

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOTH30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)  
Field: WELD COUNTY (KERR MCGEE) Well: VOGL 13C-35HZ  
Facility: SEC.36-T3N-R68W Wellbore: VOGL 13C-35HZ PWB

Plot reference wellpath is VOGL 13C-35HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 20 (16KB) (R9B)  
Measured depths are referenced to XTREME 20 (16KB) (R9B)  
XTREME 20 (16KB) (R9B) to Mean Sea Level: 4834 feet  
Mean Sea Level to Mud line (At Slot: SLOTH30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)) 0 feet  
Coordinates are in feet referenced to Slot  
Created by: greson on 26/JAN/2014

## Location Information

Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SEC.36-T3N-R68W	3151422.828	1307760.543	40°10'36.942"N	104°57'29.128"W
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)
SLOTH30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)	-59.10	-5.20	3151417.589	1307701.418
XTREME 20 (16KB) (R9B) to Mud line (At Slot: SLOTH30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36))				4834ft
Mean Sea Level to Mud line (At Slot: SLOTH30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36))				0ft
XTREME 20 (16KB) (R9B) to Mean Sea Level				4834ft

## Survey Program

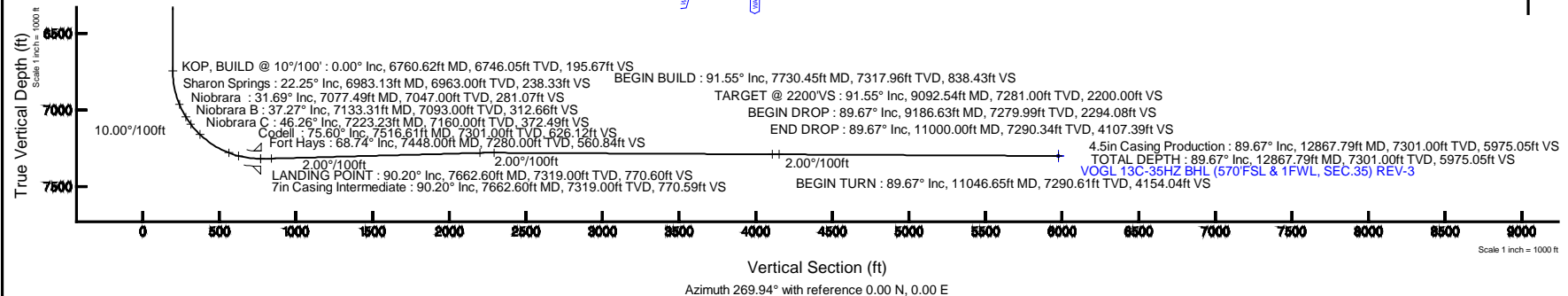
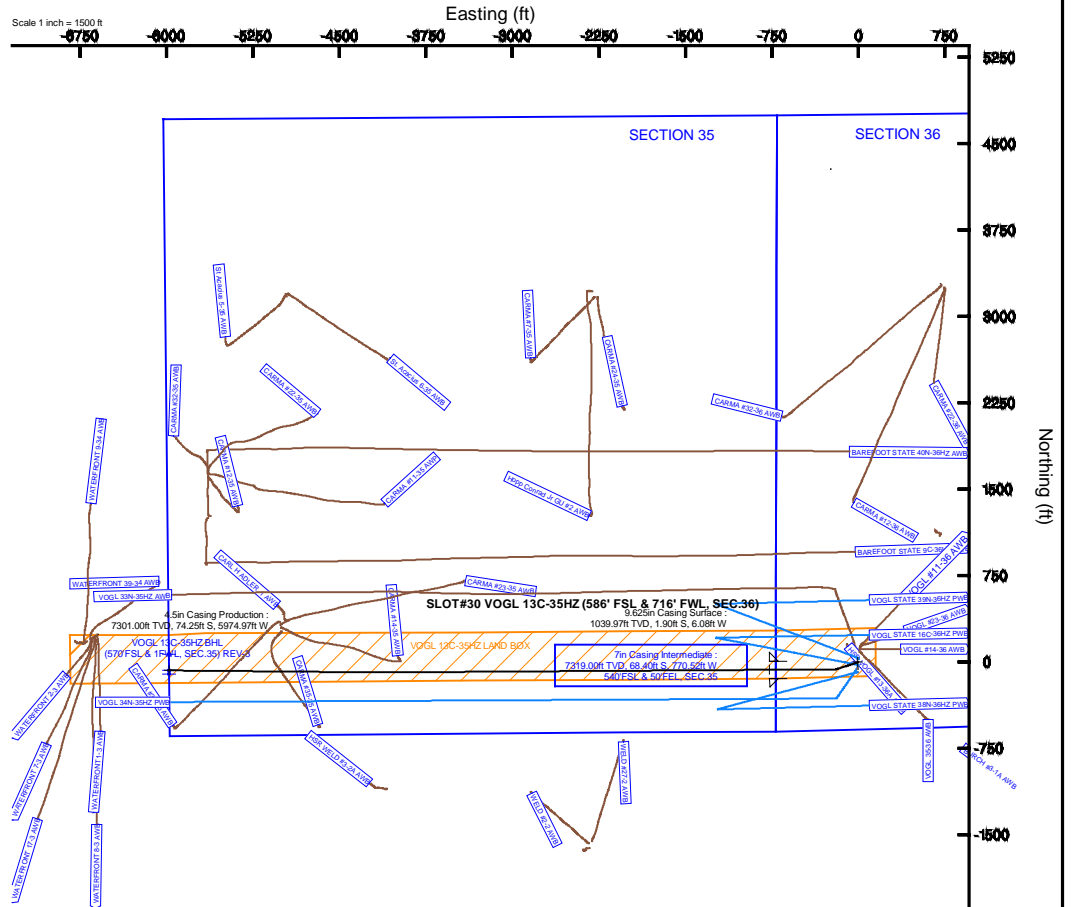
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
16.00	1084.00	Generic gyro - continuous	Generic gyro - continuous (Standard)		VOGL 13C-35HZ AWB
1084.00	7862.60	NavTrak	NavTrak (IFR)		VOGL 13C-35HZ PWB
7862.60	12867.79	NavTrak	NavTrak (IFR)		VOGL 13C-35HZ PWB

