

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19)  
 Field: WELD COUNTY (KERR MCGEE) Well: RALPH 35C-19HZ  
 Facility: SEC.19-T1N-R67W Wellbore: RALPH 35C-19HZ PWB

Plot reference wellpath is RALPH 35C-19HZ (REV-A.0) PWB

True vertical depths are referenced to XTREME 6 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RKB)	North Reference: True north
XTREME 6 (RKB) to Mean Sea Level: 5135 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wilja02 on 4/30/2013

## Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SEC.19-T1N-R67W		3157293.749	1259018.130	40°02'34.891"N	104°56'17.471"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19)	-1.92	149.87	3157443.624	1259017.157	40°02'34.872"N	104°56'15.544"W
XTREME 6 (RKB) to Mud line (At Slot: SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19))						5135R
Mean Sea Level to Mud line (At Slot: SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19))						0R
XTREME 6 (RKB) to Mean Sea Level						5135R

## Survey Program

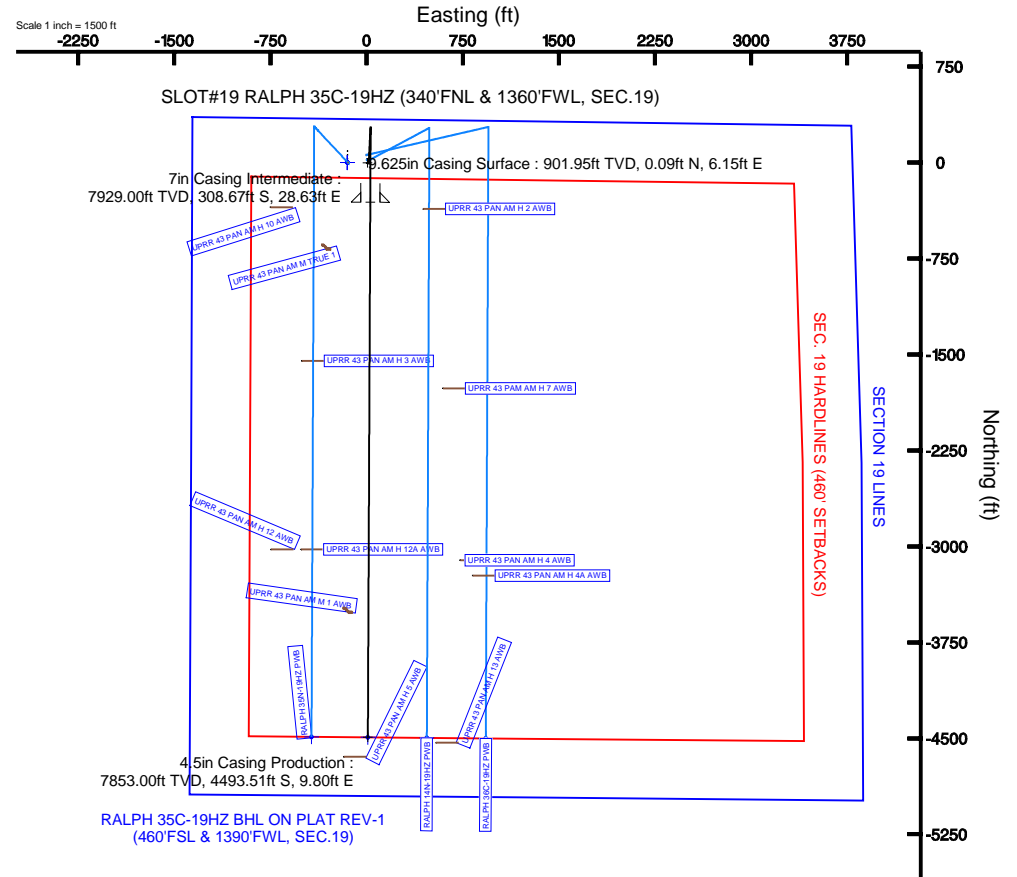
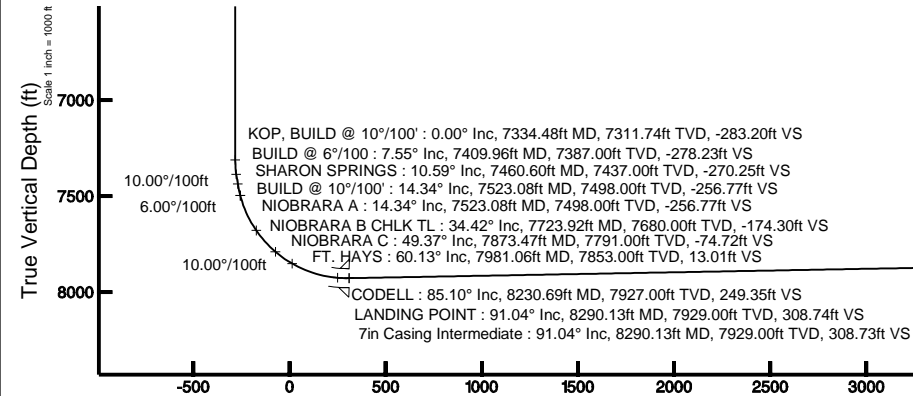
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
16.00	871.00	Generic gyro - continuous	Generic gyro - continuous (Standard)		RALPH 35C-19HZ AWB
871.00	8290.13	Navitrak	Navitrak (MAGCORR,IFR)		RALPH 35C-19HZ PWB
8290.13	12475.70	OnTrak	OnTrak (MAGCORR,IFR)		RALPH 35C-19HZ PWB

