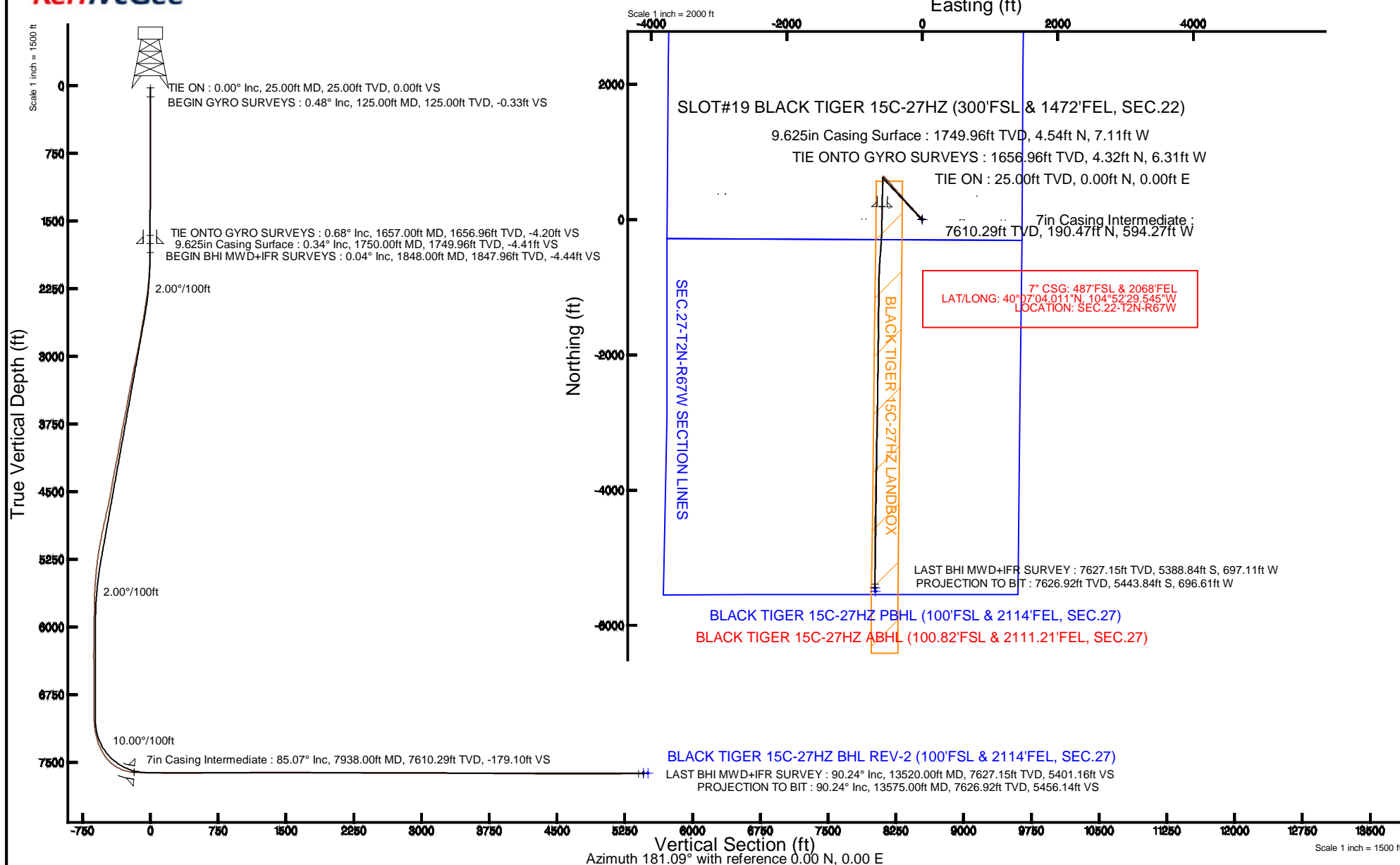


# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#19 BLACK TIGER 15C-27HZ (300'FSL & 1472'FEL, SEC.22)  
 Field: WELD COUNTY (KERR MCGEE) Well: BLACK TIGER 15C-27HZ  
 Facility: SEC.22-T2N-R67W Wellbore: BLACK TIGER 15C-27HZ PWB

Plot reference wellpath is BLACK TIGER 15C-27HZ (REV-B.0) PWP

True vertical depths are referenced to H&P 307 (25KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to H&P 307 (25KB) (RKB)	North Reference: True north
H&P 307 (25KB) (RKB) to Mean Sea Level: 5005 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#19 BLACK TIGER 15C-27HZ (300'FSL & 1472'FEL, SEC.22)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 9/11/2014



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 BLACK TIGER 15C-27HZ (300'FSL & 1472'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 15C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 15C-27HZ AWB
Facility	SEC.22-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	0.99996	Report Generated	9/11/2014 at 9:47:10 AM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/BLACK_TIGER_15C-27HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4460.03	1621.63	3175423.04	1286181.59	40°07'02.129"N	104°52'21.896"W
Facility Reference Pt			3173770.27	1290629.95	40°07'46.204"N	104°52'42.769"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 307 (25'KB) (RKB) to Facility Vertical Datum	5005.00ft
Horizontal Reference Pt	Slot	H&P 307 (25'KB) (RKB) to Mean Sea Level	5005.00ft
Vertical Reference Pt	H&P 307 (25'KB) (RKB)	H&P 307 (25'KB) (RKB) to Mud Line at Slot (SLOT#19 BLACK TIGER 15C-27HZ (300'FSL & 1472'FEL, SEC.22))	5005.00ft
MD Reference Pt	H&P 307 (25'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	187.29°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 BLACK TIGER 15C-27HZ (300'FSL & 1472'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 15C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 15C-27HZ AWP
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (155 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	322.320	0.00	0.00	0.00	0.00	40°07'02.129"N	104°52'21.896"W	0.00	
25.00	0.000	322.320	25.00	0.00	0.00	0.00	40°07'02.129"N	104°52'21.896"W	0.00	TIE ON
125.00	0.480	322.320	125.00	-0.30	0.33	-0.26	40°07'02.132"N	104°52'21.899"W	0.48	BEGIN GYRO SURVEYS