## Well Profile Data

Design Comment	MD (ft)	Inc (")	Az (")	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-INTO GYRO SURVEYS	1084.00	0.610	231.470	1083.97	-2.19	-6.45	0.00	6.45
BEGIN NUDGE	1500.05	0.610	231.470	1500.00	-4.95	-9.91	0.00	9.92
END NUDGE	1971.71	10.000	252.500	1969.12	-18.86	-51.02	2.00	51.04
BEGIN DROP	2594.04	10.000	252.500	2582.00	-51.35	-154.09	0.00	154.15
END DROP	3094.04	0.000	269.605	3079.47	-64.44	-195.60	2.00	195.67
KOP, BUILD @ 10°/100'	6760.62	0.000	269.605	6746.05	-64.44	-195.60	0.00	195.67
LANDING POINT	7862.60	90.198	269.605	7319.00	-68.40	-770.52	10.00	770.60
BEGIN BUILD	7730.45	91.555	269.605	7317.96	-68.67	-838.35	2.00	838.43
TARGET @ 2200'VS	9092.54	91.555	269.605	7281.00	-78.26	-2199.91	0.00	2200.00
BEGIN DROP	9186.63	89.673	269.605	7279.99	-78.91	-2293.99	2.00	2294.08
END DROP	11000.00	89.673	269.605	7290.34	-91.41	-4107.29	0.00	4107.39
BEGIN TURN	11046.65	89.673	270.538	7290.61	-91.35	-4153.94	2.00	4154.04
TOTAL DEPTH	12867.79	89.673	270.538	7301.00	-74.25	-5974.97	0.00	5975.05

