

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)  
Field: WELD COUNTY (KERR MCGEE) Well: HENRICKSON 34N-18HZ  
Facility: SEC.07-T3N-R66W Wellbore: HENRICKSON 34N-18HZ PWB

Plot reference wellpath is HENRICKSON 34N-18HZ (PERMIT REV-1) PWP

True vertical depths are referenced to Rig on SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07) (RKB) Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet  
Measured depths are referenced to Rig on SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07) (RKB) North Reference: True north  
Rig on SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07) (RKB) to Mean Sea Level: 4810 feet Scale: True distance  
Mean Sea Level to Mud line (At Slot: SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)): 0 feet Depths are in feet  
Coordinates are in feet referenced to Slot Created by preasin on 5/24/2013

## Location Information

Facility Name			Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SEC.07-T3N-R66W			3189797.460	1326743.780	40°13'54.682"N	104°49'12.741"W
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)	1723.39	-1889.40	3187694.592	1326743.780	40°14'11.713"N	104°49'37.103"W
Rig on SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07) (RKB) to Mud line (At Slot: SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07))						4810ft
Mean Sea Level to Mud line (At Slot: SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07))						0ft
Rig on SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07) (RKB) to Mean Sea Level						4810ft

## Survey Program

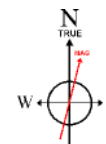
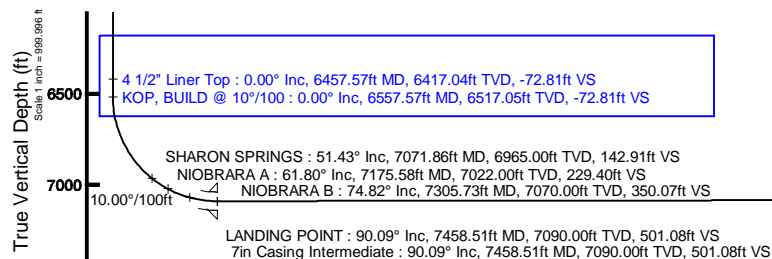
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7458.51	NaviTrak	NaviTrak (MagCorr)		HENRICKSON 34N-18HZ PWB
7458.51	13555.96	OnTrak	OnTrak (MagCorr)		HENRICKSON 34N-18HZ PWB

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SEC.07-T3N-R66W HARD LINES (460' SET BACKS)	4810.00	0.00	0.00	0.00	3187695.01	1326743.58	40°14'11.713"N	104°49'37.103"W
SEC.07-T3N-R66W SECTION LINES	4810.00	0.00	0.00	0.00	3187695.01	1326743.58	40°14'11.713"N	104°49'37.103"W
SEC.18-T3N-R66W HARD LINES (460' SET BACKS)	4810.00	0.00	0.00	0.00	3187695.01	1326743.58	40°14'11.713"N	104°49'37.103"W
SEC.18-T3N-R66W SECTION LINES	4810.00	0.00	0.00	0.00	3187695.01	1326743.58	40°14'11.713"N	104°49'37.103"W
HENRICKSON 34N-18HZ BHL ON PLAT (460' FSL & 330' FWL, SEC. 18) REV-1	13555.96	7080.00	-6598.56	-481.72	3187463.38	1326141.82	40°13'06.506"N	104°49'43.313"W

