

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)  
 Field: WELD COUNTY (KERR MCGEE) Well: NICHOLS 28C-5HZ  
 Facility: SEC.08-T2N-R65W Wellbore: NICHOLS 28C-5HZ PWB

Plot reference wellpath is NICHOLS 28C-5HZ (PERMIT) PWB

True vertical depths are referenced to Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB)	North Reference: True north
Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB) to Mean Sea Level: 4928 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wjls02 on 5/31/2012

## Location Information

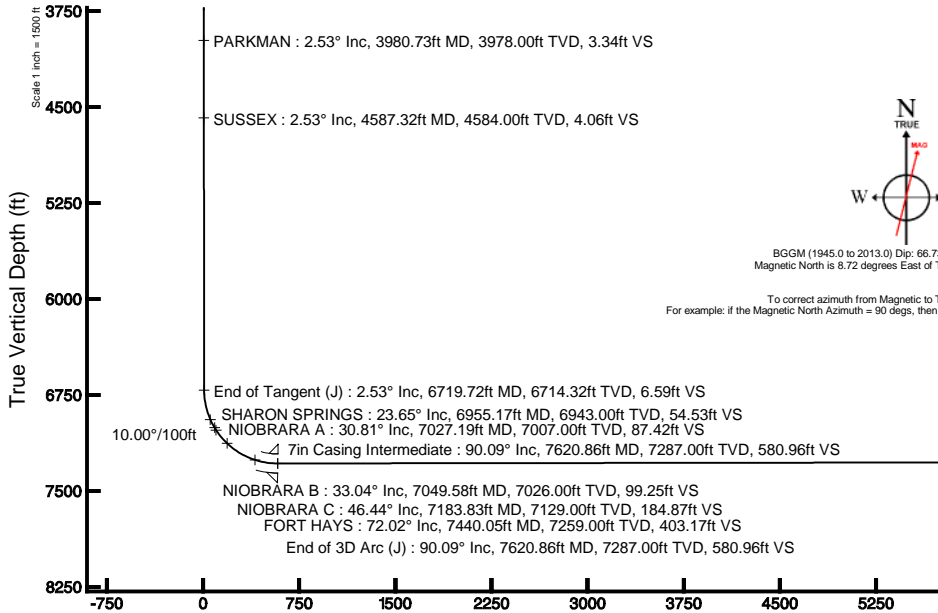
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude		
SEC.08-T2N-R65W	319771.840	126881.290	40°04'09.600"N	104°47'36.000"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)	30768.10	30050.43	322754.920	126886.841	40°09'13.475"N	104°41'08.962"W
Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB) to Mud line (At Slot: SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08))	4928ft					
Mean Sea Level to Mud line (At Slot: SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08))	0ft					
Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB) to Mean Sea Level	4928ft					

