

Location:	COLORADO	Slot:	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Field:	WELD COUNTY (KERR MCGEE)	Well:	NRC 2C-5HZ
Facility:	SEC.08-T1N-R67W	Wellbore:	NRC 2C-5HZ PWB

Location:	COLORADO	Slot:	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Field:	WELD COUNTY (KERR MCGEE)	Well:	NRC 2C-5HZ
Facility:	SEC.08-T1N-R67W	Wellbore:	NRC 2C-5HZ PWB

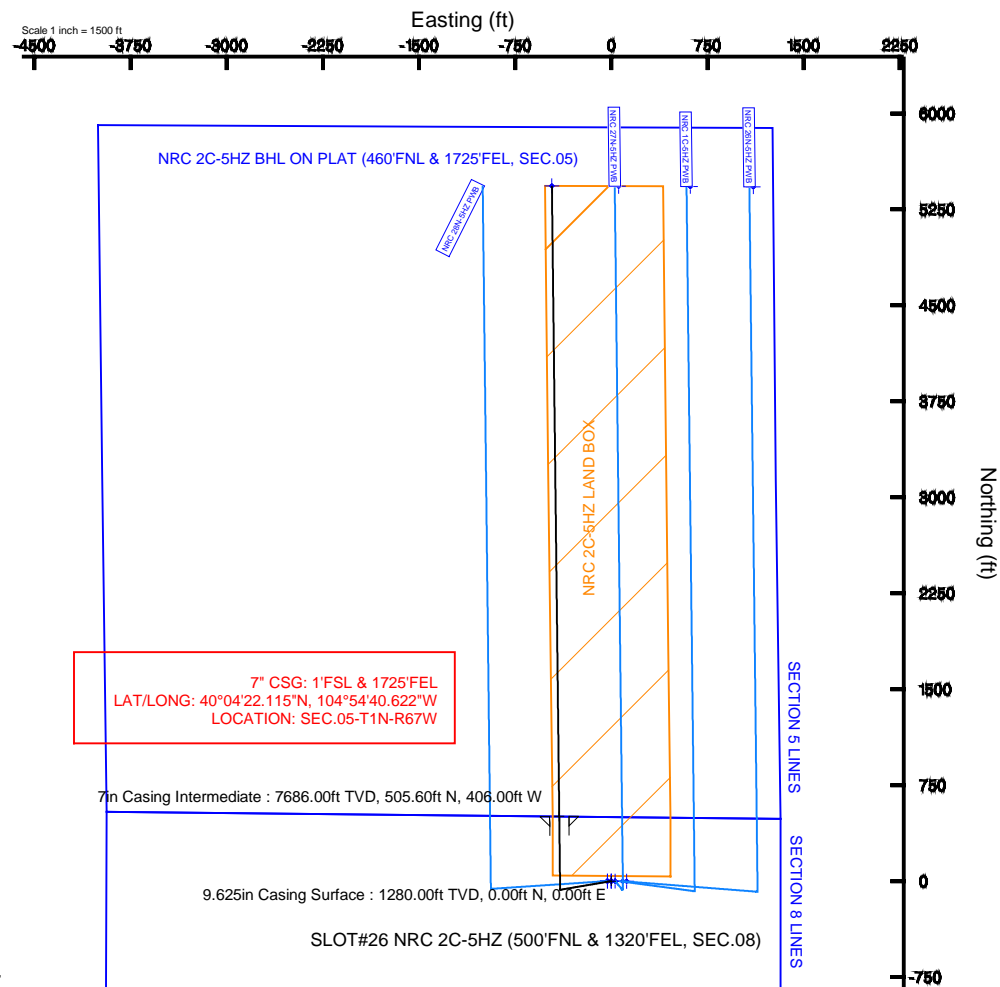
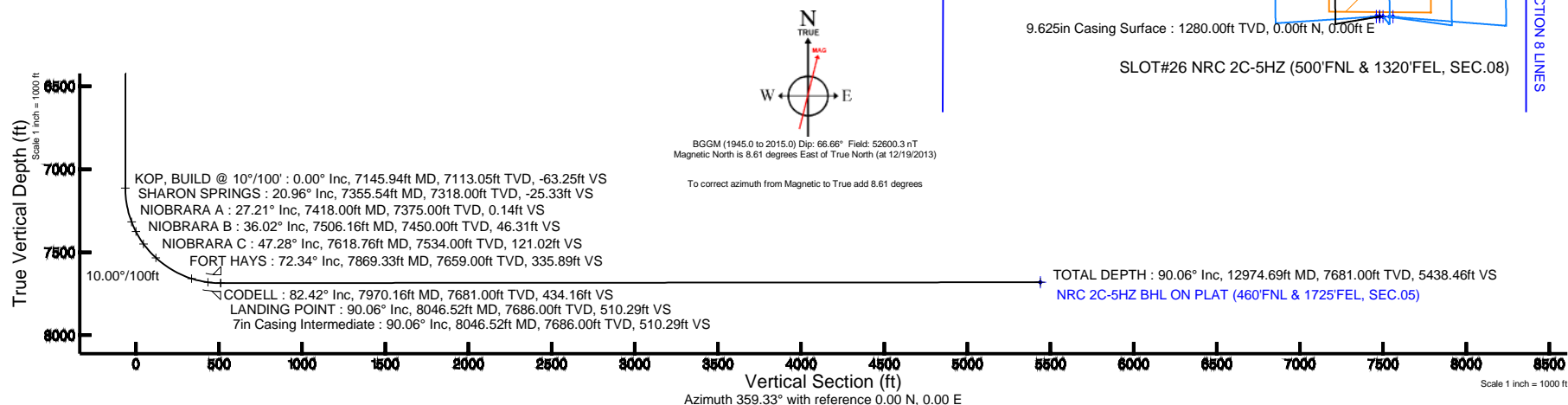
True vertical depths are referenced to Rig on SLO7#26 NRC 2C-5HZ (500FNL & 1320FEL, SEC.08) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLO7#26 NRC 2C-5HZ (500FNL & 1320FEL, SEC.08) (RKB)	North Reference: True north
Rig on SLO7#26 NRC 2C-5HZ (500FNL & 1320FEL, SEC.08) (RKB) to Mean Sea Level: 5026 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLO7#26 NRC 2C-5HZ (500FNL & 1320FEL, SEC.08): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wlsie02 on 12/20/2013

