

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#05 BARCLAY 26N-11HZ (451°FSL & 546°FEL, SEC.14) (NEW SHL)
Field: WELD COUNTY (KERR MCGEE) Well: BARCLAY 26N-11HZ
Facility: SEC.14-T2N-R67W Wellbore: BARCLAY 26N-11HZ PWB

Plot reference wellpath is BARCLAY 26N-11HZ (PERMIT REV-2) PWP

True vertical depths are referenced to PERMIT (17 KB) (RWS)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17 KB) (RWS)	North Reference: True north
PERMIT (17 KB) (RWS) to Mean Sea Level: 4927 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOTHOS BARCLAY 26N-11HZ (451°FSL & 546°FEL, SEC.14) (NEW SHL)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robink01 on 09/Oct/2013

Location Information

Facility Name		Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude	
SEC.14-T2N-R67W		317914.426	1291732.032	40°07'56.862"N	104°51'23.589"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SLOTHOS BARCLAY 26N-11HZ (451°FSL & 546°FEL, SEC.14) (NEW SHL)	-137.09	1677.13	318152.442	1291805.923	40°07'55.301"N	104°51'51.873"W
PERMIT (17 KB) (RWS) to Mud line (At Slot: SLOTHOS BARCLAY 26N-11HZ (451°FSL & 546°FEL, SEC.14) (NEW SHL))						4927ft
Mean Sea Level to Mud line (At Slot: SLOTHOS BARCLAY 26N-11HZ (451°FSL & 546°FEL, SEC.14) (NEW SHL))						0ft
PERMIT (17 KB) (RWS) to Mean Sea Level						4927ft

Survey Program

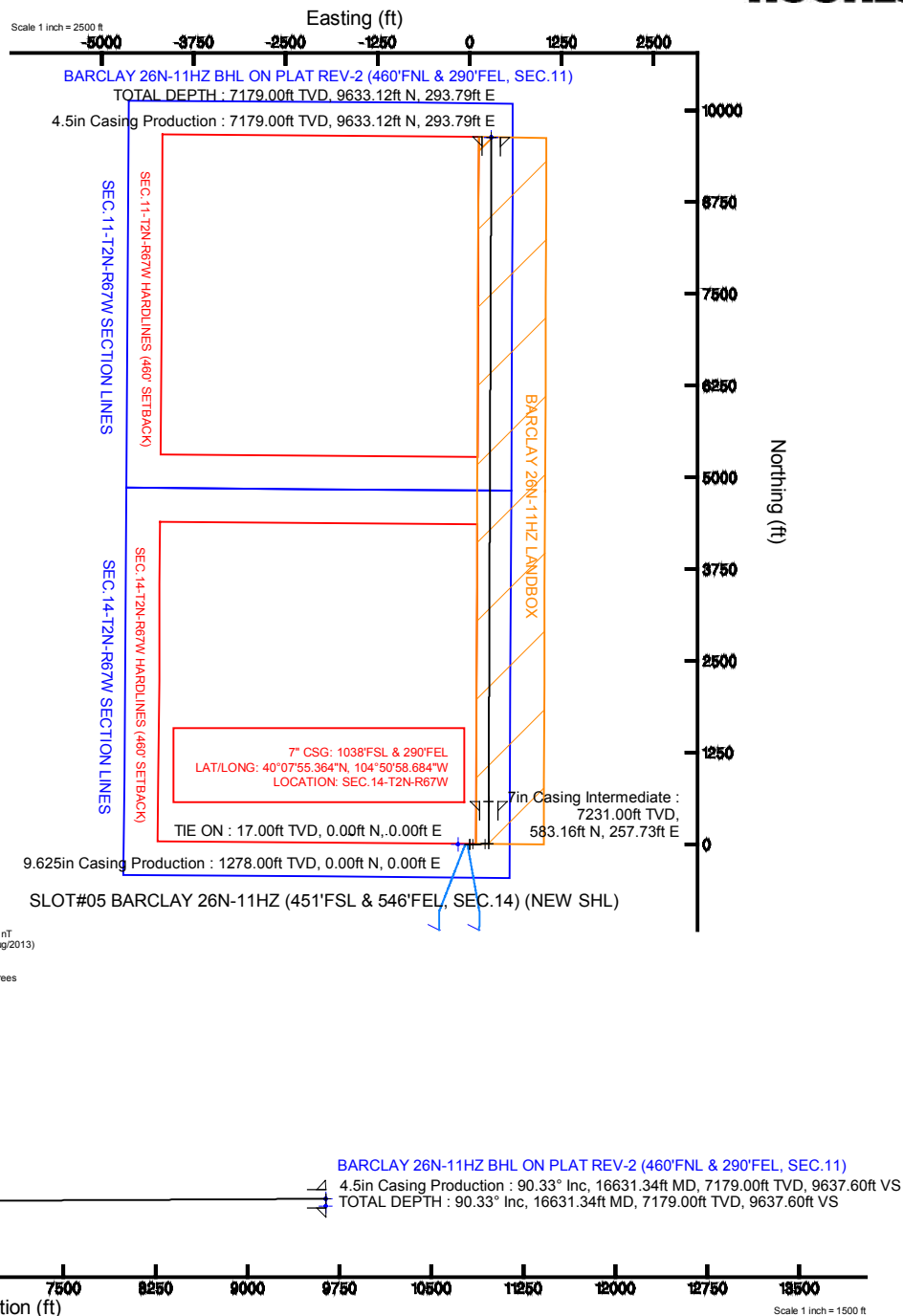
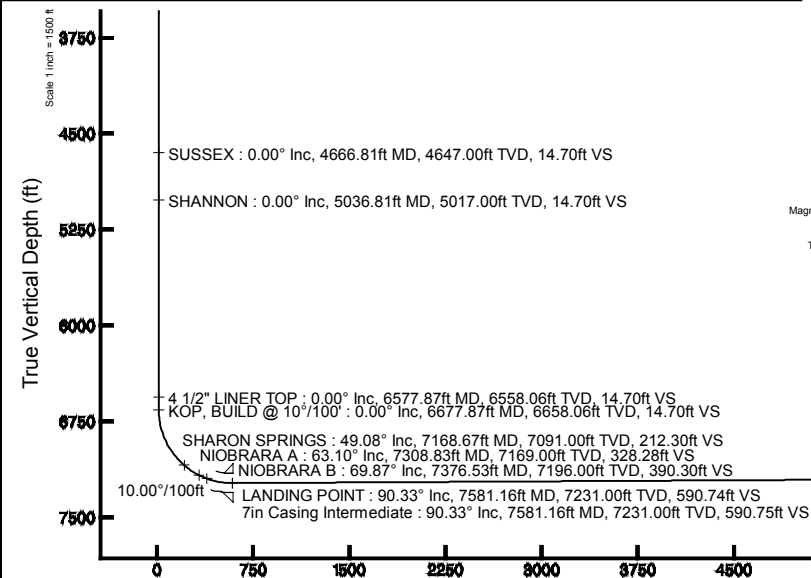
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7581.16	NavTrak	NavTrak (Standard)		BARCLAY 26N-11HZ PWB
7581.16	16631.34	OnTrak	OnTrak (Standard)		BARCLAY 26N-11HZ PWB

