

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)
 Field: WELD COUNTY (KERR MCGEE) Well: GITTLEIN 4N-28HZ
 Facility: SEC.33-T2N-R65W Wellbore: GITTLEIN 4N-28HZ PWB

Plot reference wellpath is GITTLEIN 4N-28HZ (PERMIT) PWB

True vertical depths are referenced to Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB)	North Reference: True north
Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB) to Mean Sea Level: 4934 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wlsj602 on 8/13/2012

Location Information

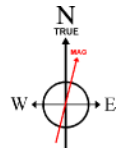
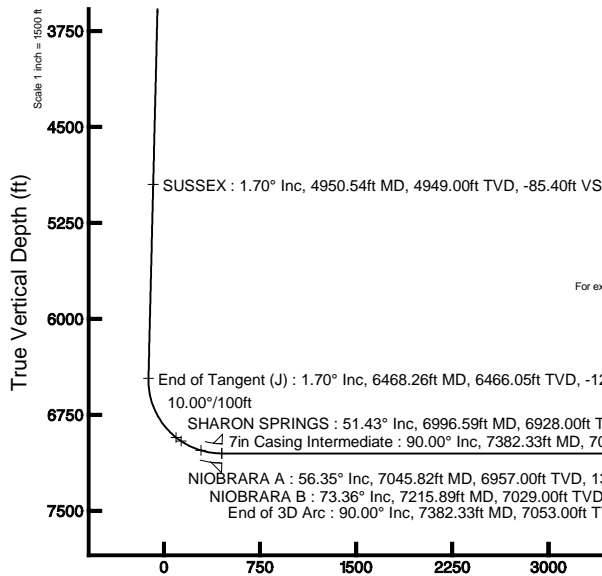
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
SEC.33-T2N-R65W	3231045.236	1276079.076	40°05'17.790"N	104°40'27.156"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)	1.11	90.08	3231135.298	1276081.028	40°05'17.801"N	104°40'25.997"W
Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB) to Mud line (At Slot: SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33))					4934ft	
Mean Sea Level to Mud line (At Slot: SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33))					0ft	
Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB) to Mean Sea Level					4934ft	

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
GITTLEIN 4 PAD SECTION 28 LINES		0.00	-1.11	-90.08	3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"W
GITTLEIN 4 PAD SECTION 33 LINES		0.00	-1.11	-90.08	3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"W
GITTLEIN 4N-28HZ BHL ON PLAT (2184'FSL & 1320'FWL, SEC.28) REV-1	14208.72	7053.00	7276.00	71.06	3231138.58	1283357.08	40°06'29.704"N	104°40'25.082"W
GITTLEIN 4 PAD SEC. 28 HARDLINES (460'SETBACKS)		7300.00	-1.11	-90.08	3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"W
GITTLEIN 4 PAD SEC. 33 HARDLINES (460'SETBACKS)		7300.00	-1.11	-90.08	3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"W