225.00	0.430	311.580	225.00	-0.80	0.91	-0.79	40°07'02.138"N	104°52'21.906"W	0.10	
325.00	0.630	289.930	324.99	-1.14	1.35	-1.59	40°07'02.142"N	104°52'21.916"W	0.28	
425.00	0.510	273.540	424.99	-1.23	1.56	-2.55	40°07'02.144"N	104°52'21.929"W	0.20	
525.00	0.260	274.750	524.98	-1.19	1.61	-3.22	40°07'02.145"N	104°52'21.937"W	0.25	
625.00	0.110	228.050	624.98	-1.10	1.56	-3.52	40°07'02.144"N	104°52'21.941"W	0.20	
725.00	0.130	198.860	724.98	-0.92	1.39	-3.63	40°07'02.143"N	104°52'21.943"W	0.06	
825.00	0.090	176.600	824.98	-0.73	1.21	-3.66	40°07'02.141"N	104°52'21.943"W	0.06	
925.00	0.110	178.320	924.98	-0.56	1.03	-3.65	40°07'02.139"N	104°52'21.943"W	0.02	
1025.00	0.090	21.000	1024.98	-0.54	1.01	-3.62	40°07'02.139"N	104°52'21.943"W	0.20	
1125.00	0.220	356.210	1124.98	-0.81	1.27	-3.61	40°07'02.142"N	104°52'21.942"W	0.14	
1225.00	0.310	3.700	1224.98	-1.27	1.74	-3.60	40°07'02.146"N	104°52'21.942"W	0.10	
1325.00	0.440	340.080	1324.98	-1.88	2.37	-3.71	40°07'02.152"N	104°52'21.944"W	0.20	
1425.00	0.620	317.580	1424.98	-2.57	3.13	-4.21	40°07'02.160"N	104°52'21.950"W	0.27	
1525.00	0.570	299.690	1524.97	-3.11	3.77	-5.01	40°07'02.166"N	104°52'21.960"W	0.19	
1625.00	0.640	289.830	1624.96	-3.42	4.21	-5.96	40°07'02.171"N	104°52'21.973"W	0.13	
1657.00	0.680	286.220	1656.96	-3.49	4.32	-6.31	40°07'02.172"N	104°52'21.977"W	0.18	TIE ONTO GYRO SURVEYS
1848.00	0.040	153.500	1847.96	-3.61	4.58	-7.37	40°07'02.174"N	104°52'21.991"W	0.37	BEGIN BHI MWD+IFR SURVEYS
1940.00	2.080	322.450	1939.94	-4.76	5.88	-8.38	40°07'02.187"N	104°52'22.004"W	2.30	
2033.00	4.220	322.960	2032.79	-8.41	9.94	-11.47	40°07'02.227"N	104°52'22.044"W	2.30	
2126.00	6.240	316.670	2125.40	-14.06	16.35	-17.00	40°07'02.291"N	104°52'22.115"W	2.25	
2217.00	7.900	321.790	2215.71	-21.59	24.87	-24.26	40°07'02.375"N	104°52'22.208"W	1.95	
2310.00	9.870	320.410	2307.59	-31.51	36.03	-33.29	40°07'02.485"N	104°52'22.325"W	2.13	
2402.00	11.730	317.080	2397.95	-42.89	48.96	-44.69	40°07'02.613"N	104°52'22.471"W	2.13	
2493.00	13.150	316.070	2486.82	-55.29	63.19	-58.17	40°07'02.753"N	104°52'22.645"W	1.58	
2585.00	13.390	318.690	2576.36	-68.89	78.73	-72.46	40°07'02.907"N	104°52'22.829"W	0.70	
2677.00	11.830	317.640	2666.14	-82.04	93.70	-85.85	40°07'03.055"N	104°52'23.001"W	1.71	
2769.00	12.740	318.410	2756.03	-94.82	108.25	-98.94	40°07'03.199"N	104°52'23.169"W	1.01	
2860.00	14.220	320.080	2844.52	-109.01	124.33	-112.77	40°07'03.358"N	104°52'23.348"W	1.68	