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SEC.11-T2N-R67W SECTION LINES		-22.00	137.39	-1677.08	3179914.41	1291732.03	40°07'56.862"N	104°51'22.792"W
SEC.14-T2N-R67W SECTION LINES		-22.00	137.86	-1677.12	3179914.41	1291732.03	40°07'56.862"N	104°51'23.589"W
BARCLAY 26N-11HZ BHL ON PLAT REV-2 (460°FNL & 290°FEL, SEC.11)	16631.34	7179.00	9633.12	293.79	3181815.66	1301241.12	40°09'30.496"N	104°50'56.189"W
BARCLAY 26N-11HZ BHL ON PLAT (460°FNL & 290°FEL, SEC.11)		7238.00	9633.08	293.77	3181815.64	1301241.08	40°09'30.496"N	104°50'56.189"W
BARCLAY 26N-11HZ LANDBOX		7331.00	1.34	-158.16	3181424.29	1291808.70	40°07'55.314"N	104°51'04.009"W
SEC.11-T2N-R67W HARDLINES (460° SETBACK)		7331.00	137.39	-1677.08	3179914.41	1291732.03	40°07'56.862"N	104°51'22.792"W
SEC.14-T2N-R67W HARDLINES (460° SETBACK)		7331.00	137.86	-1677.12	3179914.41	1291732.03	40°07'56.862"N	104°51'23.589"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	88.450	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1400.00	0.000	88.450	1400.00	0.00	0.00	0.00	0.00
END NUDGE	1900.00	10.000	88.450	1897.47	1.18	43.51	2.00	2.50
BEGIN DROP	2870.28	10.000	88.450	2853.00	5.73	211.93	0.00	12.19
END DROP	3370.28	0.000	0.228	3350.47	6.91	255.44	2.00	14.70
KOP, BUILD @ 10°/100'	6677.87	0.000	0.228	6658.06	6.91	255.44	0.00	14.70
LANDING POINT	7581.16	90.329	0.228	7231.00	583.16	257.73	10.00	590.74
TOTAL DEPTH	16631.34	90.329	0.228	7179.00	9633.12	293.79	0.00	9637.60