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-INTO GYRO	871.00	0.660	120.530	870.95	0.27	5.84	0.00	-0.26
BEGIN NUDGE	1600.10	0.660	120.530	1600.00	-4.00	13.08	0.00	4.03
END NUDGE	2116.12	10.000	3.100	2113.48	39.35	18.07	2.00	-39.31
BEGIN DROP	3272.21	10.000	3.100	3252.00	239.81	28.93	0.00	-239.74
END DROP	3772.21	0.000	180.257	3749.47	283.26	31.28	2.00	-283.20
KOP, BUILD @ 10°/100'	7334.48	0.000	180.257	7311.74	283.26	31.28	0.00	-283.20
BUILD @ 6°/100'	7409.96	7.548	180.257	7387.00	278.30	31.26	10.00	-278.23
BUILD @ 10°/100'	7523.08	14.335	180.257	7498.00	256.84	31.16	6.00	-256.77
LANDING POINT	8290.13	91.040	180.257	7929.00	-308.67	28.63	10.00	308.74
TOTAL DEPTH	12475.70	91.040	180.258	7853.00	-4493.51	9.80	0.00	4493.52

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SECTION 19 LINES		2.00	1.82	-149.79	3157293.83	1259018.03	40°02'34.890"N	104°56'17.470"W
RALPH 35C-19HZ BHL ON PLAT REV-1 (460'FSL & 1390'FWL, SEC.19)	12475.70	7853.00	-4493.51	9.80	3157481.92	1254523.97	40°01'50.466"N	104°56'15.418"W
SEC. 19 HARDLINES (460' SETBACKS)		8002.00	1.82	-149.79	3157293.83	1259018.03	40°02'34.890"N	104°56'17.470"W



BGGM (1945.0 to 2014.0) Dip: 66.64° Field: 52674.5 nT  
 Magnetic North is 8.73 degrees East of True North (at 4/16/2013)

To correct azimuth from Magnetic to True add 8.73 degrees  
 For example: if the Magnetic North Azimuth = 90 degs, then the True North Azimuth = 90 + 8.73 = 98.73

TOTAL DEPTH : 91.04° Inc, 12475.70ft MD, 7853.00ft TVD, 4493.52ft VS  
 4.5in Casing Production : 91.04° Inc, 12475.70ft MD, 7853.00ft TVD, 4493.52ft VS

