

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08)
Field: WELD COUNTY (KERR MCGEE) Well: NRC 30C-32HZ
Facility: SEC.08-T1N-R67W Wellbore: NRC 30C-32HZ PWB

Plot reference wellpath is NRC 30C-32HZ (PERMIT REV-1) PWP

True vertical depths are referenced to Rig on SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08) (RKB)	North Reference: True north
Rig on SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08) (RKB) to Mean Sea Level: 5078 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wellse02 on 1/16/2014

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.08-T1N-R67W	3165100.027	1265676.420	40°03'40.190"N	104°54'36.529"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08)	3604.57	-3276.77	3161799.487	1269258.973
Rig on SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08) (RKB) to Mud line (At Slot: SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08))	5078R			
Mean Sea Level to Mud line (At Slot: SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08))	0ft			
Rig on SLOT#30 NRC 30C-32HZ (667°FNL & 575°FWL, SEC.08) (RKB) to Mean Sea Level	5078R			

Survey Program

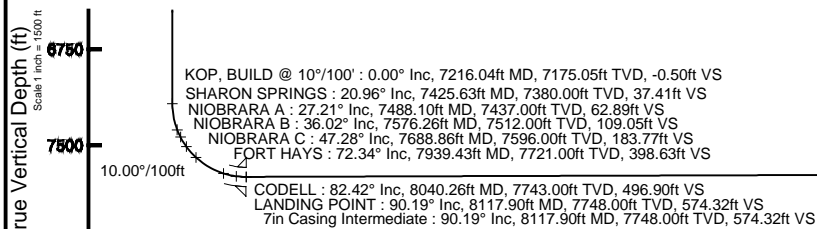
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	8117.90	NaviTrak	NaviTrak (MAGCORR,IFR)		NRC 30C-32HZ PWB
8117.90	18874.43	NaviTrak	NaviTrak (MAGCORR,IFR)		NRC 30C-32HZ PWB

Well Profile Data

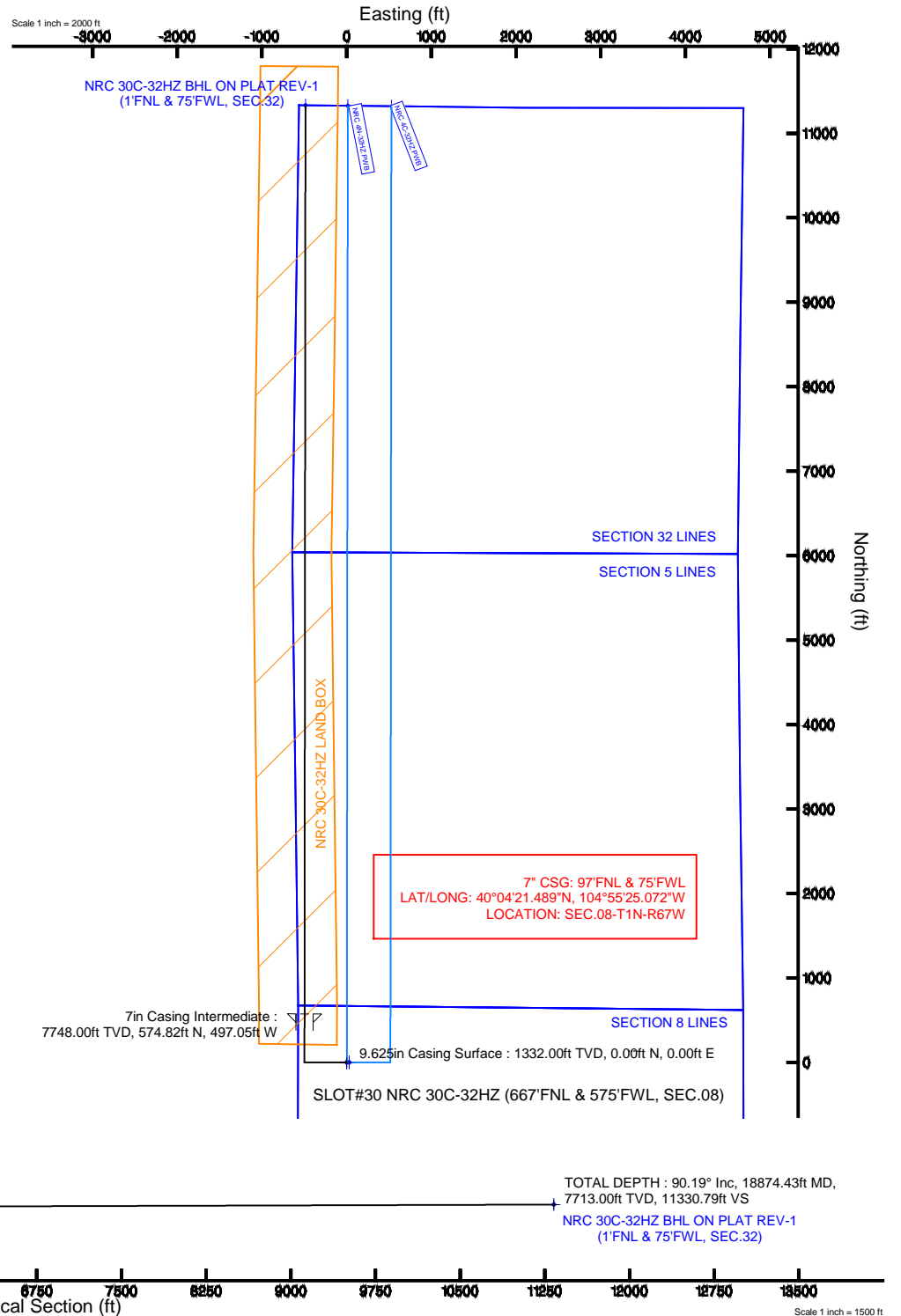
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	270.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1432.00	0.000	270.000	1432.00	0.00	0.00	0.00	0.00
END NUDGE	1932.00	10.000	270.000	1929.47	0.00	-43.52	2.00	-0.04
BEGIN DROP	4296.46	10.000	270.000	4258.00	0.00	-454.11	0.00	-0.46
END DROP	4796.46	0.000	0.058	4755.47	0.00	-497.63	2.00	-0.50
KOP, BUILD @ 10°/100'	7216.04	0.000	0.058	7175.05	0.00	-497.63	0.00	-0.50
LANDING POINT	8117.90	90.186	0.058	7748.00	574.82	-497.05	10.00	574.32
TOTAL DEPTH	18874.43	90.186	0.058	7713.00	11331.29	-486.20	0.00	11330.79

