

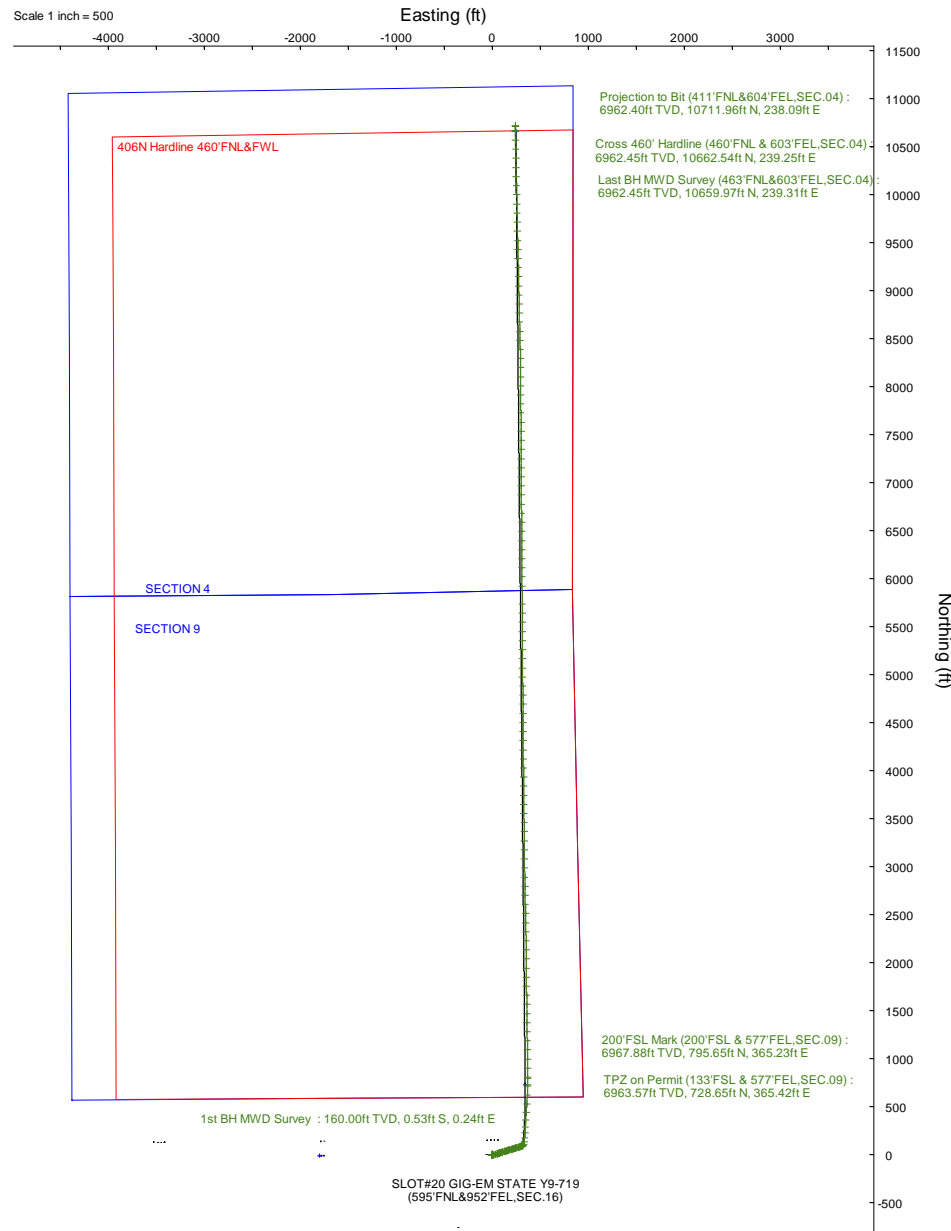
# NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)  
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: GIG-EM STATE Y9-719  
 Facility: SEC.16-T02N-R64W Wellbore: GIG-EM STATE Y9-719 PWB