RALPH 35C-19HZ BHL ON PLAT REV-1 (460'FSL & 1390'FWL, SEC.19)

Vertical Section (ft)  
 Azimuth 179.88° with reference 0.00 N, 0.00 E

Scale 1 inch = 1000 ft



# Planned Wellpath Report

RALPH 35C-19HZ (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	<b>KERR-MCGEE OIL &amp; GAS ONSHORE LP</b>	Slot	<b>SLOT#19 RALPH 35C-19HZ (340'FNL &amp; 1360'FWL, SEC.19)</b>
Area	<b>COLORADO</b>	Well	<b>RALPH 35C-19HZ</b>
Field	<b>WELD COUNTY (KERR MCGEE)</b>	Wellbore	<b>RALPH 35C-19HZ PWB</b>
Facility	<b>SEC.19-T1N-R67W</b>		

## REPORT SETUP INFORMATION

Projection System	<b>NAD83 / Lambert Colorado SP, Northern Zone (501), US feet</b>	Software System	<b>WellArchitect® 3.0.2</b>
North Reference	<b>True</b>	User	<b>Wilsjef02</b>
Scale	<b>0.999963</b>	Report Generated	<b>4/30/2013 at 01:15:07</b>
Convergence at slot	<b>0.36° East</b>	Database/Source file	<b>WellArchitectDB/RALPH_35C-19HZ_PWB.xml</b>

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1.92	149.87	3157443.62	1259017.16	<b>40°02'34.872"N</b>	<b>104°56'15.544"W</b>
Facility Reference Pt			3157293.75	1259018.13	<b>40°02'34.891"N</b>	<b>104°56'17.471"W</b>
Field Reference Pt			<b>3197771.84</b>	<b>1268891.29</b>	40°04'09.600"N	104°47'36.000"W

## WELLPATH DATUM

Calculation method	<b>Minimum curvature</b>	XTREME 6 (RKB) to Facility Vertical Datum	<b>5135.00ft</b>
Horizontal Reference Pt	<b>Slot</b>	XTREME 6 (RKB) to Mean Sea Level	<b>5135.00ft</b>
Vertical Reference Pt	<b>XTREME 6 (RKB)</b>	XTREME 6 (RKB) to Mud Line at Slot (SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19))	<b>5135.00ft</b>
MD Reference Pt	<b>XTREME 6 (RKB)</b>	Section Origin	<b>N 0.00, E 0.00 ft</b>
Field Vertical Reference	<b>Mean Sea Level</b>	Section Azimuth	<b>179.88°</b>



# Planned Wellpath Report

RALPH 35C-19HZ (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19)
Area	COLORADO	Well	RALPH 35C-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RALPH 35C-19HZ PWB
Facility	SEC.19-TIN-R67W		