2952.00	15.180	319.810	2933.51	-124.83	142.20	-127.80	40°07'03.534"N	104°52'23.541"W	1.05	
3044.00	15.730	318.390	3022.18	-141.16	160.72	-143.85	40°07'03.717"N	104°52'23.748"W	0.73	
3136.00	16.820	315.810	3110.50	-157.65	179.59	-161.41	40°07'03.904"N	104°52'23.974"W	1.42	
3228.00	16.110	315.920	3198.72	-173.91	198.31	-179.57	40°07'04.089"N	104°52'24.207"W	0.77	
3319.00	15.270	315.540	3286.33	-189.21	215.93	-196.74	40°07'04.263"N	104°52'24.428"W	0.93	
3414.00	15.380	316.920	3377.95	-204.99	234.06	-214.11	40°07'04.442"N	104°52'24.652"W	0.40	
3508.00	13.820	315.820	3468.91	-219.93	251.22	-230.45	40°07'04.612"N	104°52'24.862"W	1.69	
3602.00	13.530	320.460	3560.25	-234.45	267.75	-245.28	40°07'04.775"N	104°52'25.053"W	1.21	
3696.00	14.630	317.910	3651.43	-249.70	285.04	-260.23	40°07'04.946"N	104°52'25.246"W	1.34	
3791.00	14.650	321.660	3743.35	-265.91	303.37	-275.73	40°07'05.127"N	104°52'25.445"W	1.00	
3885.00	14.660	320.000	3834.29	-282.29	321.80	-290.75	40°07'05.309"N	104°52'25.638"W	0.45	
3980.00	12.550	318.630	3926.62	-297.27	338.76	-305.30	40°07'05.477"N	104°52'25.826"W	2.25	
4074.00	13.130	316.940	4018.27	-310.82	354.22	-319.34	40°07'05.629"N	104°52'26.006"W	0.74	
4169.00	14.020	321.040	4110.61	-325.67	371.05	-333.94	40°07'05.796"N	104°52'26.194"W	1.38	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 BLACK TIGER 15C-27HZ (300'FSL & 1472'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 15C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 15C-27HZ AWP
Facility	SEC.22-T2N-R67W		

### WELLPATH DATA (155 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4263.00	15.300	316.310	4201.56	-341.35	388.88	-349.67	40°07'05.972"N	104°52'26.397"W	1.86	
4358.00	15.330	317.970	4293.18	-357.43	407.27	-366.73	40°07'06.154"N	104°52'26.617"W	0.46	
4452.00	13.450	315.980	4384.23	-372.36	424.36	-382.65	40°07'06.323"N	104°52'26.821"W	2.07	
4546.00	13.520	315.760	4475.64	-386.03	440.09	-397.91	40°07'06.478"N	104°52'27.018"W	0.09	
4641.00	14.690	319.390	4567.77	-401.01	457.20	-413.50	40°07'06.647"N	104°52'27.219"W	1.54	
4735.00	16.210	322.100	4658.38	-418.25	476.60	-429.32	40°07'06.839"N	104°52'27.422"W	1.79	
4829.00	16.070	322.480	4748.67	-436.73	497.27	-445.31	40°07'07.043"N	104°52'27.628"W	0.19	
4924.00	15.530	322.090	4840.08	-455.02	517.73	-461.13	40°07'07.245"N	104°52'27.832"W	0.58	
