

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL, SEC.17)
Field: WELD COUNTY (KERR MCGEE) Well: UNDERHILL STATE 26C-17HZ
Facility: SEC.17-T1N-R67W Wellbore: UNDERHILL STATE 26C-17HZ PWB

Plot reference wellpath is UNDERHILL STATE 26C-17HZ (PERMIT REV-2) PWP

True vertical depths are referenced to ENSIGN 145 (RKB)
Measured depths are referenced to ENSIGN 145 (RKB)
ENSGN 145 (RKB) to Mean Sea Level: 5116 feet
Mean Sea Level to Mud line (At Slot: SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL, SEC.17): 0 feet
Coordinates are in feet referenced to Slot
Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
North Reference: True north
Scale: True distance
Depths are in feet
Created by: pcreain on 5/13/2013

Location Information

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.17-T1N-R67W				3163889.720	1261989.210	40°03'03.831"N	104°54'52.408"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL SEC.17)	-1713.60	1667.73	3165586.665	1260286.722	40°02'46.896"N	104°54'30.364"W	
ENSGN 145 (RKB) to Mud line (At Slot: SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL SEC.17))						5116ft	
Mean Sea Level to Mud line (At Slot: SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL SEC.17))						0ft	
ENSGN 145 (RKB) to Mean Sea Level						5116ft	

Survey Program

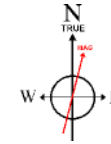
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
13.00	8237.96	NaviTrak	NaviTrak (MagCorr)		UNDERHILL STATE 26C-17HZ PWB
8237.96	12430.76	OnTrak	OnTrak (MagCorr)		UNDERHILL STATE 26C-17HZ PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	13.00	0.000	133.200	13.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1300.00	0.000	133.200	1300.00	0.00	0.00	0.00	0.00
END NUDGE	2050.00	15.000	133.200	2041.46	-66.82	71.16	2.00	-66.98
BEGIN DROP	6298.30	15.000	133.200	6145.00	-819.51	872.69	0.00	-821.49
END DROP	7048.30	0.000	359.870	6886.46	-886.33	943.85	2.00	-888.47
KOP, BUILD @ 10°/100'	7339.88	0.000	359.870	7178.04	-886.33	943.85	0.00	-888.47
LANDING POINT	8237.96	89.809	359.870	7751.00	-315.29	942.55	10.00	-317.43
TOTAL DEPTH	12430.76	89.809	359.870	7765.00	3877.48	933.02	0.00	3875.35