## 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	34.180	0.00	0.00	0.00	0.00	40°02'34.872"N	104°56'15.544"W	0.00	
16.00	0.000	34.180	16.00	0.00	0.00	0.00	40°02'34.872"N	104°56'15.544"W	0.00	TIE-ON
116.00	0.260	34.180	116.00	-0.19	0.19	0.13	40°02'34.874"N	104°56'15.542"W	0.26	BEGIN GYRO SURVEYS
216.00	0.410	290.180	216.00	-0.50	0.50	-0.08	40°02'34.877"N	104°56'15.545"W	0.54	
316.00	0.040	80.130	316.00	-0.63	0.63	-0.38	40°02'34.878"N	104°56'15.549"W	0.45	
416.00	0.540	66.870	416.00	-0.82	0.82	0.09	40°02'34.880"N	104°56'15.543"W	0.50	
516.00	0.460	57.680	515.99	-1.22	1.22	0.86	40°02'34.884"N	104°56'15.533"W	0.11	
616.00	0.720	111.070	615.99	-1.20	1.21	1.78	40°02'34.884"N	104°56'15.521"W	0.58	
716.00	1.070	101.210	715.98	-0.79	0.80	3.29	40°02'34.880"N	104°56'15.502"W	0.38	
816.00	1.020	97.910	815.96	-0.49	0.50	5.08	40°02'34.877"N	104°56'15.479"W	0.08	
871.00	0.660	120.530	870.95	-0.26	0.27	5.84	40°02'34.875"N	104°56'15.469"W	0.00	TIE-INTO GYRO
971.00†	0.660	120.530	970.95	0.33	-0.32	6.83	40°02'34.869"N	104°56'15.456"W	0.00	
1071.00†	0.660	120.530	1070.94	0.92	-0.90	7.83	40°02'34.863"N	104°56'15.443"W	0.00	
1171.00†	0.660	120.530	1170.93	1.51	-1.49	8.82	40°02'34.857"N	104°56'15.431"W	0.00	
1271.00†	0.660	120.530	1270.93	2.09	-2.07	9.81	40°02'34.852"N	104°56'15.418"W	0.00	
1371.00†	0.660	120.530	1370.92	2.68	-2.66	10.80	40°02'34.846"N	104°56'15.405"W	0.00	
1471.00†	0.660	120.530	1470.91	3.27	-3.24	11.79	40°02'34.840"N	104°56'15.392"W	0.00	
1571.00†	0.660	120.530	1570.91	3.86	-3.83	12.79	40°02'34.834"N	104°56'15.380"W	0.00	
1600.10	0.660	120.530	1600.00	4.03	-4.00	13.08	40°02'34.832"N	104°56'15.376"W	0.00	BEGIN NUDGE
1671.00†	1.222	27.572	1670.90	3.57	-3.54	13.78	40°02'34.837"N	104°56'15.367"W	2.00	
1771.00†	3.133	10.308	1770.82	-0.07	0.10	14.76	40°02'34.873"N	104°56'15.354"W	2.00	
1871.00†	5.113	6.237	1870.56	-7.18	7.22	15.73	40°02'34.943"N	104°56'15.342"W	2.00	
1971.00†	7.104	4.439	1969.99	-17.78	17.81	16.70	40°02'35.048"N	104°56'15.329"W	2.00	
2071.00†	9.099	3.426	2068.98	-31.84	31.87	17.65	40°02'35.187"N	104°56'15.317"W	2.00	
2116.12	10.000	3.100	2113.48	-39.31	39.35	18.07	40°02'35.261"N	104°56'15.312"W	2.00	END NUDGE
2171.00†	10.000	3.100	2167.52	-48.82	48.86	18.59	40°02'35.355"N	104°56'15.305"W	0.00	
2271.00†	10.000	3.100	2266.00	-66.16	66.20	19.53	40°02'35.526"N	104°56'15.293"W	0.00	
2371.00†	10.000	3.100	2364.48	-83.50	83.54	20.46	40°02'35.698"N	104°56'15.281"W	0.00	
2471.00†	10.000	3.100	2462.97	-100.83	100.88	21.40	40°02'35.869"N	104°56'15.269"W	0.00	
2571.00†	10.000	3.100	2561.45	-118.17	118.22	22.34	40°02'36.040"N	104°56'15.257"W	0.00	
2671.00†	10.000	3.100	2659.93	-135.51	135.56	23.28	40°02'36.212"N	104°56'15.245"W	0.00	
2771.00†	10.000	3.100	2758.41	-152.85	152.90	24.22	40°02'36.383"N	104°56'15.233"W	0.00	
2871.00†	10.000	3.100	2856.89	-170.18	170.24	25.16	40°02'36.554"N	104°56'15.220"W	0.00	
2971.00†	10.000	3.100	2955.37	-187.52	187.58	26.10	40°02'36.726"N	104°56'15.208"W	0.00	
3071.00†	10.000	3.100	3053.85	-204.86	204.92	27.04	40°02'36.897"N	104°56'15.196"W	0.00	
3171.00†	10.000	3.100	3152.33	-222.20	222.26	27.98	40°02'37.068"N	104°56'15.184"W	0.00	
3271.00†	10.000	3.100	3250.81	-239.53	239.60	28.92	40°02'37.240"N	104°56'15.172"W	0.00	
3272.21	10.000	3.100	3252.00	-239.74	239.81	28.93	40°02'37.242"N	104°56'15.172"W	0.00	BEGIN DROP
3371.00†	8.024	3.100	3349.57	-255.19	255.26	29.76	40°02'37.395"N	104°56'15.161"W	2.00	
3471.00†	6.024	3.100	3448.81	-267.40	267.47	30.43	40°02'37.515"N	104°56'15.153"W	2.00	
3571.00†	4.024	3.100	3548.42	-276.14	276.21	30.90	40°02'37.602"N	104°56'15.147"W	2.00	
3671.00†	2.024	3.100	3648.28	-281.41	281.48	31.18	40°02'37.654"N	104°56'15.143"W	2.00	
3771.00†	0.024	3.100	3748.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	2.00	
3772.21	0.000	180.257	3749.47	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	2.00	END DROP
3871.00†	0.000	180.257	3848.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	