5018.00	15.050	320.350	4930.75	-472.22	537.06	-476.65	40°07'07.436"N	104°52'28.031"W	0.71	
5113.00	14.540	320.130	5022.60	-488.74	555.71	-492.16	40°07'07.621"N	104°52'28.231"W	0.54	
5207.00	13.930	315.670	5113.72	-503.79	572.86	-507.63	40°07'07.790"N	104°52'28.430"W	1.33	
5301.00	11.870	317.320	5205.34	-517.04	588.06	-522.09	40°07'07.940"N	104°52'28.616"W	2.23	
5396.00	9.960	313.750	5298.62	-528.20	600.93	-534.65	40°07'08.067"N	104°52'28.778"W	2.13	
5490.00	7.840	311.560	5391.48	-536.65	610.80	-545.32	40°07'08.165"N	104°52'28.915"W	2.28	
5584.00	6.960	311.380	5484.70	-543.45	618.82	-554.40	40°07'08.244"N	104°52'29.032"W	0.94	
5678.00	5.120	310.030	5578.18	-548.91	625.28	-561.88	40°07'08.308"N	104°52'29.129"W	1.96	
5773.00	3.390	301.440	5672.91	-552.35	629.48	-567.52	40°07'08.349"N	104°52'29.201"W	1.94	
5867.00	1.390	286.240	5766.82	-553.66	631.24	-570.99	40°07'08.367"N	104°52'29.246"W	2.21	
5961.00	1.000	359.850	5860.81	-554.65	632.38	-572.09	40°07'08.378"N	104°52'29.260"W	1.56	
6055.00	0.820	358.350	5954.80	-556.13	633.88	-572.11	40°07'08.393"N	104°52'29.260"W	0.19	
6243.00	0.800	328.300	6142.78	-558.48	636.34	-572.84	40°07'08.417"N	104°52'29.270"W	0.22	
6338.00	1.940	291.920	6237.75	-559.40	637.50	-574.68	40°07'08.429"N	104°52'29.293"W	1.45	
6433.00	0.240	224.130	6332.73	-559.65	637.96	-576.31	40°07'08.433"N	104°52'29.314"W	1.96	
6621.00	0.490	212.300	6520.73	-558.61	637.00	-577.01	40°07'08.424"N	104°52'29.323"W	0.14	
6999.00	0.310	241.960	6898.72	-556.55	635.15	-578.78	40°07'08.406"N	104°52'29.346"W	0.07	
7093.00	0.870	177.900	6992.71	-555.70	634.32	-578.98	40°07'08.397"N	104°52'29.349"W	0.84	
7140.00	2.400	181.150	7039.69	-554.37	632.98	-578.98	40°07'08.384"N	104°52'29.349"W	3.26	
7187.00	5.410	180.010	7086.58	-551.19	629.78	-579.00	40°07'08.352"N	104°52'29.349"W	6.41	
7234.00	7.520	178.760	7133.28	-545.95	624.49	-578.94	40°07'08.300"N	104°52'29.348"W	4.50	
7281.00	11.190	177.650	7179.65	-538.41	616.85	-578.68	40°07'08.225"N	104°52'29.345"W	7.82	
7329.00	14.610	179.460	7226.43	-527.82	606.14	-578.43	40°07'08.119"N	104°52'29.342"W	7.17	
7376.00	18.370	182.740	7271.49	-514.56	592.81	-578.73	40°07'07.987"N	104°52'29.345"W	8.24	
7423.00	22.540	183.820	7315.51	-498.18	576.42	-579.69	40°07'07.825"N	104°52'29.358"W	8.91	
7470.00	26.440	182.920	7358.28	-478.75	556.97	-580.82	40°07'07.633"N	104°52'29.372"W	8.34	
