

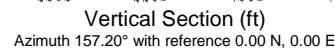
Location:	COLORADO	Slot:	SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1)
Field:	WELD COUNTY (KERR MCGEE)	Well:	DOLPH 15C-1HZ
Facility:	SEC.01-T2N-R66W	Wellbore:	DOLPH 15C-1HZ PWB

True vertical depths are referenced to Rig on SLO#2#3 DOLPH 15C-1HZ (470FNL & 2225FWL, SEC.1) (RKB)		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLO#2#3 DOLPH 15C-1HZ (470FNL & 2225FWL, SEC.1) (RKB)		North Reference: True north
Rig on SLO#2#3 DOLPH 15C-1HZ (470FNL & 2225FWL, SEC.1) (RKB) to Mean Sea Level: 5030 feet		Scale: True distance
Mean Sea Level to Mud line (At Slot: SLO#2#3 DOLPH 15C-1HZ (470FNL & 2225FWL, SEC.1)): 0 feet		Depths are in feet
Coordinates are in feet referenced to Slot		Created by: wilsje02 on 2/11/2014

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC 01-T2N-R66W	3215110.595	1303150.300	40°09'46.728"N	104°43'49.152"W
Site	Local E (ft)	Local E (ft)	Latitude	Longitude
SLOT#23 DOLPH 15C-11#2 (470°FNE, & 2225°FWS, SEC.1)	3786.69	919.09	3215996.745	1306944.856
Sign on SLOT#23 DOLPH 15C-11#2 (470°FNE, & 2225°FWS, SEC.1) (R60) to Mut line (At Site: SLOT#23 DOLPH 15C-11#2 (470°FNE, & 2225°FWS, SEC.1))				5030R
Mean Sea Level to Mut line (At Site: SLOT#23 DOLPH 15C-11#2 (470°FNE, & 2225°FWS, SEC.1))				0ft
Sign on SLOT#23 DOLPH 15C-11#2 (470°FNE, & 2225°FWS, SEC.1) (R60) to Mean Sea Level				5030R

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	312.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	3000.00	0.000	312.000	3000.00	0.00	0.00	0.00	0.00
END NUDGE	3500.00	10.000	312.000	3497.47	29.12	-32.34	2.00	-39.38
KOP, BUILD @ 10°/100'	6832.07	10.000	312.000	6778.91	416.29	-462.33	0.00	-562.92
LANDING POINT	7826.21	90.375	157.199	7440.00	-128.15	-287.66	10.00	6.66
TOTAL DEPTH	12409.23	90.375	157.199	7410.00	-4352.95	1488.38	0.00	4589.59

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
DOLPH SECTION 1 LINES		7025.00	-4148.82	2431.42	13218464.13	1302817.57	40°09'43.150"N	104°43'16.995"W
DOLPH 15C-1H2 BHL ON PLAT REV-1 (4607SL & 7638FEL, SEC. 1)	13459.29	7410.00	-4352.95	1498.38	13277522.95	1302805.24	40°09'41.134"N	104°43'18.142"W
DOLPH 15C-1H2 LAND BOX		7450.00	0.00	0.00	1315996.74	1306944.86	40°10'24.150"N	104°43'37.312"W



BGGM (1945.0 to 2015.0) Dip: 66.77° Field: 52655.2 nT
Magnetic North is 8.51 degrees East of True North (at 2/10/2014)

To correct azimuth from Magnetic to True add 8.51 degrees

—+ TOTAL DEPTH : 90.37° Inc, 12409.23ft MD, 7410.00ft TVD, 4589.59ft VS
DOLPH 15C-1HZ BHL ON PLAT REV-1 (460'FSL & 1638'FEL, SEC.1)

Scale 1 inch = 1000 ft



Planned Wellpath Report

DOLPH 15C-1HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1)
Area	COLORADO	Well	DOLPH 15C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 15C-1HZ PWB
Facility	SEC.01-T2N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Wilsjef02
Scale	0.999958	Report Generated	2/11/2014 at 15:57:16
Convergence at slot	n/a	Database/Source file	WellArchitectDB/DOLPH_15C-1HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	3786.89	919.09	3215996.75	1306944.86	40°10'24.150"N	104°43'37.312"W
Facility Reference Pt			3215110.60	1303150.30	40°09'46.728"N	104°43'49.152"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1) (RKB) to Facility Vertical Datum	5030.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1) (RKB) to Mean Sea Level	5030.00ft
Vertical Reference Pt	Rig on SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1) (RKB)	Rig on SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1) (RKB) to Mud Line at Slot (SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1))	5030.00ft
MD Reference Pt	Rig on SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	157.20°