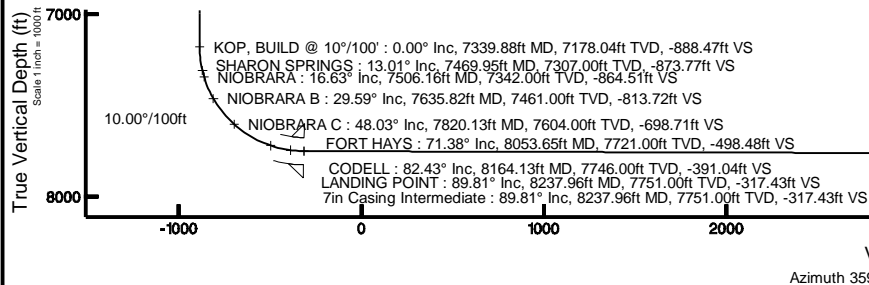
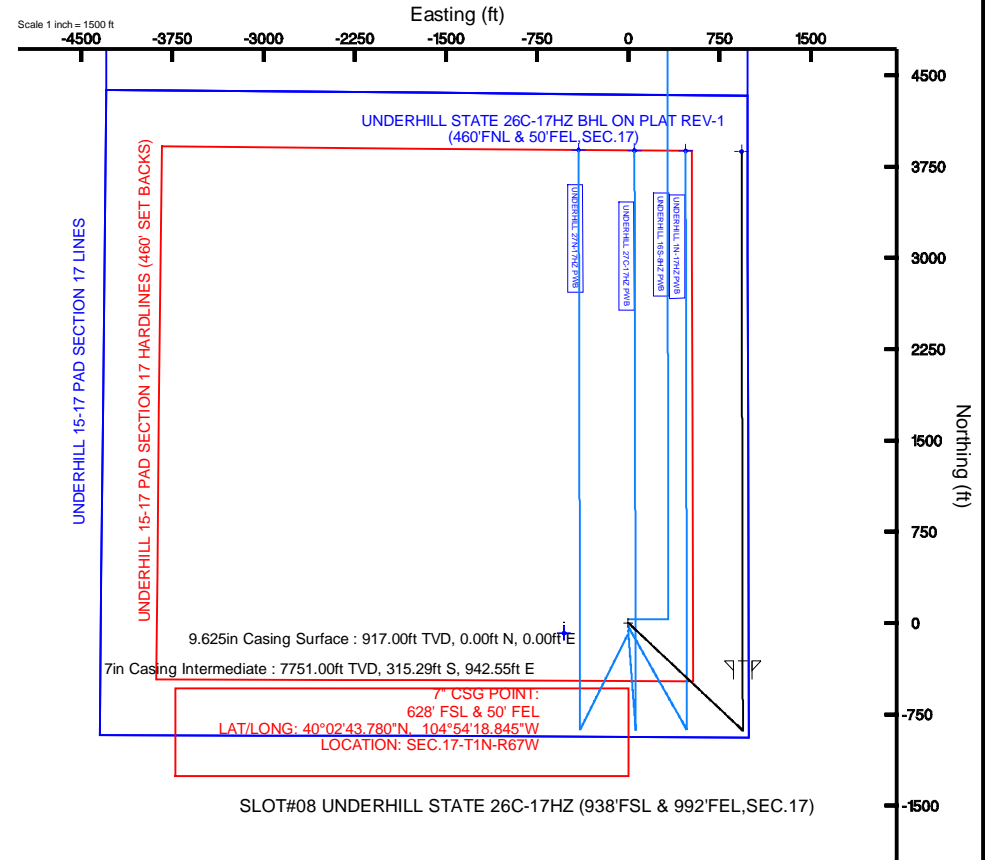
Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
UNDERHILL 15-17 PAD SECTION 17 HARDLINES (460' SET BACKS)		5116.00	-86.70	-628.56	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W
UNDERHILL 15-17 PAD SECTION 17 LINES		5116.00	-86.70	-628.56	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W
UNDERHILL STATE 26C-17HZ BHL ON PLAT REV-1 (460'FNL & 50'FEL, SEC.17)	12430.76	7765.00	3877.48	933.02	3166475.77	1264170.19	40°03'25.214"N	104°54'18.960"W



BGGM (1945.0 to 2014.0) Dip: 66.65° Field: 52629.7 nT
Magnetic North is 8.71 degrees East of True North (at 5/8/2013)

To correct azimuth from Magnetic to True add 8.71 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the True North Azimuth = 90 + 8.71 = 98.71





Planned Wellpath Report

UNDERHILL STATE 26C-17HZ (PERMIT REV-2) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL STATE 26C-17HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL STATE 26C-17HZ PWB
Facility	SEC.17-T1N-R67W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Precain
Scale	0.999963	Report Generated	5/13/2013 at 3:48:47 PM
Convergence at slot	0.38° East	Database/Source file	WellArchitectDB/UNDERHILL_STATE_26C-17HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1713.60	1667.73	3165568.67	1260286.72	40°02'46.896"N	104°54'30.964"W
Facility Reference Pt			3163889.72	1261989.21	40°03'03.831"N	104°54'52.408"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	ENSIGN 145 (RKB) to Facility Vertical Datum	5116.00ft
Horizontal Reference Pt	Slot	ENSIGN 145 (RKB) to Mean Sea Level	5116.00ft
Vertical Reference Pt	ENSIGN 145 (RKB)	ENSIGN 145 (RKB) to Mud Line at Slot (SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL,SEC.17))	5116.00ft
MD Reference Pt	ENSIGN 145 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.87°



