

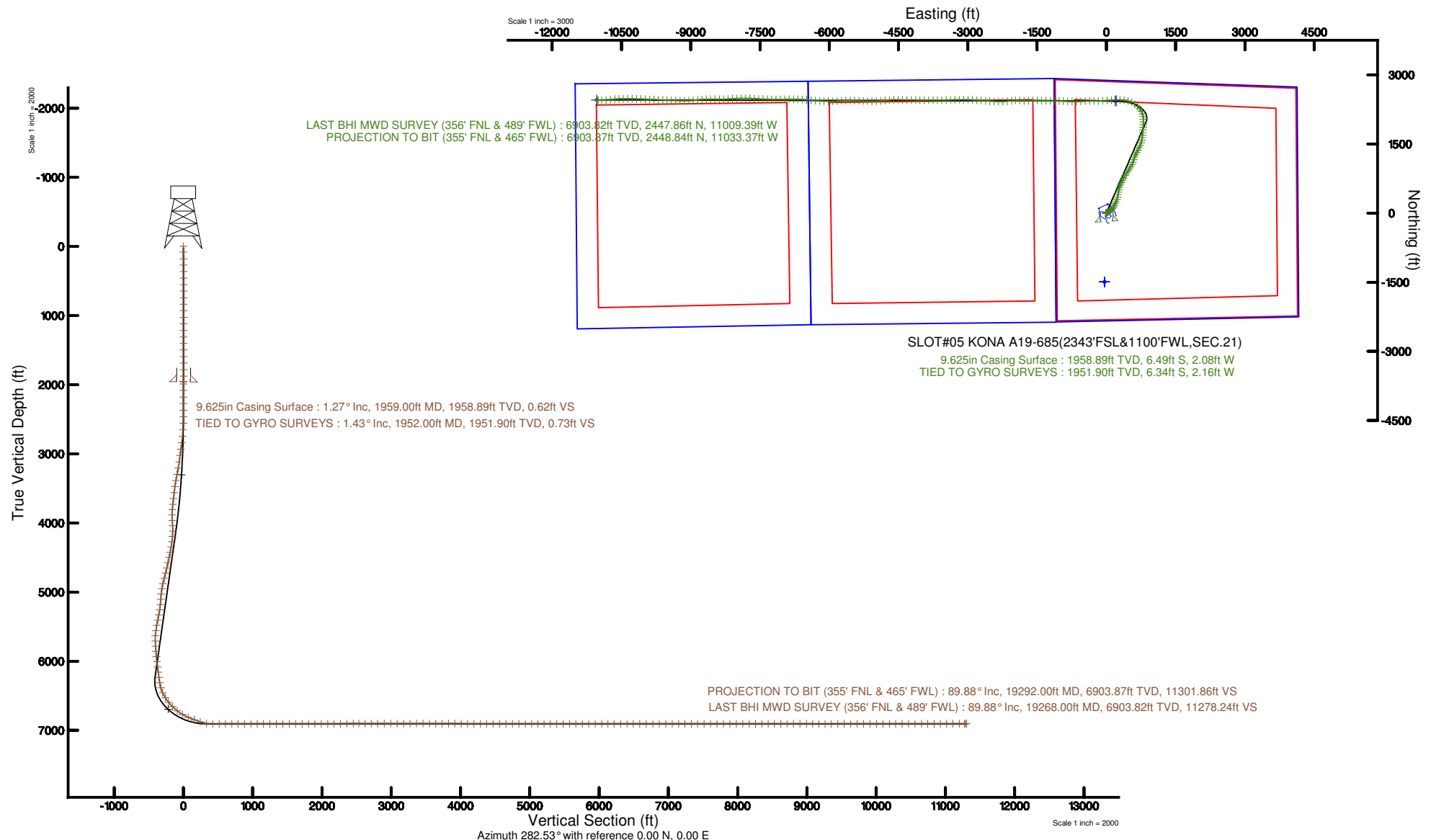
NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: KONA A19-685
 Facility: SEC.21-T06N-R64W Wellbore: KONA A19-685 PWB