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
SEC.08-T1H-R67W	3165100.027	1265576.420	40°04'40.190"N	104°54'36.523"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#226 NRC 2C-5H2 (500FNL & 1320FEL, SEC.08)	3736.92	87.85	3165163.014	1269413.690	40°04'41.119"N	104°54'35.399"W
Rig on SLO#226 NRC 2C-5H2 (500FNL & 1320FEL, SEC.08) (RKH) to Mud line (At Slot: SLO#226 NRC 2C-5H2 (500FNL & 1320FEL, SEC.08))					5026ft	
Mean Sea Level to Mud line (At Slot: SLO#226 NRC 2C-5H2 (500FNL & 1320FEL, SEC.08))					0ft	
Rig on SLO#226 NRC 2C-5H2 (500FNL & 1320FEL, SEC.08) (RKH) to Mean Sea Level					5026ft	

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	8046.52	NaviTrak	NaviTrak (Standard)		NRC 2C-5HZ PWB
8046.52	12974.69	NaviTrak	NaviTrak (Standard)		NRC 2C-5HZ PWB

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	260.350	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1400.00	0.000	260.350	1400.00	0.00	0.00	0.00	0.00
END NUDGE	1900.00	10.000	260.350	1897.47	-7.30	-42.91	2.00	-6.80
BEGIN DROP	3731.36	10.000	260.350	3701.00	-60.60	-356.42	0.00	-56.45
END DROP	4231.36	0.000	359.333	4198.47	-67.90	-399.33	2.00	-63.25
KOP, BUILD @ 10°/100'	7145.94	0.000	359.333	7113.05	-67.90	-399.33	0.00	-63.25
LANDING POINT	8046.52	90.058	359.333	7681.00	505.60	-406.00	10.00	510.29
TOTAL DEPTH	12974.69	90.058	359.333	7681.00	5433.44	-463.35	0.00	5438.46

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
NRC SECTION 5 LINES		7500.00	0.40	-29.93	3165133.08	1269413.90	40°04'17.1237N	104°54'36.784W
NRC SECTION 5 LINES		7500.00	0.40	-29.93	3165133.08	1269413.90	40°04'17.1237N	104°54'36.784W
NRC 2C-5H2 BHL ON PLAT (460'N/L & 1725'FEL, SEC.05)	12974.69	7781.00	5433.44	-463.35	3164663.53	1274843.70	40°05'10.8137N	104°54'41.380W
NRC 2C-5H272N-5H2J LAND BOX		7200.00	0.00	0.00	3165563.01	1269413.69	40°04'16.1159N	104°54'36.390W