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SECTION 32 LINES		100.00	0.00	0.00	3161799.49	1269258.97	40°04'15.809"N	104°55'18.678"W
NRC SECTION 5 LINES		7552.00	133.19	3334.67	3165133.08	1269413.90	40°04'17.123"N	104°54'35.794"W
NRC SECTION 8 LINES		7552.00	133.19	3334.67	3165133.08	1269413.90	40°04'17.123"N	104°54'35.794"W
NRC 30C-32HZ BHL ON PLAT REV-1 (1°FNL & 75°FWL, SEC.32)	18874.43	7713.00	11331.29	-486.20	3161239.45	1280586.39	40°06'07.787"N	104°55'24.935"W
NRC 30C-32HZ LAND BOX		7750.00	0.00	0.00	3161799.49	1269258.97	40°04'15.809"N	104°55'18.678"W



Vertical Section (ft)
Azimuth 0.06° with reference 0.00 N, 0.00 E





Planned Wellpath Report

NRC 30C-32HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08)
Area	COLORADO	Well	NRC 30C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 30C-32HZ 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	1/16/2014 at 08:18:54
Convergence at slot	n/a	Database/Source file	WellArchitectDB/NRC_30C-32HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	3604.57	-3276.77	3161799.49	1269258.97	40°04'15.809"N	104°55'18.678"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#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08) (RKB) to Facility Vertical Datum	5078.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08) (RKB) to Mean Sea Level	5078.00ft
Vertical Reference Pt	Rig on SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08) (RKB)	Rig on SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08) (RKB) to Mud Line at Slot (SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08))	5078.00ft
MD Reference Pt	Rig on SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.06°