BGGM (1945.0 to 2014.0) Dip: 66.72° Field: 52644.5 nT
Magnetic North is 8.65 degrees East of True North (at 16/Aug/2013)

To correct azimuth from Magnetic to True add 8.65 degrees

BARCLAY 26N-11HZ BHL ON PLAT REV-2 (460°FNL & 290°FEL, SEC.11)

4.5in Casing Production: 90.33° Inc, 16631.34ft MD, 7179.00ft TVD, 9637.60ft VS
TOTAL DEPTH: 90.33° Inc, 16631.34ft MD, 7179.00ft TVD, 9637.60ft VS



Planned Wellpath Report

BARCLAY 26N-11HZ (PERMIT REV-2) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (I
Area	COLORADO	Well	BARCLAY 26N-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 26N-11HZ PWB
Facility	SEC.14-T2N-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	Robiale01
Scale	0.999959	Report Generated	09/Oct/2013 at 11:18
Convergence at slot	n/a	Database/Source file	WA_ANADARKO/BARCLAY_26N-11HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-137.69	1677.13	3181592.44	1291606.52	40°07'55.301"N	104°51'01.973"W
Facility Reference Pt			3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17' KB) (RKB) to Facility Vertical Datum	4927.00ft
Horizontal Reference Pt	Slot	PERMIT (17' KB) (RKB) to Mean Sea Level	4927.00ft
Vertical Reference Pt	PERMIT (17' KB) (RKB)	PERMIT (17' KB) (RKB) to Mud Line at Slot (SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (NEW SHL))	4927.00ft
MD Reference Pt	PERMIT (17' KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	1.75°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (1
Area	COLORADO	Well	BARCLAY 26N-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 26N-11HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (183 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	88.450	0.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
17.00	0.000	88.450	17.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	TIE ON
117.00†	0.000	88.450	117.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
217.00†	0.000	88.450	217.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
317.00†	0.000	88.450	317.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
417.00†	0.000	88.450	417.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
517.00†	0.000	88.450	517.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
617.00†	0.000	88.450	617.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
717.00†	0.000	88.450	717.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
817.00†	0.000	88.450	817.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
917.00†	0.000	88.450	917.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
1017.00†	0.000	88.450	1017.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
1117.00†	0.000	88.450	1117.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
1217.00†	0.000	88.450	1217.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
1227.00†	0.000	88.450	1227.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	FOX HILLS BASE
1317.00†	0.000	88.450	1317.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	
1400.00	0.000	88.450	1400.00	0.00	0.00	0.00	40°07'55.301"N	104°51'01.973"W	0.00	BEGIN NUDGE
1417.00†	0.340	88.450	1417.00	0.00	0.00	0.05	40°07'55.301"N	104°51'01.972"W	2.00	
1517.00†	2.340	88.450	1516.97	0.14	0.06	2.39	40°07'55.301"N	104°51'01.942"W	2.00	
1617.00†	4.340	88.450	1616.79	0.47	0.22	8.21	40°07'55.303"N	104°51'01.867"W	2.00	
1717.00†	6.340	88.450	1716.35	1.01	0.47	17.51	40°07'55.305"N	104°51'01.747"W	2.00	
1817.00†	8.340	88.450	1815.53	1.74	0.82	30.28	40°07'55.309"N	104°51'01.583"W	2.00	
1900.00	10.000	88.450	1897.47	2.50	1.18	43.51	40°07'55.312"N	104°51'01.413"W	2.00	END NUDGE
1917.00†	10.000	88.450	1914.21	2.67	1.26	46.46	40°07'55.313"N	104°51'01.375"W	0.00	
2017.00†	10.000	88.450	2012.69	3.67	1.73	63.82	40°07'55.318"N	104°51'01.151"W	0.00	
2117.00†	10.000	88.450	2111.17	4.67	2.20	81.17	40°07'55.323"N	104°51'00.928"W	0.00	
2217.00†	10.000	88.450	2209.65	5.67	2.67	98.53	40°07'55.327"N	104°51'00.704"W	0.00	
2317.00†	10.000	88.450	2308.13	6.67	3.14	115.89	40°07'55.332"N	104°51'00.481"W	0.00	
2417.00†	10.000	88.450	2406.61	7.67	3.61	133.25	40°07'55.336"N	104°51'00.257"W	0.00	
2517.00†	10.000	88.450	2505.09	8.66	4.08	150.61	40°07'55.341"N	104°51'00.034"W	0.00	
2617.00†	10.000	88.450	2603.57	9.66	4.55	167.97	40°07'55.346"N	104°50'59.810"W	0.00	
2717.00†	10.000	88.450	2702.05	10.66	5.01	185.33	40°07'55.350"N	104°50'59.587"W	0.00	
2817.00†	10.000	88.450	2800.53	11.66	5.48	202.68	40°07'55.355"N	104°50'59.363"W	0.00	
2870.28	10.000	88.450	2853.00	12.19	5.73	211.93	40°07'55.357"N	104°50'59.244"W	0.00	BEGIN DROP
2917.00†	9.066	88.450	2899.08	12.64	5.94	219.67	40°07'55.360"N	104°50'59.145"W	2.00	
3017.00†	7.066	88.450	2998.08	13.44	6.32	233.69	40°07'55.363"N	104°50'58.964"W	2.00	
3117.00†	5.066	88.450	3097.52	14.05	6.61	244.25	40°07'55.366"N	104°50'58.828"W	2.00	