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SEC.36-T3N-R68W SECTION LINES	-119.00	3096.52	-5323.96	3148070.35	1311665.15	40°11'10.840"N	104°58'37.780"W	
SEC.36-T3N-R68W SECTION LINES	-119.00	3096.52	-5323.96	3148070.35	1311665.15	40°11'10.840"N	104°58'37.780"W	
VOGL 13C-35HZ BHL (586' FSL & 716' FWL, SEC.35) REV-2		7301.00	-104.20	-5874.87	3145444.04	1307550.66	40°10'35.321"N	104°58'46.171"W
VOGL 13C-35HZ BHL (570' FSL & 716' FWL, SEC.35) REV-3	12867.79	7301.00	-74.25	-5874.97	3145443.05	1307550.66	40°10'35.617"N	104°58'46.171"W
VOGL 13C-35HZ BHL ON PLAT (710' FSL & 716' FWL, SEC.35) REV-1		7301.00	66.29	-5874.95	3145443.01	1307731.20	40°10'37.008"N	104°58'46.171"W
VOGL 13C-35HZ LAND BOX		7301.00	0.00	0.00	3151417.59	1307701.42	40°10'36.358"N	104°57'29.196"W



# Planned Wellpath Report

VOGL 13C-35HZ (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)
Area	COLORADO	Well	VOGL 13C-35HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	VOGL 13C-35HZ PWB
Facility	SEC.36-T3N-R68W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.999958	Report Generated	29/Jul/2014 at 09:56
Convergence at slot	n/a	Database/Source file	WellArchitectDB/VOGL_13C-35HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-59.10	-5.20	3151417.99	1307701.42	40°10'36.358"N	104°57'29.196"W
Facility Reference Pt			3151422.83	1307760.54	40°10'36.942"N	104°57'29.129"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 20 (16'KB) (RKB) to Facility Vertical Datum	4834.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16'KB) (RKB) to Mean Sea Level	4834.00ft
Vertical Reference Pt	XTREME 20 (16'KB) (RKB)	XTREME 20 (16'KB) (RKB) to Mud Line at Slot (SLOT#30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36))	4834.00ft
MD Reference Pt	XTREME 20 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	269.94°

# Planned Wellpath Report

VOGL 13C-35HZ (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)
Area	COLORADO	Well	VOGL 13C-35HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	VOGL 13C-35HZ PWB
Facility	SEC.36-T3N-R68W		