Planned Wellpath Report

NRC 30C-32HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08)
Area	COLORADO	Well	NRC 30C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 30C-32HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (206 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	270.000	0.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
17.00	0.000	270.000	17.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	TIE-ON
117.00†	0.000	270.000	117.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
217.00†	0.000	270.000	217.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
317.00†	0.000	270.000	317.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
417.00†	0.000	270.000	417.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
517.00†	0.000	270.000	517.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
617.00†	0.000	270.000	617.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
717.00†	0.000	270.000	717.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
817.00†	0.000	270.000	817.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
917.00†	0.000	270.000	917.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
1017.00†	0.000	270.000	1017.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
1117.00†	0.000	270.000	1117.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
1217.00†	0.000	270.000	1217.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
1282.00†	0.000	270.000	1282.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	FOX HILLS MARKER
1317.00†	0.000	270.000	1317.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
1417.00†	0.000	270.000	1417.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	
1432.00	0.000	270.000	1432.00	0.00	0.00	0.00	40°04'15.809"N	104°55'18.678"W	0.00	BEGIN NUDGE
1517.00†	1.700	270.000	1516.99	0.00	0.00	-1.26	40°04'15.809"N	104°55'18.694"W	2.00	
1617.00†	3.700	270.000	1616.87	-0.01	0.00	-5.97	40°04'15.809"N	104°55'18.755"W	2.00	
1717.00†	5.700	270.000	1716.53	-0.01	0.00	-14.16	40°04'15.809"N	104°55'18.860"W	2.00	
1817.00†	7.700	270.000	1815.84	-0.03	0.00	-25.83	40°04'15.809"N	104°55'19.010"W	2.00	
1917.00†	9.700	270.000	1914.69	-0.04	0.00	-40.96	40°04'15.809"N	104°55'19.205"W	2.00	
1932.00	10.000	270.000	1929.47	-0.04	0.00	-43.52	40°04'15.809"N	104°55'19.238"W	2.00	END NUDGE
2017.00†	10.000	270.000	2013.17	-0.06	0.00	-58.28	40°04'15.809"N	104°55'19.428"W	0.00	
2117.00†	10.000	270.000	2111.65	-0.08	0.00	-75.65	40°04'15.809"N	104°55'19.651"W	0.00	
2217.00†	10.000	270.000	2210.14	-0.09	0.00	-93.01	40°04'15.809"N	104°55'19.874"W	0.00	
2317.00†	10.000	270.000	2308.62	-0.11	0.00	-110.38	40°04'15.809"N	104°55'20.098"W	0.00	
2417.00†	10.000	270.000	2407.10	-0.13	0.00	-127.74	40°04'15.809"N	104°55'20.321"W	0.00	
2517.00†	10.000	270.000	2505.58	-0.15	0.00	-145.11	40°04'15.809"N	104°55'20.545"W	0.00	
2617.00†	10.000	270.000	2604.06	-0.16	0.00	-162.47	40°04'15.809"N	104°55'20.768"W	0.00	
2717.00†	10.000	270.000	2702.54	-0.18	0.00	-179.84	40°04'15.809"N	104°55'20.991"W	0.00	
2817.00†	10.000	270.000	2801.02	-0.20	0.00	-197.20	40°04'15.809"N	104°55'21.215"W	0.00	
2917.00†	10.000	270.000	2899.50	-0.22	0.00	-214.57	40°04'15.809"N	104°55'21.438"W	0.00	
3017.00†	10.000	270.000	2997.98	-0.23	0.00	-231.93	40°04'15.809"N	104°55'21.661"W	0.00	
3117.00†	10.000	270.000	3096.46	-0.25	0.00	-249.30	40°04'15.809"N	104°55'21.885"W	0.00	
3217.00†	10.000	270.000	3194.94	-0.27	0.00	-266.66	40°04'15.809"N	104°55'22.108"W	0.00	
3317.00†	10.000	270.000	3293.42	-0.29	0.00	-284.03	40°04'15.809"N	104°55'22.331"W	0.00	
3417.00†	10.000	270.000	3391.90	-0.31	0.00	-301.39	40°04'15.809"N	104°55'22.555"W	0.00	
3517.00†	10.000	270.000	3490.39	-0.32	0.00	-318.75	40°04'15.809"N	104°55'22.778"W	0.00	
3617.00†	10.000	270.000	3588.87	-0.34	0.00	-336.12	40°04'15.809"N	104°55'23.002"W	0.00	
3717.00†	10.000	270.000	3687.35	-0.36	0.00	-353.48	40°04'15.809"N	104°55'23.225"W	0.00	
3817.00†	10.000	270.000	3785.83	-0.38	0.00	-370.85	40°04'15.809"N	104°55'23.448"W	0.00	
3917.00†	10.000	270.000	3884.31	-0.39	0.00	-388.21	40°04'15.809"N	104°55'23.672"W	0.00	
4017.00†	10.000	270.000	3982.79	-0.41	0.00	-405.58	40°04'15.809"N	104°55'23.895"W	0.00	