Plot reference wellpath is KONA A19-685 (REV-B.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (30'KB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to RIG (30'KB) (RKB)	North Reference: Grid north
RIG (30'KB) (RKB) to Mean Sea Level: 4773 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cantryat on 2017-07-07
	Database: Denver

Comments

SURFACE LOCATION: NWSW
 40.47069N
 104.56063W
 API #: 05-123-44525





Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Cantryat
Scale	0.999964	Report Generated	7/7/2017 at 12:00:17 PM
Convergence at slot	0.61° East	Database/Source file	Denver/KONA_A19-685_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1494.20	39.82	3261346.58	1415697.03	40°28'14.484"N	104°33'38.268"W
Facility Reference Pt			3261306.76	1414202.89	40°27'59.724"N	104°33'38.988"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (30'KB) (RKB) to Facility Vertical Datum	4773.00ft
Horizontal Reference Pt	Slot	RIG (30'KB) (RKB) to Mean Sea Level	4773.00ft
Vertical Reference Pt	RIG (30'KB) (RKB)	RIG (30'KB) (RKB) to Ground Level at Slot (SLOT#05 KONA A19-685 (2343'FSL&1100'FWL,SEC.21))	4773.00ft
MD Reference Pt	RIG (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	282.53°



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

WELLPATH DATA (207 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	328.600	0.00	0.00	0.00	0.00	0.00	
82.00	0.950	328.600	82.00	0.47	0.58	-0.35	1.16	
178.00	0.730	326.410	177.99	1.46	1.77	-1.11	0.23	
269.00	0.380	359.560	268.98	1.95	2.55	-1.43	0.51	
364.00	0.170	335.840	363.98	2.11	3.00	-1.49	0.25	
458.00	0.300	345.570	457.98	2.30	3.36	-1.61	0.14	
553.00	0.280	264.920	552.98	2.63	3.58	-1.90	0.40	
647.00	0.190	248.380	646.98	2.98	3.51	-2.28	0.12	
742.00	0.330	232.560	741.98	3.29	3.28	-2.64	0.16	
836.00	0.490	285.620	835.97	3.86	3.22	-3.24	0.42	
931.00	0.250	226.650	930.97	4.39	3.19	-3.78	0.44	
1025.00	0.280	221.670	1024.97	4.61	2.88	-4.09	0.04	
1120.00	0.550	165.890	1119.97	4.52	2.26	-4.13	0.48	
1215.00	0.300	162.460	1214.97	4.19	1.58	-3.94	0.26	
1309.00	0.420	217.820	1308.97	4.22	1.08	-4.08	0.37	
1403.00	0.160	100.350	1402.96	4.23	0.78	-4.16	0.55	
1498.00	0.690	203.070	1497.96	4.20	0.23	-4.25	0.78	
1593.00	0.300	170.890	1592.96	4.22	-0.54	-4.44	0.49	
1687.00	0.690	172.460	1686.96	3.93	-1.34	-4.33	0.42	
1782.00	0.980	159.050	1781.95	3.29	-2.67	-3.96	0.37	
1876.00	1.580	153.350	1875.92	2.02	-4.58	-3.09	0.65	
1952.00	1.430	151.020	1951.90	0.73	-6.34	-2.16	0.21	TIED TO GYRO SURVEYS
1991.00	0.590	132.380	1990.89	0.24	-6.91	-1.78	2.28	
2085.00	0.920	45.310	2084.88	-0.59	-6.70	-0.88	1.14	
2180.00	1.240	11.380	2179.87	-0.98	-5.16	-0.14	0.74	
2275.00	1.820	318.180	2274.84	0.26	-3.03	-0.94	1.54	
2369.00	0.110	74.820	2368.82	1.40	-1.89	-1.85	1.99	
2464.00	2.140	43.500	2463.80	0.40	-0.58	-0.54	2.15	
2558.00	3.270	51.040	2557.69	-2.17	2.38	2.75	1.26	
2653.00	3.780	55.190	2652.51	-5.98	5.87	7.43	0.60	