Planned Wellpath Report

DOLPH 15C-1HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1)
Area	COLORADO	Well	DOLPH 15C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 15C-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (140 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	312.000	0.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
17.00	0.000	312.000	17.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	TIE-ON
117.00†	0.000	312.000	117.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
217.00†	0.000	312.000	217.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
317.00†	0.000	312.000	317.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
417.00†	0.000	312.000	417.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
517.00†	0.000	312.000	517.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
617.00†	0.000	312.000	617.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
717.00†	0.000	312.000	717.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
817.00†	0.000	312.000	817.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
917.00†	0.000	312.000	917.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1017.00†	0.000	312.000	1017.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1117.00†	0.000	312.000	1117.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1217.00†	0.000	312.000	1217.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1317.00†	0.000	312.000	1317.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1325.00†	0.000	312.000	1325.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	FOX HILLS MARKER
1417.00†	0.000	312.000	1417.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1517.00†	0.000	312.000	1517.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1617.00†	0.000	312.000	1617.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1717.00†	0.000	312.000	1717.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1817.00†	0.000	312.000	1817.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
1917.00†	0.000	312.000	1917.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2017.00†	0.000	312.000	2017.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2117.00†	0.000	312.000	2117.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2217.00†	0.000	312.000	2217.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2317.00†	0.000	312.000	2317.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2417.00†	0.000	312.000	2417.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2517.00†	0.000	312.000	2517.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2617.00†	0.000	312.000	2617.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2717.00†	0.000	312.000	2717.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2817.00†	0.000	312.000	2817.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
2917.00†	0.000	312.000	2917.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	
3000.00	0.000	312.000	3000.00	0.00	0.00	0.00	40°10'24.150"N	104°43'37.312"W	0.00	BEGIN NUDGE
3017.00†	0.340	312.000	3017.00	-0.05	0.03	-0.04	40°10'24.150"N	104°43'37.312"W	2.00	
3117.00†	2.340	312.000	3116.97	-2.16	1.60	-1.78	40°10'24.166"N	104°43'37.335"W	2.00	
3217.00†	4.340	312.000	3216.79	-7.43	5.50	-6.10	40°10'24.204"N	104°43'37.391"W	2.00	
3317.00†	6.340	312.000	3316.35	-15.85	11.72	-13.02	40°10'24.266"N	104°43'37.480"W	2.00	
3417.00†	8.340	312.000	3415.53	-27.41	20.27	-22.51	40°10'24.350"N	104°43'37.602"W	2.00	
3500.00	10.000	312.000	3497.47	-39.38	29.12	-32.34	40°10'24.438"N	104°43'37.729"W	2.00	END NUDGE
3517.00†	10.000	312.000	3514.21	-42.05	31.10	-34.54	40°10'24.457"N	104°43'37.757"W	0.00	
3617.00†	10.000	312.000	3612.69	-57.76	42.72	-47.44	40°10'24.572"N	104°43'37.923"W	0.00	
3717.00†	10.000	312.000	3711.17	-73.48	54.34	-60.35	40°10'24.687"N	104°43'38.089"W	0.00	
3817.00†	10.000	312.000	3809.65	-89.19	65.96	-73.25	40°10'24.802"N	104°43'38.256"W	0.00	
3917.00†	10.000	312.000	3908.13	-104.90	77.57	-86.16	40°10'24.917"N	104°43'38.422"W	0.00	
4017.00†	10.000	312.000	4006.61	-120.61	89.19	-99.06	40°10'25.031"N	104°43'38.588"W	0.00	



