NOBLE ENERGY, INC

Location:	COLORADO	Slot:	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	GIG-EM STATE Y9-740
Facility:	SEC.16-T02N-R64W	Wellbore:	GIG-EM STATE Y9-740 PWB

Plot reference wellpath is GIG-EM STATE Y9-740 (REV-E.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to P268 (4943'GL+29'KB@4972'RKB) (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to P268 (4943'GL+29'KB@4972'RKB) (RKB)	Scale: True distance
P268 (4943'GL+29'KB@4972'RKB) (RKB) to Mean Sea Level: 4972 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: guenaler on 2023-04-05; Database: WA_Denver

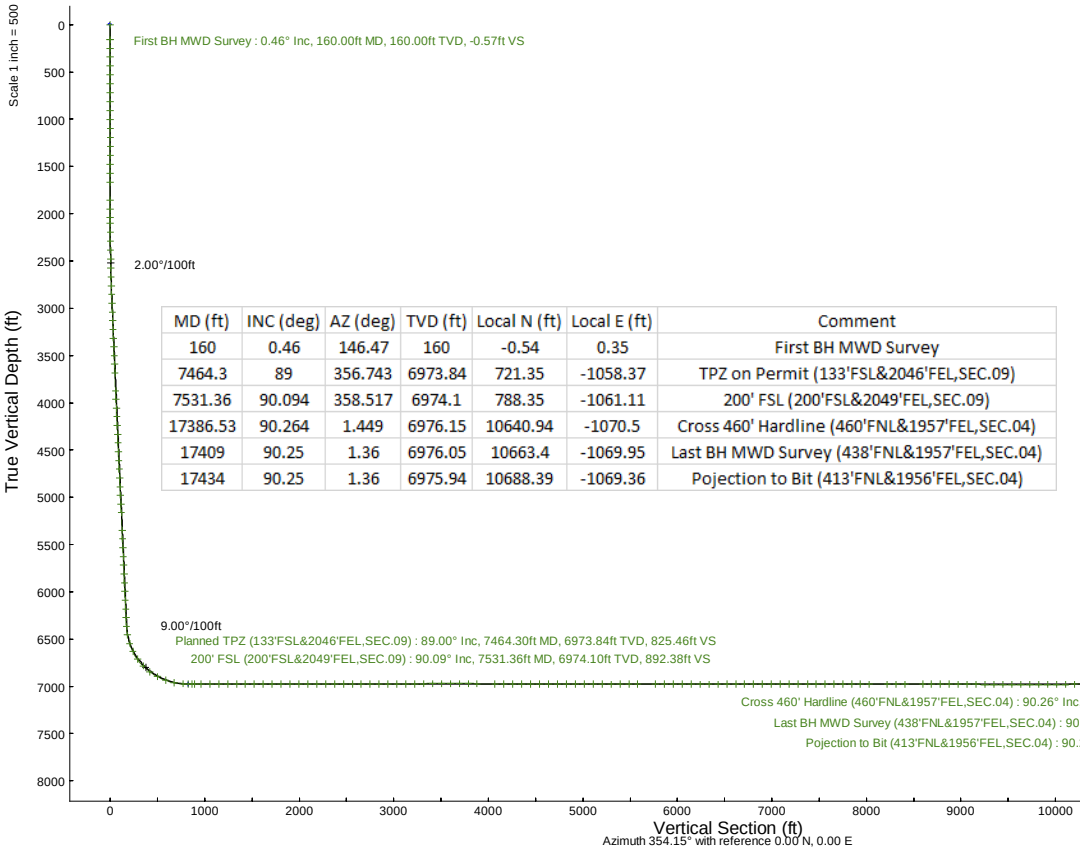
Location Information

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#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)	-130.54	3482.27	3265424.676	1296763.737	40°08'38.7960"N	104°33'1.9800"W