## WELLPATH DATA (142 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	221.290	0.00	0.00	0.00	0.00	40°10'36.358"N	104°57'29.196"W	0.00	
16.00	0.000	221.290	16.00	0.00	0.00	0.00	40°10'36.358"N	104°57'29.196"W	0.00	
116.00	0.640	221.290	116.00	0.37	-0.42	-0.37	40°10'36.354"N	104°57'29.201"W	0.64	
216.00	0.400	211.550	215.99	0.92	-1.14	-0.92	40°10'36.347"N	104°57'29.208"W	0.25	
316.00	0.240	279.090	315.99	1.31	-1.40	-1.31	40°10'36.344"N	104°57'29.213"W	0.38	
416.00	0.160	249.450	415.99	1.65	-1.42	-1.65	40°10'36.344"N	104°57'29.217"W	0.13	
516.00	0.240	296.860	515.99	1.97	-1.37	-1.96	40°10'36.344"N	104°57'29.221"W	0.18	
616.00	0.370	286.410	615.99	2.46	-1.19	-2.46	40°10'36.346"N	104°57'29.228"W	0.14	
716.00	0.420	278.030	715.99	3.13	-1.04	-3.13	40°10'36.348"N	104°57'29.236"W	0.08	
816.00	0.520	257.620	815.98	3.94	-1.09	-3.94	40°10'36.347"N	104°57'29.247"W	0.19	
916.00	0.630	258.310	915.98	4.92	-1.30	-4.92	40°10'36.345"N	104°57'29.259"W	0.11	
1016.00	0.610	231.770	1015.97	5.88	-1.74	-5.88	40°10'36.341"N	104°57'29.272"W	0.29	
1084.00	0.610	231.470	1083.97	6.45	-2.19	-6.45	40°10'36.336"N	104°57'29.279"W	0.00	TIE-INTO GYRO SURVEYS
1184.00†	0.610	231.470	1183.96	7.28	-2.85	-7.28	40°10'36.330"N	104°57'29.290"W	0.00	
1284.00†	0.610	231.470	1283.96	8.11	-3.51	-8.11	40°10'36.323"N	104°57'29.300"W	0.00	
1384.00†	0.610	231.470	1383.95	8.95	-4.18	-8.94	40°10'36.317"N	104°57'29.311"W	0.00	
1484.00†	0.610	231.470	1483.95	9.78	-4.84	-9.78	40°10'36.310"N	104°57'29.322"W	0.00	
1500.05	0.610	231.470	1500.00	9.92	-4.95	-9.91	40°10'36.309"N	104°57'29.324"W	0.00	BEGIN NUDGE
1584.00†	2.255	247.915	1583.92	11.80	-5.85	-11.79	40°10'36.300"N	104°57'29.348"W	2.00	
1684.00†	4.249	250.693	1683.75	17.12	-7.81	-17.11	40°10'36.281"N	104°57'29.416"W	2.00	
1784.00†	6.247	251.696	1783.33	25.79	-10.75	-25.77	40°10'36.252"N	104°57'29.528"W	2.00	
1884.00†	8.246	252.215	1882.52	37.79	-14.65	-37.77	40°10'36.213"N	104°57'29.683"W	2.00	
1971.71	10.000	252.500	1969.12	51.04	-18.86	-51.02	40°10'36.172"N	104°57'29.853"W	2.00	END NUDGE
1984.00†	10.000	252.500	1981.22	53.08	-19.50	-53.06	40°10'36.165"N	104°57'29.880"W	0.00	
2084.00†	10.000	252.500	2079.70	69.65	-24.72	-69.62	40°10'36.114"N	104°57'30.093"W	0.00	
2184.00†	10.000	252.500	2178.18	86.21	-29.94	-86.18	40°10'36.062"N	104°57'30.306"W	0.00	
2284.00†	10.000	252.500	2276.67	102.78	-35.16	-102.74	40°10'36.011"N	104°57'30.520"W	0.00	
2384.00†	10.000	252.500	2375.15	119.35	-40.39	-119.30	40°10'35.959"N	104°57'30.733"W	0.00	
2484.00†	10.000	252.500	2473.63	135.92	-45.61	-135.86	40°10'35.907"N	104°57'30.946"W	0.00	
2584.00†	10.000	252.500	2572.11	152.48	-50.83	-152.43	40°10'35.856"N	104°57'31.160"W	0.00	
2594.04	10.000	252.500	2582.00	154.15	-51.35	-154.09	40°10'35.851"N	104°57'31.181"W	0.00	BEGIN DROP
2684.00†	8.201	252.500	2670.82	167.72	-55.63	-167.66	40°10'35.808"N	104°57'31.356"W	2.00	
2784.00†	6.201	252.500	2770.03	179.68	-59.40	-179.61	40°10'35.771"N	104°57'31.510"W	2.00	
2884.00†	4.201	252.500	2869.61	188.33	-62.13	-188.26	40°10'35.744"N	104°57'31.621"W	2.00	
2984.00†	2.201	252.500	2969.45	193.65	-63.81	-193.58	40°10'35.727"N	104°57'31.690"W	2.00	
3084.00†	0.201	252.500	3069.42	195.65	-64.44	-195.58	40°10'35.721"N	104°57'31.716"W	2.00	
3094.04	0.000	269.605	3079.47	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	2.00	END DROP
3184.00†	0.000	269.605	3169.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
3284.00†	0.000	269.605	3269.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
3384.00†	0.000	269.605	3369.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
3484.00†	0.000	269.605	3469.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
3584.00†	0.000	269.605	3569.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
3684.00†	0.000	269.605	3669.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
3784.00†	0.000	269.605	3769.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
3884.00†	0.000	269.605	3869.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	

# Planned Wellpath Report

VOGL 13C-35HZ (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)
Area	COLORADO	Well	VOGL 13C-35HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	VOGL 13C-35HZ PWB
Facility	SEC.36-T3N-R68W		

## WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3984.00†	0.000	269.605	3969.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4084.00†	0.000	269.605	4069.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4184.00†	0.000	269.605	4169.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4284.00†	0.000	269.605	4269.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4384.00†	0.000	269.605	4369.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4484.00†	0.000	269.605	4469.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4584.00†	0.000	269.605	4569.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4684.00†	0.000	269.605	4669.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4784.00†	0.000	269.605	4769.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4884.00†	0.000	269.605	4869.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
4984.00†	0.000	269.605	4969.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5084.00†	0.000	269.605	5069.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5184.00†	0.000	269.605	5169.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5284.00†	0.000	269.605	5269.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5384.00†	0.000	269.605	5369.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5484.00†	0.000	269.605	5469.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5584.00†	0.000	269.605	5569.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5684.00†	0.000	269.605	5669.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5784.00†	0.000	269.605	5769.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5884.00†	0.000	269.605	5869.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
5984.00†	0.000	269.605	5969.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
6084.00†	0.000	269.605	6069.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
6184.00†	0.000	269.605	6169.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
6284.00†	0.000	269.605	6269.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
6384.00†	0.000	269.605	6369.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
6484.00†	0.000	269.605	6469.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
6584.00†	0.000	269.605	6569.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
6684.00†	0.000	269.605	6669.42	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	
6760.62	0.000	269.605	6746.05	195.67	-64.44	-195.60	40°10'35.721"N	104°57'31.716"W	0.00	KOP, BUILD @ 10°/100'
6784.00†	2.338	269.605	6769.41	196.15	-64.44	-196.07	40°10'35.721"N	104°57'31.722"W	10.00	
6884.00†	12.338	269.605	6868.47	208.90	-64.53	-208.83	40°10'35.720"N	104°57'31.886"W	10.00	
6984.00†	22.338	269.605	6963.81	238.66	-64.74	-238.59	40°10'35.718"N	104°57'32.270"W	10.00	
7084.00†	32.338	269.605	7052.52	284.53	-65.05	-284.45	40°10'35.715"N	104°57'32.861"W	10.00	
7184.00†	42.338	269.605	7131.93	345.10	-65.47	-345.03	40°10'35.711"N	104°57'33.641"W	10.00	
7284.00†	52.338	269.605	7199.61	418.54	-65.98	-418.47	40°10'35.706"N	104°57'34.587"W	10.00	
7384.00†	62.338	269.605	7253.51	502.62	-66.56	-502.54	40°10'35.700"N	104°57'35.670"W	10.00	
7484.00†	72.338	269.605	7291.99	594.78	-67.19	-594.70	40°10'35.694"N	104°57'36.858"W	10.00	
7584.00†	82.338	269.605	7313.89	692.22	-67.86	-692.15	40°10'35.687"N	104°57'38.113"W	10.00	
7662.60	90.198	269.605	7319.00	770.60	-68.40	-770.52	40°10'35.682"N	104°57'39.123"W	10.00	LANDING POINT
7684.00†	90.626	269.605	7318.85	791.99	-68.55	-791.92	40°10'35.680"N	104°57'39.398"W	2.00	
7730.45	91.555	269.605	7317.96	838.43	-68.87	-838.35	40°10'35.677"N	104°57'39.996"W	2.00	BEGIN BUILD
7784.00†	91.555	269.605	7316.51	891.96	-69.24	-891.88	40°10'35.674"N	104°57'40.686"W	0.00	
7884.00†	91.555	269.605	7313.80	991.92	-69.93	-991.85	40°10'35.667"N	104°57'41.974"W	0.00	
7984.00†	91.555	269.605	7311.08	1091.88	-70.62	-1091.81	40°10'35.660"N	104°57'43.262"W	0.00	
8084.00†	91.555	269.605	7308.37	1191.85	-71.31	-1191.77	40°10'35.653"N	104°57'44.549"W	0.00	