Planned Wellpath Report

DOLPH 15C-1HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1)
Area	COLORADO	Well	DOLPH 15C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 15C-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (140 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4077.31†	10.000	312.000	4066.00	-130.09	96.20	-106.84	40°10'25.101"N	104°43'38.688"W	0.00	PARKMAN
4117.00†	10.000	312.000	4105.09	-136.33	100.81	-111.96	40°10'25.146"N	104°43'38.754"W	0.00	
4217.00†	10.000	312.000	4203.57	-152.04	112.43	-124.87	40°10'25.261"N	104°43'38.921"W	0.00	
4317.00†	10.000	312.000	4302.05	-167.75	124.05	-137.77	40°10'25.376"N	104°43'39.087"W	0.00	
4417.00†	10.000	312.000	4400.53	-183.46	135.67	-150.68	40°10'25.491"N	104°43'39.253"W	0.00	
4478.40†	10.000	312.000	4461.00	-193.11	142.81	-158.60	40°10'25.561"N	104°43'39.355"W	0.00	SUSSEX
4517.00†	10.000	312.000	4499.01	-199.17	147.29	-163.58	40°10'25.606"N	104°43'39.419"W	0.00	
4617.00†	10.000	312.000	4597.50	-214.89	158.91	-176.49	40°10'25.720"N	104°43'39.586"W	0.00	
4717.00†	10.000	312.000	4695.98	-230.60	170.53	-189.39	40°10'25.835"N	104°43'39.752"W	0.00	
4817.00†	10.000	312.000	4794.46	-246.31	182.15	-202.30	40°10'25.950"N	104°43'39.918"W	0.00	
4917.00†	10.000	312.000	4892.94	-262.02	193.77	-215.20	40°10'26.065"N	104°43'40.084"W	0.00	
5017.00†	10.000	312.000	4991.42	-277.74	205.39	-228.11	40°10'26.180"N	104°43'40.251"W	0.00	
5117.00†	10.000	312.000	5089.90	-293.45	217.01	-241.01	40°10'26.294"N	104°43'40.417"W	0.00	
5217.00†	10.000	312.000	5188.38	-309.16	228.63	-253.92	40°10'26.409"N	104°43'40.583"W	0.00	
5317.00†	10.000	312.000	5286.86	-324.87	240.25	-266.82	40°10'26.524"N	104°43'40.749"W	0.00	
5417.00†	10.000	312.000	5385.34	-340.59	251.86	-279.72	40°10'26.639"N	104°43'40.916"W	0.00	
5517.00†	10.000	312.000	5483.82	-356.30	263.48	-292.63	40°10'26.754"N	104°43'41.082"W	0.00	
5617.00†	10.000	312.000	5582.30	-372.01	275.10	-305.53	40°10'26.869"N	104°43'41.248"W	0.00	
5717.00†	10.000	312.000	5680.78	-387.72	286.72	-318.44	40°10'26.983"N	104°43'41.414"W	0.00	
5817.00†	10.000	312.000	5779.26	-403.43	298.34	-331.34	40°10'27.098"N	104°43'41.580"W	0.00	
5917.00†	10.000	312.000	5877.75	-419.15	309.96	-344.25	40°10'27.213"N	104°43'41.747"W	0.00	