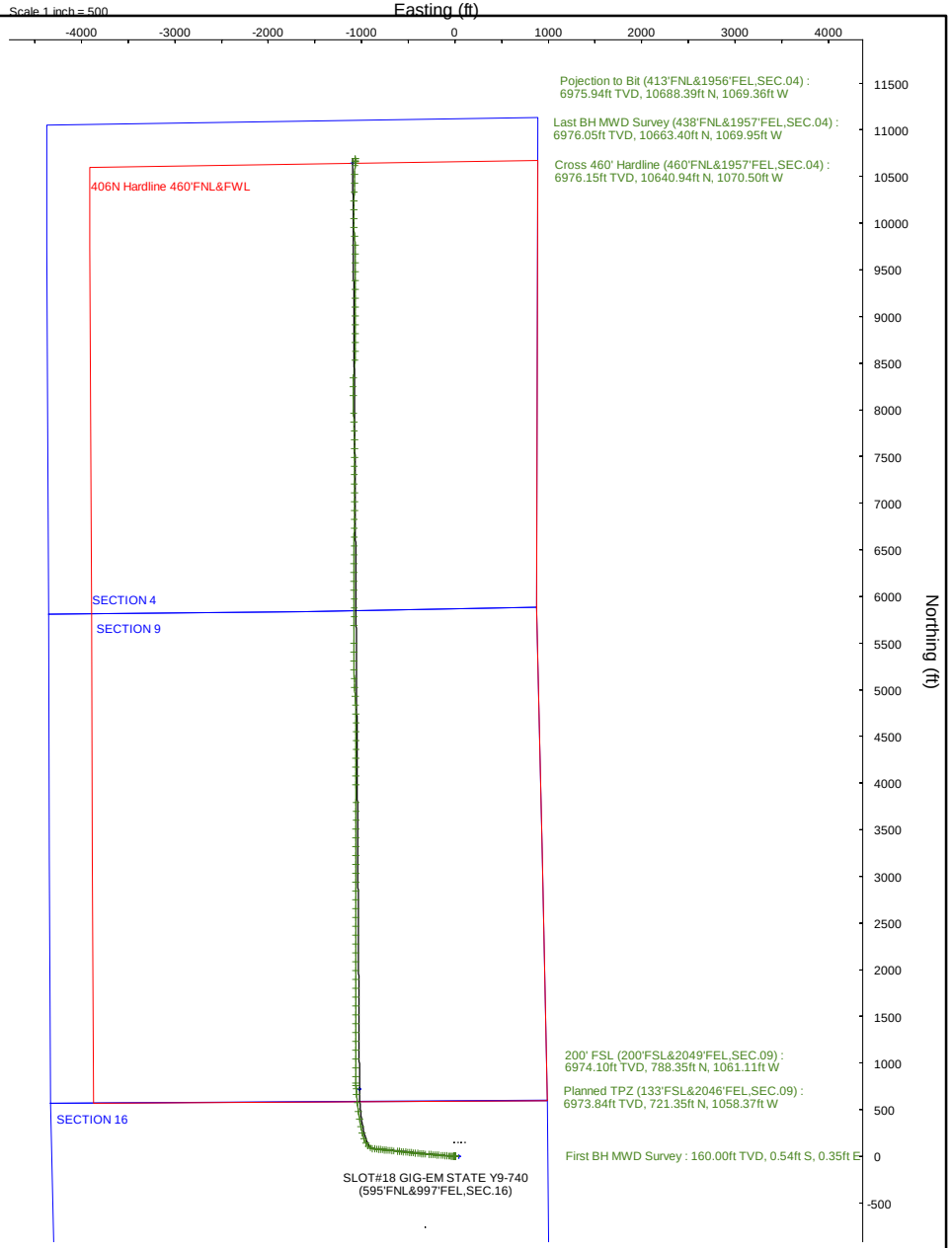
P268 (4943'GL+29'KB@4972'RKB) (RKB) to Ground level (At Slot: SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16))	4972ft
Mean Sea Level to Ground level (At Slot: SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16))	0ft
P268 (4943'GL+29'KB@4972'RKB) (RKB) to Mean Sea Level	4972ft

noble energy

Baker Hughes



MD (ft)	INC (deg)	AZ (deg)	TVD (ft)	Local N (ft)	Local E (ft)	Comment
160	0.46	146.47	160	-0.54	0.35	First BH MWD Survey
7464.3	89	356.743	6973.84	721.35	-1058.37	TPZ on Permit (133'FSL&2046'FEL,SEC.09)
7531.36	90.094	358.517	6974.1	788.35	-1061.11	200' FSL (200'FSL&2049'FEL,SEC.09)
17386.53	90.264	1.449	6976.15	10640.94	-1070.5	Cross 460' Hardline (460'FNL&1957'FEL,SEC.04)
17409	90.25	1.36	6976.05	10663.4	-1069.95	Last BH MWD Survey (438'FNL&1957'FEL,SEC.04)
17434	90.25	1.36	6975.94	10688.39	-1069.36	Pojection to Bit (413'FNL&1956'FEL,SEC.04)



Actual Wellpath Report

GIG-EM STATE Y9-740 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**GIG-EM STATE Y9-740**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**05-123-51837**
Facility	**SEC.16-T02N-R64W**	Wellbore	**GIG-EM STATE Y9-740 AWB**
Slot	**SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'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 **1:11:31 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	-130.54	3482.27	3265424.68	1296763.74	**40.1441100°**	**-104.5505500°**
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#18 GIG-EM STATE Y9-740 (595'FNL&997'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	**354.15°**