3217.00†	3.066	88.450	3197.26	14.46	6.80	251.34	40°07'55.368"N	104°50'58.737"W	2.00	
3317.00†	1.066	88.450	3297.19	14.67	6.90	254.94	40°07'55.369"N	104°50'58.691"W	2.00	
3370.28	0.000	0.228	3350.47	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	2.00	END DROP
3417.00†	0.000	0.228	3397.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
3517.00†	0.000	0.228	3497.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
3617.00†	0.000	0.228	3597.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
3717.00†	0.000	0.228	3697.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
3817.00†	0.000	0.228	3797.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (1
Area	COLORADO	Well	BARCLAY 26N-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 26N-11HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (183 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3917.00†	0.000	0.228	3897.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4017.00†	0.000	0.228	3997.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4117.00†	0.000	0.228	4097.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4217.00†	0.000	0.228	4197.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4317.00†	0.000	0.228	4297.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4417.00†	0.000	0.228	4397.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4517.00†	0.000	0.228	4497.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4617.00†	0.000	0.228	4597.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4666.81†	0.000	0.228	4647.00	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	SUSSEX
4717.00†	0.000	0.228	4697.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4817.00†	0.000	0.228	4797.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
4917.00†	0.000	0.228	4897.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5017.00†	0.000	0.228	4997.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5036.81†	0.000	0.228	5017.00	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	SHANNON
5117.00†	0.000	0.228	5097.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5217.00†	0.000	0.228	5197.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5317.00†	0.000	0.228	5297.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5417.00†	0.000	0.228	5397.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5517.00†	0.000	0.228	5497.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5617.00†	0.000	0.228	5597.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5717.00†	0.000	0.228	5697.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5817.00†	0.000	0.228	5797.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
5917.00†	0.000	0.228	5897.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
6017.00†	0.000	0.228	5997.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
6117.00†	0.000	0.228	6097.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
6217.00†	0.000	0.228	6197.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
6317.00†	0.000	0.228	6297.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
6417.00†	0.000	0.228	6397.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
6517.00†	0.000	0.228	6497.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
6577.87†	0.000	0.228	6558.06	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	4 1/2" LINER TOP
6617.00†	0.000	0.228	6597.19	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	
6677.87	0.000	0.228	6658.06	14.70	6.91	255.44	40°07'55.369"N	104°50'58.684"W	0.00	KOP, BUILD @ 10°/100'
6717.00†	3.913	0.228	6697.16	16.03	8.25	255.44	40°07'55.382"N	104°50'58.684"W	10.00	
6817.00†	13.913	0.228	6795.83	31.50	23.72	255.51	40°07'55.535"N	104°50'58.683"W	10.00	
6917.00†	23.913	0.228	6890.31	63.86	56.10	255.63	40°07'55.855"N	104°50'58.682"W	10.00	
7017.00†	33.913	0.228	6977.73	112.13	104.38	255.83	40°07'56.332"N	104°50'58.679"W	10.00	
7117.00†	43.913	0.228	7055.44	174.84	167.12	256.08	40°07'56.952"N	104°50'58.676"W	10.00	
7168.67†	49.081	0.228	7091.00	212.30	204.58	256.23	40°07'57.322"N	104°50'58.674"W	10.00	SHARON SPRINGS
7217.00†	53.913	0.228	7121.08	250.09	242.39	256.38	40°07'57.696"N	104°50'58.672"W	10.00	
7308.83†	63.096	0.228	7169.00	328.28	320.61	256.69	40°07'58.469"N	104°50'58.668"W	10.00	NIOBRARA A
7317.00†	63.913	0.228	7172.65	335.59	327.92	256.72	40°07'58.541"N	104°50'58.668"W	10.00	
7376.53†	69.866	0.228	7196.00	390.30	382.65	256.93	40°07'59.082"N	104°50'58.665"W	10.00	NIOBRARA B
7417.00†	73.913	0.228	7208.58	428.75	421.11	257.09	40°07'59.462"N	104°50'58.663"W	10.00	
7517.00†	83.913	0.228	7227.78	526.72	519.11	257.48	40°08'00.431"N	104°50'58.658"W	10.00	
7581.16	90.329	0.228	7231.00	590.74	583.16	257.73	40°08'01.064"N	104°50'58.655"W	10.00	LANDING POINT