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

WELLPATH DATA (207 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2747.00	6.230	71.220	2746.15	-12.44	9.28	14.80	2.98	
2842.00	8.550	71.440	2840.36	-22.89	13.19	26.38	2.44	
2936.00	10.780	62.830	2933.02	-35.64	19.43	40.83	2.82	
3030.00	12.140	50.390	3025.16	-48.47	29.75	56.27	2.99	
3125.00	14.550	43.360	3117.59	-60.72	44.80	72.16	3.05	
3219.00	17.540	47.940	3207.92	-74.98	62.87	90.79	3.45	
3314.00	18.910	47.210	3298.16	-92.03	82.92	112.71	1.46	
3408.00	20.820	42.490	3386.56	-109.04	105.59	135.18	2.65	
3503.00	22.560	32.280	3474.87	-123.63	133.46	156.32	4.37	
3597.00	23.490	25.690	3561.39	-133.99	165.59	174.08	2.91	
3691.00	26.850	25.200	3646.45	-142.91	201.69	191.24	3.58	
3786.00	31.980	24.800	3729.18	-152.96	243.97	210.94	5.40	
3880.00	34.700	18.540	3807.73	-161.05	291.96	229.90	4.66	
3974.00	34.990	11.360	3884.90	-163.30	343.77	243.72	4.37	
4069.00	34.860	7.350	3962.81	-160.29	397.41	252.56	2.42	
4164.00	35.000	8.390	4040.69	-155.87	451.29	260.01	0.64	
4258.00	34.260	13.250	4118.05	-154.25	503.72	270.01	3.04	
4353.00	36.810	20.600	4195.39	-158.58	556.43	286.16	5.23	
4448.00	36.820	22.090	4271.45	-167.30	609.45	306.88	0.94	
4542.00	36.660	23.660	4346.78	-177.39	661.25	328.74	1.01	
4637.00	36.290	28.420	4423.18	-190.56	711.96	353.50	3.00	
4731.00	37.220	29.270	4498.50	-206.36	761.23	380.64	1.13	
4826.00	37.090	28.360	4574.21	-222.44	811.50	408.30	0.59	
4920.00	36.050	30.390	4649.71	-238.65	860.30	435.76	1.70	
5015.00	37.200	33.550	4725.96	-257.52	908.36	465.77	2.32	
5109.00	37.280	32.240	4800.79	-277.31	956.12	496.66	0.85	
5204.00	37.270	30.120	4876.39	-295.71	1005.34	526.45	1.35	
5298.00	35.630	26.460	4952.01	-310.90	1054.48	552.94	2.90	
5392.00	37.210	20.280	5027.67	-321.32	1105.67	575.00	4.25	
5487.00	37.190	18.070	5103.34	-327.96	1159.91	593.86	1.41	



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

WELLPATH DATA (207 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5582.00	35.910	18.700	5179.66	-333.72	1213.60	611.70	1.40	
5677.00	36.100	23.370	5256.53	-341.98	1265.69	631.74	2.90	
5771.00	37.260	28.120	5331.93	-354.83	1316.22	656.14	3.26	
5865.00	37.320	28.080	5406.71	-370.11	1366.46	682.96	0.07	
5960.00	37.290	27.220	5482.28	-385.13	1417.45	709.68	0.55	
6055.00	37.280	23.020	5557.87	-397.66	1469.53	734.10	2.68	
6149.00	37.230	17.020	5632.72	-405.06	1522.94	753.56	3.86	
6244.00	37.140	10.720	5708.43	-406.40	1578.62	767.31	4.01	
6338.00	37.240	7.440	5783.32	-402.98	1634.71	776.27	2.11	
6433.00	37.150	7.080	5859.00	-397.70	1691.68	783.53	0.25	
6528.00	37.300	4.880	5934.65	-391.14	1748.83	789.52	1.41	
6622.00	37.230	3.680	6009.46	-382.97	1805.59	793.76	0.78	
6717.00	37.230	3.180	6085.10	-373.87	1862.96	797.20	0.32	
6811.00	37.250	2.360	6159.93	-364.22	1919.78	799.95	0.53	
6906.00	37.400	1.540	6235.48	-353.64	1977.35	801.91	0.55	
7000.00	37.170	359.530	6310.27	-341.81	2034.28	802.45	1.32	
7095.00	38.170	351.960	6385.51	-325.02	2092.08	798.10	4.98	
7189.00	40.690	340.960	6458.20	-298.73	2149.88	784.02	7.89	
7284.00	43.530	331.060	6528.74	-260.80	2207.86	758.06	7.59	
7379.00	46.910	322.210	6595.72	-212.37	2263.98	720.92	7.50	
7473.00	48.930	313.700	6658.78	-155.57	2315.64	674.22	7.05	
7568.00	53.820	305.990	6718.11	-89.66	2362.98	617.22	8.16	
7662.00	61.200	296.770	6768.65	-14.71	2403.95	549.56	11.39	
7757.00	65.970	285.890	6811.00	69.19	2434.67	470.43	11.41	
7852.00	69.660	275.410	6846.95	156.94	2450.79	384.13	10.92	
7946.00	71.620	269.370	6878.14	244.17	2454.46	295.58	6.41	
8041.00	80.790	267.870	6900.77	333.62	2452.21	203.44	9.77	
8135.00	90.680	267.640	6907.75	424.15	2448.54	109.89	10.52	
8230.00	90.710	266.850	6906.60	515.78	2443.98	15.01	0.83	
8325.00	90.120	265.270	6905.91	606.87	2437.45	-79.76	1.78	