Actual Wellpath Report

GIG-EM STATE Y9-740 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51837
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 AWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'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
0.00	0.000	146.470	0.00	0.00	0.00	0.00	40.1441100	-104.5505500	0.00	
160.00	0.460	146.470	160.00	-0.57	-0.54	0.35	40.1441085	-104.5505488	0.29	First BH MWD Survey
251.00	0.360	156.420	251.00	-1.16	-1.10	0.67	40.1441070	-104.5505476	0.13	
342.00	0.310	235.280	341.99	-1.56	-1.50	0.58	40.1441059	-104.5505480	0.47	
437.00	0.340	246.580	436.99	-1.76	-1.76	0.11	40.1441052	-104.5505497	0.07	
531.00	0.320	335.540	530.99	-1.60	-1.63	-0.25	40.1441055	-104.5505510	0.49	
626.00	0.430	283.210	625.99	-1.23	-1.31	-0.71	40.1441064	-104.5505526	0.36	
721.00	0.330	300.480	720.99	-0.95	-1.09	-1.29	40.1441070	-104.5505547	0.16	
816.00	0.280	293.850	815.99	-0.68	-0.86	-1.74	40.1441077	-104.5505563	0.06	
911.00	0.290	304.210	910.99	-0.41	-0.63	-2.15	40.1441083	-104.5505577	0.06	
1005.00	0.370	305.730	1004.98	-0.05	-0.32	-2.59	40.1441092	-104.5505593	0.09	
1100.00	0.330	296.350	1099.98	0.30	-0.02	-3.09	40.1441100	-104.5505610	0.07	
1195.00	0.170	236.390	1194.98	0.38	0.03	-3.45	40.1441102	-104.5505623	0.30	
1290.00	0.120	276.950	1289.98	0.33	-0.04	-3.67	40.1441100	-104.5505631	0.12	
1385.00	0.070	266.410	1384.98	0.36	-0.03	-3.82	40.1441100	-104.5505637	0.06	
1480.00	0.110	195.600	1479.98	0.27	-0.12	-3.91	40.1441098	-104.5505640	0.12	
1574.00	0.340	196.950	1573.98	-0.07	-0.48	-4.01	40.1441088	-104.5505644	0.24	
1669.00	0.470	209.080	1668.98	-0.65	-1.09	-4.28	40.1441071	-104.5505654	0.16	
1858.00	0.220	252.270	1857.97	-1.36	-1.88	-5.01	40.1441050	-104.5505680	0.18	
1953.00	0.330	313.210	1952.97	-1.19	-1.74	-5.38	40.1441054	-104.5505693	0.31	
2037.00	0.700	323.620	2036.97	-0.56	-1.17	-5.86	40.1441070	-104.5505710	0.45	
2102.00	0.810	329.790	2101.96	0.20	-0.45	-6.33	40.1441090	-104.5505726	0.21	
2197.00	0.100	36.030	2196.96	0.87	0.20	-6.61	40.1441107	-104.5505737	0.82	
2292.00	2.470	271.900	2291.93	1.21	0.33	-8.61	40.1441112	-104.5505808	2.66	
2387.00	4.640	273.540	2386.74	2.11	0.64	-14.49	40.1441122	-104.5506018	2.29	
2481.00	7.090	273.160	2480.24	3.64	1.19	-24.08	40.1441140	-104.5506361	2.61	
2576.00	8.170	273.980	2574.40	5.71	1.99	-36.67	40.1441165	-104.5506811	1.14	
2671.00	9.900	273.920	2668.22	8.25	3.01	-51.55	40.1441198	-104.5507343	1.82	
2766.00	11.120	274.420	2761.62	11.27	4.28	-68.84	40.1441238	-104.5507960	1.29	
2860.00	12.690	274.440	2853.60	14.73	5.77	-88.17	40.1441284	-104.5508651	1.67	
2955.00	12.790	274.640	2946.26	18.51	7.43	-109.05	40.1441336	-104.5509398	0.12	
3050.00	12.770	274.480	3038.91	22.31	9.10	-130.00	40.1441388	-104.5510146	0.04	
3145.00	12.800	274.920	3131.55	26.15	10.83	-150.95	40.1441442	-104.5510895	0.11	
3239.00	12.720	275.260	3223.23	30.09	12.67	-171.63	40.1441498	-104.5511634	0.12	

WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3334.00	12.700	274.940	3315.90	34.06	14.53	-192.45	40.1441555	-104.5512378	0.08	
3429.00	12.480	274.840	3408.62	37.92	16.29	-213.08	40.1441610	-104.5513115	0.23	
3524.00	12.630	274.850	3501.35	41.75	18.04	-233.66	40.1441664	-104.5513850	0.16	
3618.00	12.640	274.860	3593.07	45.57	19.78	-254.15	40.1441717	-104.5514582	0.01	
3713.00	12.630	275.030	3685.77	49.47	21.57	-274.85	40.1441773	-104.5515322	0.04	
3903.00	12.570	274.660	3871.19	57.16	25.07	-316.15	40.1441881	-104.5516798	0.05	
3998.00	13.120	274.810	3963.82	61.04	26.81	-337.20	40.1441935	-104.5517550	0.58	
4092.00	13.080	274.940	4055.37	65.00	28.62	-358.43	40.1441991	-104.5518309	0.05	
4187.00	13.170	276.040	4147.89	69.24	30.69	-379.90	40.1442054	-104.5519076	0.28	
4282.00	13.010	275.730	4240.42	73.62	32.89	-401.30	40.1442121	-104.5519841	0.18	
4377.00	13.060	275.870	4332.97	77.95	35.06	-422.62	40.1442186	-104.5520602	0.06	

Actual Wellpath Report

GIG-EM STATE Y9-740 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51837
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 AWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'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
4472.00	13.160	275.810	4425.50	82.31	37.25	-444.05	40.1442253	-104.5521368	0.11	
4566.00	13.210	275.630	4517.02	86.61	39.39	-465.39	40.1442318	-104.5522130	0.07	
4661.00	13.210	275.680	4609.50	90.94	41.53	-486.99	40.1442383	-104.5522902	0.01	
4756.00	13.160	275.790	4702.00	95.29	43.69	-508.55	40.1442449	-104.5523673	0.06	
4851.00	13.070	276.420	4794.52	99.76	45.99	-529.99	40.1442518	-104.5524438	0.18	
4946.00	13.180	275.540	4887.04	104.18	48.23	-551.44	40.1442586	-104.5525205	0.24	
5040.00	13.010	276.080	4978.60	108.48	50.39	-572.63	40.1442651	-104.5525962	0.22	
5135.00	13.240	275.730	5071.11	112.88	52.61	-594.09	40.1442718	-104.5526728	0.26	
5230.00	13.260	275.970	5163.59	117.29	54.83	-615.75	40.1442786	-104.5527502	0.06	
5419.00	12.550	275.750	5347.81	125.86	59.14	-657.73	40.1442916	-104.5529002	0.38	
5514.00	12.450	276.150	5440.56	130.06	61.27	-678.19	40.1442981	-104.5529733	0.14	
5609.00	11.610	276.240	5533.47	134.20	63.40	-697.87	40.1443045	-104.5530436	0.88	
5704.00	12.700	275.500	5626.34	138.25	65.44	-717.77	40.1443107	-104.5531147	1.16	
5798.00	12.360	276.340	5718.10	142.41	67.55	-738.05	40.1443171	-104.5531872	0.41	
5893.00	12.160	275.720	5810.93	146.56	69.67	-758.11	40.1443235	-104.5532589	0.25	
5988.00	12.890	275.190	5903.67	150.60	71.62	-778.62	40.1443294	-104.5533321	0.78	
6083.00	12.710	275.500	5996.31	154.69	73.58	-799.58	40.1443354	-104.5534070	0.20	
6177.00	12.640	275.660	6088.02	158.77	75.59	-820.11	40.1443415	-104.5534804	0.08	
6272.00	12.770	275.360	6180.70	162.89	77.59	-840.90	40.1443477	-104.5535547	0.15	
6367.00	12.470	275.880	6273.40	167.01	79.62	-861.56	40.1443538	-104.5536285	0.34	
6462.00	13.720	276.390	6365.93	171.49	81.93	-882.96	40.1443608	-104.5537049	1.32	
6556.00	17.090	302.180	6456.64	182.37	90.54	-905.76	40.1443851	-104.5537861	8.03	
6651.00	22.280	315.470	6546.11	205.06	110.83	-930.23	40.1444415	-104.5538729	7.18	
6746.00	28.950	328.830	6631.79	239.97	143.41	-954.81	40.1445317	-104.5539596	9.25	
6841.00	36.310	339.910	6711.81	288.13	189.60	-976.42	40.1446591	-104.5540351	9.95	
6935.00	44.820	348.150	6783.21	348.20	248.31	-992.83	40.1448207	-104.5540915	10.68	
7030.00	53.340	348.890	6845.38	419.58	318.60	-1007.07	40.1450141	-104.5541398	8.99	
7125.00	61.180	349.770	6896.72	499.14	397.07	-1021.83	40.1452299	-104.5541896	8.29	
7220.00	70.080	352.770	6935.88	585.47	482.52	-1034.87	40.1454648	-104.5542330	9.80	
7314.00	79.000	353.780	6960.92	675.97	572.40	-1045.45	40.1457118	-104.5542674	9.55	
7409.00	87.440	355.200	6972.12	770.21	666.22	-1054.49	40.1459696	-104.5542961	9.01	
7464.30†	89.000	356.743	6973.84	825.46	721.35	-1058.37	40.1461211	-104.5543079	3.97	Planned TPZ (133'FSL&2046'FEL,SEC.09)
7504.00	90.120	357.850	6974.15	865.09	761.00	-1060.24	40.1462300	-104.5543131	3.97	
7531.36†	90.094	358.517	6974.10	892.38	788.35	-1061.11	40.1463050	-104.5543152	2.44	200' FSL (200'FSL&2049'FEL,SEC.09)