## Well Profile Data

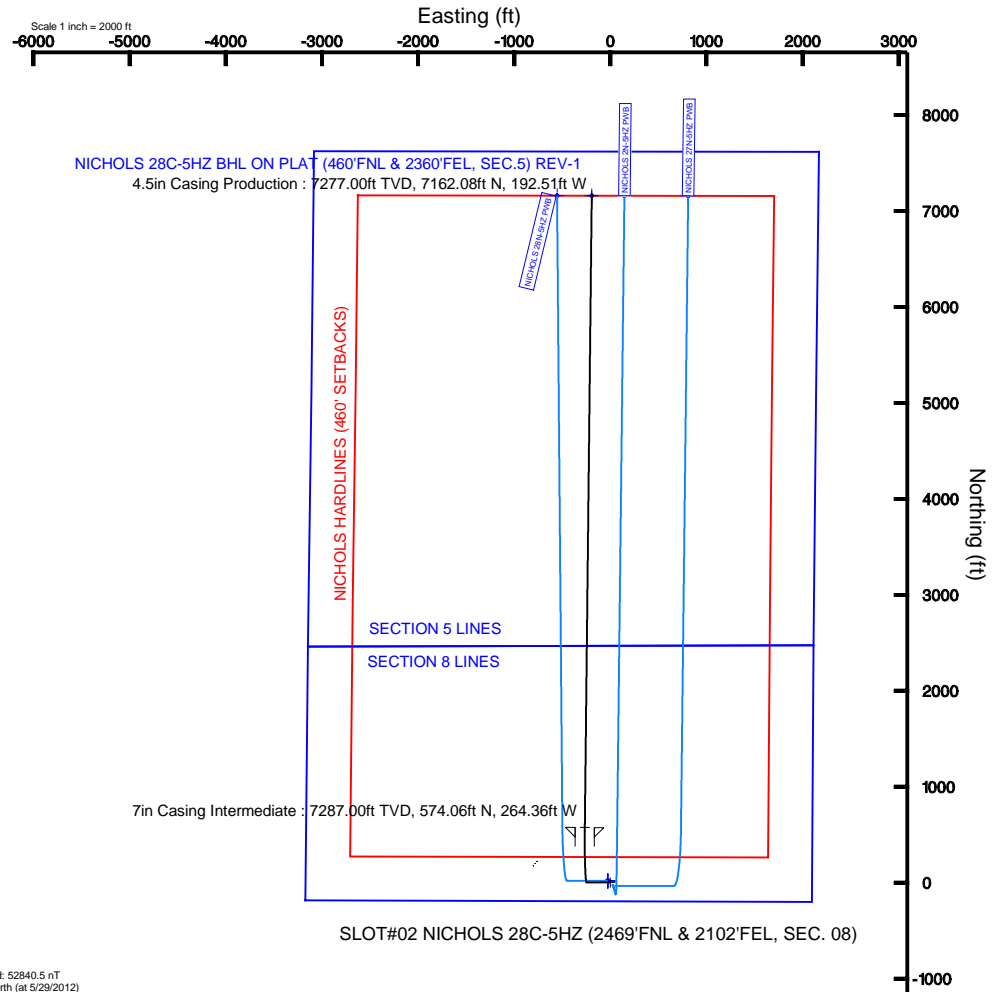
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	270.000	17.00	0.00	0.00	0.00	0.00
End of Tangent	1100.00	0.000	270.000	1100.00	0.00	0.00	0.00	0.00
End of Build (J)	1226.50	2.530	270.000	1226.46	0.00	-2.79	2.00	0.08
End of Tangent (J)	6719.72	2.530	270.000	6714.32	0.00	-245.28	0.00	6.59
End of 3D Arc (J)	7620.86	90.087	0.625	7287.00	574.07	-264.36	10.00	580.96
End of Tangent (J)	14209.28	90.087	0.625	7277.00	7162.08	-192.51	0.00	7164.67

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
NICHOLS SECTION 5 LINES		0.00	17.10	-24.85	322754.93	126881.351	40°09'13.644"N	104°41'09.312"W
NICHOLS SECTION 8 LINES		0.00	17.10	-24.85	322754.93	126881.351	40°09'13.644"N	104°41'09.312"W
NICHOLS HARDLINES (460' SETBACKS)		7200.00	17.10	-24.85	322754.93	126881.351	40°09'13.644"N	104°41'09.312"W
NICHOLS 28C-5HZ BHL ON PLAT (460'FNL & 2360'FEL, SEC.5) REV-1	14209.28	7277.00	7162.08	-192.51	3227316.68	1307056.34	40°10'24.251"N	104°41'11.472"W



Azimuth 358.46° with reference 0.00 N, 0.00 E





## Planned Wellpath Report

NICHOLS 28C-5HZ (PERMIT) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)
Area	COLORADO	Well	NICHOLS 28C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 28C-5HZ PWB
Facility	SEC.08-T2N-R65W		

### REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Wilsje02
Scale	0.999958	Report Generated	5/31/2012 at 16:07:52
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB/NICHOLS_28C-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	30768.10	30050.43	3227574.93	1299896.64	40°09'13.475"N	104°41'08.992"W
Facility Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"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#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB)	Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB) to Mud Line at Slot (SLOT#02 NICHOLS 28
MD Reference Pt	Rig on SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



# Planned Wellpath Report

NICHOLS 28C-5HZ (PERMIT) PWP  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)
Area	COLORADO	Well	NICHOLS 28C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 28C-5HZ PWB
Facility	SEC.08-T2N-R65W		