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (1
Area	COLORADO	Well	BARCLAY 26N-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 26N-11HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (183 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7617.00†	90.329	0.228	7230.80	626.57	619.00	257.88	40°08'01.418"N	104°50'58.653"W	0.00	
7717.00†	90.329	0.228	7230.22	726.54	719.00	258.27	40°08'02.406"N	104°50'58.648"W	0.00	
7817.00†	90.329	0.228	7229.65	826.50	818.99	258.67	40°08'03.394"N	104°50'58.642"W	0.00	
7917.00†	90.329	0.228	7229.07	926.46	918.99	259.07	40°08'04.382"N	104°50'58.637"W	0.00	
8017.00†	90.329	0.228	7228.50	1026.43	1018.99	259.47	40°08'05.371"N	104°50'58.632"W	0.00	
8117.00†	90.329	0.228	7227.92	1126.39	1118.99	259.87	40°08'06.359"N	104°50'58.627"W	0.00	
8217.00†	90.329	0.228	7227.35	1226.35	1218.98	260.27	40°08'07.347"N	104°50'58.622"W	0.00	
8317.00†	90.329	0.228	7226.78	1326.31	1318.98	260.66	40°08'08.335"N	104°50'58.617"W	0.00	
8417.00†	90.329	0.228	7226.20	1426.28	1418.98	261.06	40°08'09.323"N	104°50'58.612"W	0.00	
8517.00†	90.329	0.228	7225.63	1526.24	1518.98	261.46	40°08'10.311"N	104°50'58.606"W	0.00	
8617.00†	90.329	0.228	7225.05	1626.20	1618.97	261.86	40°08'11.300"N	104°50'58.601"W	0.00	
8717.00†	90.329	0.228	7224.48	1726.17	1718.97	262.26	40°08'12.288"N	104°50'58.596"W	0.00	
8817.00†	90.329	0.228	7223.90	1826.13	1818.97	262.66	40°08'13.276"N	104°50'58.591"W	0.00	
8917.00†	90.329	0.228	7223.33	1926.09	1918.97	263.06	40°08'14.264"N	104°50'58.586"W	0.00	
9017.00†	90.329	0.228	7222.75	2026.06	2018.96	263.45	40°08'15.252"N	104°50'58.581"W	0.00	
9117.00†	90.329	0.228	7222.18	2126.02	2118.96	263.85	40°08'16.241"N	104°50'58.576"W	0.00	
9217.00†	90.329	0.228	7221.60	2225.98	2218.96	264.25	40°08'17.229"N	104°50'58.570"W	0.00	
9317.00†	90.329	0.228	7221.03	2325.95	2318.96	264.65	40°08'18.217"N	104°50'58.565"W	0.00	
9417.00†	90.329	0.228	7220.45	2425.91	2418.96	265.05	40°08'19.205"N	104°50'58.560"W	0.00	
9517.00†	90.329	0.228	7219.88	2525.87	2518.95	265.45	40°08'20.193"N	104°50'58.555"W	0.00	
9617.00†	90.329	0.228	7219.31	2625.84	2618.95	265.84	40°08'21.181"N	104°50'58.550"W	0.00	
9717.00†	90.329	0.228	7218.73	2725.80	2718.95	266.24	40°08'22.170"N	104°50'58.545"W	0.00	
9817.00†	90.329	0.228	7218.16	2825.76	2818.95	266.64	40°08'23.158"N	104°50'58.540"W	0.00	
9917.00†	90.329	0.228	7217.58	2925.73	2918.94	267.04	40°08'24.146"N	104°50'58.534"W	0.00	
10017.00†	90.329	0.228	7217.01	3025.69	3018.94	267.44	40°08'25.134"N	104°50'58.529"W	0.00	
10117.00†	90.329	0.228	7216.43	3125.65	3118.94	267.84	40°08'26.122"N	104°50'58.524"W	0.00	
10217.00†	90.329	0.228	7215.86	3225.62	3218.94	268.23	40°08'27.111"N	104°50'58.519"W	0.00	
10317.00†	90.329	0.228	7215.28	3325.58	3318.93	268.63	40°08'28.099"N	104°50'58.514"W	0.00	
10417.00†	90.329	0.228	7214.71	3425.54	3418.93	269.03	40°08'29.087"N	104°50'58.509"W	0.00	
10517.00†	90.329	0.228	7214.13	3525.51	3518.93	269.43	40°08'30.075"N	104°50'58.504"W	0.00	
10617.00†	90.329	0.228	7213.56	3625.47	3618.93	269.83	40°08'31.063"N	104°50'58.498"W	0.00	
10717.00†	90.329	0.228	7212.98	3725.43	3718.92	270.23	40°08'32.052"N	104°50'58.493"W	0.00	
10817.00†	90.329	0.228	7212.41	3825.40	3818.92	270.62	40°08'33.040"N	104°50'58.488"W	0.00	
10917.00†	90.329	0.228	7211.84	3925.36	3918.92	271.02	40°08'34.028"N	104°50'58.483"W	0.00	
11017.00†	90.329	0.228	7211.26	4025.32	4018.92	271.42	40°08'35.016"N	104°50'58.478"W	0.00	
11117.00†	90.329	0.228	7210.69	4125.29	4118.91	271.82	40°08'36.004"N	104°50'58.473"W	0.00	
11217.00†	90.329	0.228	7210.11	4225.25	4218.91	272.22	40°08'36.992"N	104°50'58.468"W	0.00	
11317.00†	90.329	0.228	7209.54	4325.21	4318.91	272.62	40°08'37.981"N	104°50'58.462"W	0.00	
11417.00†	90.329	0.228	7208.96	4425.17	4418.91	273.01	40°08'38.969"N	104°50'58.457"W	0.00	
11517.00†	90.329	0.228	7208.39	4525.14	4518.90	273.41	40°08'39.957"N	104°50'58.452"W	0.00	
11617.00†	90.329	0.228	7207.81	4625.10	4618.90	273.81	40°08'40.945"N	104°50'58.447"W	0.00	
11717.00†	90.329	0.228	7207.24	4725.06	4718.90	274.21	40°08'41.933"N	104°50'58.442"W	0.00	
11817.00†	90.329	0.228	7206.66	4825.03	4818.90	274.61	40°08'42.922"N	104°50'58.437"W	0.00	
11917.00†	90.329	0.228	7206.09	4924.99	4918.89	275.01	40°08'43.910"N	104°50'58.432"W	0.00	
12017.00†	90.329	0.228	7205.51	5024.95	5018.89	275.40	40°08'44.898"N	104°50'58.426"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (1
Area	COLORADO	Well	BARCLAY 26N-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 26N-11HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (183 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.329	0.228	7204.94	5124.92	5118.89	275.80	40°08'45.886"N	104°50'58.421"W	0.00	