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
7598.00	90.030	0.140	6974.02	958.75	854.98	-1061.89	40.1464880	-104.5543154	2.44	
7693.00	89.910	0.190	6974.07	1053.23	949.98	-1061.62	40.1467487	-104.5543108	0.14	
7788.00	89.820	359.730	6974.30	1147.74	1044.98	-1061.68	40.1470095	-104.5543074	0.49	
7883.00	89.940	0.030	6974.50	1242.26	1139.98	-1061.88	40.1472702	-104.5543045	0.34	
7978.00	89.880	359.890	6974.64	1336.78	1234.98	-1061.95	40.1475310	-104.5543011	0.16	
8072.00	89.820	0.050	6974.89	1430.29	1328.98	-1062.00	40.1477890	-104.5542977	0.18	
8167.00	89.820	359.940	6975.19	1524.80	1423.98	-1062.01	40.1480498	-104.5542941	0.12	
8262.00	89.820	359.880	6975.49	1619.32	1518.98	-1062.16	40.1483105	-104.5542910	0.06	
8357.00	89.820	359.780	6975.79	1713.85	1613.98	-1062.44	40.1485713	-104.5542884	0.11	
8451.00	89.820	0.060	6976.08	1807.37	1707.98	-1062.57	40.1488293	-104.5542853	0.30	
8546.00	89.850	0.030	6976.36	1901.87	1802.98	-1062.49	40.1490901	-104.5542814	0.04	

Actual Wellpath Report

GIG-EM STATE Y9-740 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51837
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 AWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'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
8641.00	90.030	0.120	6976.45	1996.36	1897.98	-1062.37	40.1493509	-104.5542773	0.21	
8736.00	89.910	0.140	6976.50	2090.85	1992.98	-1062.15	40.1496116	-104.5542730	0.13	
8830.00	90.000	359.440	6976.58	2184.39	2086.98	-1062.50	40.1498696	-104.5542706	0.75	
8925.00	89.820	359.900	6976.73	2278.95	2181.97	-1063.05	40.1501304	-104.5542689	0.52	
9020.00	90.150	0.200	6976.75	2373.45	2276.97	-1062.96	40.1503912	-104.5542650	0.47	
9115.00	89.970	0.050	6976.65	2467.93	2371.97	-1062.76	40.1506519	-104.5542606	0.25	
9210.00	90.090	0.080	6976.60	2562.43	2466.97	-1062.65	40.1509127	-104.5542566	0.13	
9304.00	90.310	0.160	6976.27	2655.92	2560.97	-1062.45	40.1511707	-104.5542523	0.25	
9399.00	90.120	0.240	6975.92	2750.39	2655.97	-1062.12	40.1514314	-104.5542475	0.22	
9494.00	90.000	359.930	6975.82	2844.88	2750.97	-1061.98	40.1516922	-104.5542434	0.35	
9589.00	90.250	0.300	6975.61	2939.36	2845.97	-1061.79	40.1519529	-104.5542391	0.47	
9684.00	90.400	0.090	6975.07	3033.83	2940.97	-1061.47	40.1522137	-104.5542343	0.27	
9778.00	90.310	0.110	6974.49	3127.32	3034.97	-1061.30	40.1524717	-104.5542301	0.10	
9873.00	89.820	0.140	6974.38	3221.81	3129.97	-1061.09	40.1527325	-104.5542258	0.52	
9968.00	91.970	0.270	6972.90	3316.26	3224.95	-1060.75	40.1529932	-104.5542209	2.27	
10063.00	89.910	0.130	6971.34	3410.71	3319.93	-1060.42	40.1532539	-104.5542161	2.17	
10157.00	89.850	359.970	6971.54	3504.22	3413.93	-1060.34	40.1535119	-104.5542122	0.18	
10252.00	90.120	0.280	6971.56	3598.70	3508.93	-1060.13	40.1537726	-104.5542079	0.43	
10347.00	89.970	0.110	6971.49	3693.17	3603.93	-1059.81	40.1540334	-104.5542031	0.24	
10442.00	89.910	0.190	6971.59	3787.65	3698.93	-1059.56	40.1542941	-104.5541986	0.11	
10536.00	89.010	359.300	6972.47	3881.20	3792.92	-1059.98	40.1545521	-104.5541965	1.35	
10726.00	89.230	359.790	6975.39	4070.33	3982.89	-1061.49	40.1550736	-104.5541946	0.28	
10821.00	90.370	0.410	6975.72	4164.82	4077.89	-1061.32	40.1553344	-104.5541904	1.37	
10916.00	90.180	0.440	6975.27	4259.25	4172.88	-1060.62	40.1555951	-104.5541843	0.20	
11010.00	89.850	0.070	6975.24	4352.71	4266.88	-1060.20	40.1558531	-104.5541792	0.53	
11105.00	90.030	0.220	6975.34	4447.20	4361.88	-1059.96	40.1561139	-104.5541747	0.25	
11200.00	90.030	0.370	6975.29	4541.65	4456.88	-1059.47	40.1563746	-104.5541693	0.16	
11295.00	90.620	0.360	6974.75	4636.09	4551.88	-1058.86	40.1566353	-104.5541635	0.62	
11390.00	89.880	359.090	6974.34	4730.64	4646.87	-1059.32	40.1568961	-104.5541616	1.55	
11484.00	89.880	358.760	6974.54	4824.31	4740.86	-1061.08	40.1571541	-104.5541643	0.35	
11579.00	89.690	356.650	6974.89	4919.12	4835.77	-1064.89	40.1574148	-104.5541743	2.23	
11674.00	89.970	356.780	6975.17	5014.03	4930.62	-1070.33	40.1576753	-104.5541901	0.32	
11769.00	89.200	357.930	6975.86	5108.87	5025.51	-1074.72	40.1579359	-104.5542022	1.46	
11863.00	89.510	356.970	6976.92	5202.71	5119.41	-1078.90	40.1581937	-104.5542136	1.07	