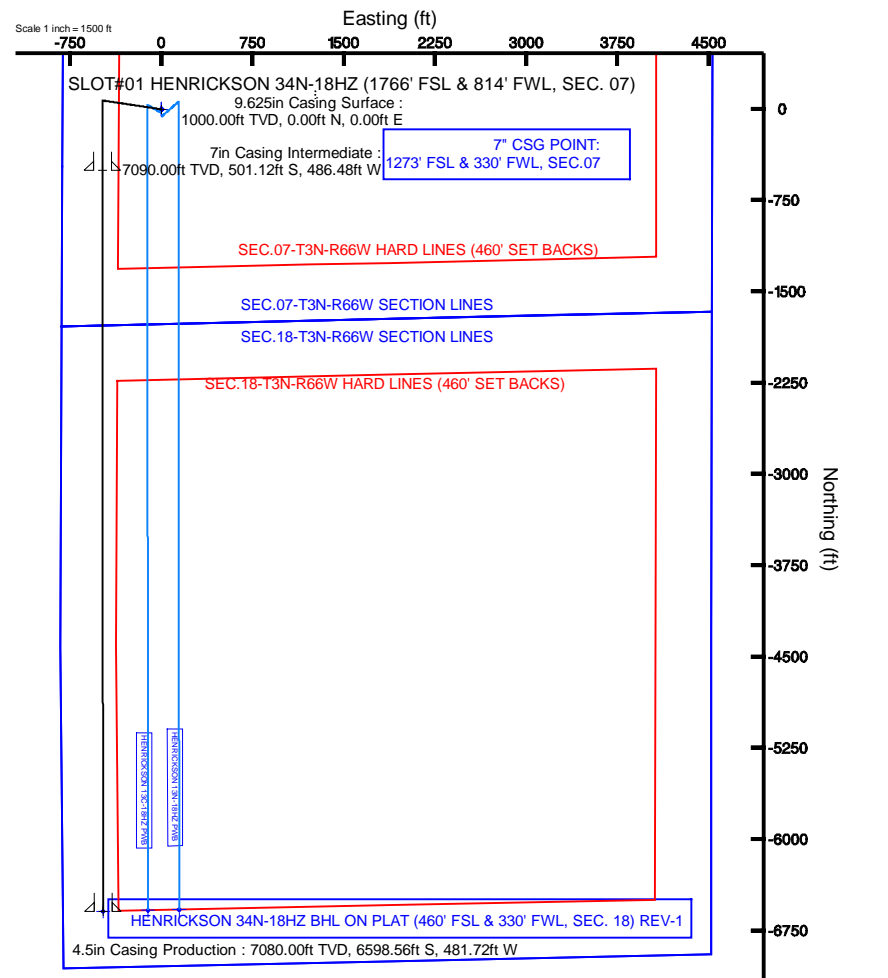
## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	278.500	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1120.00	0.000	278.500	1120.00	0.00	0.00	0.00	0.00
END NUDGE	1620.00	10.000	278.500	1617.47	6.43	-43.04	2.00	-6.44
BEGIN DROP	3953.99	10.000	278.500	3916.00	66.34	-443.89	0.00	-66.38
END DROP	4453.99	0.000	179.955	4413.47	72.77	-486.93	2.00	-72.81
KOP, BUILD @ 10°/100	6557.57	0.000	179.955	6517.05	72.77	-486.93	0.00	-72.81
LANDING POINT	7458.51	90.094	179.955	7090.00	-501.13	-486.48	10.00	501.08
TOTAL DEPTH	13555.96	90.094	179.955	7080.00	-6598.56	-481.72	0.00	6598.52



BGGM (1945.0 to 2014.0) Dip: 66.81° Field: 52735.3 nT  
Magnetic North is 8.67 degrees East of True North (at 5/23/2013)

To correct azimuth from Magnetic to True add 8.67 degrees  
For example: if the Magnetic North Azimuth = 90 degs, then the True North Azimuth = 90 + 8.67 = 98.67



HENRICKSON 34N-18HZ BHL ON PLAT (460' FSL & 330' FWL, SEC. 18) REV-1  
TOTAL DEPTH : 90.09° Inc, 13555.96ft MD, 7080.00ft TVD, 6598.52ft VS  
4.5in Casing Production : 90.09° Inc, 13555.96ft MD, 7080.00ft TVD, 6598.52ft VS