Well Profile Data

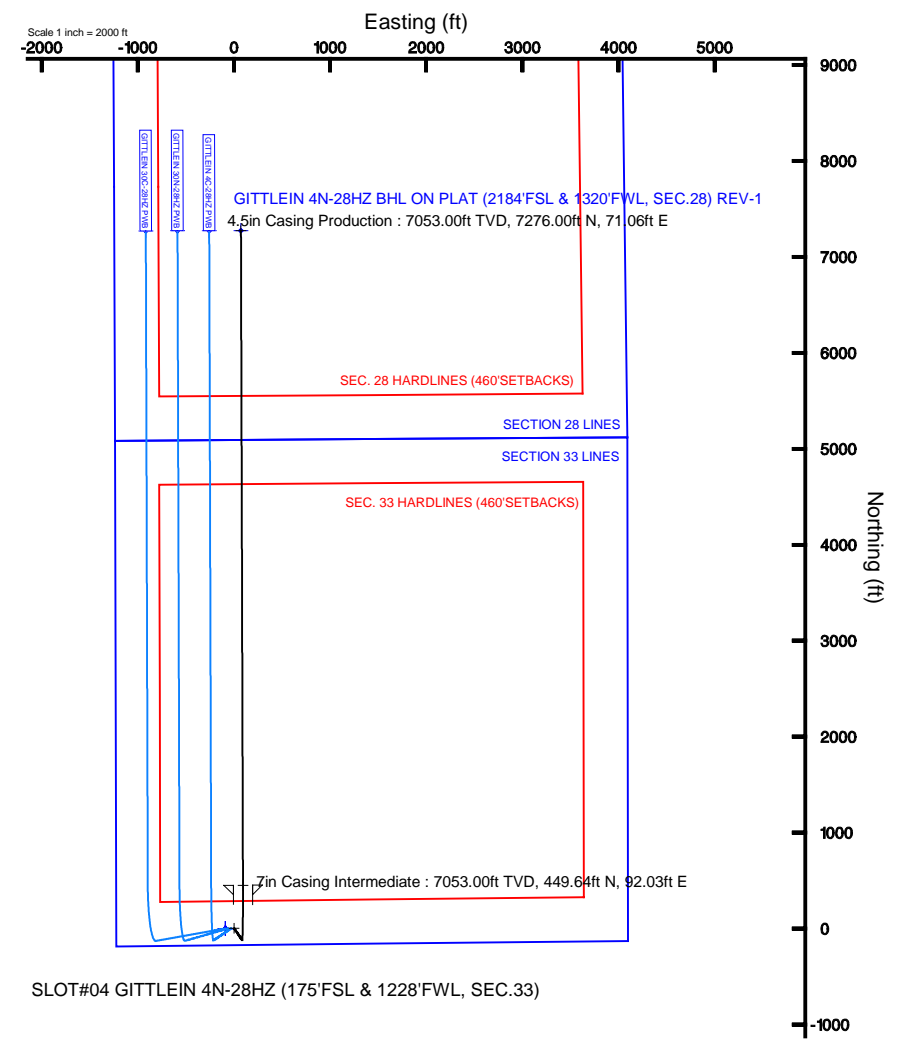
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	145.700	17.00	0.00	0.00	0.00	0.00
End of Tangent	1400.00	0.000	145.700	1400.00	0.00	0.00	0.00	0.00
End of Build (J)	1485.00	1.700	145.700	1484.99	-1.04	0.71	2.00	-1.03
End of Tangent (J)	6468.26	1.700	145.700	6466.05	-123.17	84.02	0.00	-122.34
End of 3D Arc	7382.33	90.000	359.824	7053.00	449.64	92.03	10.00	450.52
End of 3D Arc	14208.72	90.000	359.824	7053.00	7276.00	71.06	0.00	7276.35



BGGM (1945.0 to 2014.0) Dip: 66.76° Field: 52818.7 nT
 Magnetic North is 8.68 degrees East of True North (at 8/13/2012)

To correct azimuth from Magnetic to True add 8.68 degrees
 For example: if the Magnetic North Azimuth = 90 degs, then the True North Azimuth = 90 + 8.68 = 98.68

Vertical Section (ft)
 Azimuth 0.56° with reference 0.00 N, 0.00 E



SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)

4.5in Casing Production : 90.00° Inc, 14208.72ft MD, 7053.00ft TVD, 7276.35ft VS
 End of 3D Arc : 90.00° Inc, 14208.72ft MD, 7053.00ft TVD, 7276.35ft VS
 GITTLEIN 4N-28HZ BHL ON PLAT (2184'FSL & 1320'FWL, SEC.28) REV-1

Scale 1 inch = 1500 ft



Planned Wellpath Report

GITTLEIN 4N-28HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)
Area	COLORADO	Well	GITTLEIN 4N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GITTLEIN 4N-28HZ PWB
Facility	SEC.33-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	0.999961	Report Generated	8/13/2012 at 14:35:22
Convergence at slot	0.53° East	Database/Source file	WellArchitectDB/GITTLEIN_4N-28HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1.11	90.08	3231135.30	1276081.03	40°05'17.801"N	104°40'25.997"W
Facility Reference Pt			3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"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#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB)	Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB) to Mud Line at Slot (SLOT#04 GITTLEIN 4N-
MD Reference Pt	Rig on SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