Planned Wellpath Report

NRC 30C-32HZ (PERMIT REV-1) PWP

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08)
Area	COLORADO	Well	NRC 30C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 30C-32HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	10.000	270.000	4081.27	-0.43	0.00	-422.94	40°04'15.809"N	104°55'24.118"W	0.00	
4217.00†	10.000	270.000	4179.75	-0.45	0.00	-440.31	40°04'15.809"N	104°55'24.342"W	0.00	
4296.46	10.000	270.000	4258.00	-0.46	0.00	-454.11	40°04'15.809"N	104°55'24.519"W	0.00	BEGIN DROP
4314.72†	9.635	270.000	4276.00	-0.46	0.00	-457.22	40°04'15.809"N	104°55'24.559"W	2.00	PARKMAN
4317.00†	9.589	270.000	4278.24	-0.46	0.00	-457.60	40°04'15.809"N	104°55'24.564"W	2.00	
4417.00†	7.589	270.000	4377.12	-0.48	0.00	-472.53	40°04'15.809"N	104°55'24.756"W	2.00	
4517.00†	5.589	270.000	4476.45	-0.49	0.00	-484.01	40°04'15.809"N	104°55'24.904"W	2.00	
4617.00†	3.589	270.000	4576.13	-0.50	0.00	-492.01	40°04'15.809"N	104°55'25.007"W	2.00	
4651.93†	2.891	270.000	4611.00	-0.50	0.00	-493.98	40°04'15.809"N	104°55'25.032"W	2.00	SUSSEX
4717.00†	1.589	270.000	4676.02	-0.50	0.00	-496.53	40°04'15.809"N	104°55'25.065"W	2.00	
4796.46	0.000	0.058	4755.47	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	2.00	END DROP
4817.00†	0.000	0.058	4776.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
4917.00†	0.000	0.058	4876.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5017.00†	0.000	0.058	4976.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5117.00†	0.000	0.058	5076.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5217.00†	0.000	0.058	5176.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5317.00†	0.000	0.058	5276.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5417.00†	0.000	0.058	5376.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5517.00†	0.000	0.058	5476.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5617.00†	0.000	0.058	5576.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5717.00†	0.000	0.058	5676.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5817.00†	0.000	0.058	5776.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
5917.00†	0.000	0.058	5876.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6017.00†	0.000	0.058	5976.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6117.00†	0.000	0.058	6076.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6217.00†	0.000	0.058	6176.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6317.00†	0.000	0.058	6276.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6417.00†	0.000	0.058	6376.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6517.00†	0.000	0.058	6476.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6617.00†	0.000	0.058	6576.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6717.00†	0.000	0.058	6676.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6817.00†	0.000	0.058	6776.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
6917.00†	0.000	0.058	6876.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
7017.00†	0.000	0.058	6976.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
7117.00†	0.000	0.058	7076.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	
7216.04	0.000	0.058	7175.05	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	0.00	KOP, BUILD @ 10°/100'
7217.00†	0.096	0.058	7176.01	-0.50	0.00	-497.63	40°04'15.809"N	104°55'25.079"W	10.00	
7317.00†	10.096	0.058	7275.49	8.37	8.87	-497.62	40°04'15.897"N	104°55'25.079"W	10.00	
7417.00†	20.096	0.058	7371.91	34.38	34.88	-497.59	40°04'16.154"N	104°55'25.079"W	10.00	
7425.63†	20.960	0.058	7380.00	37.41	37.91	-497.59	40°04'16.184"N	104°55'25.079"W	10.00	SHARON SPRINGS
7488.10†	27.206	0.058	7437.00	62.89	63.39	-497.56	40°04'16.435"N	104°55'25.078"W	10.00	NIOBRARA A
7517.00†	30.096	0.058	7462.36	76.74	77.24	-497.55	40°04'16.572"N	104°55'25.078"W	10.00	
7576.26†	36.022	0.058	7512.00	109.05	109.55	-497.52	40°04'16.892"N	104°55'25.078"W	10.00	NIOBRARA B
7617.00†	40.096	0.058	7544.07	134.16	134.67	-497.49	40°04'17.140"N	104°55'25.077"W	10.00	
7688.86†	47.282	0.058	7596.00	183.77	184.27	-497.44	40°04'17.630"N	104°55'25.077"W	10.00	NIOBRARA C