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWP
Facility	SEC.21-T06N-R64W		

WELLPATH DATA (207 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8419.00	90.000	269.510	6905.81	697.59	2433.17	-173.64	4.51	
8514.00	90.090	270.610	6905.74	790.34	2433.27	-268.64	1.16	
8609.00	89.880	268.160	6905.76	882.84	2432.25	-363.63	2.59	
8703.00	90.000	267.100	6905.86	973.68	2428.36	-457.54	1.13	
8798.00	89.850	267.290	6905.98	1065.30	2423.71	-552.43	0.25	
8892.00	89.720	268.210	6906.34	1156.18	2420.02	-646.36	0.99	
8987.00	90.090	270.620	6906.49	1248.69	2419.05	-741.34	2.57	
9081.00	89.880	273.150	6906.52	1341.07	2422.15	-835.28	2.70	
9176.00	89.940	274.260	6906.67	1434.94	2428.28	-930.08	1.17	
9270.00	90.120	270.860	6906.62	1527.51	2432.48	-1023.98	3.62	
9365.00	90.120	270.370	6906.42	1620.46	2433.50	-1118.97	0.52	
9459.00	90.150	271.330	6906.20	1712.51	2434.90	-1212.96	1.02	
9554.00	89.970	271.460	6906.10	1805.72	2437.21	-1307.93	0.23	
9648.00	90.310	272.410	6905.87	1898.11	2440.38	-1401.88	1.07	
9743.00	90.220	270.680	6905.43	1991.36	2442.94	-1496.84	1.82	
9837.00	90.520	267.470	6904.82	2082.77	2441.43	-1590.81	3.43	
9932.00	90.090	267.090	6904.32	2174.42	2436.92	-1685.70	0.60	
10026.00	90.580	273.720	6903.77	2266.27	2437.58	-1779.64	7.07	
10121.00	90.370	273.130	6902.98	2360.07	2443.26	-1874.47	0.66	
10216.00	91.110	267.560	6901.75	2452.88	2443.83	-1969.42	5.91	
10299.00	89.940	263.840	6900.99	2532.30	2437.61	-2052.17	4.70	
10394.00	89.820	264.250	6901.19	2622.40	2427.75	-2146.66	0.45	
10488.00	89.750	267.420	6901.54	2712.42	2420.93	-2240.40	3.37	
10582.00	89.690	271.090	6902.00	2803.89	2419.70	-2334.37	3.90	
10677.00	89.970	274.220	6902.28	2897.47	2424.10	-2429.26	3.31	
10771.00	90.000	275.980	6902.31	2990.68	2432.46	-2522.88	1.87	
10866.00	89.690	273.810	6902.56	3084.83	2440.57	-2617.53	2.31	
10960.00	90.120	272.760	6902.72	3177.60	2445.95	-2711.37	1.21	
11055.00	90.030	273.580	6902.60	3271.34	2451.21	-2806.23	0.87	
11150.00	89.880	272.580	6902.67	3365.04	2456.31	-2901.09	1.06	