7501.00	29.720	182.570	7385.62	-464.20	542.40	-581.52	40°07'07.489"N	104°52'29.381"W	10.59	
7533.00	33.080	181.700	7412.93	-447.60	525.74	-582.13	40°07'07.324"N	104°52'29.389"W	10.59	
7564.00	36.010	181.270	7438.47	-430.11	508.17	-582.59	40°07'07.151"N	104°52'29.395"W	9.48	
7596.00	40.110	181.410	7463.66	-410.50	488.45	-583.05	40°07'06.956"N	104°52'29.401"W	12.82	
7628.00	44.550	181.450	7487.31	-389.07	466.92	-583.59	40°07'06.743"N	104°52'29.408"W	13.88	
7659.00	48.550	181.690	7508.62	-366.68	444.42	-584.20	40°07'06.521"N	104°52'29.416"W	12.92	
7690.00	52.860	182.020	7528.25	-342.80	420.45	-584.98	40°07'06.284"N	104°52'29.426"W	13.93	
7722.00	57.600	182.760	7546.49	-316.62	394.20	-586.08	40°07'06.024"N	104°52'29.440"W	14.93	
7753.00	61.230	182.680	7562.27	-290.02	367.54	-587.35	40°07'05.761"N	104°52'29.456"W	11.71	
7785.00	66.430	182.960	7576.37	-261.40	338.87	-588.76	40°07'05.478"N	104°52'29.474"W	16.27	
7816.00	72.000	182.820	7587.37	-232.51	309.93	-590.22	40°07'05.192"N	104°52'29.493"W	17.97	

REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	BLACK TIGER 15C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 15C-27HZ AWP
Facility	SEC.22-T2N-R67W		

### WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7848.00	75.870	182.300	7596.22	-201.87	279.22	-591.60	40°07'04.888"N	104°52'29.511"W	12.19	
7879.00	79.760	182.200	7602.77	-171.69	248.95	-592.78	40°07'04.589"N	104°52'29.526"W	12.55	
7903.00	82.440	181.410	7606.48	-148.09	225.25	-593.53	40°07'04.355"N	104°52'29.536"W	11.63	
7938.00†	85.068	181.032	7610.29	-113.50	190.47	-594.27	40°07'04.011"N	104°52'29.545"W	7.58	7" CASING POINT
7970.00	87.470	180.690	7612.37	-81.77	158.54	-594.75	40°07'03.696"N	104°52'29.552"W	7.58	
8064.00	88.300	181.160	7615.84	11.58	64.62	-596.27	40°07'02.768"N	104°52'29.571"W	1.01	
8158.00	89.470	180.190	7617.67	104.94	-29.35	-597.38	40°07'01.839"N	104°52'29.585"W	1.62	
8253.00	89.810	181.300	7618.26	199.31	-124.34	-598.61	40°07'00.900"N	104°52'29.601"W	1.22	
8347.00	89.900	182.340	7618.50	292.88	-218.29	-601.60	40°06'59.972"N	104°52'29.639"W	1.11	
8441.00	89.630	182.870	7618.89	386.57	-312.19	-605.87	40°06'59.044"N	104°52'29.694"W	0.63	
8536.00	89.590	183.650	7619.53	481.33	-407.04	-611.27	40°06'58.107"N	104°52'29.764"W	0.82	
8630.00	90.700	185.450	7619.30	575.22	-500.73	-618.73	40°06'57.181"N	104°52'29.860"W	2.25	