## WELLPATH DATA (155 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°09'13.475"N	104°41'08.992"W	0.00	
17.00	0.000	270.000	17.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	Tie On
117.00†	0.000	270.000	117.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
217.00†	0.000	270.000	217.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
317.00†	0.000	270.000	317.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
417.00†	0.000	270.000	417.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
517.00†	0.000	270.000	517.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
617.00†	0.000	270.000	617.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
717.00†	0.000	270.000	717.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
817.00†	0.000	270.000	817.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
917.00†	0.000	270.000	917.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
1017.00†	0.000	270.000	1017.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	
1100.00	0.000	270.000	1100.00	0.00	0.00	0.00	40°09'13.475"N	104°41'08.992"W	0.00	End of Tangent
1117.00†	0.340	270.000	1117.00	0.00	0.00	-0.05	40°09'13.475"N	104°41'08.993"W	2.00	
1217.00†	2.340	270.000	1216.97	0.06	0.00	-2.39	40°09'13.475"N	104°41'09.023"W	2.00	
1226.50	2.530	270.000	1226.46	0.08	0.00	-2.79	40°09'13.475"N	104°41'09.028"W	2.00	End of Build (J)
1317.00†	2.530	270.000	1316.87	0.18	0.00	-6.79	40°09'13.475"N	104°41'09.079"W	0.00	
1417.00†	2.530	270.000	1416.77	0.30	0.00	-11.20	40°09'13.475"N	104°41'09.136"W	0.00	
1517.00†	2.530	270.000	1516.68	0.42	0.00	-15.62	40°09'13.475"N	104°41'09.193"W	0.00	
1617.00†	2.530	270.000	1616.58	0.54	0.00	-20.03	40°09'13.475"N	104°41'09.250"W	0.00	
1717.00†	2.530	270.000	1716.48	0.66	0.00	-24.44	40°09'13.475"N	104°41'09.307"W	0.00	
1817.00†	2.530	270.000	1816.38	0.78	0.00	-28.86	40°09'13.475"N	104°41'09.364"W	0.00	
1917.00†	2.530	270.000	1916.29	0.89	0.00	-33.27	40°09'13.475"N	104°41'09.421"W	0.00	
2017.00†	2.530	270.000	2016.19	1.01	0.00	-37.69	40°09'13.475"N	104°41'09.477"W	0.00	
2117.00†	2.530	270.000	2116.09	1.13	0.00	-42.10	40°09'13.475"N	104°41'09.534"W	0.00	
2217.00†	2.530	270.000	2215.99	1.25	0.00	-46.52	40°09'13.475"N	104°41'09.591"W	0.00	
2317.00†	2.530	270.000	2315.90	1.37	0.00	-50.93	40°09'13.475"N	104°41'09.648"W	0.00	
2417.00†	2.530	270.000	2415.80	1.49	0.00	-55.34	40°09'13.475"N	104°41'09.705"W	0.00	
2517.00†	2.530	270.000	2515.70	1.61	0.00	-59.76	40°09'13.475"N	104°41'09.762"W	0.00	
2617.00†	2.530	270.000	2615.60	1.72	0.00	-64.17	40°09'13.475"N	104°41'09.818"W	0.00	
2717.00†	2.530	270.000	2715.51	1.84	0.00	-68.59	40°09'13.475"N	104°41'09.875"W	0.00	
2817.00†	2.530	270.000	2815.41	1.96	0.00	-73.00	40°09'13.475"N	104°41'09.932"W	0.00	
2917.00†	2.530	270.000	2915.31	2.08	0.00	-77.42	40°09'13.475"N	104°41'09.989"W	0.00	
3017.00†	2.530	270.000	3015.21	2.20	0.00	-81.83	40°09'13.475"N	104°41'10.046"W	0.00	
3117.00†	2.530	270.000	3115.12	2.32	0.00	-86.24	40°09'13.475"N	104°41'10.103"W	0.00	
3217.00†	2.530	270.000	3215.02	2.44	0.00	-90.66	40°09'13.475"N	104°41'10.160"W	0.00	
3317.00†	2.530	270.000	3314.92	2.55	0.00	-95.07	40°09'13.475"N	104°41'10.216"W	0.00	
3417.00†	2.530	270.000	3414.82	2.67	0.00	-99.49	40°09'13.475"N	104°41'10.273"W	0.00	
3517.00†	2.530	270.000	3514.73	2.79	0.00	-103.90	40°09'13.475"N	104°41'10.330"W	0.00	
3617.00†	2.530	270.000	3614.63	2.91	0.00	-108.32	40°09'13.475"N	104°41'10.387"W	0.00	
3717.00†	2.530	270.000	3714.53	3.03	0.00	-112.73	40°09'13.475"N	104°41'10.444"W	0.00	
3817.00†	2.530	270.000	3814.43	3.15	0.00	-117.14	40°09'13.475"N	104°41'10.501"W	0.00	
3917.00†	2.530	270.000	3914.34	3.27	0.00	-121.56	40°09'13.475"N	104°41'10.557"W	0.00	
3980.73†	2.530	270.000	3978.00	3.34	0.00	-124.37	40°09'13.475"N	104°41'10.594"W	0.00	PARKMAN
4017.00†	2.530	270.000	4014.24	3.38	0.00	-125.97	40°09'13.475"N	104°41'10.614"W	0.00	