Planned Wellpath Report

NRC 30C-32HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08)
Area	COLORADO	Well	NRC 30C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 30C-32HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	50.096	0.058	7614.58	204.90	205.41	-497.42	40°04'17.839"N	104°55'25.076"W	10.00	
7817.00†	60.096	0.058	7671.72	286.81	287.31	-497.34	40°04'18.648"N	104°55'25.075"W	10.00	
7917.00†	70.096	0.058	7713.78	377.40	377.90	-497.25	40°04'19.543"N	104°55'25.074"W	10.00	
7939.43†	72.339	0.058	7721.00	398.63	399.13	-497.23	40°04'19.753"N	104°55'25.074"W	10.00	FORT HAYS
8017.00†	80.096	0.058	7739.47	473.91	474.41	-497.15	40°04'20.497"N	104°55'25.073"W	10.00	
8040.26†	82.422	0.058	7743.00	496.90	497.40	-497.13	40°04'20.724"N	104°55'25.073"W	10.00	CODELL
8117.00†	90.096	0.058	7748.00	573.42	573.92	-497.05	40°04'21.481"N	104°55'25.072"W	10.00	
8117.90	90.186	0.058	7748.00	574.32	574.82	-497.05	40°04'21.489"N	104°55'25.072"W	10.00	LANDING POINT
8217.00†	90.186	0.058	7747.68	673.42	673.92	-496.95	40°04'22.469"N	104°55'25.070"W	0.00	
8317.00†	90.186	0.058	7747.35	773.42	773.92	-496.85	40°04'23.457"N	104°55'25.069"W	0.00	
8417.00†	90.186	0.058	7747.03	873.42	873.92	-496.75	40°04'24.445"N	104°55'25.068"W	0.00	
8517.00†	90.186	0.058	7746.70	973.42	973.92	-496.65	40°04'25.433"N	104°55'25.067"W	0.00	
8617.00†	90.186	0.058	7746.38	1073.42	1073.92	-496.55	40°04'26.422"N	104°55'25.065"W	0.00	
8717.00†	90.186	0.058	7746.05	1173.41	1173.92	-496.44	40°04'27.410"N	104°55'25.064"W	0.00	
8817.00†	90.186	0.058	7745.73	1273.41	1273.92	-496.34	40°04'28.398"N	104°55'25.063"W	0.00	
8917.00†	90.186	0.058	7745.40	1373.41	1373.92	-496.24	40°04'29.386"N	104°55'25.062"W	0.00	
9017.00†	90.186	0.058	7745.07	1473.41	1473.92	-496.14	40°04'30.374"N	104°55'25.060"W	0.00	
9117.00†	90.186	0.058	7744.75	1573.41	1573.92	-496.04	40°04'31.363"N	104°55'25.059"W	0.00	
9217.00†	90.186	0.058	7744.42	1673.41	1673.92	-495.94	40°04'32.351"N	104°55'25.058"W	0.00	
9317.00†	90.186	0.058	7744.10	1773.41	1773.91	-495.84	40°04'33.339"N	104°55'25.056"W	0.00	
9417.00†	90.186	0.058	7743.77	1873.41	1873.91	-495.74	40°04'34.327"N	104°55'25.055"W	0.00	
9517.00†	90.186	0.058	7743.45	1973.41	1973.91	-495.64	40°04'35.316"N	104°55'25.054"W	0.00	
9617.00†	90.186	0.058	7743.12	2073.41	2073.91	-495.54	40°04'36.304"N	104°55'25.053"W	0.00	
9717.00†	90.186	0.058	7742.80	2173.41	2173.91	-495.44	40°04'37.292"N	104°55'25.051"W	0.00	
9817.00†	90.186	0.058	7742.47	2273.41	2273.91	-495.33	40°04'38.280"N	104°55'25.050"W	0.00	
9917.00†	90.186	0.058	7742.15	2373.41	2373.91	-495.23	40°04'39.268"N	104°55'25.049"W	0.00	
10017.00†	90.186	0.058	7741.82	2473.41	2473.91	-495.13	40°04'40.257"N	104°55'25.048"W	0.00	
10117.00†	90.186	0.058	7741.50	2573.41	2573.91	-495.03	40°04'41.245"N	104°55'25.046"W	0.00	
10217.00†	90.186	0.058	7741.17	2673.41	2673.91	-494.93	40°04'42.233"N	104°55'25.045"W	0.00	
10317.00†	90.186	0.058	7740.84	2773.41	2773.91	-494.83	40°04'43.221"N	104°55'25.044"W	0.00	
10417.00†	90.186	0.058	7740.52	2873.41	2873.91	-494.73	40°04'44.209"N	104°55'25.042"W	0.00	
10517.00†	90.186	0.058	7740.19	2973.41	2973.91	-494.63	40°04'45.198"N	104°55'25.041"W	0.00	
10617.00†	90.186	0.058	7739.87	3073.40	3073.91	-494.53	40°04'46.186"N	104°55'25.040"W	0.00	
10717.00†	90.186	0.058	7739.54	3173.40	3173.91	-494.43	40°04'47.174"N	104°55'25.039"W	0.00	
10817.00†	90.186	0.058	7739.22	3273.40	3273.91	-494.33	40°04'48.162"N	104°55'25.037"W	0.00	
10917.00†	90.186	0.058	7738.89	3373.40	3373.91	-494.22	40°04'49.151"N	104°55'25.036"W	0.00	
11017.00†	90.186	0.058	7738.57	3473.40	3473.90	-494.12	40°04'50.139"N	104°55'25.035"W	0.00	
11117.00†	90.186	0.058	7738.24	3573.40	3573.90	-494.02	40°04'51.127"N	104°55'25.034"W	0.00	
11217.00†	90.186	0.058	7737.92	3673.40	3673.90	-493.92	40°04'52.115"N	104°55'25.032"W	0.00	
11317.00†	90.186	0.058	7737.59	3773.40	3773.90	-493.82	40°04'53.103"N	104°55'25.031"W	0.00	
11417.00†	90.186	0.058	7737.27	3873.40	3873.90	-493.72	40°04'54.092"N	104°55'25.030"W	0.00	
11517.00†	90.186	0.058	7736.94	3973.40	3973.90	-493.62	40°04'55.080"N	104°55'25.028"W	0.00	
11617.00†	90.186	0.058	7736.61	4073.40	4073.90	-493.52	40°04'56.068"N	104°55'25.027"W	0.00	
11717.00†	90.186	0.058	7736.29	4173.40	4173.90	-493.42	40°04'57.056"N	104°55'25.026"W	0.00	
11817.00†	90.186	0.058	7735.96	4273.40	4273.90	-493.32	40°04'58.044"N	104°55'25.025"W	0.00	