Planned Wellpath Report

UNDERHILL STATE 26C-17HZ (PERMIT REV-2) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL STATE 26C-17HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL STATE 26C-17HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH DATA (141 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	133.200	0.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
13.00	0.000	133.200	13.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	TIE-ON
113.00†	0.000	133.200	113.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
213.00†	0.000	133.200	213.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
313.00†	0.000	133.200	313.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
413.00†	0.000	133.200	413.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
513.00†	0.000	133.200	513.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
613.00†	0.000	133.200	613.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
713.00†	0.000	133.200	713.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
813.00†	0.000	133.200	813.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
913.00†	0.000	133.200	913.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
1013.00†	0.000	133.200	1013.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
1113.00†	0.000	133.200	1113.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
1213.00†	0.000	133.200	1213.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	
1300.00	0.000	133.200	1300.00	0.00	0.00	0.00	40°02'46.896"N	104°54'30.964"W	0.00	BEGIN NUDGE
1313.00†	0.260	133.200	1313.00	-0.02	-0.02	0.02	40°02'46.896"N	104°54'30.964"W	2.00	
1413.00†	2.260	133.200	1412.97	-1.53	-1.53	1.62	40°02'46.881"N	104°54'30.943"W	2.00	
1513.00†	4.260	133.200	1512.80	-5.43	-5.42	5.77	40°02'46.842"N	104°54'30.890"W	2.00	
1613.00†	6.260	133.200	1612.38	-11.72	-11.69	12.45	40°02'46.780"N	104°54'30.804"W	2.00	
1713.00†	8.260	133.200	1711.57	-20.39	-20.34	21.66	40°02'46.695"N	104°54'30.685"W	2.00	
1813.00†	10.260	133.200	1810.26	-31.43	-31.36	33.39	40°02'46.586"N	104°54'30.535"W	2.00	
1913.00†	12.260	133.200	1908.33	-44.83	-44.72	47.63	40°02'46.454"N	104°54'30.352"W	2.00	
2013.00†	14.260	133.200	2005.66	-60.57	-60.43	64.35	40°02'46.299"N	104°54'30.137"W	2.00	
2050.00	15.000	133.200	2041.46	-66.98	-66.82	71.16	40°02'46.236"N	104°54'30.049"W	2.00	END NUDGE
2113.00†	15.000	133.200	2102.32	-78.17	-77.98	83.04	40°02'46.125"N	104°54'29.896"W	0.00	
2213.00†	15.000	133.200	2198.91	-95.93	-95.70	101.91	40°02'45.950"N	104°54'29.654"W	0.00	
2313.00†	15.000	133.200	2295.50	-113.69	-113.42	120.78	40°02'45.775"N	104°54'29.411"W	0.00	
2413.00†	15.000	133.200	2392.09	-131.45	-131.14	139.65	40°02'45.600"N	104°54'29.168"W	0.00	
2513.00†	15.000	133.200	2488.69	-149.21	-148.85	158.51	40°02'45.425"N	104°54'28.926"W	0.00	
2613.00†	15.000	133.200	2585.28	-166.97	-166.57	177.38	40°02'45.250"N	104°54'28.683"W	0.00	
2713.00†	15.000	133.200	2681.87	-184.73	-184.29	196.25	40°02'45.075"N	104°54'28.441"W	0.00	
2813.00†	15.000	133.200	2778.46	-202.49	-202.01	215.11	40°02'44.900"N	104°54'28.198"W	0.00	
2913.00†	15.000	133.200	2875.06	-220.25	-219.72	233.98	40°02'44.725"N	104°54'27.955"W	0.00	
3013.00†	15.000	133.200	2971.65	-238.01	-237.44	252.85	40°02'44.550"N	104°54'27.713"W	0.00	
3113.00†	15.000	133.200	3068.24	-255.77	-255.16	271.72	40°02'44.374"N	104°54'27.470"W	0.00	
3213.00†	15.000	133.200	3164.83	-273.53	-272.88	290.58	40°02'44.199"N	104°54'27.228"W	0.00	
3313.00†	15.000	133.200	3261.43	-291.29	-290.59	309.45	40°02'44.024"N	104°54'26.985"W	0.00	
3413.00†	15.000	133.200	3358.02	-309.05	-308.31	328.32	40°02'43.849"N	104°54'26.742"W	0.00	
3513.00†	15.000	133.200	3454.61	-326.81	-326.03	347.18	40°02'43.674"N	104°54'26.500"W	0.00	
3613.00†	15.000	133.200	3551.20	-344.57	-343.74	366.05	40°02'43.499"N	104°54'26.257"W	0.00	
3713.00†	15.000	133.200	3647.80	-362.33	-361.46	384.92	40°02'43.324"N	104°54'26.015"W	0.00	
3813.00†	15.000	133.200	3744.39	-380.09	-379.18	403.79	40°02'43.149"N	104°54'25.772"W	0.00	
3913.00†	15.000	133.200	3840.98	-397.86	-396.90	422.65	40°02'42.974"N	104°54'25.529"W	0.00	
4013.00†	15.000	133.200	3937.57	-415.62	-414.61	441.52	40°02'42.799"N	104°54'25.287"W	0.00	
4113.00†	15.000	133.200	4034.17	-433.38	-432.33	460.39	40°02'42.624"N	104°54'25.044"W	0.00	