Planned Wellpath Report

GITTLEIN 4N-28HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)
Area	COLORADO	Well	GITTLEIN 4N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GITTLEIN 4N-28HZ PWB
Facility	SEC.33-T2N-R65W		

WELLPATH DATA (153 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	145.700	0.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
17.00	0.000	145.700	17.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	Tie On
117.00†	0.000	145.700	117.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
217.00†	0.000	145.700	217.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
317.00†	0.000	145.700	317.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
417.00†	0.000	145.700	417.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
517.00†	0.000	145.700	517.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
617.00†	0.000	145.700	617.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
717.00†	0.000	145.700	717.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
756.00†	0.000	145.700	756.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	FOX HILLS
817.00†	0.000	145.700	817.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
917.00†	0.000	145.700	917.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
1017.00†	0.000	145.700	1017.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
1117.00†	0.000	145.700	1117.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
1217.00†	0.000	145.700	1217.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
1317.00†	0.000	145.700	1317.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	
1400.00	0.000	145.700	1400.00	0.00	0.00	0.00	40°05'17.801"N	104°40'25.997"W	0.00	End of Tangent
1417.00†	0.340	145.700	1417.00	-0.04	-0.04	0.03	40°05'17.801"N	104°40'25.997"W	2.00	
1485.00	1.700	145.700	1484.99	-1.03	-1.04	0.71	40°05'17.791"N	104°40'25.988"W	2.00	End of Build (J)
1517.00†	1.700	145.700	1516.97	-1.81	-1.83	1.25	40°05'17.783"N	104°40'25.981"W	0.00	
1617.00†	1.700	145.700	1616.93	-4.25	-4.28	2.92	40°05'17.759"N	104°40'25.959"W	0.00	
1717.00†	1.700	145.700	1716.89	-6.68	-6.73	4.59	40°05'17.735"N	104°40'25.938"W	0.00	
1817.00†	1.700	145.700	1816.84	-9.12	-9.18	6.26	40°05'17.710"N	104°40'25.916"W	0.00	
1917.00†	1.700	145.700	1916.80	-11.55	-11.63	7.93	40°05'17.686"N	104°40'25.895"W	0.00	
2017.00†	1.700	145.700	2016.75	-13.99	-14.08	9.60	40°05'17.662"N	104°40'25.873"W	0.00	
2117.00†	1.700	145.700	2116.71	-16.42	-16.53	11.28	40°05'17.638"N	104°40'25.852"W	0.00	
2217.00†	1.700	145.700	2216.67	-18.85	-18.98	12.95	40°05'17.613"N	104°40'25.830"W	0.00	
2317.00†	1.700	145.700	2316.62	-21.29	-21.43	14.62	40°05'17.589"N	104°40'25.809"W	0.00	
2417.00†	1.700	145.700	2416.58	-23.72	-23.88	16.29	40°05'17.565"N	104°40'25.787"W	0.00	
2517.00†	1.700	145.700	2516.53	-26.16	-26.33	17.96	40°05'17.541"N	104°40'25.766"W	0.00	
2617.00†	1.700	145.700	2616.49	-28.59	-28.78	19.63	40°05'17.517"N	104°40'25.744"W	0.00	
2717.00†	1.700	145.700	2716.45	-31.02	-31.23	21.31	40°05'17.492"N	104°40'25.723"W	0.00	
2817.00†	1.700	145.700	2816.40	-33.46	-33.69	22.98	40°05'17.468"N	104°40'25.701"W	0.00	
2917.00†	1.700	145.700	2916.36	-35.89	-36.14	24.65	40°05'17.444"N	104°40'25.680"W	0.00	
3017.00†	1.700	145.700	3016.31	-38.33	-38.59	26.32	40°05'17.420"N	104°40'25.658"W	0.00	
3117.00†	1.700	145.700	3116.27	-40.76	-41.04	27.99	40°05'17.395"N	104°40'25.637"W	0.00	
3217.00†	1.700	145.700	3216.23	-43.20	-43.49	29.67	40°05'17.371"N	104°40'25.615"W	0.00	
3317.00†	1.700	145.700	3316.18	-45.63	-45.94	31.34	40°05'17.347"N	104°40'25.594"W	0.00	
3417.00†	1.700	145.700	3416.14	-48.06	-48.39	33.01	40°05'17.323"N	104°40'25.572"W	0.00	
3517.00†	1.700	145.700	3516.09	-50.50	-50.84	34.68	40°05'17.299"N	104°40'25.551"W	0.00	
3617.00†	1.700	145.700	3616.05	-52.93	-53.29	36.35	40°05'17.274"N	104°40'25.529"W	0.00	
3717.00†	1.700	145.700	3716.01	-55.37	-55.74	38.02	40°05'17.250"N	104°40'25.508"W	0.00	
3817.00†	1.700	145.700	3815.96	-57.80	-58.19	39.70	40°05'17.226"N	104°40'25.486"W	0.00	
3917.00†	1.700	145.700	3915.92	-60.24	-60.64	41.37	40°05'17.202"N	104°40'25.465"W	0.00	
4017.00†	1.700	145.700	4015.87	-62.67	-63.09	43.04	40°05'17.177"N	104°40'25.443"W	0.00	