8724.00	91.410	184.210	7617.56	669.11	-594.38	-626.64	40°06'56.255"N	104°52'29.962"W	1.52	
8818.00	90.360	183.810	7616.11	762.95	-688.14	-633.21	40°06'55.329"N	104°52'30.046"W	1.20	
8913.00	90.520	183.330	7615.38	857.74	-782.95	-639.13	40°06'54.392"N	104°52'30.122"W	0.53	
9007.00	90.890	181.710	7614.23	951.41	-876.85	-643.26	40°06'53.464"N	104°52'30.176"W	1.77	
9102.00	89.870	180.960	7613.60	1045.89	-971.82	-645.47	40°06'52.525"N	104°52'30.204"W	1.33	
9196.00	90.400	180.870	7613.38	1139.31	-1065.81	-646.97	40°06'51.596"N	104°52'30.223"W	0.57	
9290.00	90.360	180.040	7612.75	1232.64	-1159.80	-647.72	40°06'50.668"N	104°52'30.233"W	0.88	
9385.00	91.100	179.830	7611.54	1326.85	-1254.79	-647.61	40°06'49.729"N	104°52'30.231"W	0.81	
9479.00	90.610	181.430	7610.14	1420.20	-1348.77	-648.65	40°06'48.800"N	104°52'30.245"W	1.78	
9573.00	91.040	181.080	7608.79	1513.67	-1442.74	-650.71	40°06'47.872"N	104°52'30.271"W	0.59	
9668.00	88.860	179.200	7608.87	1607.92	-1537.73	-650.94	40°06'46.933"N	104°52'30.274"W	3.03	
9762.00	88.820	178.600	7610.77	1700.89	-1631.69	-649.13	40°06'46.004"N	104°52'30.251"W	0.64	
9856.00	89.040	179.800	7612.53	1793.94	-1725.67	-647.82	40°06'45.076"N	104°52'30.234"W	1.30	
9951.00	88.760	181.340	7614.35	1888.26	-1820.64	-648.77	40°06'44.137"N	104°52'30.246"W	1.65	
10045.00	89.130	181.030	7616.08	1981.71	-1914.61	-650.71	40°06'43.209"N	104°52'30.271"W	0.51	
10139.00	89.590	180.550	7617.13	2075.10	-2008.59	-652.01	40°06'42.280"N	104°52'30.288"W	0.71	
10234.00	89.930	180.540	7617.53	2169.44	-2103.59	-652.91	40°06'41.341"N	104°52'30.299"W	0.36	
10328.00	90.400	180.400	7617.26	2262.78	-2197.58	-653.68	40°06'40.412"N	104°52'30.309"W	0.52	
10422.00	89.070	180.770	7617.69	2356.13	-2291.57	-654.64	40°06'39.483"N	104°52'30.322"W	1.47	
10517.00	89.500	180.660	7618.88	2450.50	-2386.56	-655.83	40°06'38.545"N	104°52'30.337"W	0.47	
10611.00	89.690	180.090	7619.54	2543.81	-2480.55	-656.44	40°06'37.616"N	104°52'30.345"W	0.64	
10706.00	89.930	180.160	7619.86	2638.07	-2575.55	-656.65	40°06'36.677"N	104°52'30.347"W	0.26	
10800.00	90.670	180.180	7619.37	2731.34	-2669.55	-656.93	40°06'35.748"N	104°52'30.351"W	0.79	
10895.00	89.810	181.330	7618.97	2825.72	-2764.54	-658.18	40°06'34.809"N	104°52'30.367"W	1.51	
10989.00	89.200	181.820	7619.78	2919.25	-2858.50	-660.76	40°06'33.881"N	104°52'30.400"W	0.83	