# Planned Wellpath Report

NRC 2C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Area	COLORADO	Well	NRC 2C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 2C-5HZ PWB
Facility	SEC.08-T1N-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	Wilsjef02
Scale	0.999962	Report Generated	12/20/2013 at 09:36:59
Convergence at slot	n/a	Database/Source file	WellArchitectDB/NRC_2C-5HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	3736.92	87.85	3165163.01	1269413.69	40°04'17.119"N	104°54'35.399"W
Facility Reference Pt			3165100.03	1265676.42	40°03'40.190"N	104°54'36.529"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig on SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08) (RKB) to Facility Vertical Datum	5026.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08) (RKB) to Mean Sea Level	5026.00ft
Vertical Reference Pt	Rig on SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08) (RKB)	Rig on SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08) (RKB) to Mud Line at Slot (SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08))	5026.00ft
MD Reference Pt	Rig on SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.33°



# Planned Wellpath Report

NRC 2C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Area	COLORADO	Well	NRC 2C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 2C-5HZ PWB
Facility	SEC.08-T1N-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	260.350	0.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
17.00	0.000	260.350	17.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	TIE-ON
117.00†	0.000	260.350	117.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
217.00†	0.000	260.350	217.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
317.00†	0.000	260.350	317.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
417.00†	0.000	260.350	417.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
517.00†	0.000	260.350	517.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
617.00†	0.000	260.350	617.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
717.00†	0.000	260.350	717.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
817.00†	0.000	260.350	817.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
917.00†	0.000	260.350	917.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
1017.00†	0.000	260.350	1017.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
1117.00†	0.000	260.350	1117.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
1217.00†	0.000	260.350	1217.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
1317.00†	0.000	260.350	1317.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	
1400.00	0.000	260.350	1400.00	0.00	0.00	0.00	40°04'17.119"N	104°54'35.399"W	0.00	BEGIN NUDGE
1417.00†	0.340	260.350	1417.00	-0.01	-0.01	-0.05	40°04'17.119"N	104°54'35.400"W	2.00	
1517.00†	2.340	260.350	1516.97	-0.37	-0.40	-2.36	40°04'17.115"N	104°54'35.429"W	2.00	
1617.00†	4.340	260.350	1616.79	-1.28	-1.38	-8.10	40°04'17.105"N	104°54'35.503"W	2.00	
1717.00†	6.340	260.350	1716.35	-2.74	-2.94	-17.27	40°04'17.090"N	104°54'35.621"W	2.00	
1817.00†	8.340	260.350	1815.53	-4.73	-5.08	-29.87	40°04'17.069"N	104°54'35.783"W	2.00	
1900.00	10.000	260.350	1897.47	-6.80	-7.30	-42.91	40°04'17.047"N	104°54'35.951"W	2.00	END NUDGE
1917.00†	10.000	260.350	1914.21	-7.26	-7.79	-45.82	40°04'17.042"N	104°54'35.988"W	0.00	
2017.00†	10.000	260.350	2012.69	-9.97	-10.70	-62.94	40°04'17.013"N	104°54'36.209"W	0.00	
2117.00†	10.000	260.350	2111.17	-12.68	-13.61	-80.06	40°04'16.984"N	104°54'36.429"W	0.00	
2217.00†	10.000	260.350	2209.65	-15.39	-16.52	-97.17	40°04'16.956"N	104°54'36.649"W	0.00	
2317.00†	10.000	260.350	2308.13	-18.10	-19.43	-114.29	40°04'16.927"N	104°54'36.869"W	0.00	
2417.00†	10.000	260.350	2406.61	-20.81	-22.34	-131.41	40°04'16.898"N	104°54'37.089"W	0.00	
2517.00†	10.000	260.350	2505.09	-23.52	-25.26	-148.53	40°04'16.869"N	104°54'37.310"W	0.00	
2617.00†	10.000	260.350	2603.57	-26.24	-28.17	-165.65	40°04'16.841"N	104°54'37.530"W	0.00	
2717.00†	10.000	260.350	2702.05	-28.95	-31.08	-182.77	40°04'16.812"N	104°54'37.750"W	0.00	
2817.00†	10.000	260.350	2800.53	-31.66	-33.99	-199.89	40°04'16.783"N	104°54'37.970"W	0.00	
2917.00†	10.000	260.350	2899.01	-34.37	-36.90	-217.01	40°04'16.754"N	104°54'38.190"W	0.00	
3017.00†	10.000	260.350	2997.50	-37.08	-39.81	-234.13	40°04'16.726"N	104°54'38.411"W	0.00	
3117.00†	10.000	260.350	3095.98	-39.79	-42.72	-251.25	40°04'16.697"N	104°54'38.631"W	0.00	
3217.00†	10.000	260.350	3194.46	-42.50	-45.63	-268.37	40°04'16.668"N	104°54'38.851"W	0.00	
3317.00†	10.000	260.350	3292.94	-45.22	-48.54	-285.48	40°04'16.639"N	104°54'39.071"W	0.00	
3417.00†	10.000	260.350	3391.42	-47.93	-51.45	-302.60	40°04'16.611"N	104°54'39.291"W	0.00	
3517.00†	10.000	260.350	3489.90	-50.64	-54.36	-319.72	40°04'16.582"N	104°54'39.512"W	0.00	
3617.00†	10.000	260.350	3588.38	-53.35	-57.27	-336.84	40°04'16.553"N	104°54'39.732"W	0.00	
3717.00†	10.000	260.350	3686.86	-56.06	-60.19	-353.96	40°04'16.524"N	104°54'39.952"W	0.00	
3731.36	10.000	260.350	3701.00	-56.45	-60.60	-356.42	40°04'16.520"N	104°54'39.984"W	0.00	BEGIN DROP
3817.00†	8.287	260.350	3785.55	-58.58	-62.88	-369.84	40°04'16.498"N	104°54'40.156"W	2.00	
3917.00†	6.287	260.350	3884.74	-60.56	-65.01	-382.34	40°04'16.477"N	104°54'40.317"W	2.00	
4017.00†	4.287	260.350	3984.31	-61.99	-66.56	-391.42	40°04'16.461"N	104°54'40.434"W	2.00	