# Planned Wellpath Report

VOGL 13C-35HZ (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)
Area	COLORADO	Well	VOGL 13C-35HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	VOGL 13C-35HZ PWB
Facility	SEC.36-T3N-R68W		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8184.00†	91.555	269.605	7305.66	1291.81	-72.00	-1291.73	40°10'35.646"N	104°57'45.837"W	0.00	
8284.00†	91.555	269.605	7302.94	1391.77	-72.69	-1391.69	40°10'35.639"N	104°57'47.125"W	0.00	
8384.00†	91.555	269.605	7300.23	1491.73	-73.38	-1491.65	40°10'35.632"N	104°57'48.413"W	0.00	
8484.00†	91.555	269.605	7297.51	1591.69	-74.07	-1591.61	40°10'35.626"N	104°57'49.701"W	0.00	
8584.00†	91.555	269.605	7294.80	1691.65	-74.75	-1691.57	40°10'35.619"N	104°57'50.988"W	0.00	
8684.00†	91.555	269.605	7292.09	1791.62	-75.44	-1791.53	40°10'35.612"N	104°57'52.276"W	0.00	
8784.00†	91.555	269.605	7289.37	1891.58	-76.13	-1891.49	40°10'35.605"N	104°57'53.564"W	0.00	
8884.00†	91.555	269.605	7286.66	1991.54	-76.82	-1991.45	40°10'35.598"N	104°57'54.852"W	0.00	
8984.00†	91.555	269.605	7283.95	2091.50	-77.51	-2091.41	40°10'35.591"N	104°57'56.139"W	0.00	
9084.00†	91.555	269.605	7281.23	2191.46	-78.20	-2191.37	40°10'35.584"N	104°57'57.427"W	0.00	
9092.54	91.555	269.605	7281.00	2200.00	-78.26	-2199.91	40°10'35.584"N	104°57'57.537"W	0.00	TARGET @ 2200'VS
9184.00†	89.726	269.605	7279.98	2291.45	-78.89	-2291.36	40°10'35.577"N	104°57'58.715"W	2.00	
9186.63	89.673	269.605	7279.99	2294.08	-78.91	-2293.99	40°10'35.577"N	104°57'58.749"W	2.00	BEGIN DROP
9284.00†	89.673	269.605	7280.55	2391.44	-79.58	-2391.36	40°10'35.570"N	104°58'00.004"W	0.00	
9384.00†	89.673	269.605	7281.12	2491.44	-80.27	-2491.35	40°10'35.564"N	104°58'01.292"W	0.00	
9484.00†	89.673	269.605	7281.69	2591.44	-80.96	-2591.35	40°10'35.557"N	104°58'02.580"W	0.00	
9584.00†	89.673	269.605	7282.26	2691.43	-81.65	-2691.34	40°10'35.550"N	104°58'03.868"W	0.00	
9684.00†	89.673	269.605	7282.83	2791.43	-82.34	-2791.34	40°10'35.543"N	104°58'05.156"W	0.00	
9784.00†	89.673	269.605	7283.40	2891.43	-83.03	-2891.34	40°10'35.536"N	104°58'06.445"W	0.00	
9884.00†	89.673	269.605	7283.97	2991.42	-83.72	-2991.33	40°10'35.529"N	104°58'07.733"W	0.00	
9984.00†	89.673	269.605	7284.54	3091.42	-84.40	-3091.33	40°10'35.522"N	104°58'09.021"W	0.00	
10084.00†	89.673	269.605	7285.12	3191.42	-85.09	-3191.32	40°10'35.515"N	104°58'10.309"W	0.00	
10184.00†	89.673	269.605	7285.69	3291.41	-85.78	-3291.32	40°10'35.508"N	104°58'11.598"W	0.00	
10284.00†	89.673	269.605	7286.26	3391.41	-86.47	-3391.32	40°10'35.501"N	104°58'12.886"W	0.00	
10384.00†	89.673	269.605	7286.83	3491.41	-87.16	-3491.31	40°10'35.494"N	104°58'14.174"W	0.00	
10484.00†	89.673	269.605	7287.40	3591.40	-87.85	-3591.31	40°10'35.487"N	104°58'15.462"W	0.00	
10584.00†	89.673	269.605	7287.97	3691.40	-88.54	-3691.30	40°10'35.480"N	104°58'16.751"W	0.00	
10684.00†	89.673	269.605	7288.54	3791.40	-89.23	-3791.30	40°10'35.473"N	104°58'18.039"W	0.00	
10784.00†	89.673	269.605	7289.11	3891.39	-89.92	-3891.30	40°10'35.466"N	104°58'19.327"W	0.00	
10884.00†	89.673	269.605	7289.68	3991.39	-90.61	-3991.29	40°10'35.459"N	104°58'20.615"W	0.00	
10984.00†	89.673	269.605	7290.25	4091.39	-91.30	-4091.29	40°10'35.452"N	104°58'21.904"W	0.00	
11000.00	89.673	269.605	7290.34	4107.39	-91.41	-4107.29	40°10'35.451"N	104°58'22.110"W	0.00	END DROP
11046.65	89.673	270.538	7290.61	4154.04	-91.35	-4153.94	40°10'35.452"N	104°58'22.711"W	2.00	BEGIN TURN
11084.00†	89.673	270.538	7290.82	4191.38	-91.00	-4191.28	40°10'35.455"N	104°58'23.192"W	0.00	
11184.00†	89.673	270.538	7291.39	4291.38	-90.06	-4291.28	40°10'35.464"N	104°58'24.480"W	0.00	
11284.00†	89.673	270.538	7291.96	4391.37	-89.12	-4391.27	40°10'35.473"N	104°58'25.768"W	0.00	
11384.00†	89.673	270.538	7292.53	4491.36	-88.18	-4491.27	40°10'35.483"N	104°58'27.056"W	0.00	
11484.00†	89.673	270.538	7293.10	4591.35	-87.24	-4591.26	40°10'35.492"N	104°58'28.345"W	0.00	
11584.00†	89.673	270.538	7293.68	4691.35	-86.30	-4691.25	40°10'35.501"N	104°58'29.633"W	0.00	
11684.00†	89.673	270.538	7294.25	4791.34	-85.37	-4791.25	40°10'35.510"N	104°58'30.921"W	0.00	
11784.00†	89.673	270.538	7294.82	4891.33	-84.43	-4891.24	40°10'35.519"N	104°58'32.209"W	0.00	
11884.00†	89.673	270.538	7295.39	4991.33	-83.49	-4991.24	40°10'35.528"N	104°58'33.497"W	0.00	
11984.00†	89.673	270.538	7295.96	5091.32	-82.55	-5091.23	40°10'35.537"N	104°58'34.786"W	0.00	
12084.00†	89.673	270.538	7296.53	5191.31	-81.61	-5191.22	40°10'35.546"N	104°58'36.074"W	0.00	
12184.00†	89.673	270.538	7297.10	5291.30	-80.67	-5291.22	40°10'35.555"N	104°58'37.362"W	0.00	