Planned Wellpath Report

NRC 30C-32HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08)
Area	COLORADO	Well	NRC 30C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 30C-32HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11917.00†	90.186	0.058	7735.64	4373.40	4373.90	-493.22	40°04'59.033"N	104°55'25.023"W	0.00	
12017.00†	90.186	0.058	7735.31	4473.40	4473.90	-493.12	40°05'00.021"N	104°55'25.022"W	0.00	
12117.00†	90.186	0.058	7734.99	4573.40	4573.90	-493.01	40°05'01.009"N	104°55'25.021"W	0.00	
12217.00†	90.186	0.058	7734.66	4673.40	4673.90	-492.91	40°05'01.997"N	104°55'25.020"W	0.00	
12317.00†	90.186	0.058	7734.34	4773.40	4773.90	-492.81	40°05'02.986"N	104°55'25.018"W	0.00	
12417.00†	90.186	0.058	7734.01	4873.40	4873.90	-492.71	40°05'03.974"N	104°55'25.017"W	0.00	
12517.00†	90.186	0.058	7733.69	4973.39	4973.90	-492.61	40°05'04.962"N	104°55'25.016"W	0.00	
12617.00†	90.186	0.058	7733.36	5073.39	5073.90	-492.51	40°05'05.950"N	104°55'25.014"W	0.00	
12717.00†	90.186	0.058	7733.04	5173.39	5173.89	-492.41	40°05'06.938"N	104°55'25.013"W	0.00	
12817.00†	90.186	0.058	7732.71	5273.39	5273.89	-492.31	40°05'07.927"N	104°55'25.012"W	0.00	
12917.00†	90.186	0.058	7732.38	5373.39	5373.89	-492.21	40°05'08.915"N	104°55'25.011"W	0.00	
13017.00†	90.186	0.058	7732.06	5473.39	5473.89	-492.11	40°05'09.903"N	104°55'25.009"W	0.00	
13117.00†	90.186	0.058	7731.73	5573.39	5573.89	-492.01	40°05'10.891"N	104°55'25.008"W	0.00	
13217.00†	90.186	0.058	7731.41	5673.39	5673.89	-491.90	40°05'11.879"N	104°55'25.007"W	0.00	
13317.00†	90.186	0.058	7731.08	5773.39	5773.89	-491.80	40°05'12.868"N	104°55'25.006"W	0.00	
13417.00†	90.186	0.058	7730.76	5873.39	5873.89	-491.70	40°05'13.856"N	104°55'25.004"W	0.00	
13517.00†	90.186	0.058	7730.43	5973.39	5973.89	-491.60	40°05'14.844"N	104°55'25.003"W	0.00	
13617.00†	90.186	0.058	7730.11	6073.39	6073.89	-491.50	40°05'15.832"N	104°55'25.002"W	0.00	
13717.00†	90.186	0.058	7729.78	6173.39	6173.89	-491.40	40°05'16.820"N	104°55'25.000"W	0.00	
13817.00†	90.186	0.058	7729.46	6273.39	6273.89	-491.30	40°05'17.809"N	104°55'24.999"W	0.00	
13917.00†	90.186	0.058	7729.13	6373.39	6373.89	-491.20	40°05'18.797"N	104°55'24.998"W	0.00	
14017.00†	90.186	0.058	7728.81	6473.39	6473.89	-491.10	40°05'19.785"N	104°55'24.997"W	0.00	
14117.00†	90.186	0.058	7728.48	6573.39	6573.89	-491.00	40°05'20.773"N	104°55'24.995"W	0.00	
14217.00†	90.186	0.058	7728.15	6673.39	6673.89	-490.90	40°05'21.762"N	104°55'24.994"W	0.00	
14317.00†	90.186	0.058	7727.83	6773.39	6773.89	-490.79	40°05'22.750"N	104°55'24.993"W	0.00	
14417.00†	90.186	0.058	7727.50	6873.38	6873.88	-490.69	40°05'23.738"N	104°55'24.992"W	0.00	
14517.00†	90.186	0.058	7727.18	6973.38	6973.88	-490.59	40°05'24.726"N	104°55'24.990"W	0.00	
14617.00†	90.186	0.058	7726.85	7073.38	7073.88	-490.49	40°05'25.714"N	104°55'24.989"W	0.00	
14717.00†	90.186	0.058	7726.53	7173.38	7173.88	-490.39	40°05'26.703"N	104°55'24.988"W	0.00	
14817.00†	90.186	0.058	7726.20	7273.38	7273.88	-490.29	40°05'27.691"N	104°55'24.986"W	0.00	
14917.00†	90.186	0.058	7725.88	7373.38	7373.88	-490.19	40°05'28.679"N	104°55'24.985"W	0.00	
15017.00†	90.186	0.058	7725.55	7473.38	7473.88	-490.09	40°05'29.667"N	104°55'24.984"W	0.00	
15117.00†	90.186	0.058	7725.23	7573.38	7573.88	-489.99	40°05'30.655"N	104°55'24.983"W	0.00	
15217.00†	90.186	0.058	7724.90	7673.38	7673.88	-489.89	40°05'31.644"N	104°55'24.981"W	0.00	
15317.00†	90.186	0.058	7724.58	7773.38	7773.88	-489.79	40°05'32.632"N	104°55'24.980"W	0.00	
15417.00†	90.186	0.058	7724.25	7873.38	7873.88	-489.69	40°05'33.620"N	104°55'24.979"W	0.00	
15517.00†	90.186	0.058	7723.92	7973.38	7973.88	-489.58	40°05'34.608"N	104°55'24.978"W	0.00	
15617.00†	90.186	0.058	7723.60	8073.38	8073.88	-489.48	40°05'35.597"N	104°55'24.976"W	0.00	
15717.00†	90.186	0.058	7723.27	8173.38	8173.88	-489.38	40°05'36.585"N	104°55'24.975"W	0.00	
15817.00†	90.186	0.058	7722.95	8273.38	8273.88	-489.28	40°05'37.573"N	104°55'24.974"W	0.00	
15917.00†	90.186	0.058	7722.62	8373.38	8373.88	-489.18	40°05'38.561"N	104°55'24.972"W	0.00	
16017.00†	90.186	0.058	7722.30	8473.38	8473.88	-489.08	40°05'39.549"N	104°55'24.971"W	0.00	
16117.00†	90.186	0.058	7721.97	8573.38	8573.88	-488.98	40°05'40.538"N	104°55'24.970"W	0.00	
16217.00†	90.186	0.058	7721.65	8673.38	8673.87	-488.88	40°05'41.526"N	104°55'24.969"W	0.00	
16317.00†	90.186	0.058	7721.32	8773.37	8773.87	-488.78	40°05'42.514"N	104°55'24.967"W	0.00	