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

WELLPATH DATA (207 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
11244.00	89.750	271.020	6902.97	3457.40	2459.26	-2995.04	1.67	
11339.00	90.090	269.100	6903.11	3550.15	2459.36	-3090.03	2.05	
11433.00	90.120	269.090	6902.93	3641.57	2457.88	-3184.02	0.03	
11528.00	89.880	270.280	6902.93	3734.19	2457.36	-3279.02	1.28	
11623.00	89.970	267.450	6903.06	3826.49	2455.47	-3373.99	2.98	
11717.00	89.820	267.970	6903.23	3917.36	2451.72	-3467.91	0.58	
11812.00	89.780	269.270	6903.56	4009.57	2449.43	-3562.88	1.37	
11906.00	89.780	270.330	6903.92	4101.26	2449.10	-3656.88	1.13	
12001.00	90.060	269.460	6904.06	4193.95	2448.93	-3751.88	0.96	
12095.00	89.720	269.940	6904.24	4285.61	2448.44	-3845.88	0.63	
12190.00	89.820	271.050	6904.62	4378.51	2449.26	-3940.87	1.17	
12285.00	89.970	271.100	6904.79	4471.62	2451.04	-4035.86	0.17	
12379.00	90.060	272.270	6904.77	4563.94	2453.80	-4129.81	1.25	
12474.00	89.910	268.780	6904.79	4656.84	2454.67	-4224.79	3.68	
12568.00	89.970	270.460	6904.89	4748.46	2454.05	-4318.79	1.79	
12663.00	90.060	272.370	6904.87	4841.67	2456.40	-4413.76	2.01	
12758.00	90.090	272.190	6904.74	4935.16	2460.17	-4508.68	0.19	
12852.00	90.220	268.010	6904.49	5026.93	2460.34	-4602.66	4.45	
12946.00	89.940	263.930	6904.36	5117.01	2453.73	-4696.41	4.35	
13041.00	89.940	264.510	6904.46	5207.20	2444.17	-4790.92	0.61	
13135.00	90.090	265.660	6904.43	5296.87	2436.11	-4884.58	1.23	
13230.00	89.880	266.970	6904.46	5388.09	2430.01	-4979.38	1.40	
13325.00	89.970	270.400	6904.58	5480.31	2427.83	-5074.34	3.61	
13420.00	90.120	272.860	6904.51	5573.59	2430.53	-5169.29	2.59	
13514.00	90.120	273.830	6904.31	5666.38	2436.01	-5263.13	1.03	
13609.00	90.090	270.710	6904.13	5759.85	2439.78	-5358.04	3.28	
13703.00	89.850	270.290	6904.18	5851.78	2440.60	-5452.04	0.51	
13798.00	90.180	272.850	6904.16	5945.04	2443.20	-5547.00	2.72	
13893.00	89.880	270.040	6904.11	6038.26	2445.59	-5641.96	2.97	
13987.00	89.780	263.050	6904.39	6128.56	2439.93	-5735.73	7.44	