# Planned Wellpath Report

VOGL 13C-35HZ (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)
Area	COLORADO	Well	VOGL 13C-35HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	VOGL 13C-35HZ PWB
Facility	SEC.36-T3N-R68W		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12284.00†	89.673	270.538	7297.67	5391.30	-79.73	-5391.21	40°10'35.564"N	104°58'38.650"W	0.00	
12384.00†	89.673	270.538	7298.24	5491.29	-78.79	-5491.20	40°10'35.573"N	104°58'39.939"W	0.00	
12484.00†	89.673	270.538	7298.81	5591.28	-77.85	-5591.20	40°10'35.582"N	104°58'41.227"W	0.00	
12584.00†	89.673	270.538	7299.38	5691.28	-76.91	-5691.19	40°10'35.591"N	104°58'42.515"W	0.00	
12684.00†	89.673	270.538	7299.95	5791.27	-75.98	-5791.19	40°10'35.601"N	104°58'43.803"W	0.00	
12784.00†	89.673	270.538	7300.52	5891.26	-75.04	-5891.18	40°10'35.610"N	104°58'45.091"W	0.00	
12867.79	89.673	270.538	7301.00 <sup>1</sup>	5975.05	-74.25	-5974.97	40°10'35.617"N	104°58'46.171"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: VOGL 13C-35HZ PWB Ref Wellpath: VOGL 13C-35HZ (REV-B.0) 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	16.00	1084.00	1068.00	16.00	1083.97	0.00	0.00	-2.19	-6.45
13.5in Open Hole	1084.00	1151.00	67.00	1083.97	1150.97	-2.19	-6.45	-2.63	-7.00
9.625in Casing Surface	16.00	1040.00	1024.00	16.00	1039.97	0.00	0.00	-1.90	-6.08
8.75in Open Hole	1151.00	7662.60	6511.60	1150.97	7319.00	-2.63	-7.00	-68.40	-770.52
7in Casing Intermediate	16.00	7662.60	7646.60	16.00	7319.00	0.00	0.00	-68.40	-770.52
6.125in Open Hole	7662.60	12867.79	5205.19	7319.00	7301.00	-68.40	-770.52	-74.25	-5974.97
4.5in Casing Production	16.00	12867.79	12851.79	16.00	7301.00	0.00	0.00	-74.25	-5974.97