Scale 1 inch = 1000 ft



**Planned Wellpath Report**  
**HENRICKSON 34N-18HZ (PERMIT REV-1) PWP**  
Page 1 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)
Area	COLORADO	Well	HENRICKSON 34N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 34N-18HZ PWB
Facility	SEC.07-T3N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Precain
Scale	0.999957	Report Generated	5/24/2013 at 8:43:57 AM
Convergence at slot	0.43° East	Database/Source file	WellArchitectDB/HENRICKSON_34N-18HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1723.39	-1889.40	3187894.99	1329743.56	40°14'11.713"N	104°49'37.103"W
Facility Reference Pt			3189797.46	1328034.78	40°13'54.683"N	104°49'12.741"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	Rig on SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07) (RKB)
MD Reference Pt	Rig on SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07) (RKB)
Field Vertical Reference	Mean Sea Level

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)
Area	COLORADO	Well	HENRICKSON 34N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 34N-18HZ PWB
Facility	SEC.07-T3N-R66W		

## WELLPATH DATA (151 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	278.500	0.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
17.00	0.000	278.500	17.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	TIE-ON
117.00†	0.000	278.500	117.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
217.00†	0.000	278.500	217.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
317.00†	0.000	278.500	317.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
417.00†	0.000	278.500	417.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
516.00†	0.000	278.500	516.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	FOX HILLS BASE
517.00†	0.000	278.500	517.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
617.00†	0.000	278.500	617.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
717.00†	0.000	278.500	717.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
817.00†	0.000	278.500	817.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
917.00†	0.000	278.500	917.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
1017.00†	0.000	278.500	1017.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
1117.00†	0.000	278.500	1117.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	
1120.00	0.000	278.500	1120.00	0.00	0.00	0.00	40°14'11.713"N	104°49'37.103"W	0.00	BEGIN NUDGE
1217.00†	1.940	278.500	1216.98	-0.24	0.24	-1.62	40°14'11.715"N	104°49'37.124"W	2.00	
1317.00†	3.940	278.500	1316.84	-1.00	1.00	-6.70	40°14'11.723"N	104°49'37.189"W	2.00	
1417.00†	5.940	278.500	1416.47	-2.27	2.27	-15.21	40°14'11.735"N	104°49'37.299"W	2.00	
1517.00†	7.940	278.500	1515.73	-4.06	4.06	-27.16	40°14'11.753"N	104°49'37.453"W	2.00	
1617.00†	9.940	278.500	1614.51	-6.36	6.36	-42.53	40°14'11.776"N	104°49'37.651"W	2.00	
1620.00	10.000	278.500	1617.47	-6.44	6.43	-43.04	40°14'11.777"N	104°49'37.658"W	2.00	END NUDGE
1717.00†	10.000	278.500	1712.99	-8.93	8.92	-59.70	40°14'11.801"N	104°49'37.873"W	0.00	
1817.00†	10.000	278.500	1811.47	-11.50	11.49	-76.88	40°14'11.827"N	104°49'38.094"W	0.00	
1917.00†	10.000	278.500	1909.95	-14.06	14.06	-94.05	40°14'11.852"N	104°49'38.316"W	0.00	
2017.00†	10.000	278.500	2008.43	-16.63	16.62	-111.23	40°14'11.877"N	104°49'38.537"W	0.00	
2117.00†	10.000	278.500	2106.91	-19.20	19.19	-128.40	40°14'11.903"N	104°49'38.759"W	0.00	
2217.00†	10.000	278.500	2205.40	-21.77	21.76	-145.57	40°14'11.928"N	104°49'38.980"W	0.00	
2317.00†	10.000	278.500	2303.88	-24.34	24.32	-162.75	40°14'11.953"N	104°49'39.202"W	0.00	
2417.00†	10.000	278.500	2402.36	-26.91	26.89	-179.92	40°14'11.979"N	104°49'39.423"W	0.00	
2517.00†	10.000	278.500	2500.84	-29.47	29.46	-197.10	40°14'12.004"N	104°49'39.644"W	0.00	
2617.00†	10.000	278.500	2599.32	-32.04	32.02	-214.27	40°14'12.029"N	104°49'39.866"W	0.00	
2717.00†	10.000	278.500	2697.80	-34.61	34.59	-231.44	40°14'12.055"N	104°49'40.087"W	0.00	
2817.00†	10.000	278.500	2796.28	-37.18	37.16	-248.62	40°14'12.080"N	104°49'40.309"W	0.00	
2917.00†	10.000	278.500	2894.76	-39.75	39.72	-265.79	40°14'12.106"N	104°49'40.530"W	0.00	
3017.00†	10.000	278.500	2993.24	-42.31	42.29	-282.97	40°14'12.131"N	104°49'40.752"W	0.00	
3117.00†	10.000	278.500	3091.72	-44.88	44.86	-300.14	40°14'12.156"N	104°49'40.973"W	0.00	
3217.00†	10.000	278.500	3190.20	-47.45	47.42	-317.31	40°14'12.182"N	104°49'41.195"W	0.00	
3317.00†	10.000	278.500	3288.68	-50.02	49.99	-334.49	40°14'12.207"N	104°49'41.416"W	0.00	
3417.00†	10.000	278.500	3387.16	-52.59	52.56	-351.66	40°14'12.232"N	104°49'41.637"W	0.00	
3517.00†	10.000	278.500	3485.65	-55.16	55.12	-368.84	40°14'12.258"N	104°49'41.859"W	0.00	
3617.00†	10.000	278.500	3584.13	-57.72	57.69	-386.01	40°14'12.283"N	104°49'42.080"W	0.00	
3717.00†	10.000	278.500	3682.61	-60.29	60.26	-403.18	40°14'12.308"N	104°49'42.302"W	0.00	
3817.00†	10.000	278.500	3781.09	-62.86	62.82	-420.36	40°14'12.334"N	104°49'42.523"W	0.00	
3842.30†	10.000	278.500	3806.00	-63.51	63.47	-424.70	40°14'12.340"N	104°49'42.579"W	0.00	PARKMAN
3917.00†	10.000	278.500	3879.57	-65.43	65.39	-437.53	40°14'12.359"N	104°49'42.745"W	0.00	