6017.00†	10.000	312.000	5976.23	-434.86	321.58	-357.15	40°10'27.328"N	104°43'41.913"W	0.00	
6117.00†	10.000	312.000	6074.71	-450.57	333.20	-370.06	40°10'27.443"N	104°43'42.079"W	0.00	
6217.00†	10.000	312.000	6173.19	-466.28	344.82	-382.96	40°10'27.557"N	104°43'42.245"W	0.00	
6317.00†	10.000	312.000	6271.67	-482.00	356.44	-395.87	40°10'27.672"N	104°43'42.412"W	0.00	
6417.00†	10.000	312.000	6370.15	-497.71	368.06	-408.77	40°10'27.787"N	104°43'42.578"W	0.00	
6517.00†	10.000	312.000	6468.63	-513.42	379.68	-421.67	40°10'27.902"N	104°43'42.744"W	0.00	
6617.00†	10.000	312.000	6567.11	-529.13	391.30	-434.58	40°10'28.017"N	104°43'42.910"W	0.00	
6717.00†	10.000	312.000	6665.59	-544.84	402.92	-447.48	40°10'28.132"N	104°43'43.077"W	0.00	
6732.07†	10.000	312.000	6680.43	-547.21	404.67	-449.43	40°10'28.149"N	104°43'43.102"W	0.00	4 1/2" LINER TOP
6817.00†	10.000	312.000	6764.07	-560.56	414.54	-460.39	40°10'28.246"N	104°43'43.243"W	0.00	
6832.07	10.000	312.000	6778.91	-562.92	416.29	-462.33	40°10'28.264"N	104°43'43.268"W	0.00	KOP, BUILD @ 10°/100'
6917.00†	4.332	254.454	6863.23	-570.02	420.37	-470.92	40°10'28.304"N	104°43'43.379"W	10.00	
7017.00†	10.378	181.453	6962.52	-562.26	410.33	-474.80	40°10'28.205"N	104°43'43.429"W	10.00	
7117.00†	19.907	169.205	7058.96	-537.33	384.53	-471.83	40°10'27.950"N	104°43'43.390"W	10.00	
7130.93†	21.267	168.360	7072.00	-532.53	379.73	-470.87	40°10'27.902"N	104°43'43.378"W	10.00	SHARON SPRINGS
7212.84†	29.328	164.914	7146.00	-498.02	345.75	-462.64	40°10'27.567"N	104°43'43.272"W	10.00	NIOBRARA A
7217.00†	29.740	164.786	7149.62	-495.99	343.77	-462.11	40°10'27.547"N	104°43'43.265"W	10.00	
7261.05†	34.100	163.600	7187.00	-472.88	321.37	-455.75	40°10'27.326"N	104°43'43.183"W	10.00	NIOBRARA B
7317.00†	39.651	162.430	7231.74	-439.49	289.28	-445.92	40°10'27.009"N	104°43'43.057"W	10.00	
7371.50†	45.067	161.527	7272.00	-402.91	254.38	-434.55	40°10'26.664"N	104°43'42.910"W	10.00	NIOBRARA C
7417.00†	49.593	160.895	7302.83	-369.54	222.72	-423.78	40°10'26.351"N	104°43'42.771"W	10.00	
7517.00†	59.551	159.759	7360.72	-288.28	146.11	-396.33	40°10'25.594"N	104°43'42.418"W	10.00	
7617.00†	69.516	158.836	7403.67	-198.17	61.77	-364.43	40°10'24.760"N	104°43'42.007"W	10.00	
7648.90†	72.696	158.569	7414.00	-168.01	33.66	-353.47	40°10'24.483"N	104°43'41.865"W	10.00	FORT HAYS