Planned Wellpath Report

UNDERHILL STATE 26C-17HZ (PERMIT REV-2) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL STATE 26C-17HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL STATE 26C-17HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4213.00†	15.000	133.200	4130.76	-451.14	-450.05	479.25	40°02'42.448"N	104°54'24.802"W	0.00	
4313.00†	15.000	133.200	4227.35	-468.90	-467.77	498.12	40°02'42.273"N	104°54'24.559"W	0.00	
4413.00†	15.000	133.200	4323.94	-486.66	-485.48	516.99	40°02'42.098"N	104°54'24.317"W	0.00	
4513.00†	15.000	133.200	4420.54	-504.42	-503.20	535.86	40°02'41.923"N	104°54'24.074"W	0.00	
4613.00†	15.000	133.200	4517.13	-522.18	-520.92	554.72	40°02'41.748"N	104°54'23.831"W	0.00	
4713.00†	15.000	133.200	4613.72	-539.94	-538.64	573.59	40°02'41.573"N	104°54'23.589"W	0.00	
4741.24†	15.000	133.200	4641.00	-544.95	-543.64	578.92	40°02'41.524"N	104°54'23.520"W	0.00	SUSSEX
4813.00†	15.000	133.200	4710.32	-557.70	-556.35	592.46	40°02'41.398"N	104°54'23.346"W	0.00	
4913.00†	15.000	133.200	4806.91	-575.46	-574.07	611.32	40°02'41.223"N	104°54'23.104"W	0.00	
5013.00†	15.000	133.200	4903.50	-593.22	-591.79	630.19	40°02'41.048"N	104°54'22.861"W	0.00	
5113.00†	15.000	133.200	5000.09	-610.98	-609.51	649.06	40°02'40.873"N	104°54'22.618"W	0.00	
5213.00†	15.000	133.200	5096.69	-628.74	-627.22	667.92	40°02'40.698"N	104°54'22.376"W	0.00	
5313.00†	15.000	133.200	5193.28	-646.50	-644.94	686.79	40°02'40.522"N	104°54'22.133"W	0.00	
5371.72†	15.000	133.200	5250.00	-656.93	-655.34	697.87	40°02'40.420"N	104°54'21.991"W	0.00	SHANNON
5413.00†	15.000	133.200	5289.87	-664.26	-662.66	705.66	40°02'40.347"N	104°54'21.891"W	0.00	
5513.00†	15.000	133.200	5386.46	-682.02	-680.38	724.53	40°02'40.172"N	104°54'21.648"W	0.00	
5613.00†	15.000	133.200	5483.06	-699.78	-698.09	743.39	40°02'39.997"N	104°54'21.405"W	0.00	
5713.00†	15.000	133.200	5579.65	-717.54	-715.81	762.26	40°02'39.822"N	104°54'21.163"W	0.00	
5813.00†	15.000	133.200	5676.24	-735.30	-733.53	781.13	40°02'39.647"N	104°54'20.920"W	0.00	
5913.00†	15.000	133.200	5772.83	-753.06	-751.24	799.99	40°02'39.472"N	104°54'20.678"W	0.00	
6013.00†	15.000	133.200	5869.43	-770.82	-768.96	818.86	40°02'39.297"N	104°54'20.435"W	0.00	