WELLPATH DATA (182 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11958.00	89.910	358.690	6977.40	5297.51	5214.34	-1082.49	40.1584544	-104.5542228	1.86	
12053.00	90.180	0.370	6977.33	5392.09	5309.33	-1083.27	40.1587152	-104.5542220	1.79	
12148.00	90.250	0.280	6976.97	5486.53	5404.33	-1082.73	40.1589759	-104.5542164	0.12	
12242.00	90.310	0.480	6976.51	5579.98	5498.33	-1082.11	40.1592339	-104.5542106	0.22	
12432.00	90.030	0.310	6975.95	5768.85	5688.32	-1080.80	40.1597554	-104.5541987	0.17	
12527.00	90.150	0.210	6975.80	5863.31	5783.32	-1080.37	40.1600161	-104.5541935	0.16	
12621.00	90.430	0.150	6975.32	5956.79	5877.32	-1080.08	40.1602741	-104.5541889	0.30	
12716.00	89.350	359.550	6975.50	6051.32	5972.32	-1080.32	40.1605349	-104.5541861	1.30	
12811.00	89.110	359.580	6976.78	6145.89	6067.30	-1081.05	40.1607956	-104.5541851	0.25	
12906.00	89.600	359.950	6977.85	6240.42	6162.30	-1081.43	40.1610564	-104.5541828	0.65	
13000.00	90.150	0.470	6978.06	6333.90	6256.29	-1081.09	40.1613144	-104.5541780	0.81	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51837
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 AWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'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
13095.00	90.340	0.220	6977.65	6428.34	6351.29	-1080.52	40.1615751	-104.5541723	0.33	
13190.00	90.340	0.190	6977.09	6522.81	6446.29	-1080.18	40.1618359	-104.5541675	0.03	
13285.00	91.110	0.490	6975.88	6617.25	6541.28	-1079.61	40.1620966	-104.5541619	0.87	
13380.00	89.880	0.130	6975.06	6711.69	6636.27	-1079.10	40.1623573	-104.5541564	1.35	
13474.00	90.000	0.310	6975.16	6805.17	6730.27	-1078.74	40.1626153	-104.5541515	0.23	
13569.00	90.150	0.560	6975.04	6899.60	6825.27	-1078.02	40.1628760	-104.5541453	0.31	
13664.00	90.180	0.180	6974.76	6994.04	6920.27	-1077.40	40.1631368	-104.5541395	0.40	
13759.00	90.000	0.160	6974.61	7088.51	7015.27	-1077.12	40.1633975	-104.5541349	0.19	
13853.00	89.630	359.920	6974.92	7182.02	7109.27	-1077.06	40.1636555	-104.5541310	0.47	
13948.00	89.880	359.060	6975.32	7276.60	7204.26	-1077.90	40.1639163	-104.5541304	0.94	
14053.00	90.120	0.360	6975.32	7381.11	7309.26	-1078.43	40.1642045	-104.5541283	1.26	
14138.00	89.940	0.270	6975.28	7465.61	7394.25	-1077.97	40.1644378	-104.5541234	0.24	
14232.00	89.970	0.350	6975.35	7559.07	7488.25	-1077.46	40.1646958	-104.5541180	0.09	
14327.00	90.060	0.380	6975.33	7653.51	7583.25	-1076.85	40.1649566	-104.5541122	0.10	
14422.00	89.850	359.340	6975.40	7748.04	7678.25	-1077.09	40.1652173	-104.5541094	1.12	
14517.00	89.420	357.910	6976.01	7842.75	7773.22	-1079.37	40.1654781	-104.5541140	1.57	
14611.00	89.140	357.790	6977.19	7936.54	7867.14	-1082.89	40.1657360	-104.5541230	0.32	
14706.00	89.780	357.890	6978.08	8031.34	7962.07	-1086.47	40.1659966	-104.5541322	0.68	
14896.00	90.120	359.420	6978.25	8220.75	8152.01	-1090.93	40.1665181	-104.5541409	0.82	
14991.00	90.180	0.440	6978.00	8315.26	8247.01	-1091.05	40.1667789	-104.5541377	1.08	
15085.00	90.490	3.570	6977.45	8408.37	8340.94	-1087.76	40.1670366	-104.5541223	3.35	
15275.00	90.060	6.590	6976.54	8594.90	8530.17	-1070.94	40.1675555	-104.5540549	1.61	
15370.00	89.880	358.680	6976.59	8688.78	8624.99	-1066.57	40.1678157	-104.5540357	8.33	
15464.00	89.910	359.550	6976.76	8782.43	8718.98	-1068.03	40.1680737	-104.5540373	0.93	
15559.00	89.850	0.010	6976.96	8876.97	8813.98	-1068.39	40.1683345	-104.5540350	0.49	
15654.00	89.660	359.670	6977.37	8971.50	8908.98	-1068.66	40.1685952	-104.5540323	0.41	
15749.00	89.570	0.130	6978.01	9066.02	9003.98	-1068.82	40.1688560	-104.5540293	0.49	
15844.00	89.720	359.700	6978.59	9160.54	9098.97	-1068.96	40.1691168	-104.5540261	0.48	
15938.00	89.820	359.370	6978.97	9254.12	9192.97	-1069.72	40.1693748	-104.5540253	0.37	
16033.00	89.750	359.710	6979.33	9348.70	9287.97	-1070.49	40.1696356	-104.5540244	0.37	
16128.00	89.850	0.130	6979.66	9443.22	9382.97	-1070.62	40.1698963	-104.5540212	0.45	
16223.00	90.030	0.250	6979.76	9537.69	9477.97	-1070.31	40.1701571	-104.5540165	0.23	
16318.00	90.030	0.200	6979.71	9632.16	9572.96	-1069.93	40.1704178	-104.5540115	0.05	
16413.00	90.400	0.520	6979.35	9726.60	9667.96	-1069.34	40.1706786	-104.5540058	0.51	