Planned Wellpath Report

DOLPH 15C-1HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1)
Area	COLORADO	Well	DOLPH 15C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 15C-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (140 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	79.486	158.026	7430.36	-101.95	-27.72	-329.03	40°10'23.876"N	104°43'41.551"W	10.00	
7746.53†	82.430	157.799	7435.00	-72.80	-54.74	-318.07	40°10'23.609"N	104°43'41.409"W	10.00	CODELL
7817.00†	89.457	157.268	7439.98	-2.55	-119.66	-291.22	40°10'22.968"N	104°43'41.064"W	10.00	
7826.21	90.375	157.199	7440.00	6.66	-128.15	-287.66	40°10'22.884"N	104°43'41.018"W	10.00	LANDING POINT
7917.00†	90.375	157.199	7439.40	97.45	-211.84	-252.47	40°10'22.057"N	104°43'40.564"W	0.00	
8017.00†	90.375	157.199	7438.75	197.45	-304.03	-213.72	40°10'21.146"N	104°43'40.065"W	0.00	
8117.00†	90.375	157.199	7438.09	297.44	-396.21	-174.97	40°10'20.235"N	104°43'39.566"W	0.00	
8217.00†	90.375	157.199	7437.44	397.44	-488.40	-136.22	40°10'19.324"N	104°43'39.067"W	0.00	
8317.00†	90.375	157.199	7436.78	497.44	-580.58	-97.46	40°10'18.413"N	104°43'38.568"W	0.00	
8417.00†	90.375	157.199	7436.13	597.44	-672.76	-58.71	40°10'17.502"N	104°43'38.068"W	0.00	
8517.00†	90.375	157.199	7435.47	697.44	-764.95	-19.96	40°10'16.591"N	104°43'37.569"W	0.00	
8617.00†	90.375	157.199	7434.82	797.43	-857.13	18.80	40°10'15.680"N	104°43'37.070"W	0.00	
8717.00†	90.375	157.199	7434.17	897.43	-949.31	57.55	40°10'14.769"N	104°43'36.571"W	0.00	
8817.00†	90.375	157.199	7433.51	997.43	-1041.50	96.30	40°10'13.858"N	104°43'36.071"W	0.00	
8917.00†	90.375	157.199	7432.86	1097.43	-1133.68	135.05	40°10'12.947"N	104°43'35.572"W	0.00	
9017.00†	90.375	157.199	7432.20	1197.43	-1225.86	173.81	40°10'12.036"N	104°43'35.073"W	0.00	
9117.00†	90.375	157.199	7431.55	1297.42	-1318.05	212.56	40°10'11.125"N	104°43'34.574"W	0.00	
9217.00†	90.375	157.199	7430.89	1397.42	-1410.23	251.31	40°10'10.214"N	104°43'34.075"W	0.00	
9317.00†	90.375	157.199	7430.24	1497.42	-1502.41	290.06	40°10'09.303"N	104°43'33.576"W	0.00	
9417.00†	90.375	157.199	7429.58	1597.42	-1594.60	328.82	40°10'08.392"N	104°43'33.076"W	0.00	
9517.00†	90.375	157.199	7428.93	1697.41	-1686.78	367.57	40°10'07.481"N	104°43'32.577"W	0.00	
9617.00†	90.375	157.199	7428.27	1797.41	-1778.97	406.32	40°10'06.570"N	104°43'32.078"W	0.00	
9717.00†	90.375	157.199	7427.62	1897.41	-1871.15	445.07	40°10'05.659"N	104°43'31.579"W	0.00	
9817.00†	90.375	157.199	7426.97	1997.41	-1963.33	483.83	40°10'04.748"N	104°43'31.080"W	0.00	
9917.00†	90.375	157.199	7426.31	2097.41	-2055.52	522.58	40°10'03.837"N	104°43'30.581"W	0.00	
10017.00†	90.375	157.199	7425.66	2197.40	-2147.70	561.33	40°10'02.926"N	104°43'30.081"W	0.00	
10117.00†	90.375	157.199	7425.00	2297.40	-2239.88	600.08	40°10'02.015"N	104°43'29.582"W	0.00	
10217.00†	90.375	157.199	7424.35	2397.40	-2332.07	638.84	40°10'01.104"N	104°43'29.083"W	0.00	
10317.00†	90.375	157.199	7423.69	2497.40	-2424.25	677.59	40°10'00.193"N	104°43'28.584"W	0.00	
10417.00†	90.375	157.199	7423.04	2597.40	-2516.43	716.34	40°09'59.282"N	104°43'28.085"W	0.00	
10517.00†	90.375	157.199	7422.38	2697.39	-2608.62	755.09	40°09'58.371"N	104°43'27.586"W	0.00	
10617.00†	90.375	157.199	7421.73	2797.39	-2700.80	793.85	40°09'57.460"N	104°43'27.087"W	0.00	
10717.00†	90.375	157.199	7421.08	2897.39	-2792.98	832.60	40°09'56.550"N	104°43'26.587"W	0.00	
10817.00†	90.375	157.199	7420.42	2997.39	-2885.17	871.35	40°09'55.639"N	104°43'26.088"W	0.00	
10917.00†	90.375	157.199	7419.77	3097.38	-2977.35	910.10	40°09'54.728"N	104°43'25.589"W	0.00	
11017.00†	90.375	157.199	7419.11	3197.38	-3069.54	948.86	40°09'53.817"N	104°43'25.090"W	0.00	
11117.00†	90.375	157.199	7418.46	3297.38	-3161.72	987.61	40°09'52.906"N	104°43'24.591"W	0.00	
11217.00†	90.375	157.199	7417.80	3397.38	-3253.90	1026.36	40°09'51.995"N	104°43'24.092"W	0.00	
11317.00†	90.375	157.199	7417.15	3497.38	-3346.09	1065.11	40°09'51.084"N	104°43'23.593"W	0.00	
11417.00†	90.375	157.199	7416.49	3597.37	-3438.27	1103.87	40°09'50.173"N	104°43'23.094"W	0.00	
11517.00†	90.375	157.199	7415.84	3697.37	-3530.45	1142.62	40°09'49.262"N	104°43'22.595"W	0.00	
11617.00†	90.375	157.199	7415.19	3797.37	-3622.64	1181.37	40°09'48.351"N	104°43'22.095"W	0.00	
11717.00†	90.375	157.199	7414.53	3897.37	-3714.82	1220.13	40°09'47.440"N	104°43'21.596"W	0.00	
11817.00†	90.375	157.199	7413.88	3997.37	-3807.00	1258.88	40°09'46.529"N	104°43'21.097"W	0.00	
11917.00†	90.375	157.199	7413.22	4097.36	-3899.19	1297.63	40°09'45.618"N	104°43'20.598"W	0.00	