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

WELLPATH DATA (207 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
14082.00	90.060	264.670	6904.52	6218.56	2429.77	-5830.18	1.73	
14176.00	89.450	270.150	6904.92	6309.26	2425.53	-5924.05	5.87	
14271.00	90.000	271.550	6905.38	6402.29	2426.94	-6019.03	1.58	
14365.00	89.940	271.640	6905.43	6494.58	2429.55	-6113.00	0.12	
14459.00	90.060	273.060	6905.43	6587.10	2433.41	-6206.91	1.52	
14554.00	89.630	275.000	6905.69	6681.05	2440.08	-6301.67	2.09	
14649.00	89.880	275.660	6906.09	6775.30	2448.91	-6396.26	0.74	
14743.00	90.150	274.720	6906.07	6868.53	2457.41	-6489.88	1.04	
14838.00	90.060	272.670	6905.89	6962.39	2463.53	-6584.67	2.16	
14932.00	90.030	271.780	6905.82	7054.87	2467.18	-6678.60	0.95	
15027.00	90.030	270.260	6905.77	7147.96	2468.87	-6773.58	1.60	
15122.00	90.090	269.370	6905.67	7240.63	2468.57	-6868.58	0.94	
15216.00	89.820	268.450	6905.74	7331.98	2466.78	-6962.56	1.02	
15311.00	90.520	267.880	6905.46	7424.01	2463.74	-7057.51	0.95	
15405.00	89.720	270.980	6905.26	7515.55	2462.80	-7151.50	3.41	
15500.00	90.150	272.570	6905.37	7608.87	2465.74	-7246.45	1.73	
15594.00	89.820	271.530	6905.40	7701.30	2469.11	-7340.39	1.16	
15689.00	90.000	271.320	6905.55	7794.52	2471.47	-7435.36	0.29	
15783.00	90.310	274.540	6905.29	7887.19	2476.27	-7529.22	3.44	
15878.00	90.250	274.710	6904.83	7981.29	2483.93	-7623.91	0.19	
15972.00	90.400	270.370	6904.29	8073.84	2488.10	-7717.79	4.62	
16067.00	90.000	271.100	6903.96	8166.83	2489.32	-7812.78	0.88	
16161.00	89.910	269.270	6904.04	8258.65	2489.62	-7906.78	1.95	
16256.00	89.940	266.530	6904.16	8350.56	2486.14	-8001.71	2.88	
16351.00	90.370	265.870	6903.90	8441.72	2479.84	-8096.50	0.83	
16445.00	89.850	266.630	6903.72	8531.95	2473.69	-8190.29	0.98	
16540.00	89.910	268.570	6903.92	8623.73	2469.72	-8285.21	2.04	
16634.00	89.910	270.090	6904.07	8715.25	2468.62	-8379.20	1.62	
16729.00	90.120	270.190	6904.05	8808.03	2468.85	-8474.20	0.24	
16824.00	90.120	270.430	6903.85	8900.88	2469.36	-8569.19	0.25	



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWP
Facility	SEC.21-T06N-R64W		

WELLPATH DATA (207 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
16918.00	89.750	270.440	6903.95	8992.79	2470.08	-8663.19	0.39	
17013.00	87.380	264.090	6906.33	9084.35	2465.55	-8758.00	7.13	
17107.00	88.830	262.850	6909.44	9173.14	2454.87	-8851.33	2.03	
17202.00	90.830	264.900	6909.72	9263.14	2444.73	-8945.78	3.01	
17296.00	90.770	268.120	6908.41	9353.47	2439.01	-9039.59	3.43	
17391.00	90.860	270.980	6907.06	9446.02	2438.27	-9134.56	3.01	
17485.00	90.150	271.500	6906.23	9538.19	2440.30	-9228.54	0.94	
17580.00	90.180	271.710	6905.96	9631.47	2442.96	-9323.50	0.22	
17675.00	90.220	271.410	6905.63	9724.73	2445.55	-9418.46	0.32	
17770.00	90.060	271.780	6905.39	9818.00	2448.19	-9513.43	0.42	
17864.00	90.180	273.210	6905.20	9910.56	2452.28	-9607.33	1.53	
17959.00	90.180	274.810	6904.90	10004.51	2458.93	-9702.10	1.68	
18053.00	90.000	271.120	6904.75	10097.19	2463.79	-9795.96	3.93	
18148.00	90.250	271.440	6904.54	10190.36	2465.91	-9890.93	0.43	
18242.00	90.150	272.990	6904.22	10282.83	2469.54	-9984.86	1.65	
18336.00	90.060	271.840	6904.04	10375.37	2473.50	-10078.77	1.23	
18431.00	90.000	271.920	6903.99	10468.73	2476.62	-10173.72	0.11	
18526.00	89.880	271.720	6904.09	10562.08	2479.64	-10268.67	0.25	
18620.00	90.120	270.590	6904.09	10654.23	2481.53	-10362.65	1.23	
18714.00	90.030	268.890	6903.97	10745.89	2481.10	-10456.65	1.81	
18809.00	90.060	266.550	6903.90	10837.72	2477.33	-10551.57	2.46	
18903.00	90.150	266.270	6903.72	10928.03	2471.44	-10645.38	0.31	
18998.00	89.970	264.840	6903.62	11018.88	2464.08	-10740.09	1.52	
19092.00	90.030	264.470	6903.62	11108.34	2455.32	-10833.68	0.40	
19187.00	89.910	267.050	6903.67	11199.29	2448.30	-10928.42	2.72	
19268.00	89.880	272.330	6903.82	11278.24	2447.86	-11009.39	6.52	LAST BHI MWD SURVEY (356' FNL & 489' FWL)
19292.00	89.880	272.330	6903.87	11301.86	2448.84	-11033.37	0.00	PROJECTION TO BIT (355' FNL & 465' FWL)