# Planned Wellpath Report

NRC 2C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Area	COLORADO	Well	NRC 2C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 2C-5HZ PWB
Facility	SEC.08-T1N-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†	2.287	260.350	4084.14	-62.89	-67.52	-397.08	40°04'16.452"N	104°54'40.507"W	2.00	
4217.00†	0.287	260.350	4184.11	-63.24	-67.89	-399.29	40°04'16.448"N	104°54'40.535"W	2.00	
4231.36	0.000	359.333	4198.47	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	2.00	END DROP
4246.89†	0.000	359.333	4214.00	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	PARKMAN
4317.00†	0.000	359.333	4284.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
4417.00†	0.000	359.333	4384.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
4517.00†	0.000	359.333	4484.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
4581.89†	0.000	359.333	4549.00	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	SUSSEX
4617.00†	0.000	359.333	4584.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
4717.00†	0.000	359.333	4684.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
4817.00†	0.000	359.333	4784.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
4917.00†	0.000	359.333	4884.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5017.00†	0.000	359.333	4984.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5117.00†	0.000	359.333	5084.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5217.00†	0.000	359.333	5184.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5317.00†	0.000	359.333	5284.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5417.00†	0.000	359.333	5384.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5517.00†	0.000	359.333	5484.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5617.00†	0.000	359.333	5584.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5717.00†	0.000	359.333	5684.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5817.00†	0.000	359.333	5784.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
5917.00†	0.000	359.333	5884.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6017.00†	0.000	359.333	5984.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6117.00†	0.000	359.333	6084.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6217.00†	0.000	359.333	6184.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6317.00†	0.000	359.333	6284.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6417.00†	0.000	359.333	6384.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6517.00†	0.000	359.333	6484.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6617.00†	0.000	359.333	6584.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6717.00†	0.000	359.333	6684.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6817.00†	0.000	359.333	6784.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
6917.00†	0.000	359.333	6884.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
7017.00†	0.000	359.333	6984.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
7117.00†	0.000	359.333	7084.11	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	
7145.94	0.000	359.333	7113.05	-63.25	-67.90	-399.33	40°04'16.448"N	104°54'40.536"W	0.00	KOP, BUILD @ 10°/100'
7217.00†	7.106	359.333	7183.93	-58.84	-63.50	-399.38	40°04'16.491"N	104°54'40.536"W	10.00	
7317.00†	17.106	359.333	7281.58	-37.90	-42.55	-399.62	40°04'16.698"N	104°54'40.539"W	10.00	
7355.54†	20.960	359.333	7318.00	-25.33	-29.99	-399.77	40°04'16.823"N	104°54'40.541"W	10.00	SHARON SPRINGS
7417.00†	27.106	359.333	7374.11	-0.31	-4.97	-400.06	40°04'17.070"N	104°54'40.545"W	10.00	
7418.00†	27.206	359.333	7375.00	0.14	-4.51	-400.06	40°04'17.074"N	104°54'40.545"W	10.00	NIOBRARA A
7506.16†	36.022	359.333	7450.00	46.31	41.65	-400.60	40°04'17.531"N	104°54'40.552"W	10.00	NIOBRARA B
7517.00†	37.106	359.333	7458.71	52.77	48.11	-400.68	40°04'17.594"N	104°54'40.553"W	10.00	
7617.00†	47.106	359.333	7532.80	119.73	115.07	-401.45	40°04'18.256"N	104°54'40.563"W	10.00	
7618.76†	47.282	359.333	7534.00	121.02	116.36	-401.47	40°04'18.269"N	104°54'40.563"W	10.00	NIOBRARA C
7717.00†	57.106	359.333	7594.15	198.55	193.88	-402.37	40°04'19.035"N	104°54'40.575"W	10.00	