Plot reference wellpath is GIG-EM STATE Y9-719 (REV-E.0) PWP  
 True vertical depths are referenced to P268 (4943'GL+29'KB@4972'RKB) (RKB)  
 Reference wellpath measured depths are referenced to P268 (4943'GL+29'KB@4972'RKB) (RKB)  
 P268 (4943'GL+29'KB@4972'RKB) (RKB) to Mean Sea Level: 4972 feet  
 Mean Sea Level to Ground level (At Slot: SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)): 0 feet  
 Offset wellpath MDs are referenced to each path's default MD datum  
 Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet  
 North Reference: Grid north  
 Scale: True distance  
 Coordinates are in feet referenced to Slot  
 Depths are in feet  
 Created by: guerler on 2023-04-05; Database: WA\_Denver

## Location Information

Facility Name		Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude	
SEC.16-T02N-R64W		3261942.561	1296894.275	40°08'40.4520"N	104°33'46.8000"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)	-130.06	3527.00	3265469.403	1296764.216	40°08'38.7960"N	104°33'1.4040"W
P268 (4943'GL+29'KB@4972'RKB) (RKB) to Ground level (At Slot: SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16))				4972ft		
Mean Sea Level to Ground level (At Slot: SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16))				0ft		
P268 (4943'GL+29'KB@4972'RKB) (RKB) to Mean Sea Level				4972ft		





# Actual Wellpath Report

GIG-EM STATE Y9-719 AWP  
Page 1 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-719
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51838
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-719 AWB
Slot	SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Guenaler
Scale	0.999959	Report Generated	4/5/2023 at 1:15:43 PM
Convergence at slot	0.61° East	Database	WA_Denver

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-130.06	3527.00	3265469.40	1296764.22	40.1441100°	-104.5503900°
Facility Reference Pt			3261942.56	1296894.28	40.1445700°	-104.5630000°
Field Reference Pt			3000000.00	4454105.15	48.7761986°	-105.5000000°

## WELLPATH DATUM

Calculation method	Minimum curvature	P268 (4943'GL+29'KB@4972'RKB) (RKB) to Facility Vertical Datum	4972.00ft
Horizontal Reference Pt	Slot	P268 (4943'GL+29'KB@4972'RKB) (RKB) to Mean Sea Level	4972.00ft
Vertical Reference Pt	P268 (4943'GL+29'KB@4972'RKB) (RKB)	P268 (4943'GL+29'KB@4972'RKB) (RKB) to Ground Level at Slot (SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16))	4972.00ft
MD Reference Pt	P268 (4943'GL+29'KB@4972'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	1.30°



# Actual Wellpath Report

GIG-EM STATE Y9-719 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-719
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51838
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-719 AWP
Slot	SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)		