Planned Wellpath Report

GITTLEIN 4N-28HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)
Area	COLORADO	Well	GITTLEIN 4N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GITTLEIN 4N-28HZ PWB
Facility	SEC.33-T2N-R65W		

WELLPATH DATA (153 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	1.700	145.700	4115.83	-65.10	-65.54	44.71	40°05'17.153"N	104°40'25.422"W	0.00	
4217.00†	1.700	145.700	4215.79	-67.54	-68.00	46.38	40°05'17.129"N	104°40'25.400"W	0.00	
4317.00†	1.700	145.700	4315.74	-69.97	-70.45	48.06	40°05'17.105"N	104°40'25.379"W	0.00	
4417.00†	1.700	145.700	4415.70	-72.41	-72.90	49.73	40°05'17.081"N	104°40'25.357"W	0.00	
4517.00†	1.700	145.700	4515.65	-74.84	-75.35	51.40	40°05'17.056"N	104°40'25.336"W	0.00	
4617.00†	1.700	145.700	4615.61	-77.28	-77.80	53.07	40°05'17.032"N	104°40'25.314"W	0.00	
4717.00†	1.700	145.700	4715.56	-79.71	-80.25	54.74	40°05'17.008"N	104°40'25.293"W	0.00	
4817.00†	1.700	145.700	4815.52	-82.14	-82.70	56.41	40°05'16.984"N	104°40'25.271"W	0.00	
4917.00†	1.700	145.700	4915.48	-84.58	-85.15	58.09	40°05'16.960"N	104°40'25.250"W	0.00	
4950.54†	1.700	145.700	4949.00	-85.40	-85.97	58.65	40°05'16.951"N	104°40'25.242"W	0.00	SUSSEX
5017.00†	1.700	145.700	5015.43	-87.01	-87.60	59.76	40°05'16.935"N	104°40'25.228"W	0.00	
5117.00†	1.700	145.700	5115.39	-89.45	-90.05	61.43	40°05'16.911"N	104°40'25.207"W	0.00	
5217.00†	1.700	145.700	5215.34	-91.88	-92.50	63.10	40°05'16.887"N	104°40'25.185"W	0.00	
5317.00†	1.700	145.700	5315.30	-94.32	-94.95	64.77	40°05'16.863"N	104°40'25.164"W	0.00	
5417.00†	1.700	145.700	5415.26	-96.75	-97.40	66.44	40°05'16.838"N	104°40'25.142"W	0.00	
5517.00†	1.700	145.700	5515.21	-99.18	-99.85	68.12	40°05'16.814"N	104°40'25.121"W	0.00	
5617.00†	1.700	145.700	5615.17	-101.62	-102.31	69.79	40°05'16.790"N	104°40'25.099"W	0.00	
5717.00†	1.700	145.700	5715.12	-104.05	-104.76	71.46	40°05'16.766"N	104°40'25.078"W	0.00	
5817.00†	1.700	145.700	5815.08	-106.49	-107.21	73.13	40°05'16.742"N	104°40'25.056"W	0.00	
5917.00†	1.700	145.700	5915.04	-108.92	-109.66	74.80	40°05'16.717"N	104°40'25.035"W	0.00	
6017.00†	1.700	145.700	6014.99	-111.36	-112.11	76.48	40°05'16.693"N	104°40'25.013"W	0.00	
6117.00†	1.700	145.700	6114.95	-113.79	-114.56	78.15	40°05'16.669"N	104°40'24.992"W	0.00	