# Planned Wellpath Report

RALPH 35C-19HZ (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19)
Area	COLORADO	Well	RALPH 35C-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RALPH 35C-19HZ PWB
Facility	SEC.19-T1N-R67W		

## 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
3971.00†	0.000	180.257	3948.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4071.00†	0.000	180.257	4048.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4171.00†	0.000	180.257	4148.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4271.00†	0.000	180.257	4248.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4371.00†	0.000	180.257	4348.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4471.00†	0.000	180.257	4448.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4571.00†	0.000	180.257	4548.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4671.00†	0.000	180.257	4648.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4771.00†	0.000	180.257	4748.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4871.00†	0.000	180.257	4848.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
4907.74†	0.000	180.257	4885.00	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	SUSSEX
4971.00†	0.000	180.257	4948.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5071.00†	0.000	180.257	5048.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5171.00†	0.000	180.257	5148.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5271.00†	0.000	180.257	5248.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5371.00†	0.000	180.257	5348.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5471.00†	0.000	180.257	5448.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5571.00†	0.000	180.257	5548.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5671.00†	0.000	180.257	5648.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5771.00†	0.000	180.257	5748.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5871.00†	0.000	180.257	5848.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
5971.00†	0.000	180.257	5948.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6071.00†	0.000	180.257	6048.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6171.00†	0.000	180.257	6148.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6271.00†	0.000	180.257	6248.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6371.00†	0.000	180.257	6348.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6471.00†	0.000	180.257	6448.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6571.00†	0.000	180.257	6548.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6671.00†	0.000	180.257	6648.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6771.00†	0.000	180.257	6748.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6871.00†	0.000	180.257	6848.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
6971.00†	0.000	180.257	6948.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
7071.00†	0.000	180.257	7048.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
7171.00†	0.000	180.257	7148.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
7271.00†	0.000	180.257	7248.26	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	
7334.48	0.000	180.257	7311.74	-283.20	283.26	31.28	40°02'37.671"N	104°56'15.142"W	0.00	KOP, BUILD @ 10°/100'
7371.00†	3.652	180.257	7348.23	-282.03	282.10	31.28	40°02'37.660"N	104°56'15.142"W	10.00	
7409.96	7.548	180.257	7387.00	-278.23	278.30	31.26	40°02'37.622"N	104°56'15.142"W	10.00	BUILD @ 6°/100
7460.60†	10.586	180.257	7437.00	-270.25	270.32	31.22	40°02'37.543"N	104°56'15.143"W	6.00	SHARON SPRINGS
7471.00†	11.210	180.257	7447.21	-268.29	268.35	31.21	40°02'37.524"N	104°56'15.143"W	6.00	
7523.08	14.335	180.257	7498.00	-256.77	256.84	31.16	40°02'37.410"N	104°56'15.143"W	6.00	BUILD @ 10°/100'; NIOBRARA A
7571.00†	19.127	180.257	7543.88	-242.98	243.05	31.10	40°02'37.274"N	104°56'15.144"W	10.00	
7671.00†	29.127	180.257	7635.03	-202.16	202.23	30.92	40°02'36.870"N	104°56'15.146"W	10.00	
7723.92†	34.419	180.257	7680.00	-174.30	174.37	30.79	40°02'36.595"N	104°56'15.148"W	10.00	NIOBRARA B CHLK TL
7771.00†	39.127	180.257	7717.70	-146.13	146.20	30.67	40°02'36.317"N	104°56'15.150"W	10.00	