11083.00	90.360	182.420	7620.14	3012.86	-2952.43	-664.24	40°06'32.953"N	104°52'30.445"W	1.39	
11177.00	91.170	182.460	7618.89	3106.52	-3046.34	-668.24	40°06'32.025"N	104°52'30.496"W	0.86	
11272.00	89.350	181.920	7618.45	3201.14	-3141.26	-671.87	40°06'31.087"N	104°52'30.543"W	2.00	
11366.00	89.750	181.320	7619.19	3294.67	-3235.22	-674.53	40°06'30.158"N	104°52'30.577"W	0.77	
11461.00	90.400	180.780	7619.07	3389.11	-3330.20	-676.27	40°06'29.219"N	104°52'30.600"W	0.89	
11555.00	89.900	181.180	7618.82	3482.54	-3424.19	-677.88	40°06'28.291"N	104°52'30.620"W	0.68	
11649.00	88.860	181.090	7619.84	3575.99	-3518.17	-679.74	40°06'27.362"N	104°52'30.644"W	1.11	
11744.00	89.040	181.000	7621.58	3670.41	-3613.13	-681.47	40°06'26.423"N	104°52'30.666"W	0.21	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 BLACK TIGER 15C-27HZ (300'FSL & 1472'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 15C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 15C-27HZ AWB
Facility	SEC.22-T2N-R67W		

### WELLPATH DATA (155 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11838.00	90.120	181.680	7622.27	3763.90	-3707.10	-683.67	40°06'25.495"N	104°52'30.695"W	1.36	
11932.00	88.480	181.190	7623.42	3857.40	-3801.06	-686.02	40°06'24.566"N	104°52'30.725"W	1.82	
12026.00	89.160	181.460	7625.35	3950.87	-3895.02	-688.20	40°06'23.638"N	104°52'30.753"W	0.78	
12121.00	89.750	181.060	7626.26	4045.33	-3989.99	-690.28	40°06'22.699"N	104°52'30.780"W	0.75	
12215.00	89.930	180.500	7626.52	4138.73	-4083.98	-691.56	40°06'21.770"N	104°52'30.796"W	0.63	
12309.00	89.070	180.600	7627.34	4232.07	-4177.97	-692.47	40°06'20.842"N	104°52'30.808"W	0.92	
12404.00	89.230	180.910	7628.75	4326.44	-4272.95	-693.72	40°06'19.903"N	104°52'30.824"W	0.37	
12498.00	89.960	181.020	7629.41	4419.87	-4366.94	-695.30	40°06'18.974"N	104°52'30.844"W	0.79	
12592.00	90.640	181.020	7628.92	4513.30	-4460.92	-696.97	40°06'18.046"N	104°52'30.866"W	0.72	
12687.00	89.230	180.560	7629.03	4607.69	-4555.91	-698.28	40°06'17.107"N	104°52'30.882"W	1.56	
12781.00	89.560	180.580	7630.02	4701.04	-4649.90	-699.22	40°06'16.178"N	104°52'30.894"W	0.35	
12876.00	89.440	179.730	7630.85	4795.30	-4744.89	-699.48	40°06'15.239"N	104°52'30.898"W	0.90	
12970.00	89.720	180.070	7631.54	4888.51	-4838.89	-699.31	40°06'14.310"N	104°52'30.896"W	0.47	
13065.00	90.400	179.990	7631.44	4982.75	-4933.89	-699.36	40°06'13.372"N	104°52'30.896"W	0.72	