6217.00†	1.700	145.700	6214.90	-116.22	-117.01	79.82	40°05'16.645"N	104°40'24.970"W	0.00	
6317.00†	1.700	145.700	6314.86	-118.66	-119.46	81.49	40°05'16.620"N	104°40'24.949"W	0.00	
6417.00†	1.700	145.700	6414.82	-121.09	-121.91	83.16	40°05'16.596"N	104°40'24.927"W	0.00	
6468.26	1.700	145.700	6466.05	-122.34	-123.17	84.02	40°05'16.584"N	104°40'24.916"W	0.00	End of Tangent (J)
6517.00†	3.595	15.189	6514.76	-121.46	-122.29	84.83	40°05'16.593"N	104°40'24.906"W	10.00	
6617.00†	13.500	3.800	6613.54	-106.73	-107.58	86.43	40°05'16.738"N	104°40'24.885"W	10.00	
6717.00†	23.485	2.020	6708.25	-75.08	-75.94	87.91	40°05'17.051"N	104°40'24.866"W	10.00	
6817.00†	33.479	1.266	6796.04	-27.46	-28.33	89.22	40°05'17.521"N	104°40'24.849"W	10.00	
6917.00†	43.475	0.830	6874.23	34.68	33.80	90.33	40°05'18.135"N	104°40'24.835"W	10.00	
6996.59†	51.432	0.584	6928.00	93.27	92.38	91.05	40°05'18.714"N	104°40'24.826"W	10.00	SHARON SPRINGS
7017.00†	53.473	0.530	6940.44	109.45	108.57	91.20	40°05'18.874"N	104°40'24.824"W	10.00	
7045.82†	56.354	0.459	6957.00	133.03	132.14	91.41	40°05'19.107"N	104°40'24.821"W	10.00	NIOBRARA A
7117.00†	63.471	0.300	6992.66	194.58	193.69	91.81	40°05'19.715"N	104°40'24.816"W	10.00	
7215.89†	73.358	0.109	7029.00	286.42	285.54	92.13	40°05'20.623"N	104°40'24.812"W	10.00	NIOBRARA B
7217.00†	73.469	0.107	7029.32	287.48	286.60	92.14	40°05'20.633"N	104°40'24.812"W	10.00	
7317.00†	83.468	359.933	7049.28	385.34	384.45	92.17	40°05'21.600"N	104°40'24.811"W	10.00	
7382.33	90.000	359.824	7053.00	450.52	449.64	92.03	40°05'22.244"N	104°40'24.813"W	10.00	End of 3D Arc
7417.00†	90.000	359.824	7053.00	485.19	484.31	91.92	40°05'22.587"N	104°40'24.814"W	0.00	
7517.00†	90.000	359.824	7053.00	585.18	584.31	91.61	40°05'23.575"N	104°40'24.818"W	0.00	
7617.00†	90.000	359.824	7053.00	685.17	684.31	91.31	40°05'24.563"N	104°40'24.822"W	0.00	
7717.00†	90.000	359.824	7053.00	785.16	784.31	91.00	40°05'25.552"N	104°40'24.826"W	0.00	
7817.00†	90.000	359.824	7053.00	885.15	884.31	90.69	40°05'26.540"N	104°40'24.830"W	0.00	
7917.00†	90.000	359.824	7053.00	985.15	984.31	90.38	40°05'27.528"N	104°40'24.834"W	0.00	



Planned Wellpath Report

GITTLEIN 4N-28HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)
Area	COLORADO	Well	GITTLEIN 4N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GITTLEIN 4N-28HZ PWB
Facility	SEC.33-T2N-R65W		