WELLPATH DATA (182 stations)										
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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	155.370	0.00	0.00	0.00	0.00	40.1441100	-104.5503900	0.00	
160.00	0.420	155.370	160.00	-0.53	-0.53	0.24	40.1441085	-104.5503891	0.26	1st BH MWD Survey
251.00	0.310	136.830	251.00	-1.00	-1.02	0.55	40.1441072	-104.5503881	0.18	
342.00	0.540	193.060	341.99	-1.60	-1.61	0.62	40.1441056	-104.5503878	0.49	
437.00	0.450	196.450	436.99	-2.40	-2.41	0.42	40.1441034	-104.5503886	0.10	
531.00	0.150	200.420	530.99	-2.87	-2.88	0.27	40.1441021	-104.5503891	0.32	
626.00	0.260	177.400	625.99	-3.20	-3.21	0.24	40.1441012	-104.5503893	0.14	
721.00	0.140	187.460	720.99	-3.53	-3.54	0.23	40.1441003	-104.5503893	0.13	
816.00	0.120	215.750	815.99	-3.73	-3.73	0.16	40.1440997	-104.5503896	0.07	
911.00	0.250	228.520	910.99	-3.95	-3.95	-0.06	40.1440992	-104.5503904	0.14	
1005.00	0.280	230.070	1004.99	-4.24	-4.24	-0.39	40.1440984	-104.5503915	0.03	
1100.00	0.310	226.510	1099.99	-4.58	-4.56	-0.75	40.1440975	-104.5503929	0.04	
1195.00	0.300	193.980	1194.98	-5.00	-4.98	-1.00	40.1440964	-104.5503938	0.18	
1290.00	0.360	173.120	1289.98	-5.54	-5.52	-1.02	40.1440949	-104.5503939	0.14	
1385.00	0.400	151.180	1384.98	-6.12	-6.10	-0.83	40.1440933	-104.5503932	0.16	
1480.00	0.570	155.510	1479.98	-6.83	-6.82	-0.47	40.1440913	-104.5503919	0.18	
1574.00	0.610	183.730	1573.97	-7.75	-7.75	-0.31	40.1440887	-104.5503914	0.31	
1669.00	0.420	182.420	1668.97	-8.61	-8.60	-0.36	40.1440864	-104.5503916	0.20	
1858.00	0.200	229.400	1857.97	-9.52	-9.51	-0.64	40.1440839	-104.5503926	0.17	
2044.00	0.520	339.360	2043.96	-8.95	-8.93	-1.18	40.1440855	-104.5503946	0.33	
2194.00	2.380	73.250	2193.92	-7.36	-7.40	1.56	40.1440897	-104.5503847	1.65	
2289.00	4.550	73.210	2288.74	-5.58	-5.74	7.06	40.1440940	-104.5503650	2.28	
2384.00	4.710	72.460	2383.43	-3.15	-3.47	14.39	40.1441000	-104.5503387	0.18	
2573.00	4.680	73.170	2571.80	1.76	1.10	29.17	40.1441122	-104.5502856	0.03	
2668.00	4.600	72.290	2666.48	4.20	3.38	36.50	40.1441182	-104.5502593	0.11	
2763.00	4.640	73.100	2761.18	6.65	5.65	43.81	40.1441242	-104.5502331	0.08	
2857.00	4.630	72.450	2854.87	9.06	7.90	51.06	40.1441302	-104.5502071	0.06	
2952.00	4.680	72.430	2949.55	11.55	10.23	58.41	40.1441364	-104.5501807	0.05	
3047.00	4.670	72.700	3044.24	14.04	12.55	65.80	40.1441425	-104.5501542	0.03	
3142.00	4.640	72.640	3138.92	16.50	14.85	73.16	40.1441486	-104.5501278	0.03	
3237.00	4.600	72.880	3233.62	18.93	17.11	80.47	40.1441546	-104.5501015	0.05	
3332.00	4.640	73.070	3328.31	21.34	19.35	87.79	40.1441605	-104.5500753	0.05	
3426.00	4.650	73.260	3422.00	23.71	21.56	95.07	40.1441664	-104.5500491	0.02	
3521.00	4.660	71.860	3516.69	26.19	23.87	102.43	40.1441725	-104.5500227	0.12	

**WELLPATH DATA (182 stations)**

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3616.00	4.660	73.230	3611.37	28.67	26.18	109.79	40.1441786	-104.5499963	0.12	
3711.00	4.630	73.180	3706.06	31.06	28.41	117.15	40.1441845	-104.5499699	0.03	
3806.00	4.650	73.420	3800.75	33.43	30.61	124.52	40.1441904	-104.5499435	0.03	
3900.00	4.700	73.100	3894.44	35.80	32.82	131.85	40.1441962	-104.5499172	0.06	
3995.00	4.670	72.800	3989.12	38.25	35.10	139.27	40.1442022	-104.5498905	0.04	
4090.00	4.680	72.660	4083.80	40.71	37.40	146.66	40.1442083	-104.5498640	0.02	
4185.00	4.600	72.770	4178.49	43.16	39.68	154.00	40.1442144	-104.5498377	0.08	
4280.00	4.700	72.410	4273.18	45.63	41.98	161.35	40.1442205	-104.5498113	0.11	
4374.00	4.570	73.720	4366.87	48.01	44.20	168.62	40.1442264	-104.5497852	0.18	
4469.00	4.690	72.580	4461.56	50.40	46.42	175.95	40.1442322	-104.5497589	0.16	
4564.00	4.690	71.770	4556.24	52.94	48.80	183.35	40.1442386	-104.5497323	0.07	



# Actual Wellpath Report

GIG-EM STATE Y9-719 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-719
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51838
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-719 AWP
Slot	SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)		