12217.00†	90.329	0.228	7204.37	5224.88	5218.89	276.20	40°08'46.874"N	104°50'58.416"W	0.00	
12317.00†	90.329	0.228	7203.79	5324.84	5318.88	276.60	40°08'47.862"N	104°50'58.411"W	0.00	
12417.00†	90.329	0.228	7203.22	5424.81	5418.88	277.00	40°08'48.851"N	104°50'58.406"W	0.00	
12517.00†	90.329	0.228	7202.64	5524.77	5518.88	277.40	40°08'49.839"N	104°50'58.401"W	0.00	
12617.00†	90.329	0.228	7202.07	5624.73	5618.88	277.79	40°08'50.827"N	104°50'58.396"W	0.00	
12717.00†	90.329	0.228	7201.49	5724.70	5718.87	278.19	40°08'51.815"N	104°50'58.390"W	0.00	
12817.00†	90.329	0.228	7200.92	5824.66	5818.87	278.59	40°08'52.803"N	104°50'58.385"W	0.00	
12917.00†	90.329	0.228	7200.34	5924.62	5918.87	278.99	40°08'53.792"N	104°50'58.380"W	0.00	
13017.00†	90.329	0.228	7199.77	6024.59	6018.87	279.39	40°08'54.780"N	104°50'58.375"W	0.00	
13117.00†	90.329	0.228	7199.19	6124.55	6118.86	279.79	40°08'55.768"N	104°50'58.370"W	0.00	
13217.00†	90.329	0.228	7198.62	6224.51	6218.86	280.18	40°08'56.756"N	104°50'58.365"W	0.00	
13317.00†	90.329	0.228	7198.04	6324.48	6318.86	280.58	40°08'57.744"N	104°50'58.360"W	0.00	
13417.00†	90.329	0.228	7197.47	6424.44	6418.86	280.98	40°08'58.732"N	104°50'58.354"W	0.00	
13517.00†	90.329	0.228	7196.90	6524.40	6518.85	281.38	40°08'59.721"N	104°50'58.349"W	0.00	
13617.00†	90.329	0.228	7196.32	6624.37	6618.85	281.78	40°09'00.709"N	104°50'58.344"W	0.00	
13672.84†	90.329	0.228	7196.00	6680.18	6674.69	282.00	40°09'01.261"N	104°50'58.341"W	0.00	NIOBRARA B
13717.00†	90.329	0.228	7195.75	6724.33	6718.85	282.18	40°09'01.697"N	104°50'58.339"W	0.00	
13817.00†	90.329	0.228	7195.17	6824.29	6818.85	282.57	40°09'02.685"N	104°50'58.334"W	0.00	
13917.00†	90.329	0.228	7194.60	6924.26	6918.85	282.97	40°09'03.673"N	104°50'58.329"W	0.00	
14017.00†	90.329	0.228	7194.02	7024.22	7018.84	283.37	40°09'04.662"N	104°50'58.324"W	0.00	
14117.00†	90.329	0.228	7193.45	7124.18	7118.84	283.77	40°09'05.650"N	104°50'58.318"W	0.00	
14217.00†	90.329	0.228	7192.87	7224.15	7218.84	284.17	40°09'06.638"N	104°50'58.313"W	0.00	
14317.00†	90.329	0.228	7192.30	7324.11	7318.84	284.57	40°09'07.626"N	104°50'58.308"W	0.00	
14417.00†	90.329	0.228	7191.72	7424.07	7418.83	284.96	40°09'08.614"N	104°50'58.303"W	0.00	
14517.00†	90.329	0.228	7191.15	7524.03	7518.83	285.36	40°09'09.602"N	104°50'58.298"W	0.00	
14617.00†	90.329	0.228	7190.57	7624.00	7618.83	285.76	40°09'10.591"N	104°50'58.293"W	0.00	
14717.00†	90.329	0.228	7190.00	7723.96	7718.83	286.16	40°09'11.579"N	104°50'58.288"W	0.00	
14817.00†	90.329	0.228	7189.43	7823.92	7818.82	286.56	40°09'12.567"N	104°50'58.282"W	0.00	
14917.00†	90.329	0.228	7188.85	7923.89	7918.82	286.96	40°09'13.555"N	104°50'58.277"W	0.00	
15017.00†	90.329	0.228	7188.28	8023.85	8018.82	287.35	40°09'14.543"N	104°50'58.272"W	0.00	
15117.00†	90.329	0.228	7187.70	8123.81	8118.82	287.75	40°09'15.532"N	104°50'58.267"W	0.00	
15217.00†	90.329	0.228	7187.13	8223.78	8218.81	288.15	40°09'16.520"N	104°50'58.262"W	0.00	
15317.00†	90.329	0.228	7186.55	8323.74	8318.81	288.55	40°09'17.508"N	104°50'58.257"W	0.00	
15417.00†	90.329	0.228	7185.98	8423.70	8418.81	288.95	40°09'18.496"N	104°50'58.251"W	0.00	
15517.00†	90.329	0.228	7185.40	8523.67	8518.81	289.35	40°09'19.484"N	104°50'58.246"W	0.00	
15617.00†	90.329	0.228	7184.83	8623.63	8618.80	289.74	40°09'20.472"N	104°50'58.241"W	0.00	
15717.00†	90.329	0.228	7184.25	8723.59	8718.80	290.14	40°09'21.461"N	104°50'58.236"W	0.00	
15817.00†	90.329	0.228	7183.68	8823.56	8818.80	290.54	40°09'22.449"N	104°50'58.231"W	0.00	
15917.00†	90.329	0.228	7183.10	8923.52	8918.80	290.94	40°09'23.437"N	104°50'58.226"W	0.00	
16017.00†	90.329	0.228	7182.53	9023.48	9018.79	291.34	40°09'24.425"N	104°50'58.221"W	0.00	
16117.00†	90.329	0.228	7181.96	9123.45	9118.79	291.74	40°09'25.413"N	104°50'58.215"W	0.00	
16217.00†	90.329	0.228	7181.38	9223.41	9218.79	292.13	40°09'26.402"N	104°50'58.210"W	0.00	
16317.00†	90.329	0.228	7180.81	9323.37	9318.79	292.53	40°09'27.390"N	104°50'58.205"W	0.00	
16417.00†	90.329	0.228	7180.23	9423.34	9418.78	292.93	40°09'28.378"N	104°50'58.200"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (I
Area	COLORADO	Well	BARCLAY 26N-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 26N-11HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (183 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16517.00†	90.329	0.228	7179.66	9523.30	9518.78	293.33	40°09'29.366"N	104°50'58.195"W	0.00	
16617.00†	90.329	0.228	7179.08	9623.26	9618.78	293.73	40°09'30.354"N	104°50'58.190"W	0.00	
16631.34	90.329	0.228	7179.00 ¹	9637.60	9633.12	293.79	40°09'30.496"N	104°50'58.189"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS -