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)
Area	COLORADO	Well	HENRICKSON 34N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 34N-18HZ PWB
Facility	SEC.07-T3N-R66W		

## WELLPATH DATA (151 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3953.99	10.000	278.500	3916.00	-66.38	66.34	-443.89	40°14'12.369"N	104°49'42.827"W	0.00	BEGIN DROP
4017.00†	8.740	278.500	3978.16	-67.90	67.86	-454.03	40°14'12.384"N	104°49'42.957"W	2.00	
4117.00†	6.740	278.500	4077.25	-69.89	69.85	-467.35	40°14'12.403"N	104°49'43.129"W	2.00	
4217.00†	4.740	278.500	4176.74	-71.37	71.32	-477.24	40°14'12.418"N	104°49'43.257"W	2.00	
4290.44†	3.271	278.500	4250.00	-72.12	72.08	-482.31	40°14'12.425"N	104°49'43.322"W	2.00	SUSSEX
4317.00†	2.740	278.500	4276.52	-72.33	72.29	-483.69	40°14'12.427"N	104°49'43.340"W	2.00	
4417.00†	0.740	278.500	4376.47	-72.78	72.74	-486.69	40°14'12.432"N	104°49'43.379"W	2.00	
4453.99	0.000	179.955	4413.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	2.00	END DROP
4517.00†	0.000	179.955	4476.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
4617.00†	0.000	179.955	4576.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
4717.00†	0.000	179.955	4676.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
4817.00†	0.000	179.955	4776.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
4917.00†	0.000	179.955	4876.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5017.00†	0.000	179.955	4976.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5117.00†	0.000	179.955	5076.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5217.00†	0.000	179.955	5176.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5317.00†	0.000	179.955	5276.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5417.00†	0.000	179.955	5376.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5517.00†	0.000	179.955	5476.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5617.00†	0.000	179.955	5576.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5717.00†	0.000	179.955	5676.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5817.00†	0.000	179.955	5776.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
5917.00†	0.000	179.955	5876.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
6017.00†	0.000	179.955	5976.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
6117.00†	0.000	179.955	6076.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
6217.00†	0.000	179.955	6176.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
6317.00†	0.000	179.955	6276.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
6417.00†	0.000	179.955	6376.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
6457.57†	0.000	179.955	6417.04	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	4 1/2" Liner Top
6517.00†	0.000	179.955	6476.47	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	
6557.57	0.000	179.955	6517.05	-72.81	72.77	-486.93	40°14'12.432"N	104°49'43.382"W	0.00	KOP, BUILD @ 10°/100
6617.00†	5.943	179.955	6576.37	-69.74	69.69	-486.93	40°14'12.402"N	104°49'43.382"W	10.00	
6717.00†	15.943	179.955	6674.42	-50.78	50.73	-486.91	40°14'12.214"N	104°49'43.381"W	10.00	
6817.00†	25.943	179.955	6767.70	-15.08	15.04	-486.89	40°14'11.862"N	104°49'43.381"W	10.00	
6917.00†	35.943	179.955	6853.36	36.27	-36.32	-486.85	40°14'11.354"N	104°49'43.381"W	10.00	
7017.00†	45.943	179.955	6928.80	101.72	-101.76	-486.79	40°14'10.707"N	104°49'43.380"W	10.00	
7071.86†	51.428	179.955	6965.00	142.91	-142.95	-486.76	40°14'10.300"N	104°49'43.379"W	10.00	SHARON SPRINGS
7117.00†	55.943	179.955	6991.73	179.27	-179.32	-486.73	40°14'09.941"N	104°49'43.379"W	10.00	
7175.58†	61.801	179.955	7022.00	229.40	-229.44	-486.69	40°14'09.446"N	104°49'43.379"W	10.00	NIOBRARA A
7217.00†	65.943	179.955	7040.23	266.58	-266.62	-486.67	40°14'09.078"N	104°49'43.378"W	10.00	
7305.73†	74.816	179.955	7070.00	350.07	-350.11	-486.60	40°14'08.253"N	104°49'43.377"W	10.00	NIOBRARA B
7317.00†	75.943	179.955	7072.84	360.98	-361.02	-486.59	40°14'08.145"N	104°49'43.377"W	10.00	
7417.00†	85.943	179.955	7088.57	459.60	-459.65	-486.52	40°14'07.171"N	104°49'43.376"W	10.00	
7458.51	90.094	179.955	7090.00	501.08	-501.13	-486.48	40°14'06.761"N	104°49'43.376"W	10.00	LANDING POINT
7517.00†	90.094	179.955	7089.91	559.57	-559.61	-486.44	40°14'06.183"N	104°49'43.375"W	0.00	

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)
Area	COLORADO	Well	HENRICKSON 34N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 34N-18HZ PWB
Facility	SEC.07-T3N-R66W		