Planned Wellpath Report

NRC 30C-32HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08)
Area	COLORADO	Well	NRC 30C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 30C-32HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (206 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16417.00†	90.186	0.058	7721.00	8873.37	8873.87	-488.68	40°05'43.502"N	104°55'24.966"W	0.00	
16517.00†	90.186	0.058	7720.67	8973.37	8973.87	-488.58	40°05'44.490"N	104°55'24.965"W	0.00	
16617.00†	90.186	0.058	7720.35	9073.37	9073.87	-488.47	40°05'45.479"N	104°55'24.964"W	0.00	
16717.00†	90.186	0.058	7720.02	9173.37	9173.87	-488.37	40°05'46.467"N	104°55'24.962"W	0.00	
16817.00†	90.186	0.058	7719.69	9273.37	9273.87	-488.27	40°05'47.455"N	104°55'24.961"W	0.00	
16917.00†	90.186	0.058	7719.37	9373.37	9373.87	-488.17	40°05'48.443"N	104°55'24.960"W	0.00	
17017.00†	90.186	0.058	7719.04	9473.37	9473.87	-488.07	40°05'49.431"N	104°55'24.958"W	0.00	
17117.00†	90.186	0.058	7718.72	9573.37	9573.87	-487.97	40°05'50.420"N	104°55'24.957"W	0.00	
17217.00†	90.186	0.058	7718.39	9673.37	9673.87	-487.87	40°05'51.408"N	104°55'24.956"W	0.00	
17317.00†	90.186	0.058	7718.07	9773.37	9773.87	-487.77	40°05'52.396"N	104°55'24.955"W	0.00	
17417.00†	90.186	0.058	7717.74	9873.37	9873.87	-487.67	40°05'53.384"N	104°55'24.953"W	0.00	
17517.00†	90.186	0.058	7717.42	9973.37	9973.87	-487.57	40°05'54.373"N	104°55'24.952"W	0.00	
17617.00†	90.186	0.058	7717.09	10073.37	10073.87	-487.47	40°05'55.361"N	104°55'24.951"W	0.00	
17717.00†	90.186	0.058	7716.77	10173.37	10173.87	-487.36	40°05'56.349"N	104°55'24.950"W	0.00	
17817.00†	90.186	0.058	7716.44	10273.37	10273.87	-487.26	40°05'57.337"N	104°55'24.948"W	0.00	
17917.00†	90.186	0.058	7716.12	10373.37	10373.86	-487.16	40°05'58.325"N	104°55'24.947"W	0.00	
18017.00†	90.186	0.058	7715.79	10473.37	10473.86	-487.06	40°05'59.314"N	104°55'24.946"W	0.00	
18117.00†	90.186	0.058	7715.46	10573.37	10573.86	-486.96	40°06'00.302"N	104°55'24.944"W	0.00	
18217.00†	90.186	0.058	7715.14	10673.36	10673.86	-486.86	40°06'01.290"N	104°55'24.943"W	0.00	
18317.00†	90.186	0.058	7714.81	10773.36	10773.86	-486.76	40°06'02.278"N	104°55'24.942"W	0.00	
18417.00†	90.186	0.058	7714.49	10873.36	10873.86	-486.66	40°06'03.266"N	104°55'24.941"W	0.00	
18517.00†	90.186	0.058	7714.16	10973.36	10973.86	-486.56	40°06'04.255"N	104°55'24.939"W	0.00	
18617.00†	90.186	0.058	7713.84	11073.36	11073.86	-486.46	40°06'05.243"N	104°55'24.938"W	0.00	
18717.00†	90.186	0.058	7713.51	11173.36	11173.86	-486.36	40°06'06.231"N	104°55'24.937"W	0.00	