WELLPATH DATA (182 stations) † = interpolated, ‡ = extrapolated station										
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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4659.00	4.640	72.080	4650.93	55.51	51.20	190.69	40.1442449	-104.5497060	0.06	
4754.00	4.580	73.030	4745.62	57.96	53.48	197.98	40.1442510	-104.5496798	0.10	
4848.00	4.700	72.450	4839.31	60.38	55.74	205.24	40.1442570	-104.5496538	0.14	
4943.00	4.710	72.350	4933.99	62.91	58.10	212.67	40.1442632	-104.5496271	0.01	
5038.00	4.670	71.880	5028.67	65.46	60.48	220.06	40.1442695	-104.5496006	0.06	
5133.00	4.680	72.960	5123.36	67.96	62.82	227.44	40.1442757	-104.5495741	0.09	
5227.00	4.550	73.060	5217.05	70.34	65.03	234.67	40.1442816	-104.5495482	0.14	
5322.00	4.570	72.920	5311.75	72.71	67.24	241.90	40.1442875	-104.5495222	0.02	
5417.00	4.610	74.140	5406.45	75.03	69.40	249.19	40.1442932	-104.5494961	0.11	
5512.00	4.590	74.280	5501.14	77.27	71.47	256.52	40.1442986	-104.5494698	0.02	
5606.00	4.570	73.730	5594.84	79.50	73.54	263.73	40.1443041	-104.5494439	0.05	
5701.00	4.590	73.710	5689.54	81.79	75.66	271.01	40.1443097	-104.5494178	0.02	
5796.00	4.470	74.560	5784.24	84.01	77.72	278.23	40.1443151	-104.5493919	0.14	
5891.00	4.570	73.730	5878.95	86.22	79.76	285.43	40.1443205	-104.5493660	0.13	
5985.00	4.560	73.900	5972.65	88.46	81.85	292.62	40.1443261	-104.5493403	0.02	
6080.00	4.520	73.190	6067.35	90.76	83.98	299.83	40.1443317	-104.5493144	0.07	
6175.00	4.510	73.370	6162.05	93.07	86.13	306.99	40.1443374	-104.5492887	0.02	
6270.00	4.210	72.830	6256.78	95.32	88.23	313.90	40.1443429	-104.5492639	0.32	
6364.00	5.440	37.980	6350.46	99.99	92.76	319.94	40.1443552	-104.5492421	3.32	
6459.00	13.750	15.320	6444.08	114.59	107.23	325.71	40.1443947	-104.5492209	9.45	
6554.00	20.640	9.760	6534.79	142.14	134.65	331.54	40.1444698	-104.5491990	7.45	
6649.00	28.210	5.360	6621.23	181.16	173.57	336.48	40.1445765	-104.5491799	8.19	
6743.00	37.020	3.300	6700.33	231.70	224.04	340.19	40.1447150	-104.5491647	9.45	
6838.00	46.030	2.240	6771.38	294.59	286.88	343.18	40.1448874	-104.5491516	9.51	
6933.00	54.330	3.460	6832.16	367.46	359.69	346.85	40.1450871	-104.5491356	8.79	
7027.00	61.530	4.690	6882.04	446.97	439.09	352.54	40.1453049	-104.5491122	7.74	
7122.00	70.050	4.330	6920.97	533.40	525.38	359.34	40.1455415	-104.5490846	8.98	
7217.00	79.000	1.870	6946.29	624.81	616.71	364.24	40.1457921	-104.5490636	9.75	
7312.00	82.650	359.690	6961.44	718.57	710.46	365.51	40.1460494	-104.5490554	4.46	
7330.31†	83.947	359.742	6963.57	736.75	728.65	365.42	40.1460993	-104.5490551	7.09	Planned TPZ (133'FSL & 577'FEL,SEC.09)
7397.47†	88.705	359.933	6967.88	803.73	795.65	365.23	40.1462832	-104.5490532	7.09	200'FSL Mark (200'FSL & 577'FEL,SEC.09)
7407.00	89.380	359.960	6968.04	813.25	805.18	365.22	40.1463094	-104.5490528	7.09	
7501.00	89.660	0.020	6968.82	907.23	899.17	365.21	40.1465674	-104.5490493	0.30	
7596.00	89.450	0.090	6969.56	1002.20	994.17	365.30	40.1468281	-104.5490453	0.23	