6113.00†	15.000	133.200	5966.02	-788.58	-786.68	837.73	40°02'39.122"N	104°54'20.193"W	0.00	
6213.00†	15.000	133.200	6062.61	-806.34	-804.40	856.60	40°02'38.947"N	104°54'19.950"W	0.00	
6298.30	15.000	133.200	6145.00	-821.49	-819.51	872.69	40°02'38.797"N	104°54'19.743"W	0.00	BEGIN DROP
6313.00†	14.706	133.200	6159.21	-824.07	-822.09	875.44	40°02'38.772"N	104°54'19.708"W	2.00	
6413.00†	12.706	133.200	6256.36	-840.33	-838.31	892.71	40°02'38.611"N	104°54'19.486"W	2.00	
6513.00†	10.706	133.200	6354.28	-854.25	-852.20	907.50	40°02'38.474"N	104°54'19.296"W	2.00	
6613.00†	8.706	133.200	6452.84	-865.82	-863.74	919.79	40°02'38.360"N	104°54'19.137"W	2.00	
6713.00†	6.706	133.200	6551.93	-875.02	-872.91	929.56	40°02'38.269"N	104°54'19.012"W	2.00	
6813.00†	4.706	133.200	6651.43	-881.84	-879.72	936.81	40°02'38.202"N	104°54'18.919"W	2.00	
6913.00†	2.706	133.200	6751.22	-886.28	-884.14	941.52	40°02'38.158"N	104°54'18.858"W	2.00	
7013.00†	0.706	133.200	6851.17	-888.32	-886.18	943.69	40°02'38.138"N	104°54'18.830"W	2.00	
7048.30	0.000	359.870	6886.46	-888.47	-886.33	943.85	40°02'38.137"N	104°54'18.828"W	2.00	END DROP
7113.00†	0.000	359.870	6951.17	-888.47	-886.33	943.85	40°02'38.137"N	104°54'18.828"W	0.00	
7213.00†	0.000	359.870	7051.17	-888.47	-886.33	943.85	40°02'38.137"N	104°54'18.828"W	0.00	
7313.00†	0.000	359.870	7151.17	-888.47	-886.33	943.85	40°02'38.137"N	104°54'18.828"W	0.00	
7339.88	0.000	359.870	7178.04	-888.47	-886.33	943.85	40°02'38.137"N	104°54'18.828"W	0.00	KOP, BUILD @ 10°/100'
7413.00†	7.312	359.870	7250.97	-883.81	-881.67	943.84	40°02'38.183"N	104°54'18.828"W	10.00	
7469.95†	13.007	359.870	7307.00	-873.77	-871.63	943.81	40°02'38.282"N	104°54'18.829"W	10.00	SHARON SPRINGS
7506.16†	16.628	359.870	7342.00	-864.51	-862.37	943.79	40°02'38.374"N	104°54'18.829"W	10.00	NIOBRARA
7513.00†	17.312	359.870	7348.54	-862.51	-860.37	943.79	40°02'38.393"N	104°54'18.829"W	10.00	
7613.00†	27.312	359.870	7440.94	-824.60	-822.46	943.70	40°02'38.768"N	104°54'18.830"W	10.00	
7635.82†	29.594	359.870	7461.00	-813.72	-811.59	943.68	40°02'38.876"N	104°54'18.830"W	10.00	NIOBRARA B
7713.00†	37.312	359.870	7525.35	-771.21	-769.07	943.58	40°02'39.296"N	104°54'18.832"W	10.00	
7813.00†	47.312	359.870	7599.20	-703.98	-701.84	943.43	40°02'39.960"N	104°54'18.833"W	10.00	