Planned Wellpath Report

DOLPH 15C-1HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP		Slot	SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1)
Area	COLORADO		Well	DOLPH 15C-1HZ
Field	WELD COUNTY (KERR MCGEE)		Wellbore	DOLPH 15C-1HZ PWB
Facility	SEC.01-T2N-R66W			

WELLPATH DATA (140 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12017.00†	90.375	157.199	7412.57	4197.36	-3991.37	1336.38	40°09'44.707"N	104°43'20.099"W	0.00	
12117.00†	90.375	157.199	7411.91	4297.36	-4083.55	1375.14	40°09'43.796"N	104°43'19.600"W	0.00	
12217.00†	90.375	157.199	7411.26	4397.36	-4175.74	1413.89	40°09'42.885"N	104°43'19.101"W	0.00	
12317.00†	90.375	157.199	7410.60	4497.35	-4267.92	1452.64	40°09'41.974"N	104°43'18.602"W	0.00	
12409.23	90.375	157.199	7410.00 ¹	4589.59	-4352.95	1488.38	40°09'41.134"N	104°43'18.142"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: DOLPH 15C-1HZ PWB Ref Wellpath: DOLPH 15C-1HZ (PERMIT REV-1) 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	1375.00	1358.00	17.00	1375.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1375.00	1358.00	17.00	1375.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1375.00	7826.21	6451.21	1375.00	7440.00	0.00	0.00	-128.15	-287.66
7in Casing Intermediate	17.00	7826.21	7809.21	17.00	7440.00	0.00	0.00	-128.15	-287.66
6.125in Open Hole	7826.21	12409.23	4583.02	7440.00	7410.00	-128.15	-287.66	-4352.95	1488.38
4.5in Casing Production	17.00	12409.23	12392.23	17.00	7410.00	0.00	0.00	-4352.95	1488.38

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
DOLPH SECTION 1 LINES		7025.00	-4148.82	2431.42	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W	polygon
1) DOLPH 15C-1HZ BHL ON PLAT REV-1 (460'FSL & 1638'FEL, SEC.1)	12409.23	7410.00	-4352.95	1488.38	3217522.95	1302605.24	40°09'41.134"N	104°43'18.142"W	point
DOLPH 15C-1HZ LAND BOX		7450.00	0.00	0.00	3215996.74	1306944.86	40°10'24.150"N	104°43'37.312"W	polygon

SURVEY PROGRAM - Ref Wellbore: DOLPH 15C-1HZ PWB Ref Wellpath: DOLPH 15C-1HZ (PERMIT REV-1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7826.21	NaviTrak (MAGCORR,IFR)		DOLPH 15C-1HZ PWB
7826.21	12409.23	NaviTrak (MAGCORR,IFR)		DOLPH 15C-1HZ PWB



Planned Wellpath Report

DOLPH 15C-1HZ (PERMIT REV-1) PWP

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#23 DOLPH 15C-1HZ (470'FNL & 2225'FWL, SEC.1)
Area	COLORADO	Well	DOLPH 15C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 15C-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1325.00	0.000	312.000	1325.00	FOX HILLS MARKER
4077.31	10.000	312.000	4066.00	PARKMAN
4478.40	10.000	312.000	4461.00	SUSSEX
6732.07	10.000	312.000	6680.43	4 1/2" LINER TOP
7130.93	21.267	168.360	7072.00	SHARON SPRINGS
7212.84	29.328	164.914	7146.00	NIOBRARA A
7261.05	34.100	163.600	7187.00	NIOBRARA B
7371.50	45.067	161.527	7272.00	NIOBRARA C
7648.90	72.696	158.569	7414.00	FORT HAYS
7746.53	82.430	157.799	7435.00	CODELL