## WELLPATH DATA (151 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7617.00†	90.094	179.955	7089.74	659.57	-659.61	-486.36	40°14'05.195"N	104°49'43.374"W	0.00	
7717.00†	90.094	179.955	7089.58	759.57	-759.61	-486.28	40°14'04.207"N	104°49'43.373"W	0.00	
7817.00†	90.094	179.955	7089.41	859.57	-859.61	-486.20	40°14'03.218"N	104°49'43.372"W	0.00	
7917.00†	90.094	179.955	7089.25	959.57	-959.61	-486.12	40°14'02.230"N	104°49'43.371"W	0.00	
8017.00†	90.094	179.955	7089.09	1059.57	-1059.61	-486.05	40°14'01.242"N	104°49'43.370"W	0.00	
8117.00†	90.094	179.955	7088.92	1159.57	-1159.61	-485.97	40°14'00.254"N	104°49'43.369"W	0.00	
8217.00†	90.094	179.955	7088.76	1259.57	-1259.61	-485.89	40°13'59.266"N	104°49'43.368"W	0.00	
8317.00†	90.094	179.955	7088.59	1359.57	-1359.61	-485.81	40°13'58.277"N	104°49'43.367"W	0.00	
8417.00†	90.094	179.955	7088.43	1459.57	-1459.61	-485.73	40°13'57.289"N	104°49'43.366"W	0.00	
8517.00†	90.094	179.955	7088.27	1559.57	-1559.61	-485.66	40°13'56.301"N	104°49'43.365"W	0.00	
8617.00†	90.094	179.955	7088.10	1659.57	-1659.61	-485.58	40°13'55.313"N	104°49'43.364"W	0.00	
8717.00†	90.094	179.955	7087.94	1759.57	-1759.61	-485.50	40°13'54.325"N	104°49'43.363"W	0.00	
8817.00†	90.094	179.955	7087.77	1859.57	-1859.61	-485.42	40°13'53.336"N	104°49'43.362"W	0.00	
8917.00†	90.094	179.955	7087.61	1959.57	-1959.61	-485.34	40°13'52.348"N	104°49'43.361"W	0.00	
9017.00†	90.094	179.955	7087.45	2059.57	-2059.61	-485.27	40°13'51.360"N	104°49'43.360"W	0.00	
9117.00†	90.094	179.955	7087.28	2159.57	-2159.61	-485.19	40°13'50.372"N	104°49'43.359"W	0.00	
9217.00†	90.094	179.955	7087.12	2259.57	-2259.61	-485.11	40°13'49.384"N	104°49'43.358"W	0.00	
9317.00†	90.094	179.955	7086.95	2359.57	-2359.61	-485.03	40°13'48.395"N	104°49'43.357"W	0.00	
9417.00†	90.094	179.955	7086.79	2459.57	-2459.61	-484.95	40°13'47.407"N	104°49'43.355"W	0.00	
9517.00†	90.094	179.955	7086.63	2559.57	-2559.61	-484.88	40°13'46.419"N	104°49'43.354"W	0.00	
9617.00†	90.094	179.955	7086.46	2659.57	-2659.61	-484.80	40°13'45.431"N	104°49'43.353"W	0.00	
9717.00†	90.094	179.955	7086.30	2759.57	-2759.61	-484.72	40°13'44.443"N	104°49'43.352"W	0.00	