WELLPATH DATA (153 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS ["/100ft]	Comments
8017.00†	90.000	359.824	7053.00	1085.14	1084.31	90.08	40°05'28.516"N	104°40'24.838"W	0.00	
8117.00†	90.000	359.824	7053.00	1185.13	1184.31	89.77	40°05'29.505"N	104°40'24.842"W	0.00	
8217.00†	90.000	359.824	7053.00	1285.12	1284.31	89.46	40°05'30.493"N	104°40'24.846"W	0.00	
8317.00†	90.000	359.824	7053.00	1385.11	1384.31	89.15	40°05'31.481"N	104°40'24.850"W	0.00	
8417.00†	90.000	359.824	7053.00	1485.10	1484.31	88.85	40°05'32.469"N	104°40'24.854"W	0.00	
8517.00†	90.000	359.824	7053.00	1585.10	1584.31	88.54	40°05'33.457"N	104°40'24.858"W	0.00	
8617.00†	90.000	359.824	7053.00	1685.09	1684.31	88.23	40°05'34.446"N	104°40'24.862"W	0.00	
8717.00†	90.000	359.824	7053.00	1785.08	1784.31	87.92	40°05'35.434"N	104°40'24.866"W	0.00	
8817.00†	90.000	359.824	7053.00	1885.07	1884.31	87.62	40°05'36.422"N	104°40'24.870"W	0.00	
8917.00†	90.000	359.824	7053.00	1985.06	1984.31	87.31	40°05'37.410"N	104°40'24.874"W	0.00	
9017.00†	90.000	359.824	7053.00	2085.05	2084.30	87.00	40°05'38.398"N	104°40'24.878"W	0.00	
9117.00†	90.000	359.824	7053.00	2185.05	2184.30	86.69	40°05'39.387"N	104°40'24.881"W	0.00	
9217.00†	90.000	359.824	7053.00	2285.04	2284.30	86.39	40°05'40.375"N	104°40'24.885"W	0.00	
9317.00†	90.000	359.824	7053.00	2385.03	2384.30	86.08	40°05'41.363"N	104°40'24.889"W	0.00	
9417.00†	90.000	359.824	7053.00	2485.02	2484.30	85.77	40°05'42.351"N	104°40'24.893"W	0.00	
9517.00†	90.000	359.824	7053.00	2585.01	2584.30	85.46	40°05'43.340"N	104°40'24.897"W	0.00	
9617.00†	90.000	359.824	7053.00	2685.01	2684.30	85.16	40°05'44.328"N	104°40'24.901"W	0.00	
9717.00†	90.000	359.824	7053.00	2785.00	2784.30	84.85	40°05'45.316"N	104°40'24.905"W	0.00	
9817.00†	90.000	359.824	7053.00	2884.99	2884.30	84.54	40°05'46.304"N	104°40'24.909"W	0.00	
9917.00†	90.000	359.824	7053.00	2984.98	2984.30	84.24	40°05'47.292"N	104°40'24.913"W	0.00	
10017.00†	90.000	359.824	7053.00	3084.97	3084.30	83.93	40°05'48.281"N	104°40'24.917"W	0.00	
10117.00†	90.000	359.824	7053.00	3184.96	3184.30	83.62	40°05'49.269"N	104°40'24.921"W	0.00	
10217.00†	90.000	359.824	7053.00	3284.96	3284.30	83.31	40°05'50.257"N	104°40'24.925"W	0.00	
10317.00†	90.000	359.824	7053.00	3384.95	3384.30	83.01	40°05'51.245"N	104°40'24.929"W	0.00	
10417.00†	90.000	359.824	7053.00	3484.94	3484.30	82.70	40°05'52.233"N	104°40'24.933"W	0.00	
10517.00†	90.000	359.824	7053.00	3584.93	3584.30	82.39	40°05'53.222"N	104°40'24.937"W	0.00	
10617.00†	90.000	359.824	7053.00	3684.92	3684.30	82.09	40°05'54.210"N	104°40'24.941"W	0.00	
10717.00†	90.000	359.824	7053.00	3784.91	3784.30	81.78	40°05'55.198"N	104°40'24.945"W	0.00	
10817.00†	90.000	359.824	7053.00	3884.91	3884.30	81.47	40°05'56.186"N	104°40'24.949"W	0.00	
10917.00†	90.000	359.824	7053.00	3984.90	3984.30	81.16	40°05'57.174"N	104°40'24.953"W	0.00	
11017.00†	90.000	359.824	7053.00	4084.89	4084.30	80.86	40°05'58.163"N	104°40'24.957"W	0.00	
11117.00†	90.000	359.824	7053.00	4184.88	4184.29	80.55	40°05'59.151"N	104°40'24.960"W	0.00	
11217.00†	90.000	359.824	7053.00	4284.87	4284.29	80.24	40°06'00.139"N	104°40'24.964"W	0.00	
11317.00†	90.000	359.824	7053.00	4384.87	4384.29	79.94	40°06'01.127"N	104°40'24.968"W	0.00	
11417.00†	90.000	359.824	7053.00	4484.86	4484.29	79.63	40°06'02.116"N	104°40'24.972"W	0.00	
11517.00†	90.000	359.824	7053.00	4584.85	4584.29	79.32	40°06'03.104"N	104°40'24.976"W	0.00	
11617.00†	90.000	359.824	7053.00	4684.84	4684.29	79.01	40°06'04.092"N	104°40'24.980"W	0.00	
11717.00†	90.000	359.824	7053.00	4784.83	4784.29	78.71	40°06'05.080"N	104°40'24.984"W	0.00	
11817.00†	90.000	359.824	7053.00	4884.82	4884.29	78.40	40°06'06.068"N	104°40'24.988"W	0.00	
11917.00†	90.000	359.824	7053.00	4984.82	4984.29	78.09	40°06'07.057"N	104°40'24.992"W	0.00	
12017.00†	90.000	359.824	7053.00	5084.81	5084.29	77.79	40°06'08.045"N	104°40'24.996"W	0.00	
12117.00†	90.000	359.824	7053.00	5184.80	5184.29	77.48	40°06'09.033"N	104°40'25.000"W	0.00	
12217.00†	90.000	359.824	7053.00	5284.79	5284.29	77.17	40°06'10.021"N	104°40'25.004"W	0.00	
12317.00†	90.000	359.824	7053.00	5384.78	5384.29	76.87	40°06'11.009"N	104°40'25.008"W	0.00	
12417.00†	90.000	359.824	7053.00	5484.77	5484.29	76.56	40°06'11.998"N	104°40'25.012"W	0.00	