# Planned Wellpath Report

NRC 2C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Area	COLORADO	Well	NRC 2C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 2C-5HZ PWB
Facility	SEC.08-T1N-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
7817.00†	67.106	359.333	7640.87	286.82	282.14	-403.40	40°04'19.907"N	104°54'40.588"W	10.00	
7869.33†	72.339	359.333	7659.00	335.89	331.21	-403.97	40°04'20.392"N	104°54'40.595"W	10.00	FORT HAYS
7917.00†	77.106	359.333	7671.56	381.86	377.18	-404.51	40°04'20.846"N	104°54'40.602"W	10.00	
7970.16†	82.422	359.333	7681.00	434.16	429.47	-405.11	40°04'21.363"N	104°54'40.610"W	10.00	CODELL
8017.00†	87.106	359.333	7685.27	480.79	476.10	-405.66	40°04'21.824"N	104°54'40.617"W	10.00	
8046.52	90.058	359.333	7686.00	510.29	505.60	-406.00	40°04'22.115"N	104°54'40.622"W	10.00	LANDING POINT
8117.00†	90.058	359.333	7685.93	580.77	576.08	-406.82	40°04'22.812"N	104°54'40.632"W	0.00	
8217.00†	90.058	359.333	7685.83	680.77	676.07	-407.98	40°04'23.800"N	104°54'40.647"W	0.00	
8317.00†	90.058	359.333	7685.73	780.77	776.06	-409.15	40°04'24.788"N	104°54'40.662"W	0.00	
8417.00†	90.058	359.333	7685.63	880.77	876.06	-410.31	40°04'25.776"N	104°54'40.677"W	0.00	
8517.00†	90.058	359.333	7685.53	980.77	976.05	-411.47	40°04'26.764"N	104°54'40.692"W	0.00	
8617.00†	90.058	359.333	7685.42	1080.77	1076.04	-412.64	40°04'27.753"N	104°54'40.707"W	0.00	
8717.00†	90.058	359.333	7685.32	1180.77	1176.04	-413.80	40°04'28.741"N	104°54'40.722"W	0.00	
8817.00†	90.058	359.333	7685.22	1280.77	1276.03	-414.97	40°04'29.729"N	104°54'40.737"W	0.00	
8917.00†	90.058	359.333	7685.12	1380.77	1376.02	-416.13	40°04'30.717"N	104°54'40.752"W	0.00	
9017.00†	90.058	359.333	7685.02	1480.77	1476.02	-417.29	40°04'31.705"N	104°54'40.767"W	0.00	
9117.00†	90.058	359.333	7684.92	1580.77	1576.01	-418.46	40°04'32.693"N	104°54'40.782"W	0.00	
9217.00†	90.058	359.333	7684.81	1680.77	1676.00	-419.62	40°04'33.682"N	104°54'40.797"W	0.00	
9317.00†	90.058	359.333	7684.71	1780.77	1776.00	-420.78	40°04'34.670"N	104°54'40.812"W	0.00	
9417.00†	90.058	359.333	7684.61	1880.77	1875.99	-421.95	40°04'35.658"N	104°54'40.827"W	0.00	
9517.00†	90.058	359.333	7684.51	1980.77	1975.98	-423.11	40°04'36.646"N	104°54'40.842"W	0.00	