Planned Wellpath Report

UNDERHILL STATE 26C-17HZ (PERMIT REV-2) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL STATE 26C-17HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL STATE 26C-17HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7820.13†	48.025	359.870	7604.00	-698.71	-696.57	943.42	40°02'40.012"N	104°54'18.834"W	10.00	NIOBRARA C
7913.00†	57.312	359.870	7660.26	-624.94	-622.80	943.25	40°02'40.741"N	104°54'18.836"W	10.00	
8013.00†	67.312	359.870	7706.67	-536.51	-534.37	943.05	40°02'41.615"N	104°54'18.838"W	10.00	
8053.65†	71.377	359.870	7721.00	-498.48	-496.34	942.96	40°02'41.991"N	104°54'18.839"W	10.00	FORT HAYS
8113.00†	77.312	359.870	7737.01	-441.35	-439.22	942.83	40°02'42.555"N	104°54'18.841"W	10.00	
8164.13†	82.425	359.870	7746.00	-391.04	-388.90	942.72	40°02'43.053"N	104°54'18.842"W	10.00	CODELL
8213.00†	87.312	359.870	7750.37	-342.38	-340.24	942.61	40°02'43.533"N	104°54'18.844"W	10.00	
8237.96	89.809	359.870	7751.00	-317.43	-315.29	942.55	40°02'43.780"N	104°54'18.845"W	10.00	LANDING POINT
8313.00†	89.809	359.870	7751.25	-242.39	-240.25	942.38	40°02'44.522"N	104°54'18.847"W	0.00	
8413.00†	89.809	359.870	7751.58	-142.39	-140.25	942.15	40°02'45.510"N	104°54'18.850"W	0.00	
8513.00†	89.809	359.870	7751.92	-42.39	-40.25	941.92	40°02'46.498"N	104°54'18.852"W	0.00	
8613.00†	89.809	359.870	7752.25	57.61	59.75	941.70	40°02'47.486"N	104°54'18.855"W	0.00	
8713.00†	89.809	359.870	7752.58	157.61	159.75	941.47	40°02'48.474"N	104°54'18.858"W	0.00	
8813.00†	89.809	359.870	7752.92	257.61	259.75	941.24	40°02'49.463"N	104°54'18.861"W	0.00	
8913.00†	89.809	359.870	7753.25	357.61	359.74	941.02	40°02'50.451"N	104°54'18.864"W	0.00	
9013.00†	89.809	359.870	7753.59	457.61	459.74	940.79	40°02'51.439"N	104°54'18.867"W	0.00	
9113.00†	89.809	359.870	7753.92	557.61	559.74	940.56	40°02'52.427"N	104°54'18.870"W	0.00	
9213.00†	89.809	359.870	7754.25	657.61	659.74	940.33	40°02'53.416"N	104°54'18.873"W	0.00	
9313.00†	89.809	359.870	7754.59	757.61	759.74	940.11	40°02'54.404"N	104°54'18.875"W	0.00	
9413.00†	89.809	359.870	7754.92	857.61	859.74	939.88	40°02'55.392"N	104°54'18.878"W	0.00	
9513.00†	89.809	359.870	7755.26	957.60	959.74	939.65	40°02'56.380"N	104°54'18.881"W	0.00	