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
16507.00	89.230	357.890	6979.66	9820.23	9761.94	-1070.64	40.1709366	-104.5540068	3.06	
16602.00	90.280	355.940	6980.06	9915.11	9856.80	-1075.75	40.1711971	-104.5540215	2.33	
16697.00	90.370	357.360	6979.52	10010.02	9951.63	-1081.30	40.1714575	-104.5540377	1.50	
16792.00	90.310	359.390	6978.96	10104.75	10046.59	-1084.00	40.1717183	-104.5540438	2.14	
16887.00	90.310	1.580	6978.45	10199.16	10141.58	-1083.19	40.1719790	-104.5540373	2.31	
16981.00	90.180	1.210	6978.04	10292.41	10235.55	-1080.90	40.1722368	-104.5540255	0.42	
17076.00	90.250	1.470	6977.69	10386.66	10330.52	-1078.68	40.1724975	-104.5540139	0.28	
17171.00	90.220	1.520	6977.30	10480.88	10425.49	-1076.20	40.1727581	-104.5540014	0.06	
17266.00	90.370	1.500	6976.81	10575.10	10520.45	-1073.70	40.1730187	-104.5539888	0.16	
17361.00	90.280	1.550	6976.27	10669.31	10615.42	-1071.17	40.1732792	-104.5539762	0.11	
17386.53†	90.264	1.449	6976.15	10694.63	10640.94	-1070.50	40.1733493	-104.5539728	0.40	Cross 460' Hardline (460'FNL&1957'FEL,SEC.04)