9617.00†	90.058	359.333	7684.41	2080.77	2075.98	-424.28	40°04'37.634"N	104°54'40.857"W	0.00	
9717.00†	90.058	359.333	7684.31	2180.77	2175.97	-425.44	40°04'38.622"N	104°54'40.872"W	0.00	
9817.00†	90.058	359.333	7684.21	2280.77	2275.96	-426.60	40°04'39.610"N	104°54'40.887"W	0.00	
9917.00†	90.058	359.333	7684.10	2380.77	2375.95	-427.77	40°04'40.599"N	104°54'40.902"W	0.00	
10017.00†	90.058	359.333	7684.00	2480.77	2475.95	-428.93	40°04'41.587"N	104°54'40.917"W	0.00	
10117.00†	90.058	359.333	7683.90	2580.77	2575.94	-430.09	40°04'42.575"N	104°54'40.932"W	0.00	
10217.00†	90.058	359.333	7683.80	2680.77	2675.93	-431.26	40°04'43.563"N	104°54'40.947"W	0.00	
10317.00†	90.058	359.333	7683.70	2780.77	2775.93	-432.42	40°04'44.551"N	104°54'40.962"W	0.00	
10417.00†	90.058	359.333	7683.60	2880.77	2875.92	-433.59	40°04'45.539"N	104°54'40.977"W	0.00	
10517.00†	90.058	359.333	7683.49	2980.77	2975.91	-434.75	40°04'46.528"N	104°54'40.992"W	0.00	
10617.00†	90.058	359.333	7683.39	3080.77	3075.91	-435.91	40°04'47.516"N	104°54'41.007"W	0.00	
10717.00†	90.058	359.333	7683.29	3180.77	3175.90	-437.08	40°04'48.504"N	104°54'41.022"W	0.00	
10817.00†	90.058	359.333	7683.19	3280.77	3275.89	-438.24	40°04'49.492"N	104°54'41.037"W	0.00	
10917.00†	90.058	359.333	7683.09	3380.77	3375.89	-439.40	40°04'50.480"N	104°54'41.052"W	0.00	
11017.00†	90.058	359.333	7682.99	3480.77	3475.88	-440.57	40°04'51.468"N	104°54'41.067"W	0.00	
11117.00†	90.058	359.333	7682.89	3580.77	3575.87	-441.73	40°04'52.456"N	104°54'41.082"W	0.00	
11217.00†	90.058	359.333	7682.78	3680.77	3675.87	-442.90	40°04'53.445"N	104°54'41.097"W	0.00	
11317.00†	90.058	359.333	7682.68	3780.77	3775.86	-444.06	40°04'54.433"N	104°54'41.112"W	0.00	
11417.00†	90.058	359.333	7682.58	3880.77	3875.85	-445.22	40°04'55.421"N	104°54'41.127"W	0.00	
11517.00†	90.058	359.333	7682.48	3980.77	3975.85	-446.39	40°04'56.409"N	104°54'41.142"W	0.00	
11617.00†	90.058	359.333	7682.38	4080.77	4075.84	-447.55	40°04'57.397"N	104°54'41.157"W	0.00	
11717.00†	90.058	359.333	7682.28	4180.77	4175.83	-448.71	40°04'58.385"N	104°54'41.172"W	0.00	
11817.00†	90.058	359.333	7682.18	4280.77	4275.83	-449.88	40°04'59.373"N	104°54'41.187"W	0.00	
11917.00†	90.058	359.333	7682.07	4380.77	4375.82	-451.04	40°05'00.362"N	104°54'41.202"W	0.00	