# Planned Wellpath Report

NICHOLS 28C-5HZ (PERMIT) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)
Area	COLORADO	Well	NICHOLS 28C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 28C-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	2.530	270.000	4114.14	3.50	0.00	-130.39	40°09'13.475"N	104°41'10.671"W	0.00	
4217.00†	2.530	270.000	4214.04	3.62	0.00	-134.80	40°09'13.475"N	104°41'10.728"W	0.00	
4317.00†	2.530	270.000	4313.95	3.74	0.00	-139.21	40°09'13.475"N	104°41'10.785"W	0.00	
4417.00†	2.530	270.000	4413.85	3.86	0.00	-143.63	40°09'13.475"N	104°41'10.842"W	0.00	
4517.00†	2.530	270.000	4513.75	3.98	0.00	-148.04	40°09'13.475"N	104°41'10.899"W	0.00	
4587.32†	2.530	270.000	4584.00	4.06	0.00	-151.15	40°09'13.475"N	104°41'10.939"W	0.00	SUSSEX
4617.00†	2.530	270.000	4613.65	4.10	0.00	-152.46	40°09'13.475"N	104°41'10.955"W	0.00	
4717.00†	2.530	270.000	4713.56	4.22	0.00	-156.87	40°09'13.475"N	104°41'11.012"W	0.00	
4817.00†	2.530	270.000	4813.46	4.33	0.00	-161.29	40°09'13.475"N	104°41'11.069"W	0.00	
4917.00†	2.530	270.000	4913.36	4.45	0.00	-165.70	40°09'13.475"N	104°41'11.126"W	0.00	
5017.00†	2.530	270.000	5013.26	4.57	0.00	-170.11	40°09'13.475"N	104°41'11.183"W	0.00	
5117.00†	2.530	270.000	5113.17	4.69	0.00	-174.53	40°09'13.475"N	104°41'11.240"W	0.00	
5217.00†	2.530	270.000	5213.07	4.81	0.00	-178.94	40°09'13.475"N	104°41'11.297"W	0.00	
5317.00†	2.530	270.000	5312.97	4.93	0.00	-183.36	40°09'13.475"N	104°41'11.353"W	0.00	
5417.00†	2.530	270.000	5412.87	5.05	0.00	-187.77	40°09'13.475"N	104°41'11.410"W	0.00	
5517.00†	2.530	270.000	5512.78	5.16	0.00	-192.19	40°09'13.475"N	104°41'11.467"W	0.00	
5617.00†	2.530	270.000	5612.68	5.28	0.00	-196.60	40°09'13.475"N	104°41'11.524"W	0.00	
5717.00†	2.530	270.000	5712.58	5.40	0.00	-201.01	40°09'13.475"N	104°41'11.581"W	0.00	
5817.00†	2.530	270.000	5812.48	5.52	0.00	-205.43	40°09'13.475"N	104°41'11.638"W	0.00	
5917.00†	2.530	270.000	5912.39	5.64	0.00	-209.84	40°09'13.475"N	104°41'11.694"W	0.00	
6017.00†	2.530	270.000	6012.29	5.76	0.00	-214.26	40°09'13.475"N	104°41'11.751"W	0.00	
6117.00†	2.530	270.000	6112.19	5.88	0.00	-218.67	40°09'13.475"N	104°41'11.808"W	0.00	