<b>WELLPATH DATA (182 stations) † = interpolated, ‡ = extrapolated station</b>										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7691.00	89.750	359.370	6970.22	1097.16	1089.17	364.85	40.1470889	-104.5490433	0.82	
7785.00	90.400	359.340	6970.10	1191.11	1183.16	363.79	40.1473469	-104.5490435	0.69	
7880.00	90.180	359.130	6969.62	1286.04	1278.15	362.52	40.1476077	-104.5490443	0.32	
7975.00	90.090	359.030	6969.40	1380.97	1373.14	361.00	40.1478685	-104.5490462	0.14	
8070.00	90.280	359.130	6969.09	1475.90	1468.12	359.47	40.1481292	-104.5490480	0.23	
8165.00	90.280	359.200	6968.63	1570.83	1563.11	358.09	40.1483900	-104.5490493	0.07	
8259.00	90.120	359.210	6968.30	1664.77	1657.10	356.78	40.1486480	-104.5490503	0.17	
8354.00	90.120	359.300	6968.10	1759.71	1752.10	355.55	40.1489088	-104.5490511	0.09	
8449.00	90.180	359.310	6967.85	1854.65	1847.09	354.40	40.1491696	-104.5490516	0.06	
8544.00	90.180	359.430	6967.55	1949.60	1942.08	353.35	40.1494304	-104.5490517	0.13	
8638.00	90.120	359.520	6967.31	2043.55	2036.08	352.49	40.1496884	-104.5490512	0.12	



# Actual Wellpath Report

GIG-EM STATE Y9-719 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-719
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51838
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-719 AWB
Slot	SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)		

## WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8733.00	90.180	359.440	6967.06	2138.50	2131.07	351.63	40.1499492	-104.5490506	0.11	
8828.00	90.220	359.490	6966.73	2233.45	2226.07	350.74	40.1502099	-104.5490501	0.07	
8923.00	90.150	359.340	6966.42	2328.40	2321.06	349.77	40.1504707	-104.5490500	0.17	
9017.00	89.630	358.860	6966.60	2422.33	2415.05	348.29	40.1507287	-104.5490516	0.75	
9112.00	89.940	359.380	6966.96	2517.26	2510.04	346.84	40.1509895	-104.5490532	0.64	
9207.00	89.510	356.110	6967.41	2612.06	2604.95	343.10	40.1512501	-104.5490629	3.47	
9302.00	90.180	359.170	6967.67	2706.86	2699.86	339.19	40.1515108	-104.5490733	3.30	
9397.00	90.370	359.490	6967.21	2801.80	2794.85	338.08	40.1517715	-104.5490736	0.39	
9491.00	90.220	359.560	6966.73	2895.75	2888.85	337.30	40.1520296	-104.5490728	0.18	
9586.00	90.180	359.460	6966.40	2990.71	2983.84	336.48	40.1522903	-104.5490721	0.11	
9681.00	90.090	359.390	6966.17	3085.65	3078.84	335.53	40.1525511	-104.5490718	0.12	
9776.00	90.060	359.000	6966.05	3180.59	3173.83	334.20	40.1528119	-104.5490730	0.41	
9871.00	90.180	359.030	6965.85	3275.51	3268.81	332.56	40.1530727	-104.5490752	0.13	
9965.00	90.280	359.580	6965.47	3369.46	3362.80	331.42	40.1533307	-104.5490756	0.59	
10060.00	90.310	359.170	6964.98	3464.40	3457.80	330.39	40.1535915	-104.5490757	0.43	
10155.00	90.120	359.120	6964.63	3559.33	3552.79	328.97	40.1538522	-104.5490771	0.21	
10250.00	90.220	359.440	6964.34	3654.27	3647.78	327.78	40.1541130	-104.5490777	0.35	
10344.00	90.000	359.240	6964.16	3748.22	3741.77	326.69	40.1543710	-104.5490780	0.32	
10439.00	90.000	359.460	6964.16	3843.16	3836.77	325.62	40.1546318	-104.5490782	0.23	
10534.00	90.060	359.360	6964.11	3938.11	3931.76	324.64	40.1548926	-104.5490781	0.12	
10629.00	89.970	359.170	6964.09	4033.05	4026.75	323.42	40.1551534	-104.5490788	0.22	
10724.00	90.400	359.790	6963.78	4128.00	4121.75	322.56	40.1554141	-104.5490782	0.79	
10818.00	90.370	359.800	6963.15	4221.97	4215.74	322.22	40.1556722	-104.5490758	0.03	
10913.00	90.400	359.570	6962.51	4316.93	4310.74	321.70	40.1559329	-104.5490740	0.24	
11008.00	90.150	359.320	6962.06	4411.88	4405.74	320.78	40.1561937	-104.5490737	0.37	
11103.00	89.820	359.600	6962.08	4506.83	4500.73	319.88	40.1564545	-104.5490733	0.46	
11197.00	90.180	359.610	6962.08	4600.79	4594.73	319.23	40.1567125	-104.5490720	0.38	
11292.00	90.060	359.430	6961.88	4695.74	4689.73	318.44	40.1569733	-104.5490712	0.23	
11387.00	89.940	359.880	6961.88	4790.70	4784.72	317.87	40.1572340	-104.5490696	0.49	
11482.00	89.690	358.930	6962.19	4885.65	4879.72	316.88	40.1574948	-104.5490695	1.03	
11577.00	89.750	359.560	6962.65	4980.59	4974.71	315.63	40.1577556	-104.5490703	0.67	
11671.00	89.850	359.600	6962.98	5074.54	5068.70	314.94	40.1580136	-104.5490691	0.11	
11766.00	89.720	359.480	6963.34	5169.50	5163.70	314.18	40.1582744	-104.5490682	0.19	
11861.00	89.910	359.680	6963.65	5264.45	5258.70	313.48	40.1585352	-104.5490671	0.29	