# Planned Wellpath Report

NRC 2C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Area	COLORADO	Well	NRC 2C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 2C-5HZ PWB
Facility	SEC.08-T1N-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
12017.00†	90.058	359.333	7681.97	4480.77	4475.81	-452.21	40°05'01.350"N	104°54'41.217"W	0.00	
12117.00†	90.058	359.333	7681.87	4580.77	4575.80	-453.37	40°05'02.338"N	104°54'41.232"W	0.00	
12217.00†	90.058	359.333	7681.77	4680.77	4675.80	-454.53	40°05'03.326"N	104°54'41.247"W	0.00	
12317.00†	90.058	359.333	7681.67	4780.77	4775.79	-455.70	40°05'04.314"N	104°54'41.262"W	0.00	
12417.00†	90.058	359.333	7681.57	4880.77	4875.78	-456.86	40°05'05.302"N	104°54'41.277"W	0.00	
12517.00†	90.058	359.333	7681.46	4980.77	4975.78	-458.02	40°05'06.291"N	104°54'41.292"W	0.00	
12617.00†	90.058	359.333	7681.36	5080.77	5075.77	-459.19	40°05'07.279"N	104°54'41.307"W	0.00	
12717.00†	90.058	359.333	7681.26	5180.77	5175.76	-460.35	40°05'08.267"N	104°54'41.322"W	0.00	
12817.00†	90.058	359.333	7681.16	5280.77	5275.76	-461.52	40°05'09.255"N	104°54'41.337"W	0.00	
12917.00†	90.058	359.333	7681.06	5380.77	5375.75	-462.68	40°05'10.243"N	104°54'41.352"W	0.00	
12974.69	90.058	359.333	7681.00 <sup>†</sup>	5438.46	5433.44	-463.35	40°05'10.813"N	104°54'41.360"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS - Ref Wellbore: NRC 2C-5HZ PWB Ref Wellpath: NRC 2C-5HZ (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	1280.00	1263.00	17.00	1280.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1280.00	1263.00	17.00	1280.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1280.00	8046.52	6766.52	1280.00	7686.00	0.00	0.00	505.60	-406.00
7in Casing Intermediate	17.00	8046.52	8029.52	17.00	7686.00	0.00	0.00	505.60	-406.00
6.125in Open Hole	8046.52	12974.69	4928.17	7686.00	7681.00	505.60	-406.00	5433.44	-463.35
4.5in Casing Production	17.00	12974.69	12957.69	17.00	7681.00	0.00	0.00	5433.44	-463.35





# Planned Wellpath Report

NRC 2C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Area	COLORADO	Well	NRC 2C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 2C-5HZ PWB
Facility	SEC.08-T1N-R67W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
NRC SECTION 5 LINES		7500.00	0.40	-29.93	3165133.08	1269413.90	40°04'17.123"N	104°54'35.784"W	polygon
NRC SECTION 8 LINES		7500.00	0.40	-29.93	3165133.08	1269413.90	40°04'17.123"N	104°54'35.784"W	polygon
1) NRC 2C-5HZ BHL ON PLAT (460'FNL & 1725'FEL, SEC.05)	12974.69	7681.00	5433.44	-463.35	3164663.53	1274843.70	40°05'10.813"N	104°54'41.360"W	point
NRC 2C-5HZ/27N-5HZ LAND BOX		7700.00	0.00	0.00	3165163.01	1269413.69	40°04'17.119"N	104°54'35.399"W	polygon

## SURVEY PROGRAM - Ref Wellbore: NRC 2C-5HZ PWB Ref Wellpath: NRC 2C-5HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	8046.52	NaviTrak (Standard)		NRC 2C-5HZ PWB
8046.52	12974.69	NaviTrak (Standard)		NRC 2C-5HZ PWB



# Planned Wellpath Report

NRC 2C-5HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#26 NRC 2C-5HZ (500'FNL & 1320'FEL, SEC.08)
Area	COLORADO	Well	NRC 2C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 2C-5HZ PWB
Facility	SEC.08-T1N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
4246.89	0.000	359.333	4214.00	PARKMAN
4581.89	0.000	359.333	4549.00	SUSSEX
7355.54	20.960	359.333	7318.00	SHARON SPRINGS
7418.00	27.206	359.333	7375.00	NIOBRARA A
7506.16	36.022	359.333	7450.00	NIOBRARA B
7618.76	47.282	359.333	7534.00	NIOBRARA C
7869.33	72.339	359.333	7659.00	FORT HAYS
7970.16	82.422	359.333	7681.00	CODELL