6217.00†	2.530	270.000	6212.09	5.99	0.00	-223.09	40°09'13.475"N	104°41'11.865"W	0.00	
6317.00†	2.530	270.000	6312.00	6.11	0.00	-227.50	40°09'13.475"N	104°41'11.922"W	0.00	
6417.00†	2.530	270.000	6411.90	6.23	0.00	-231.91	40°09'13.475"N	104°41'11.979"W	0.00	
6517.00†	2.530	270.000	6511.80	6.35	0.00	-236.33	40°09'13.475"N	104°41'12.036"W	0.00	
6617.00†	2.530	270.000	6611.70	6.47	0.00	-240.74	40°09'13.475"N	104°41'12.092"W	0.00	
6717.00†	2.530	270.000	6711.61	6.59	0.00	-245.16	40°09'13.475"N	104°41'12.149"W	0.00	
6719.72	2.530	270.000	6714.32	6.59	0.00	-245.28	40°09'13.475"N	104°41'12.151"W	0.00	End of Tangent (J)
6817.00†	10.022	346.143	6811.05	14.94	8.24	-249.46	40°09'13.556"N	104°41'12.205"W	10.00	
6917.00†	19.856	353.593	6907.56	40.43	33.63	-253.45	40°09'13.807"N	104°41'12.256"W	10.00	
6955.17†	23.645	354.829	6943.00	54.53	47.70	-254.86	40°09'13.946"N	104°41'12.274"W	10.00	SHARON SPRINGS
7017.00†	29.798	356.196	6998.20	82.28	75.40	-257.00	40°09'14.220"N	104°41'12.302"W	10.00	
7027.19†	30.813	356.373	7007.00	87.42	80.53	-257.34	40°09'14.271"N	104°41'12.306"W	10.00	NIOBRARA A
7049.58†	33.044	356.726	7026.00	99.25	92.35	-258.05	40°09'14.388"N	104°41'12.315"W	10.00	NIOBRARA B
7117.00†	39.768	357.578	7080.23	139.23	132.30	-260.01	40°09'14.782"N	104°41'12.341"W	10.00	
7183.83†	46.437	358.213	7129.00	184.87	177.90	-261.67	40°09'15.233"N	104°41'12.362"W	10.00	NIOBRARA C
7217.00†	49.748	358.477	7151.15	209.55	202.58	-262.38	40°09'15.477"N	104°41'12.371"W	10.00	
7317.00†	59.733	359.143	7208.81	291.10	284.11	-264.05	40°09'16.283"N	104°41'12.393"W	10.00	
7417.00†	69.721	359.686	7251.45	381.40	374.42	-264.95	40°09'17.175"N	104°41'12.404"W	10.00	
7440.05†	72.024	359.800	7259.00	403.17	396.20	-265.05	40°09'17.390"N	104°41'12.406"W	10.00	FORT HAYS
7517.00†	79.711	0.161	7277.77	477.71	470.76	-265.07	40°09'18.127"N	104°41'12.406"W	10.00	
7617.00†	89.701	0.608	7286.99	577.10	570.20	-264.40	40°09'19.110"N	104°41'12.397"W	10.00	
7620.86	90.087	0.625	7287.00	580.96	574.07	-264.36	40°09'19.148"N	104°41'12.397"W	10.00	End of 3D Arc (J)
7717.00†	90.087	0.625	7286.85	677.03	670.20	-263.31	40°09'20.098"N	104°41'12.383"W	0.00	