# Planned Wellpath Report

RALPH 35C-19HZ (REV-A.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19)
Area	COLORADO	Well	RALPH 35C-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RALPH 35C-19HZ PWB
Facility	SEC.19-TIN-R67W		

## 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
7871.00†	49.127	180.257	7789.39	-76.59	76.66	30.35	40°02'35.630"N	104°56'15.154"W	10.00	
7873.47†	49.374	180.257	7791.00	-74.72	74.79	30.35	40°02'35.611"N	104°56'15.154"W	10.00	NIOBRARA C
7971.00†	59.127	180.257	7847.91	4.33	-4.27	29.99	40°02'34.830"N	104°56'15.158"W	10.00	
7981.06†	60.133	180.257	7853.00	13.01	-12.95	29.95	40°02'34.744"N	104°56'15.159"W	10.00	FT. HAYS
8071.00†	69.127	180.257	7891.50	94.19	-94.13	29.59	40°02'33.942"N	104°56'15.164"W	10.00	
8171.00†	79.127	180.257	7918.81	190.26	-190.19	29.16	40°02'32.992"N	104°56'15.169"W	10.00	
8230.69†	85.096	180.257	7927.00	249.35	-249.29	28.89	40°02'32.408"N	104°56'15.173"W	10.00	CODELL
8271.00†	89.127	180.257	7929.03	289.60	-289.54	28.71	40°02'32.011"N	104°56'15.175"W	10.00	
8290.13	91.040	180.257	7929.00	308.74	-308.67	28.63	40°02'31.822"N	104°56'15.176"W	10.00	LANDING POINT
8371.00†	91.040	180.257	7927.53	389.59	-389.53	28.26	40°02'31.023"N	104°56'15.181"W	0.00	
8471.00†	91.040	180.257	7925.72	489.57	-489.51	27.82	40°02'30.035"N	104°56'15.186"W	0.00	
8571.00†	91.040	180.257	7923.90	589.55	-589.49	27.37	40°02'29.046"N	104°56'15.192"W	0.00	
8671.00†	91.040	180.257	7922.09	689.53	-689.47	26.92	40°02'28.058"N	104°56'15.198"W	0.00	
8771.00†	91.040	180.257	7920.27	789.51	-789.46	26.47	40°02'27.070"N	104°56'15.204"W	0.00	
8871.00†	91.040	180.257	7918.46	889.49	-889.44	26.02	40°02'26.082"N	104°56'15.209"W	0.00	
8971.00†	91.040	180.257	7916.64	989.48	-989.42	25.57	40°02'25.094"N	104°56'15.215"W	0.00	
9071.00†	91.040	180.257	7914.82	1089.46	-1089.40	25.12	40°02'24.106"N	104°56'15.221"W	0.00	
9171.00†	91.040	180.257	7913.01	1189.44	-1189.39	24.67	40°02'23.118"N	104°56'15.227"W	0.00	
9271.00†	91.040	180.257	7911.19	1289.42	-1289.37	24.22	40°02'22.130"N	104°56'15.233"W	0.00	
9371.00†	91.040	180.257	7909.38	1389.40	-1389.35	23.78	40°02'21.142"N	104°56'15.238"W	0.00	
9471.00†	91.040	180.257	7907.56	1489.38	-1489.33	23.33	40°02'20.154"N	104°56'15.244"W	0.00	
9571.00†	91.040	180.257	7905.75	1589.36	-1589.32	22.88	40°02'19.166"N	104°56'15.250"W	0.00	