9817.00†	90.094	179.955	7086.13	2859.57	-2859.61	-484.64	40°13'43.455"N	104°49'43.351"W	0.00	
9917.00†	90.094	179.955	7085.97	2959.57	-2959.61	-484.56	40°13'42.466"N	104°49'43.350"W	0.00	
10017.00†	90.094	179.955	7085.81	3059.57	-3059.61	-484.49	40°13'41.478"N	104°49'43.349"W	0.00	
10117.00†	90.094	179.955	7085.64	3159.57	-3159.61	-484.41	40°13'40.490"N	104°49'43.348"W	0.00	
10217.00†	90.094	179.955	7085.48	3259.57	-3259.61	-484.33	40°13'39.502"N	104°49'43.347"W	0.00	
10317.00†	90.094	179.955	7085.31	3359.57	-3359.61	-484.25	40°13'38.514"N	104°49'43.346"W	0.00	
10417.00†	90.094	179.955	7085.15	3459.56	-3459.61	-484.17	40°13'37.525"N	104°49'43.345"W	0.00	
10517.00†	90.094	179.955	7084.99	3559.56	-3559.61	-484.10	40°13'36.537"N	104°49'43.344"W	0.00	
10617.00†	90.094	179.955	7084.82	3659.56	-3659.61	-484.02	40°13'35.549"N	104°49'43.343"W	0.00	
10717.00†	90.094	179.955	7084.66	3759.56	-3759.61	-483.94	40°13'34.561"N	104°49'43.342"W	0.00	
10817.00†	90.094	179.955	7084.49	3859.56	-3859.61	-483.86	40°13'33.573"N	104°49'43.341"W	0.00	
10917.00†	90.094	179.955	7084.33	3959.56	-3959.61	-483.78	40°13'32.584"N	104°49'43.340"W	0.00	
11017.00†	90.094	179.955	7084.16	4059.56	-4059.61	-483.71	40°13'31.596"N	104°49'43.339"W	0.00	
11117.00†	90.094	179.955	7084.00	4159.56	-4159.61	-483.63	40°13'30.608"N	104°49'43.338"W	0.00	
11217.00†	90.094	179.955	7083.84	4259.56	-4259.61	-483.55	40°13'29.620"N	104°49'43.337"W	0.00	
11317.00†	90.094	179.955	7083.67	4359.56	-4359.61	-483.47	40°13'28.632"N	104°49'43.336"W	0.00	
11417.00†	90.094	179.955	7083.51	4459.56	-4459.61	-483.39	40°13'27.643"N	104°49'43.335"W	0.00	
11517.00†	90.094	179.955	7083.34	4559.56	-4559.61	-483.31	40°13'26.655"N	104°49'43.334"W	0.00	
11617.00†	90.094	179.955	7083.18	4659.56	-4659.61	-483.24	40°13'25.667"N	104°49'43.333"W	0.00	
11717.00†	90.094	179.955	7083.02	4759.56	-4759.61	-483.16	40°13'24.679"N	104°49'43.332"W	0.00	
11817.00†	90.094	179.955	7082.85	4859.56	-4859.60	-483.08	40°13'23.691"N	104°49'43.331"W	0.00	
11917.00†	90.094	179.955	7082.69	4959.56	-4959.60	-483.00	40°13'22.702"N	104°49'43.330"W	0.00	
12017.00†	90.094	179.955	7082.52	5059.56	-5059.60	-482.92	40°13'21.714"N	104°49'43.329"W	0.00	