# Planned Wellpath Report

NICHOLS 28C-5HZ (PERMIT) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)
Area	COLORADO	Well	NICHOLS 28C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 28C-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7817.00†	90.087	0.625	7286.70	776.96	770.19	-262.22	40°09'21.086"N	104°41'12.369"W	0.00	
7917.00†	90.087	0.625	7286.55	876.89	870.19	-261.13	40°09'22.074"N	104°41'12.355"W	0.00	
8017.00†	90.087	0.625	7286.40	976.82	970.18	-260.04	40°09'23.062"N	104°41'12.341"W	0.00	
8117.00†	90.087	0.625	7286.24	1076.75	1070.17	-258.95	40°09'24.051"N	104°41'12.327"W	0.00	
8217.00†	90.087	0.625	7286.09	1176.67	1170.17	-257.86	40°09'25.039"N	104°41'12.313"W	0.00	
8317.00†	90.087	0.625	7285.94	1276.60	1270.16	-256.77	40°09'26.027"N	104°41'12.299"W	0.00	
8417.00†	90.087	0.625	7285.79	1376.53	1370.16	-255.68	40°09'27.015"N	104°41'12.285"W	0.00	
8517.00†	90.087	0.625	7285.64	1476.46	1470.15	-254.59	40°09'28.003"N	104°41'12.271"W	0.00	
8617.00†	90.087	0.625	7285.49	1576.39	1570.14	-253.50	40°09'28.991"N	104°41'12.257"W	0.00	
8717.00†	90.087	0.625	7285.33	1676.32	1670.14	-252.41	40°09'29.979"N	104°41'12.243"W	0.00	
8817.00†	90.087	0.625	7285.18	1776.25	1770.13	-251.31	40°09'30.968"N	104°41'12.229"W	0.00	
8917.00†	90.087	0.625	7285.03	1876.17	1870.13	-250.22	40°09'31.956"N	104°41'12.215"W	0.00	
9017.00†	90.087	0.625	7284.88	1976.10	1970.12	-249.13	40°09'32.944"N	104°41'12.201"W	0.00	
9117.00†	90.087	0.625	7284.73	2076.03	2070.11	-248.04	40°09'33.932"N	104°41'12.187"W	0.00	
9217.00†	90.087	0.625	7284.58	2175.96	2170.11	-246.95	40°09'34.920"N	104°41'12.173"W	0.00	
9317.00†	90.087	0.625	7284.42	2275.89	2270.10	-245.86	40°09'35.908"N	104°41'12.159"W	0.00	
9417.00†	90.087	0.625	7284.27	2375.82	2370.10	-244.77	40°09'36.896"N	104°41'12.145"W	0.00	
9517.00†	90.087	0.625	7284.12	2475.75	2470.09	-243.68	40°09'37.885"N	104°41'12.131"W	0.00	
9617.00†	90.087	0.625	7283.97	2575.67	2570.08	-242.59	40°09'38.873"N	104°41'12.117"W	0.00	
9717.00†	90.087	0.625	7283.82	2675.60	2670.08	-241.50	40°09'39.861"N	104°41'12.103"W	0.00	
9817.00†	90.087	0.625	7283.66	2775.53	2770.07	-240.41	40°09'40.849"N	104°41'12.088"W	0.00	