9613.00†	89.809	359.870	7755.59	1057.60	1059.74	939.43	40°02'57.368"N	104°54'18.884"W	0.00	
9713.00†	89.809	359.870	7755.92	1157.60	1159.74	939.20	40°02'58.357"N	104°54'18.887"W	0.00	
9813.00†	89.809	359.870	7756.26	1257.60	1259.74	938.97	40°02'59.345"N	104°54'18.890"W	0.00	
9913.00†	89.809	359.870	7756.59	1357.60	1359.74	938.74	40°03'00.333"N	104°54'18.893"W	0.00	
10013.00†	89.809	359.870	7756.92	1457.60	1459.74	938.52	40°03'01.321"N	104°54'18.896"W	0.00	
10113.00†	89.809	359.870	7757.26	1557.60	1559.73	938.29	40°03'02.309"N	104°54'18.898"W	0.00	
10213.00†	89.809	359.870	7757.59	1657.60	1659.73	938.06	40°03'03.298"N	104°54'18.901"W	0.00	
10313.00†	89.809	359.870	7757.93	1757.60	1759.73	937.83	40°03'04.286"N	104°54'18.904"W	0.00	
10413.00†	89.809	359.870	7758.26	1857.60	1859.73	937.61	40°03'05.274"N	104°54'18.907"W	0.00	
10513.00†	89.809	359.870	7758.59	1957.60	1959.73	937.38	40°03'06.262"N	104°54'18.910"W	0.00	
10613.00†	89.809	359.870	7758.93	2057.60	2059.73	937.15	40°03'07.251"N	104°54'18.913"W	0.00	
10713.00†	89.809	359.870	7759.26	2157.60	2159.73	936.93	40°03'08.239"N	104°54'18.916"W	0.00	
10813.00†	89.809	359.870	7759.60	2257.60	2259.73	936.70	40°03'09.227"N	104°54'18.919"W	0.00	
10913.00†	89.809	359.870	7759.93	2357.60	2359.73	936.47	40°03'10.215"N	104°54'18.921"W	0.00	
11013.00†	89.809	359.870	7760.26	2457.60	2459.73	936.24	40°03'11.203"N	104°54'18.924"W	0.00	
11113.00†	89.809	359.870	7760.60	2557.60	2559.73	936.02	40°03'12.192"N	104°54'18.927"W	0.00	
11213.00†	89.809	359.870	7760.93	2657.60	2659.73	935.79	40°03'13.180"N	104°54'18.930"W	0.00	
11313.00†	89.809	359.870	7761.27	2757.59	2759.72	935.56	40°03'14.168"N	104°54'18.933"W	0.00	
11413.00†	89.809	359.870	7761.60	2857.59	2859.72	935.34	40°03'15.156"N	104°54'18.936"W	0.00	
11513.00†	89.809	359.870	7761.93	2957.59	2959.72	935.11	40°03'16.145"N	104°54'18.939"W	0.00	
11613.00†	89.809	359.870	7762.27	3057.59	3059.72	934.88	40°03'17.133"N	104°54'18.942"W	0.00	
11713.00†	89.809	359.870	7762.60	3157.59	3159.72	934.65	40°03'18.121"N	104°54'18.944"W	0.00	
11813.00†	89.809	359.870	7762.94	3257.59	3259.72	934.43	40°03'19.109"N	104°54'18.947"W	0.00	
11913.00†	89.809	359.870	7763.27	3357.59	3359.72	934.20	40°03'20.097"N	104°54'18.950"W	0.00	