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GITTLEIN 4N-28HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)
Area	COLORADO	Well	GITTLEIN 4N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GITTLEIN 4N-28HZ PWB
Facility	SEC.33-T2N-R65W		

WELLPATH DATA (153 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12517.00†	90.000	359.824	7053.00	5584.77	5584.29	76.25	40°06'12.986"N	104°40'25.016"W	0.00	
12617.00†	90.000	359.824	7053.00	5684.76	5684.29	75.95	40°06'13.974"N	104°40'25.020"W	0.00	
12717.00†	90.000	359.824	7053.00	5784.75	5784.29	75.64	40°06'14.962"N	104°40'25.024"W	0.00	
12817.00†	90.000	359.824	7053.00	5884.74	5884.29	75.33	40°06'15.950"N	104°40'25.028"W	0.00	
12917.00†	90.000	359.824	7053.00	5984.73	5984.29	75.03	40°06'16.939"N	104°40'25.031"W	0.00	
13017.00†	90.000	359.824	7053.00	6084.73	6084.29	74.72	40°06'17.927"N	104°40'25.035"W	0.00	
13117.00†	90.000	359.824	7053.00	6184.72	6184.29	74.41	40°06'18.915"N	104°40'25.039"W	0.00	
13217.00†	90.000	359.824	7053.00	6284.71	6284.28	74.11	40°06'19.903"N	104°40'25.043"W	0.00	
13317.00†	90.000	359.824	7053.00	6384.70	6384.28	73.80	40°06'20.892"N	104°40'25.047"W	0.00	
13417.00†	90.000	359.824	7053.00	6484.69	6484.28	73.49	40°06'21.880"N	104°40'25.051"W	0.00	
13517.00†	90.000	359.824	7053.00	6584.68	6584.28	73.19	40°06'22.868"N	104°40'25.055"W	0.00	
13617.00†	90.000	359.824	7053.00	6684.68	6684.28	72.88	40°06'23.856"N	104°40'25.059"W	0.00	
13717.00†	90.000	359.824	7053.00	6784.67	6784.28	72.57	40°06'24.844"N	104°40'25.063"W	0.00	
13817.00†	90.000	359.824	7053.00	6884.66	6884.28	72.27	40°06'25.833"N	104°40'25.067"W	0.00	
13917.00†	90.000	359.824	7053.00	6984.65	6984.28	71.96	40°06'26.821"N	104°40'25.071"W	0.00	
14017.00†	90.000	359.824	7053.00	7084.64	7084.28	71.65	40°06'27.809"N	104°40'25.075"W	0.00	
14117.00†	90.000	359.824	7053.00	7184.63	7184.28	71.35	40°06'28.797"N	104°40'25.079"W	0.00	
14208.72	90.000	359.824	7053.00 [†]	7276.35	7276.00	71.06	40°06'29.704"N	104°40'25.082"W	0.00	End of 3D Arc