9917.00†	90.087	0.625	7283.51	2875.46	2870.06	-239.32	40°09'41.837"N	104°41'12.074"W	0.00	
10017.00†	90.087	0.625	7283.36	2975.39	2970.06	-238.23	40°09'42.825"N	104°41'12.060"W	0.00	
10117.00†	90.087	0.625	7283.21	3075.32	3070.05	-237.14	40°09'43.813"N	104°41'12.046"W	0.00	
10217.00†	90.087	0.625	7283.06	3175.24	3170.05	-236.05	40°09'44.802"N	104°41'12.032"W	0.00	
10317.00†	90.087	0.625	7282.91	3275.17	3270.04	-234.96	40°09'45.790"N	104°41'12.018"W	0.00	
10417.00†	90.087	0.625	7282.75	3375.10	3370.03	-233.87	40°09'46.778"N	104°41'12.004"W	0.00	
10517.00†	90.087	0.625	7282.60	3475.03	3470.03	-232.78	40°09'47.766"N	104°41'11.990"W	0.00	
10617.00†	90.087	0.625	7282.45	3574.96	3570.02	-231.69	40°09'48.754"N	104°41'11.976"W	0.00	
10717.00†	90.087	0.625	7282.30	3674.89	3670.02	-230.60	40°09'49.742"N	104°41'11.962"W	0.00	
10817.00†	90.087	0.625	7282.15	3774.82	3770.01	-229.50	40°09'50.730"N	104°41'11.948"W	0.00	
10917.00†	90.087	0.625	7282.00	3874.74	3870.00	-228.41	40°09'51.719"N	104°41'11.934"W	0.00	
11017.00†	90.087	0.625	7281.84	3974.67	3970.00	-227.32	40°09'52.707"N	104°41'11.920"W	0.00	
11117.00†	90.087	0.625	7281.69	4074.60	4069.99	-226.23	40°09'53.695"N	104°41'11.906"W	0.00	
11217.00†	90.087	0.625	7281.54	4174.53	4169.99	-225.14	40°09'54.683"N	104°41'11.892"W	0.00	
11317.00†	90.087	0.625	7281.39	4274.46	4269.98	-224.05	40°09'55.671"N	104°41'11.878"W	0.00	
11417.00†	90.087	0.625	7281.24	4374.39	4369.97	-222.96	40°09'56.659"N	104°41'11.864"W	0.00	
11517.00†	90.087	0.625	7281.09	4474.32	4469.97	-221.87	40°09'57.647"N	104°41'11.850"W	0.00	
11617.00†	90.087	0.625	7280.93	4574.24	4569.96	-220.78	40°09'58.636"N	104°41'11.836"W	0.00	
11717.00†	90.087	0.625	7280.78	4674.17	4669.96	-219.69	40°09'59.624"N	104°41'11.822"W	0.00	
11817.00†	90.087	0.625	7280.63	4774.10	4769.95	-218.60	40°10'00.612"N	104°41'11.808"W	0.00	
11917.00†	90.087	0.625	7280.48	4874.03	4869.94	-217.51	40°10'01.600"N	104°41'11.794"W	0.00	
12017.00†	90.087	0.625	7280.33	4973.96	4969.94	-216.42	40°10'02.588"N	104°41'11.780"W	0.00	
12117.00†	90.087	0.625	7280.17	5073.89	5069.93	-215.33	40°10'03.576"N	104°41'11.766"W	0.00	
12217.00†	90.087	0.625	7280.02	5173.82	5169.93	-214.24	40°10'04.564"N	104°41'11.752"W	0.00	