# Planned Wellpath Report

VOGL 13C-35HZ (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)
Area	COLORADO	Well	VOGL 13C-35HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	VOGL 13C-35HZ PWB
Facility	SEC.36-T3N-R68W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.35-T3N-R68W SECTION LINES		-119.00	3996.52	-5323.56	3146070.35	1311665.15	40°11'15.846"N	104°58'37.790"W	polygon
SEC.36-T3N-R68W SECTION LINES		-119.00	3996.52	-5323.56	3146070.35	1311665.15	40°11'15.846"N	104°58'37.790"W	polygon
VOGL 13C-35HZ BHL (540'FSL & 1FWL, SEC.35) REV-2		7301.00	-104.25	-5974.97	3145444.04	1307560.66	40°10'35.321"N	104°58'46.171"W	point
1) VOGL 13C-35HZ BHL (570'FSL & 1FWL, SEC.35) REV-3	12867.79	7301.00	-74.25	-5974.97	3145443.85	1307590.66	40°10'35.617"N	104°58'46.171"W	point
VOGL 13C-35HZ BHL ON PLAT (710'FSL & 1FWL, SEC.35) REV-1		7301.00	66.29	-5974.95	3145443.01	1307731.20	40°10'37.006"N	104°58'46.171"W	point
VOGL 13C-35HZ LAND BOX		7301.00	0.00	0.00	3151417.99	1307701.42	40°10'36.358"N	104°57'29.196"W	polygon

SURVEY PROGRAM - Ref Wellbore: VOGL 13C-35HZ PWB Ref Wellpath: VOGL 13C-35HZ (REV-B.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1084.00	Generic gyro - continuous (Standard)		VOGL 13C-35HZ AWB
1084.00	7662.60	NaviTrak (IFR)		VOGL 13C-35HZ PWB
7662.60	12867.79	NaviTrak (IFR)		VOGL 13C-35HZ PWB



# Planned Wellpath Report

VOGL 13C-35HZ (REV-B.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#30 VOGL 13C-35HZ (586' FSL & 716' FWL, SEC.36)
Area	COLORADO	Well	VOGL 13C-35HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	VOGL 13C-35HZ PWB
Facility	SEC.36-T3N-R68W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
834.02	0.540	257.765	834.00	Fox Hills Base
4124.58	0.000	269.605	4110.00	Sussex
4574.58	0.000	269.605	4560.00	Shannon
6983.13	22.251	269.605	6963.00	Sharon Springs
7077.49	31.686	269.605	7047.00	Niobrara
7133.31	37.268	269.605	7093.00	Niobrara B
7223.23	46.260	269.605	7160.00	Niobrara C
7448.00	68.738	269.605	7280.00	Fort Hays
7516.61	75.599	269.605	7301.00	Codell

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1084.00	0.610	231.470	1083.97	TIE-INTO GYRO SURVEYS
1500.05	0.610	231.470	1500.00	BEGIN NUDGE
1971.71	10.000	252.500	1969.12	END NUDGE
2594.04	10.000	252.500	2582.00	BEGIN DROP
3094.04	0.000	269.605	3079.47	END DROP
6760.62	0.000	269.605	6746.05	KOP, BUILD @ 10°/100'
7662.60	90.198	269.605	7319.00	LANDING POINT
7730.45	91.555	269.605	7317.96	BEGIN BUILD
9092.54	91.555	269.605	7281.00	TARGET @ 2200'VS
9186.63	89.673	269.605	7279.99	BEGIN DROP
11000.00	89.673	269.605	7290.34	END DROP
11046.65	89.673	270.538	7290.61	BEGIN TURN
12867.79	89.673	270.538	7301.00	TOTAL DEPTH