Planned Wellpath Report

UNDERHILL STATE 26C-17HZ (PERMIT REV-2) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL STATE 26C-17HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL STATE 26C-17HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12013.00†	89.809	359.870	7763.60	3457.59	3459.72	933.97	40°03'21.086"N	104°54'18.953"W	0.00	
12113.00†	89.809	359.870	7763.94	3557.59	3559.72	933.75	40°03'22.074"N	104°54'18.956"W	0.00	
12213.00†	89.809	359.870	7764.27	3657.59	3659.72	933.52	40°03'23.062"N	104°54'18.959"W	0.00	
12313.00†	89.809	359.870	7764.61	3757.59	3759.72	933.29	40°03'24.050"N	104°54'18.962"W	0.00	
12413.00†	89.809	359.870	7764.94	3857.59	3859.72	933.06	40°03'25.038"N	104°54'18.964"W	0.00	
12430.76	89.809	359.870	7765.00 ¹	3875.35	3877.48	933.02	40°03'25.214"N	104°54'18.965"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: UNDERHILL STATE 26C-17HZ PWB Ref Wellpath: UNDERHILL STATE 26C-17HZ (PERMIT REV-2) 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	13.00	917.00	904.00	13.00	917.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	13.00	917.00	904.00	13.00	917.00	0.00	0.00	0.00	0.00
8.75in Open Hole	917.00	8237.96	7320.96	917.00	7751.00	0.00	0.00	-315.29	942.55
7in Casing Intermediate	13.00	8237.96	8224.96	13.00	7751.00	0.00	0.00	-315.29	942.55
6.125in Open Hole	8237.96	12430.76	4192.80	7751.00	7765.00	-315.29	942.55	3877.48	933.02
4.5in Casing Production	13.00	12430.76	12417.76	13.00	7765.00	0.00	0.00	3877.48	933.02

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
UNDERHILL 15-17 PAD SECTION 17 HARDLINES (460' SET BACKS)		5116.00	-86.70	-528.56	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	polygon
UNDERHILL 15-17 PAD SECTION 17 LINES		5116.00	-86.70	-528.56	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	polygon
1) UNDERHILL STATE 26C-17HZ BHL ON PLAT REV-1 (460'FNL & 50'FEL,SEC.17)	12430.76	7765.00	3877.48	933.02	3166475.77	1264170.19	40°03'25.214"N	104°54'18.965"W	point

SURVEY PROGRAM - Ref Wellbore: UNDERHILL STATE 26C-17HZ PWB Ref Wellpath: UNDERHILL STATE 26C-17HZ (PERMIT REV-2) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	8237.96	NaviTrak (MagCorr)		UNDERHILL STATE 26C-17HZ PWB
8237.96	12430.76	OnTrak (MagCorr)		UNDERHILL STATE 26C-17HZ PWB



Planned Wellpath Report

UNDERHILL STATE 26C-17HZ (PERMIT REV-2) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL STATE 26C-17HZ (938'FSL & 992'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL STATE 26C-17HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL STATE 26C-17HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
4741.24	15.000	133.200	4641.00	SUSSEX
5371.72	15.000	133.200	5250.00	SHANNON
7469.95	13.007	359.870	7307.00	SHARON SPRINGS
7506.16	16.628	359.870	7342.00	NIOBRARA
7635.82	29.594	359.870	7461.00	NIOBRARA B
7820.13	48.025	359.870	7604.00	NIOBRARA C
8053.65	71.377	359.870	7721.00	FORT HAYS
8164.13	82.425	359.870	7746.00	CODELL

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	133.200	13.00	TIE-ON
1300.00	0.000	133.200	1300.00	BEGIN NUDGE
2050.00	15.000	133.200	2041.46	END NUDGE
6298.30	15.000	133.200	6145.00	BEGIN DROP
7048.30	0.000	359.870	6886.46	END DROP
7339.88	0.000	359.870	7178.04	KOP, BUILD @ 10°/100'
8237.96	89.809	359.870	7751.00	LANDING POINT
12430.76	89.809	359.870	7765.00	TOTAL DEPTH