HOLE & CASING SECTIONS - Ref Wellbore: GITTLEIN 4N-28HZ PWB Ref Wellpath: GITTLEIN 4N-28HZ (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]
12.25in Open Hole	17.00	1300.00	1283.00	17.00	1300.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1300.00	1283.00	17.00	1300.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1300.00	7382.33	6082.33	1300.00	7053.00	0.00	0.00	449.64	92.03
7in Casing Intermediate	17.00	7382.33	7365.33	17.00	7053.00	0.00	0.00	449.64	92.03
6.125in Open Hole	7382.33	14208.72	6826.39	7053.00	7053.00	449.64	92.03	7276.00	71.06
4.5in Casing Production	17.00	14208.72	14191.72	17.00	7053.00	0.00	0.00	7276.00	71.06



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GITTLEIN 4N-28HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)
Area	COLORADO	Well	GITTLEIN 4N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GITTLEIN 4N-28HZ PWB
Facility	SEC.33-T2N-R65W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
GITTLEIN 4 PAD SECTION 28 LINES		0.00	-1.11	-90.08	3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"W	polygon
GITTLEIN 4 PAD SECTION 33 LINES		0.00	-1.11	-90.08	3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"W	polygon
1) GITTLEIN 4N-28HZ BHL ON PLAT (2184'FSL & 1320'FWL, SEC.28) REV-1	14208.72	7053.00	7276.00	71.06	3231138.58	1283357.08	40°06'29.704"N	104°40'25.082"W	point
GITTLEIN 4 PAD SEC. 28 HARDLINES (460'SETBACKS)		7300.00	-1.11	-90.08	3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"W	polygon
GITTLEIN 4 PAD SEC. 33 HARDLINES (460'SETBACKS)		7300.00	-1.11	-90.08	3231045.24	1276079.08	40°05'17.790"N	104°40'27.156"W	polygon

SURVEY PROGRAM - Ref Wellbore: GITTLEIN 4N-28HZ PWB Ref Wellpath: GITTLEIN 4N-28HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7382.33	NaviTrak (Standard)		GITTLEIN 4N-28HZ PWB
7382.33	14208.72	OnTrak (Standard)		GITTLEIN 4N-28HZ PWB



Planned Wellpath Report
 GITTLEIN 4N-28HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GITTLEIN 4N-28HZ (175'FSL & 1228'FWL, SEC.33)
Area	COLORADO	Well	GITTLEIN 4N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GITTLEIN 4N-28HZ PWB
Facility	SEC.33-T2N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
756.00	0.000	145.700	756.00	FOX HILLS
4950.54	1.700	145.700	4949.00	SUSSEX
6996.59	51.432	0.584	6928.00	SHARON SPRINGS
7045.82	56.354	0.459	6957.00	NIOBRARA A
7215.89	73.358	0.109	7029.00	NIOBRARA B