Ref Wellbore: BARCLAY 26N-11HZ PWB Ref Wellpath: BARCLAY 26N-11HZ (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	17.00	1278.00	1261.00	17.00	1278.00	0.00	0.00	0.00	0.00
9.625in Casing Production	17.00	1278.00	1261.00	17.00	1278.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1278.00	7581.16	6303.16	1278.00	7231.00	0.00	0.00	583.16	257.73
7in Casing Intermediate	17.00	7581.16	7564.16	17.00	7231.00	0.00	0.00	583.16	257.73
6.125in Open Hole	7581.16	16631.34	9050.18	7231.00	7179.00	583.16	257.73	9633.12	293.79
4.5in Casing Production	17.00	16631.34	16614.34	17.00	7179.00	0.00	0.00	9633.12	293.79

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (1
Area	COLORADO	Well	BARCLAY 26N-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 26N-11HZ PWB
Facility	SEC.14-T2N-R67W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.11-T2N-R67W SECTION LINES		-22.00	137.39	-1617.08	3179974.47	1291732.06	40°07'56.658"N	104°51'22.792"W	polygon
SEC.14-T2N-R67W SECTION LINES		-22.00	137.80	-1677.12	3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"W	polygon
1) BARCLAY 26N-11HZ BHL ON PLAT REV-2 (460'FNL & 290'FEL, SEC.11)	16631.34	7179.00	9633.12	293.79	3181815.66	1301241.12	40°09'30.496"N	104°50'58.189"W	point
BARCLAY 26N-11HZ BHL ON PLAT (460'FNL & 290'FEL, SEC.11)		7238.00	9633.08	293.77	3181815.64	1301241.08	40°09'30.496"N	104°50'58.189"W	point
BARCLAY 26N-11HZ LANDBOX		7331.00	1.34	-158.16	3181434.29	1291606.70	40°07'55.314"N	104°51'04.009"W	polygon
SEC.11-T2N-R67W HARDLINES (460' SETBACK)		7331.00	137.39	-1617.08	3179974.47	1291732.06	40°07'56.658"N	104°51'22.792"W	polygon
SEC.14-T2N-R67W HARDLINES (460' SETBACK)		7331.00	137.80	-1677.12	3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"W	polygon