Actual Wellpath Report

GIG-EM STATE Y9-740 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GIG-EM STATE Y9-740
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	05-123-51837
Facility	SEC.16-T02N-R64W	Wellbore	GIG-EM STATE Y9-740 AWB
Slot	SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'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
17409.00	90.250	1.360	6976.05	10716.92	10663.40	-1069.95	40.1734109	-104.5539700	0.40	Last BH MWD Survey (438'FNL&1957'FEL,SEC.04)
17434.00‡	90.250	1.360	6975.94	10741.72	10688.39	-1069.36	40.1734795	-104.5539669	0.00	Pojection to Bit (413'FNL&1956'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	-1.41	44.35	3265469.02	1296762.33	40.1441048	-104.5503914	polygon
	2D Polygon: dimensions not calculated							
Rubicon State Y16-718 SECTION 9	-4.00	-1.41	44.35	3265469.02	1296762.33	40.1441048	-104.5503914	polygon
	2D Polygon: dimensions not calculated							
HULLABALOO Y21-787 SECTION 16	59.00	130.54	-3482.27	3261942.56	1296894.28	40.1445700	-104.5630000	polygon
	2D Polygon: dimensions not calculated							
GIG-EM STATE Y9-740 BHL (300'FNL & 1983'FEL,SEC.04)	6975.00	10800.66	-1097.25	**3264327.47**	**1307563.93**	40.1737885	-104.5540624	point
GIG-EM STATE Y9-740 BHL 2(300'FNL & 1983'FEL,SEC.04)	6975.00	10801.22	-1096.59	3264328.14	1307564.49	**40.1737900**	**-104.5540600**	point
GIG-EM STATE Y9-740 BPZ(460'FNL & 1982'FEL,SEC.04)	6975.00	10640.94	-1094.88	3264329.85	1307404.22	**40.1733500**	**-104.5540600**	point
GIG-EM STATE Y9-740 LP /TPZ (133'FSL & 2011'FEL,SEC.09)	6975.00	720.66	-1023.16	**3264401.56**	**1297484.37**	40.1461181	-104.5541820	point
GIG-EM STATE Y9-740 LP /TPZ 2(133'FSL & 2011'FEL,SEC.09)	6975.00	721.35	-1022.60	3264402.12	1297485.05	**40.1461200**	**-104.5541800**	point
406N Hardline 460'FNL&FWL	7231.00	-11.45	-1755.70	3263669.05	1296752.29	40.1441300	-104.5568300	polygon
	2D Polygon: dimensions not calculated							

WELLPATH COMPOSITION - Ref Wellbore: GIG-EM STATE Y9-740 AWB Ref Wellpath: GIG-EM STATE Y9-740 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	2037.00	OWSG MWD rev2 (MS+IFR1)	13.5" Hole EVO OWSG MWD rev2 (MS+IFR1) <160'-2037'>	GIG-EM STATE Y9-740 AWB	3/9/2023
2037.00	17434.00	OWSG MWD rev2 (MS+IFR1)	8.5" Hole ATC Lucida OWSG MWD rev2 (MS+IFR1) <2102'-17409'>	GIG-EM STATE Y9-740 AWB	3/15/2023

WELLPATH COMPOSITION - Ref Wellbore: GIG-EM STATE Y9-740 AWB Ref Wellpath: GIG-EM STATE Y9-740 AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date

Actual Wellpath Report

GIG-EM STATE Y9-740 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**GIG-EM STATE Y9-740**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**05-123-51837**
Facility	**SEC.16-T02N-R64W**	Wellbore	**GIG-EM STATE Y9-740 AWB**
Slot	**SLOT#18 GIG-EM STATE Y9-740 (595'FNL&997'FEL,SEC.16)**		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
160.00	0.460	146.470	160.00	First BH MWD Survey
7464.30	89.000	356.743	6973.84	Planned TPZ (133'FSL&2046'FEL,SEC.09)
7531.36	90.094	358.517	6974.10	200' FSL (200'FSL&2049'FEL,SEC.09)
17386.53	90.264	1.449	6976.15	Cross 460' Hardline (460'FNL&1957'FEL,SEC.04)
17409.00	90.250	1.360	6976.05	Last BH MWD Survey (438'FNL&1957'FEL,SEC.04)
17434.00	90.250	1.360	6975.94	Pojection to Bit (413'FNL&1956'FEL,SEC.04)