# Planned Wellpath Report

HENRICKSON 34N-18HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)
Area	COLORADO	Well	HENRICKSON 34N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 34N-18HZ PWB
Facility	SEC.07-T3N-R66W		

## WELLPATH DATA (151 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.094	179.955	7082.36	5159.56	-5159.60	-482.85	40°13'20.726"N	104°49'43.328"W	0.00	
12217.00†	90.094	179.955	7082.20	5259.56	-5259.60	-482.77	40°13'19.738"N	104°49'43.327"W	0.00	
12317.00†	90.094	179.955	7082.03	5359.56	-5359.60	-482.69	40°13'18.750"N	104°49'43.326"W	0.00	
12417.00†	90.094	179.955	7081.87	5459.56	-5459.60	-482.61	40°13'17.762"N	104°49'43.325"W	0.00	
12517.00†	90.094	179.955	7081.70	5559.56	-5559.60	-482.53	40°13'16.773"N	104°49'43.324"W	0.00	
12617.00†	90.094	179.955	7081.54	5659.56	-5659.60	-482.46	40°13'15.785"N	104°49'43.322"W	0.00	
12717.00†	90.094	179.955	7081.38	5759.56	-5759.60	-482.38	40°13'14.797"N	104°49'43.321"W	0.00	
12817.00†	90.094	179.955	7081.21	5859.56	-5859.60	-482.30	40°13'13.809"N	104°49'43.320"W	0.00	
12917.00†	90.094	179.955	7081.05	5959.56	-5959.60	-482.22	40°13'12.821"N	104°49'43.319"W	0.00	
13017.00†	90.094	179.955	7080.88	6059.56	-6059.60	-482.14	40°13'11.832"N	104°49'43.318"W	0.00	
13117.00†	90.094	179.955	7080.72	6159.56	-6159.60	-482.07	40°13'10.844"N	104°49'43.317"W	0.00	
13217.00†	90.094	179.955	7080.56	6259.56	-6259.60	-481.99	40°13'09.856"N	104°49'43.316"W	0.00	
13317.00†	90.094	179.955	7080.39	6359.56	-6359.60	-481.91	40°13'08.868"N	104°49'43.315"W	0.00	
13417.00†	90.094	179.955	7080.23	6459.56	-6459.60	-481.83	40°13'07.880"N	104°49'43.314"W	0.00	
13517.00†	90.094	179.955	7080.06	6559.56	-6559.60	-481.75	40°13'06.891"N	104°49'43.313"W	0.00	
13555.96	90.094	179.955	7080.00 <sup>L</sup>	6598.52	-6598.56	-481.72	40°13'06.506"N	104°49'43.313"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS - Ref Wellbore: HENRICKSON 34N-18HZ PWB Ref Wellpath: HENRICKSON 34N-18HZ (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	1000.00	983.00	17.00	1000.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1000.00	983.00	17.00	1000.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1000.00	7458.51	6458.51	1000.00	7090.00	0.00	0.00	-501.12	-486.48
7in Casing Intermediate	17.00	7458.51	7441.51	17.00	7090.00	0.00	0.00	-501.12	-486.48
6.125in Open Hole	7458.51	13555.96	6097.45	7090.00	7080.00	-501.12	-486.48	-6598.56	-481.72
4.5in Casing Production	17.00	13555.96	13538.96	17.00	7080.00	0.00	0.00	-6598.56	-481.72