13159.00	90.430	179.870	7630.76	5075.97	-5027.89	-699.25	40°06'12.443"N	104°52'30.895"W	0.13	
13254.00	90.790	180.290	7629.75	5170.22	-5122.88	-699.38	40°06'11.504"N	104°52'30.896"W	0.58	
13348.00	91.260	179.480	7628.07	5263.42	-5216.86	-699.19	40°06'10.575"N	104°52'30.894"W	1.00	
13443.00	89.810	179.130	7627.18	5357.49	-5311.85	-698.04	40°06'09.636"N	104°52'30.879"W	1.57	
13520.00	90.240	179.480	7627.15	5433.74	-5388.84	-697.11	40°06'08.876"N	104°52'30.867"W	0.72	LAST BHI MWD+IFR SURVEY
13575.00	90.240	179.480	7626.92	5488.23	-5443.84	-696.61	40°06'08.332"N	104°52'30.861"W	0.00	PROJECTION TO BIT

### HOLE & CASING SECTIONS - Ref Wellbore: BLACK TIGER 15C-27HZ AWB Ref Wellpath: BLACK TIGER 15C-27HZ AWP

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	25.00	1750.00	1725.00	25.00	1749.96	0.00	0.00	4.54	-7.11
9.625in Casing Surface	25.00	1750.00	1725.00	25.00	1749.96	0.00	0.00	4.54	-7.11
8.75in Open Hole	1750.00	7945.00	6195.00	1749.96	7610.86	4.54	-7.11	183.49	-594.39
7in Casing Intermediate	25.00	7938.00	7913.00	25.00	7610.29	0.00	0.00	190.47	-594.27
6.125in Open Hole	7945.00	13575.00	5630.00	7610.86	7626.92	183.49	-594.39	-5443.84	-696.61

### WELLPATH COMPOSITION - Ref Wellbore: BLACK TIGER 15C-27HZ AWB Ref Wellpath: BLACK TIGER 15C-27HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	1657.00	Generic gyro - continuous (Standard)	MS GYRO SURVEYS <125-1657>	BLACK TIGER 15C-27HZ AWB
1657.00	7903.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MED+IFR 8 3/4" <1848-7903>	BLACK TIGER 15C-27HZ AWB
7903.00	13520.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 6 1/8" <7970-13520>	BLACK TIGER 15C-27HZ AWB
13520.00	13575.00	Blind Drilling (std)	Projection to bit	BLACK TIGER 15C-27HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 BLACK TIGER 15C-27HZ (300'FSL & 1472'FEL, SEC.22)
Area	COLORADO	Well	BLACK TIGER 15C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BLACK TIGER 15C-27HZ AWB
Facility	SEC.22-T2N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
25.00	0.000	322.320	25.00	TIE ON
125.00	0.480	322.320	125.00	BEGIN GYRO SURVEYS
1657.00	0.680	286.220	1656.96	TIE ONTO GYRO SURVEYS
1848.00	0.040	153.500	1847.96	BEGIN BHI MWD+IFR SURVEYS
7938.00	85.068	181.032	7610.29	7" CASING POINT
13520.00	90.240	179.480	7627.15	LAST BHI MWD+IFR SURVEY
13575.00	90.240	179.480	7626.92	PROJECTION TO BIT