9671.00†	91.040	180.257	7903.93	1689.34	-1689.30	22.43	40°02'18.178"N	104°56'15.256"W	0.00	
9771.00†	91.040	180.258	7902.11	1789.33	-1789.28	21.98	40°02'17.190"N	104°56'15.261"W	0.00	
9871.00†	91.040	180.258	7900.30	1889.31	-1889.26	21.53	40°02'16.202"N	104°56'15.267"W	0.00	
9971.00†	91.040	180.258	7898.48	1989.29	-1989.25	21.08	40°02'15.214"N	104°56'15.273"W	0.00	
10071.00†	91.040	180.258	7896.67	2089.27	-2089.23	20.63	40°02'14.226"N	104°56'15.279"W	0.00	
10171.00†	91.040	180.258	7894.85	2189.25	-2189.21	20.18	40°02'13.238"N	104°56'15.285"W	0.00	
10271.00†	91.040	180.258	7893.03	2289.23	-2289.19	19.73	40°02'12.250"N	104°56'15.290"W	0.00	
10371.00†	91.040	180.258	7891.22	2389.21	-2389.18	19.28	40°02'11.262"N	104°56'15.296"W	0.00	
10471.00†	91.040	180.258	7889.40	2489.19	-2489.16	18.83	40°02'10.273"N	104°56'15.302"W	0.00	
10571.00†	91.040	180.258	7887.59	2589.18	-2589.14	18.38	40°02'09.285"N	104°56'15.308"W	0.00	
10671.00†	91.040	180.258	7885.77	2689.16	-2689.12	17.93	40°02'08.297"N	104°56'15.313"W	0.00	
10771.00†	91.040	180.258	7883.96	2789.14	-2789.11	17.48	40°02'07.309"N	104°56'15.319"W	0.00	
10871.00†	91.040	180.258	7882.14	2889.12	-2889.09	17.03	40°02'06.321"N	104°56'15.325"W	0.00	
10971.00†	91.040	180.258	7880.32	2989.10	-2989.07	16.58	40°02'05.333"N	104°56'15.331"W	0.00	
11071.00†	91.040	180.258	7878.51	3089.08	-3089.05	16.13	40°02'04.345"N	104°56'15.337"W	0.00	
11171.00†	91.040	180.258	7876.69	3189.06	-3189.04	15.68	40°02'03.357"N	104°56'15.342"W	0.00	
11271.00†	91.040	180.258	7874.88	3289.04	-3289.02	15.23	40°02'02.369"N	104°56'15.348"W	0.00	
11371.00†	91.040	180.258	7873.06	3389.03	-3389.00	14.78	40°02'01.381"N	104°56'15.354"W	0.00	
11471.00†	91.040	180.258	7871.24	3489.01	-3488.98	14.33	40°02'00.393"N	104°56'15.360"W	0.00	
11571.00†	91.040	180.258	7869.43	3588.99	-3588.97	13.88	40°01'59.405"N	104°56'15.366"W	0.00	
11671.00†	91.040	180.258	7867.61	3688.97	-3688.95	13.43	40°01'58.417"N	104°56'15.371"W	0.00	
11771.00†	91.040	180.258	7865.80	3788.95	-3788.93	12.98	40°01'57.429"N	104°56'15.377"W	0.00	
11871.00†	91.040	180.258	7863.98	3888.93	-3888.91	12.53	40°01'56.441"N	104°56'15.383"W	0.00	



# Planned Wellpath Report

RALPH 35C-19HZ (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19)
Area	COLORADO	Well	RALPH 35C-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RALPH 35C-19HZ PWB
Facility	SEC.19-T1N-R67W		