# Planned Wellpath Report

HENRICKSON 34N-18HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)
Area	COLORADO	Well	HENRICKSON 34N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 34N-18HZ PWB
Facility	SEC.07-T3N-R66W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.07-T3N-R66W HARD LINES (460' SET BACKS)		4810.00	0.02	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W	polygon
SEC.07-T3N-R66W SECTION LINES		4810.00	0.02	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W	polygon
SEC.18-T3N-R66W HARD LINES (460' SET BACKS)		4810.00	0.02	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W	polygon
SEC.18-T3N-R66W SECTION LINES		4810.00	0.02	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W	polygon
1) HENRICKSON 34N-18HZ BHL ON PLAT (460' FSL & 330' FWL, SEC. 18) REV-1	13555.96	7080.00	-6598.56	-481.72	3187463.38	1323141.82	40°13'06.506"N	104°49'43.313"W	point

SURVEY PROGRAM - Ref Wellbore: HENRICKSON 34N-18HZ PWB Ref Wellpath: HENRICKSON 34N-18HZ (PERMIT REV-1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7458.51	NaviTrak (MagCorr)		HENRICKSON 34N-18HZ PWB
7458.51	13555.96	OnTrak (MagCorr)		HENRICKSON 34N-18HZ PWB



# Planned Wellpath Report

HENRICKSON 34N-18HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HENRICKSON 34N-18HZ (1766' FSL & 814' FWL, SEC. 07)
Area	COLORADO	Well	HENRICKSON 34N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 34N-18HZ PWB
Facility	SEC.07-T3N-R66W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
516.00	0.000	278.500	516.00	FOX HILLS BASE
3842.30	10.000	278.500	3806.00	PARKMAN
4290.44	3.271	278.500	4250.00	SUSSEX
6457.57	0.000	179.955	6417.04	4 1/2" Liner Top
7071.86	51.428	179.955	6965.00	SHARON SPRINGS
7175.58	61.801	179.955	7022.00	NIOBRARA A
7305.73	74.816	179.955	7070.00	NIOBRARA B

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	278.500	17.00	TIE-ON
1120.00	0.000	278.500	1120.00	BEGIN NUDGE
1620.00	10.000	278.500	1617.47	END NUDGE
3953.99	10.000	278.500	3916.00	BEGIN DROP
4453.99	0.000	179.955	4413.47	END DROP
6557.57	0.000	179.955	6517.05	KOP. BUILD @ 10°/100
7458.51	90.094	179.955	7090.00	LANDING POINT
13555.96	90.094	179.955	7080.00	TOTAL DEPTH