.99	40°05'51.271"N	104°54'06.917"W	0.00	
11517.00†	90.481	0.728	7483.03	3486.86	3442.11	-575.72	40°05'52.259"N	104°54'06.900"W	0.00	
11617.00†	90.481	0.728	7482.19	3585.92	3542.10	-574.45	40°05'53.248"N	104°54'06.884"W	0.00	
11717.00†	90.481	0.728	7481.35	3684.99	3642.09	-573.18	40°05'54.236"N	104°54'06.868"W	0.00	
11817.00†	90.481	0.728	7480.51	3784.06	3742.08	-571.91	40°05'55.224"N	104°54'06.851"W	0.00	
11917.00†	90.481	0.728	7479.67	3883.12	3842.07	-570.64	40°05'56.212"N	104°54'06.835"W	0.00	
12017.00†	90.481	0.728	7478.84	3982.19	3942.06	-569.37	40°05'57.200"N	104°54'06.819"W	0.00	





# Planned Wellpath Report

TROUDT 13N-33HZ (PERMIT REV-1) PWP

Page 5 of 6



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 13N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 13N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.481	0.728	7478.00	4081.26	4042.04	-568.10	40°05'58.188"N	104°54'06.802"W	0.00	
12217.00†	90.481	0.728	7477.16	4180.32	4142.03	-566.83	40°05'59.176"N	104°54'06.786"W	0.00	
12317.00†	90.481	0.728	7476.32	4279.39	4242.02	-565.56	40°06'00.164"N	104°54'06.770"W	0.00	
12417.00†	90.481	0.728	7475.48	4378.46	4342.01	-564.29	40°06'01.152"N	104°54'06.754"W	0.00	
12517.00†	90.481	0.728	7474.64	4477.52	4442.00	-563.02	40°06'02.140"N	104°54'06.737"W	0.00	
12592.94	90.481	0.728	7474.00 <sup>1</sup>	4552.75	4517.92	-562.05	40°06'02.891"N	104°54'06.725"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS - Ref Wellbore: TROUDT 13N-33HZ PWB Ref Wellpath: TROUDT 13N-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	7946.90	6842.90	1104.00	7513.00	0.00	0.00	-127.57	-621.06
7in Casing Intermediate	17.00	7946.90	7929.90	17.00	7513.00	0.00	0.00	-127.57	-621.06
6.125in Open Hole	7946.90	12592.94	4646.04	7513.00	7474.00	-127.57	-621.06	4517.92	-562.05
4.5in Casing Production	17.00	12592.94	12575.94	17.00	7474.00	0.00	0.00	4517.92	-562.05

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) TROUDT 13N-33HZ BHL REV-1 (460'FNL & 910'FWL, SEC.33)	12592.94	7474.00	4517.92	-562.05	3167319.87	1280131.23	40°06'02.891"N	104°54'06.725"W	point
TROUDT 13N-33HZ LANDBOX		7474.00	0.00	0.00	3167912.46	1275617.40	40°05'18.244"N	104°53'59.492"W	polygon
TROUDT 35-33HZ HARDLINES (460' SETBACK)		7684.00	-6.07	2203.67	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W	polygon
TROUDT 35-33HZ SECTION 33		7684.00	-6.07	2203.67	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W	polygon

## SURVEY PROGRAM - Ref Wellbore: TROUDT 13N-33HZ PWB Ref Wellpath: TROUDT 13N-33HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7946.90	NaviTrak (Standard)		TROUDT 13N-33HZ PWB
7946.90	12592.94	OnTrak (Standard)		TROUDT 13N-33HZ PWB



# Planned Wellpath Report

TROUDT 13N-33HZ (PERMIT REV-1) PWP

Page 6 of 6



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 TROUDT 13N-33HZ (305'FSL & 1530'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 13N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 13N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1054.00	0.000	221.700	1054.00	FOX HILLS BASE
4780.68	13.000	221.700	4700.00	SUSSEX
5210.70	13.000	221.700	5119.00	SHANNON
7501.77	45.969	0.728	7352.00	SHARON SPRINGS
7625.95	58.386	0.728	7428.00	NIOBRARA
7765.41	72.332	0.728	7486.00	NIOBRARA B
11163.57	90.481	0.728	7486.00	NIOBRARA B

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	221.700	17.00	TIE ON
1200.00	0.000	221.700	1200.00	BEGIN NUDGE
1850.00	13.000	221.700	1844.44	END NUDGE
5396.46	13.000	221.700	5300.00	BEGIN DROP
6046.46	0.000	0.728	5944.44	END DROP
7042.09	0.000	0.728	6940.07	KOP, BUILD @ 10°/100'
7946.90	90.481	0.728	7513.00	LANDING POINT
12592.94	90.481	0.728	7474.00	TOTAL DEPTH