# Planned Wellpath Report

NICHOLS 28C-5HZ (PERMIT) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)
Area	COLORADO	Well	NICHOLS 28C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 28C-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12317.00†	90.087	0.625	7279.87	5273.74	5269.92	-213.15	40°10'05.553"N	104°41'11.738"W	0.00	
12417.00†	90.087	0.625	7279.72	5373.67	5369.91	-212.06	40°10'06.541"N	104°41'11.724"W	0.00	
12517.00†	90.087	0.625	7279.57	5473.60	5469.91	-210.97	40°10'07.529"N	104°41'11.710"W	0.00	
12617.00†	90.087	0.625	7279.42	5573.53	5569.90	-209.88	40°10'08.517"N	104°41'11.696"W	0.00	
12717.00†	90.087	0.625	7279.26	5673.46	5669.90	-208.79	40°10'09.505"N	104°41'11.681"W	0.00	
12817.00†	90.087	0.625	7279.11	5773.39	5769.89	-207.70	40°10'10.493"N	104°41'11.667"W	0.00	
12917.00†	90.087	0.625	7278.96	5873.32	5869.88	-206.60	40°10'11.481"N	104°41'11.653"W	0.00	
13017.00†	90.087	0.625	7278.81	5973.24	5969.88	-205.51	40°10'12.470"N	104°41'11.639"W	0.00	
13117.00†	90.087	0.625	7278.66	6073.17	6069.87	-204.42	40°10'13.458"N	104°41'11.625"W	0.00	
13217.00†	90.087	0.625	7278.51	6173.10	6169.86	-203.33	40°10'14.446"N	104°41'11.611"W	0.00	
13317.00†	90.087	0.625	7278.35	6273.03	6269.86	-202.24	40°10'15.434"N	104°41'11.597"W	0.00	
13417.00†	90.087	0.625	7278.20	6372.96	6369.85	-201.15	40°10'16.422"N	104°41'11.583"W	0.00	
13517.00†	90.087	0.625	7278.05	6472.89	6469.85	-200.06	40°10'17.410"N	104°41'11.569"W	0.00	
13617.00†	90.087	0.625	7277.90	6572.81	6569.84	-198.97	40°10'18.398"N	104°41'11.555"W	0.00	
13717.00†	90.087	0.625	7277.75	6672.74	6669.83	-197.88	40°10'19.387"N	104°41'11.541"W	0.00	
13817.00†	90.087	0.625	7277.60	6772.67	6769.83	-196.79	40°10'20.375"N	104°41'11.527"W	0.00	
13917.00†	90.087	0.625	7277.44	6872.60	6869.82	-195.70	40°10'21.363"N	104°41'11.513"W	0.00	
14017.00†	90.087	0.625	7277.29	6972.53	6969.82	-194.61	40°10'22.351"N	104°41'11.499"W	0.00	
14117.00†	90.087	0.625	7277.14	7072.46	7069.81	-193.52	40°10'23.339"N	104°41'11.485"W	0.00	
14209.28	90.087	0.625	7277.00†	7164.67	7162.08	-192.51	40°10'24.251"N	104°41'11.472"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS - Ref Wellbore: NICHOLS 28C-5HZ PWB Ref Wellpath: NICHOLS 28C-5HZ (PERMIT) 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	825.00	808.00	17.00	825.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	825.00	808.00	17.00	825.00	0.00	0.00	0.00	0.00
8.75in Open Hole	825.00	7620.86	6795.86	825.00	7287.00	0.00	0.00	574.06	-264.36
7in Casing Intermediate	17.00	7620.86	7603.86	17.00	7287.00	0.00	0.00	574.06	-264.36
6.125in Open Hole	7620.86	14209.28	6588.42	7287.00	7277.00	574.06	-264.36	7162.08	-192.51
4.5in Casing Production	17.00	14209.28	14192.28	17.00	7277.00	0.00	0.00	7162.08	-192.51



## Planned Wellpath Report

NICHOLS 28C-5HZ (PERMIT) PWP

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### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)
Area	COLORADO	Well	NICHOLS 28C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 28C-5HZ PWB
Facility	SEC.08-T2N-R65W		

### TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
NICHOLS SECTION 5 LINES		0.00	17.10	-24.85	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
NICHOLS SECTION 8 LINES		0.00	17.10	-24.85	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
NICHOLS HARDLINES (460' SETBACKS)		7200.00	17.10	-24.85	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
1) NICHOLS 28C-5HZ BHL ON PLAT (460'FNL & 2360'FEL, SEC.5) REV-1	14209.28	7277.00	7162.08	-192.51	3227316.68	1307056.34	40°10'24.251"N	104°41'11.472"W	point

### SURVEY PROGRAM - Ref Wellbore: NICHOLS 28C-5HZ PWB Ref Wellpath: NICHOLS 28C-5HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	14209.28	NaviTrak (Standard)		NICHOLS 28C-5HZ PWB



**Planned Wellpath Report**  
 NICHOLS 28C-5HZ (PERMIT) PWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 NICHOLS 28C-5HZ (2469'FNL & 2102'FEL, SEC. 08)
Area	COLORADO	Well	NICHOLS 28C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 28C-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]		Azimuth [°]	TVD [ft]	Comment
3980.73	2.530		270.000	3978.00	PARKMAN
4587.32	2.530		270.000	4584.00	SUSSEX
6955.17	23.645		354.829	6943.00	SHARON SPRINGS
7027.19	30.813		356.373	7007.00	NIOBRARA A
7049.58	33.044		356.726	7026.00	NIOBRARA B
7183.83	46.437		358.213	7129.00	NIOBRARA C
7440.05	72.024		359.800	7259.00	FORT HAYS