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

HOLE & CASING SECTIONS - Ref Wellbore: KONA A19-685 AWB Ref Wellpath: KONA A19-685 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]
9.625in Casing Surface	30.00	1959.00	1929.00	30.00	1958.89	0.08	-0.05	-6.49	-2.08
8.5in Open Hole	30.00	19292.00	19262.00	30.00	6903.87	0.08	-0.05	2448.84	-11033.37

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
KONA A19-616 SECTION 19	20.00	-1494.20	-39.82	3261306.76	1414202.89	40°27'59.724"N	104°33'38.988"W	polygon
KONA A19-616 SECTION 20	20.00	-1494.20	-39.82	3261306.76	1414202.89	40°27'59.724"N	104°33'38.988"W	polygon
KONA A19-616 SECTION 21	20.00	-1494.20	-39.82	3261306.76	1414202.89	40°27'59.724"N	104°33'38.988"W	polygon
KONA A19-685 Landing Point 2 (490'FNL&1355'FWL,SEC.21)	6905.00	2435.00	215.00	3261561.57	1418131.94	40°28'38.522"N	104°33'35.152"W	point
KONA A19-685 Landing Point (490'FNL&1330'FWL,SEC.21)	6905.00	2435.00	190.00	3261536.57	1418131.94	40°28'38.524"N	104°33'35.476"W	point
KONA A19-685 REV-1 BHL (350'FNL&461'FWL,SEC.19)	6905.00	2454.10	-11037.83	3250309.17	1418151.04	40°28'39.864"N	104°36'00.756"W	point
KONA A19-616 SECTION 19 (460'SETBACK)	6920.00	-1494.20	-39.82	3261306.76	1414202.89	40°27'59.724"N	104°33'38.988"W	polygon
KONA A19-616 SECTION 20 (460'SETBACK)	6920.00	-1494.20	-39.82	3261306.76	1414202.89	40°27'59.724"N	104°33'38.988"W	polygon
KONA A19-616 SECTION 21 (460'SETBACK)	6920.00	-1494.20	-39.82	3261306.76	1414202.89	40°27'59.724"N	104°33'38.988"W	polygon



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

WELLPATH COMPOSITION - Ref Wellbore: KONA A19-685 AWB Ref Wellpath: KONA A19-685 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1952.00	Gyrodatta relative depth - Drop gyro or Multi-shot	Surface Gyros GYRO SURVEYS <0' - 1952'>	KONA A19-685 AWB
1952.00	19268.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BHI SURVEYS (OWSG+IFR1+MSA) 8.5" HOLE <1991'-19268'>	KONA A19-685 AWB
19268.00	19292.00	Blind Drilling (std)	Projection to bit	KONA A19-685 AWB



Actual Wellpath Report

KONA A19-685 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#05 KONA A19-685(2343'FSL&1100'FWL,SEC.21)
Area	COLORADO	Well	KONA A19-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KONA A19-685 AWB
Facility	SEC.21-T06N-R64W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1952.00	1.430	151.020	1951.90	TIED TO GYRO SURVEYS
19268.00	89.880	272.330	6903.82	LAST BHI MWD SURVEY (356' FNL & 489' FWL)
19292.00	89.880	272.330	6903.87	PROJECTION TO BIT (355' FNL & 465' FWL)

COMMENTS	
Wellpath general comments SURFACE LOCATION: NWSW 40.47069N 104.56063W API #: 05-123-44525	