**WELLPATH DATA (182 stations)**

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11956.00	89.850	359.800	6963.84	5359.42	5353.70	313.05	40.1587959	-104.5490650	0.14	
12050.00	89.970	0.060	6963.99	5453.39	5447.69	312.93	40.1590540	-104.5490618	0.30	
12145.00	89.660	359.040	6964.30	5548.35	5542.69	312.19	40.1593147	-104.5490608	1.12	
12240.00	89.910	359.700	6964.66	5643.29	5637.68	311.14	40.1595755	-104.5490609	0.74	
12334.00	89.880	359.780	6964.83	5737.25	5731.68	310.72	40.1598335	-104.5490588	0.09	
12524.00	90.030	359.740	6964.98	5927.19	5921.68	309.92	40.1603551	-104.5490544	0.08	
12619.00	89.910	359.740	6965.03	6022.15	6016.68	309.49	40.1606158	-104.5490523	0.13	
12714.00	89.630	359.500	6965.41	6117.11	6111.68	308.86	40.1608766	-104.5490509	0.39	
12808.00	89.690	359.600	6965.97	6211.06	6205.67	308.12	40.1611346	-104.5490499	0.12	
12903.00	89.600	359.320	6966.55	6306.01	6300.67	307.23	40.1613954	-104.5490495	0.31	
12998.00	89.480	359.590	6967.32	6400.96	6395.66	306.32	40.1616562	-104.5490491	0.31	



# Actual Wellpath Report

GIG-EM STATE Y9-719 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-719
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51838
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-719 AWB
Slot	SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)		

## WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13093.00	90.150	359.530	6967.62	6495.92	6490.65	305.59	40.1619169	-104.5490480	0.71	
13187.00	89.660	359.300	6967.78	6589.86	6584.65	304.63	40.1621750	-104.5490479	0.58	
13282.00	89.750	359.560	6968.27	6684.81	6679.64	303.69	40.1624357	-104.5490476	0.29	
13377.00	90.030	359.610	6968.45	6779.77	6774.64	303.00	40.1626965	-104.5490464	0.30	
13472.00	89.630	359.340	6968.73	6874.72	6869.64	302.13	40.1629573	-104.5490459	0.51	
13567.00	89.750	359.590	6969.25	6969.67	6964.63	301.24	40.1632181	-104.5490454	0.29	
13661.00	90.060	359.530	6969.40	7063.63	7058.63	300.52	40.1634761	-104.5490444	0.34	
13756.00	90.180	359.550	6969.20	7158.58	7153.62	299.76	40.1637369	-104.5490435	0.13	
13851.00	90.180	359.730	6968.91	7253.54	7248.62	299.16	40.1639976	-104.5490420	0.19	
13946.00	90.060	359.690	6968.71	7348.50	7343.62	298.68	40.1642584	-104.5490400	0.13	
14040.00	90.220	359.840	6968.48	7442.47	7437.62	298.29	40.1645164	-104.5490378	0.23	
14135.00	90.060	359.960	6968.24	7537.44	7532.62	298.13	40.1647772	-104.5490348	0.21	
14230.00	90.180	359.750	6968.05	7632.41	7627.62	297.89	40.1650380	-104.5490320	0.25	
14325.00	90.060	359.270	6967.85	7727.36	7722.61	297.08	40.1652987	-104.5490312	0.52	
14419.00	90.030	359.450	6967.77	7821.31	7816.61	296.03	40.1655568	-104.5490314	0.19	
14514.00	90.120	359.510	6967.65	7916.26	7911.60	295.16	40.1658176	-104.5490308	0.11	
14609.00	90.120	359.670	6967.45	8011.22	8006.60	294.48	40.1660783	-104.5490296	0.17	
14704.00	90.090	359.820	6967.28	8106.19	8101.60	294.06	40.1663391	-104.5490275	0.16	
14799.00	90.220	359.870	6967.02	8201.15	8196.60	293.80	40.1665999	-104.5490247	0.15	
14893.00	90.280	358.920	6966.61	8295.10	8290.59	292.81	40.1668579	-104.5490247	1.01	
14988.00	90.060	358.030	6966.33	8389.98	8385.56	290.28	40.1671186	-104.5490301	0.97	
15083.00	89.970	358.640	6966.30	8484.86	8480.52	287.52	40.1673794	-104.5490363	0.65	
15178.00	90.000	358.690	6966.33	8579.76	8575.49	285.31	40.1676401	-104.5490406	0.06	
15272.00	90.120	358.710	6966.23	8673.66	8669.47	283.18	40.1678981	-104.5490446	0.13	
15367.00	90.150	358.860	6966.00	8768.57	8764.44	281.16	40.1681589	-104.5490482	0.16	
15462.00	90.090	358.830	6965.81	8863.48	8859.42	279.25	40.1684197	-104.5490514	0.07	
15557.00	90.090	358.720	6965.66	8958.39	8954.40	277.22	40.1686804	-104.5490550	0.12	
15651.00	90.150	358.790	6965.46	9052.29	9048.38	275.17	40.1689384	-104.5490587	0.10	
15746.00	90.000	358.500	6965.33	9147.19	9143.35	272.93	40.1691992	-104.5490631	0.34	
15841.00	90.090	358.750	6965.26	9242.09	9238.33	270.65	40.1694599	-104.5490676	0.28	
15936.00	90.030	358.540	6965.16	9336.99	9333.30	268.40	40.1697207	-104.5490720	0.23	
16031.00	90.060	358.490	6965.09	9431.87	9428.27	265.94	40.1699814	-104.5490772	0.06	
16125.00	90.060	358.500	6964.99	9525.76	9522.24	263.47	40.1702394	-104.5490824	0.01	
16220.00	90.030	358.440	6964.91	9620.65	9617.20	260.93	40.1705002	-104.5490878	0.07	

**WELLPATH DATA (182 stations)**

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16315.00	90.120	358.750	6964.79	9715.54	9712.17	258.61	40.1707609	-104.5490925	0.34	
16410.00	90.000	358.640	6964.69	9810.44	9807.15	256.44	40.1710217	-104.5490966	0.17	
16505.00	90.180	358.700	6964.54	9905.34	9902.12	254.24	40.1712824	-104.5491009	0.20	
16600.00	90.280	359.260	6964.16	10000.26	9997.11	252.55	40.1715432	-104.5491033	0.60	
16695.00	90.060	358.840	6963.88	10095.19	10092.09	250.97	40.1718040	-104.5491053	0.50	
16789.00	90.150	358.880	6963.70	10189.10	10186.07	249.10	40.1720620	-104.5491084	0.10	
16884.00	90.280	358.930	6963.35	10284.02	10281.06	247.28	40.1723228	-104.5491112	0.15	
16979.00	90.120	358.980	6963.02	10378.94	10376.04	245.55	40.1725835	-104.5491138	0.18	
17074.00	90.030	358.630	6962.89	10473.85	10471.02	243.57	40.1728443	-104.5491172	0.38	
17168.00	90.220	358.770	6962.69	10567.75	10564.99	241.44	40.1731023	-104.5491212	0.25	
17263.00	90.060	358.660	6962.45	10662.65	10659.97	239.31	40.1733631	-104.5491252	0.20	Last BH MWD Survey (463'FNL&603'FEL,SEC.04)