18817.00†	90.186	0.058	7713.19	11273.36	11273.86	-486.26	40°06'07.219"N	104°55'24.936"W	0.00	
18874.43	90.186	0.058	7713.00 ¹	11330.79	11331.29	-486.20	40°06'07.787"N	104°55'24.935"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: NRC 30C-32HZ PWB Ref Wellpath: NRC 30C-32HZ (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	1332.00	1315.00	17.00	1332.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1332.00	1315.00	17.00	1332.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1332.00	8117.90	6785.90	1332.00	7748.00	0.00	0.00	574.82	-497.05
7in Casing Intermediate	17.00	8117.90	8100.90	17.00	7748.00	0.00	0.00	574.82	-497.05
6.125in Open Hole	8117.90	18874.43	10756.53	7748.00	7713.00	574.82	-497.05	11331.29	-486.20
4.5in Casing Production	17.00	18874.43	18857.43	17.00	7713.00	0.00	0.00	11331.29	-486.20



Planned Wellpath Report

NRC 30C-32HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08)
Area	COLORADO	Well	NRC 30C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 30C-32HZ 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
SECTION 32 LINES		100.00	0.00	0.00	3161799.49	1269258.97	40°04'15.809"N	104°55'18.678"W	polygon
NRC SECTION 5 LINES		7552.00	133.19	3334.67	3165133.08	1269413.90	40°04'17.123"N	104°54'35.784"W	polygon
NRC SECTION 8 LINES		7552.00	133.19	3334.67	3165133.08	1269413.90	40°04'17.123"N	104°54'35.784"W	polygon
1) NRC 30C-32HZ BHL ON PLAT REV-1 (1'FNL & 75'FWL, SEC.32)	18874.43	7713.00	11331.29	-486.20	3161239.45	1280586.39	40°06'07.787"N	104°55'24.935"W	point
NRC 30C-32HZ LAND BOX		7750.00	0.00	0.00	3161799.49	1269258.97	40°04'15.809"N	104°55'18.678"W	polygon

SURVEY PROGRAM - Ref Wellbore: NRC 30C-32HZ PWB Ref Wellpath: NRC 30C-32HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	8117.90	NaviTrak (MAGCORR,IFR)		NRC 30C-32HZ PWB
8117.90	18874.43	NaviTrak (MAGCORR,IFR)		NRC 30C-32HZ PWB



Planned Wellpath Report

NRC 30C-32HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 NRC 30C-32HZ (667'FNL & 575'FWL, SEC.08)
Area	COLORADO	Well	NRC 30C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 30C-32HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1282.00	0.000	270.000	1282.00	FOX HILLS MARKER
4314.72	9.635	270.000	4276.00	PARKMAN
4651.93	2.891	270.000	4611.00	SUSSEX
7425.63	20.960	0.058	7380.00	SHARON SPRINGS
7488.10	27.206	0.058	7437.00	NIOBRARA A
7576.26	36.022	0.058	7512.00	NIOBRARA B
7688.86	47.282	0.058	7596.00	NIOBRARA C
7939.43	72.339	0.058	7721.00	FORT HAYS
8040.26	82.422	0.058	7743.00	CODELL