SURVEY PROGRAM - Ref Wellbore: BARCLAY 26N-11HZ PWB Ref Wellpath: BARCLAY 26N-11HZ (PERMIT REV-2) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7581.16	NaviTrak (Standard)		BARCLAY 26N-11HZ PWB
7581.16	16631.34	OnTrak (Standard)		BARCLAY 26N-11HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 BARCLAY 26N-11HZ (451'FSL & 546'FEL, SEC.14) (I
Area	COLORADO	Well	BARCLAY 26N-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 26N-11HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1227.00	0.000	88.450	1227.00	FOX HILLS BASE
4666.81	0.000	0.228	4647.00	SUSSEX
5036.81	0.000	0.228	5017.00	SHANNON
6577.87	0.000	0.228	6558.06	4 1/2" LINER TOP
7168.67	49.081	0.228	7091.00	SHARON SPRINGS
7308.83	63.096	0.228	7169.00	NIOBRARA A
7376.53	69.866	0.228	7196.00	NIOBRARA B
13672.84	90.329	0.228	7196.00	NIOBRARA B

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	88.450	17.00	TIE ON
1400.00	0.000	88.450	1400.00	BEGIN NUDGE
1900.00	10.000	88.450	1897.47	END NUDGE
2870.28	10.000	88.450	2853.00	BEGIN DROP
3370.28	0.000	0.228	3350.47	END DROP
6677.87	0.000	0.228	6658.06	KOP, BUILD @ 10°/100'
7581.16	90.329	0.228	7231.00	LANDING POINT
16631.34	90.329	0.228	7179.00	TOTAL DEPTH