# Actual Wellpath Report

GIG-EM STATE Y9-719 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-719
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51838
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-719 AWB
Slot	SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)		

WELLPATH DATA (182 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17265.57†	90.060	358.660	6962.45	10665.22	10662.54	239.25	40.1733701	-104.5491253	0.00	Cross 460' Hardline (460'FNL & 603'FEL,SEC.04)
17315.00‡	90.060	358.660	6962.40	10714.60	10711.96	238.09	40.1735058	-104.5491276	0.00	Projection to Bit (411'FNL&604'FEL,SEC.04)

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Rubicon State Y16-718 SECTION 4	-4.00	-1.89	-0.38	3265469.02	1296762.33	40.1441048	-104.5503914	polygon
	2D Polygon: dimensions not calculated							
Rubicon State Y16-718 SECTION 9	-4.00	-1.89	-0.38	3265469.02	1296762.33	40.1441048	-104.5503914	polygon
	2D Polygon: dimensions not calculated							
GIG-EM STATE Y9-719 BHL (300'FNL & 600'FEL,SEC.04)	6964.00	10821.73	241.54	3265710.94	1307585.48	40.1738070	-104.5491110	point
GIG-EM STATE Y9-719 BHL 2(300'FNL & 600'FEL,SEC.04)	6964.00	10822.83	241.81	3265711.21	1307586.57	40.1738100	-104.5491100	point
GIG-EM STATE Y9-719 BPZ (460'FNL & 598'FEL,SEC.04)	6964.00	10662.54	243.53	3265712.93	1307426.30	40.1733700	-104.5491100	point
GIG-EM STATE Y9-719 LP /TPZ (133'FSL & 600'FEL,SEC.09)	6964.00	728.07	342.83	3265812.22	1297492.26	40.1460984	-104.5491359	point
GIG-EM STATE Y9-719 LP /TPZ 2(133'FSL & 600'FEL,SEC.09)	6964.00	728.65	341.67	3265811.06	1297492.84	40.1461000	-104.5491400	point
406N Hardline 460'FNL&FWL	7231.00	-11.93	-1800.43	3263669.05	1296752.29	40.1441300	-104.5568300	polygon
	2D Polygon: dimensions not calculated							

WELLPATH COMPOSITION - Ref Wellbore: GIG-EM STATE Y9-719 AWB    Ref Wellpath: GIG-EM STATE Y9-719 AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	2044.00	OWSG MWD rev2 (MS+IFR1)	13.5" Hole EVO OWSG MWD rev2 (MS+IFR1) <160'-2044'>	GIG-EM STATE Y9-719 AWB	3/9/2023
2044.00	17315.00	OWSG MWD rev2 (MS+IFR1)	8.5" Hole ATC OWSG MWD rev2 (MS+IFR1) <2194'-17263'>	GIG-EM STATE Y9-719 AWB	4/5/2023



# Actual Wellpath Report

GIG-EM STATE Y9-719 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-719
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51838
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-719 AWB
Slot	SLOT#20 GIG-EM STATE Y9-719 (595'FNL&952'FEL,SEC.16)		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
160.00	0.420	155.370	160.00	1st BH MWD Survey
7330.31	83.947	359.742	6963.57	Planned TPZ (133'FSL & 577'FEL,SEC.09)
7397.47	88.705	359.933	6967.88	200'FSL Mark (200'FSL & 577'FEL,SEC.09)
17263.00	90.060	358.660	6962.45	Last BH MWD Survey (463'FNL&603'FEL,SEC.04)
17265.57	90.060	358.660	6962.45	Cross 460' Hardline (460'FNL & 603'FEL,SEC.04)
17315.00	90.060	358.660	6962.40	Projection to Bit (411'FNL&604'FEL,SEC.04)