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
11971.00†	91.040	180.258	7862.16	3988.91	-3988.90	12.08	40°01'55.453"N	104°56'15.389"W	0.00	
12071.00†	91.040	180.258	7860.35	4088.89	-4088.88	11.63	40°01'54.465"N	104°56'15.395"W	0.00	
12171.00†	91.040	180.258	7858.53	4188.88	-4188.86	11.18	40°01'53.477"N	104°56'15.400"W	0.00	
12271.00†	91.040	180.258	7856.72	4288.86	-4288.84	10.72	40°01'52.489"N	104°56'15.406"W	0.00	
12371.00†	91.040	180.258	7854.90	4388.84	-4388.83	10.27	40°01'51.500"N	104°56'15.412"W	0.00	
12471.00†	91.040	180.258	7853.09	4488.82	-4488.81	9.82	40°01'50.512"N	104°56'15.418"W	0.00	
12475.70	91.040	180.258	7853.00 <sup>1</sup>	4493.52	-4493.51	9.80	40°01'50.466"N	104°56'15.418"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: RALPH 35C-19HZ PWB Ref Wellpath: RALPH 35C-19HZ (REV-A.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	871.00	855.00	16.00	870.95	0.00	0.00	0.27	5.84	
9.625in Casing Surface	16.00	902.00	886.00	16.00	901.95	0.00	0.00	0.09	6.15	
8.75in Open Hole	871.00	8290.13	7419.13	870.95	7929.00	0.27	5.84	-308.67	28.63	
7in Casing Intermediate	16.00	8290.13	8274.13	16.00	7929.00	0.00	0.00	-308.67	28.63	
6.125in Open Hole	8290.13	12475.70	4185.57	7929.00	7853.00	-308.67	28.63	-4493.51	9.80	
4.5in Casing Production	16.00	12475.70	12459.70	16.00	7853.00	0.00	0.00	-4493.51	9.80	

TARGETS										
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
SECTION 19 LINES		2.00	1.82	-149.79	3157293.83	1259018.03	40°02'34.890"N	104°56'17.470"W	polygon	
1) RALPH 35C-19HZ BHL ON PLAT REV-1 (460'FSL & 1390'FWL, SEC.19)	12475.70	7853.00	-4493.51	9.80	3157481.92	1254523.97	40°01'50.466"N	104°56'15.418"W	point	
SEC. 19 HARDLINES (460' SETBACKS)		8002.00	1.82	-149.79	3157293.83	1259018.03	40°02'34.890"N	104°56'17.470"W	polygon	

SURVEY PROGRAM - Ref Wellbore: RALPH 35C-19HZ PWB Ref Wellpath: RALPH 35C-19HZ (REV-A.0) PWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
16.00	871.00	Generic gyro - continuous (Standard)		RALPH 35C-19HZ AWB	
871.00	8290.13	NaviTrak (MAGCORR,IFR)		RALPH 35C-19HZ PWB	
8290.13	12475.70	OnTrak (MAGCORR,IFR)		RALPH 35C-19HZ PWB	



# Planned Wellpath Report

RALPH 35C-19HZ (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 RALPH 35C-19HZ (340'FNL & 1360'FWL, SEC.19)
Area	COLORADO	Well	RALPH 35C-19HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RALPH 35C-19HZ PWB
Facility	SEC.19-T1N-R67W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
16.00	0.000	34.180	16.00	TIE-ON	
116.00	0.260	34.180	116.00	BEGIN GYRO SURVEYS	
4907.74	0.000	180.257	4885.00	SUSSEX	
7460.60	10.586	180.257	7437.00	SHARON SPRINGS	
7523.08	14.335	180.257	7498.00	NIOBRARA A	
7723.92	34.419	180.257	7680.00	NIOBRARA B CHLK TL	
7873.47	49.374	180.257	7791.00	NIOBRARA C	
7981.06	60.133	180.257	7853.00	FT. HAYS	
8230.69	85.096	180.257	7927.00	CODELL	