

NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: Foose State A17-685
 Facility: SEC.18-T06N-R64W Wellbore: Foose State A17-685 PWB

Plot reference wellpath is Foose State A17-685 (REV-A.0) PWP
 True vertical depths are referenced to (4702'GL+30'KB@4732'RKB) (RKB)
 Reference wellpath measured depths are referenced to (4702'GL+30'KB@4732'RKB) (RKB)
 (4702'GL+30'KB@4732'RKB) (RKB) to Mean Sea Level: 4732 feet
 Mean Sea Level to Ground level (At Slot: SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)): 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: guenier on 2023-01-13, Database: WA_Denver

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
SEC.18-T06N-R64W	3253919.886	1420891.224	40°29'5.760"N	104°35'13.668"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)	0.00	0.00	3253919.886	1420891.224	40°29'5.760"N	104°35'13.668"W
(4702'GL+30'KB@4732'RKB) (RKB) to Ground level (At Slot: SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18))					4732ft	
Mean Sea Level to Ground level (At Slot: SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18))					0ft	
(4702'GL+30'KB@4732'RKB) (RKB) to Mean Sea Level					4732ft	

Well Profile Data

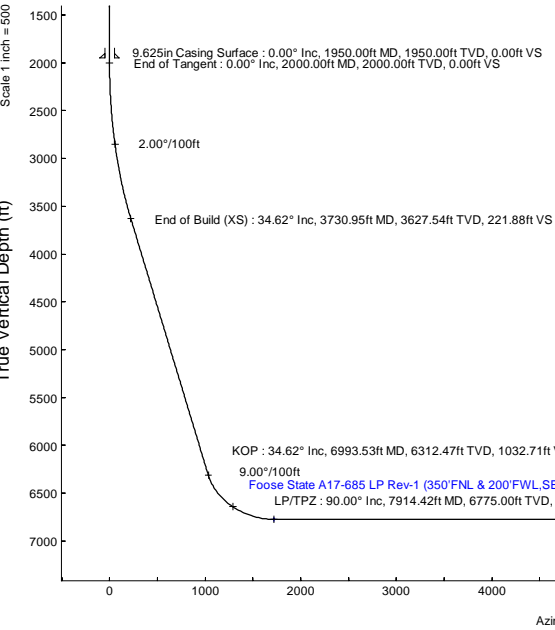
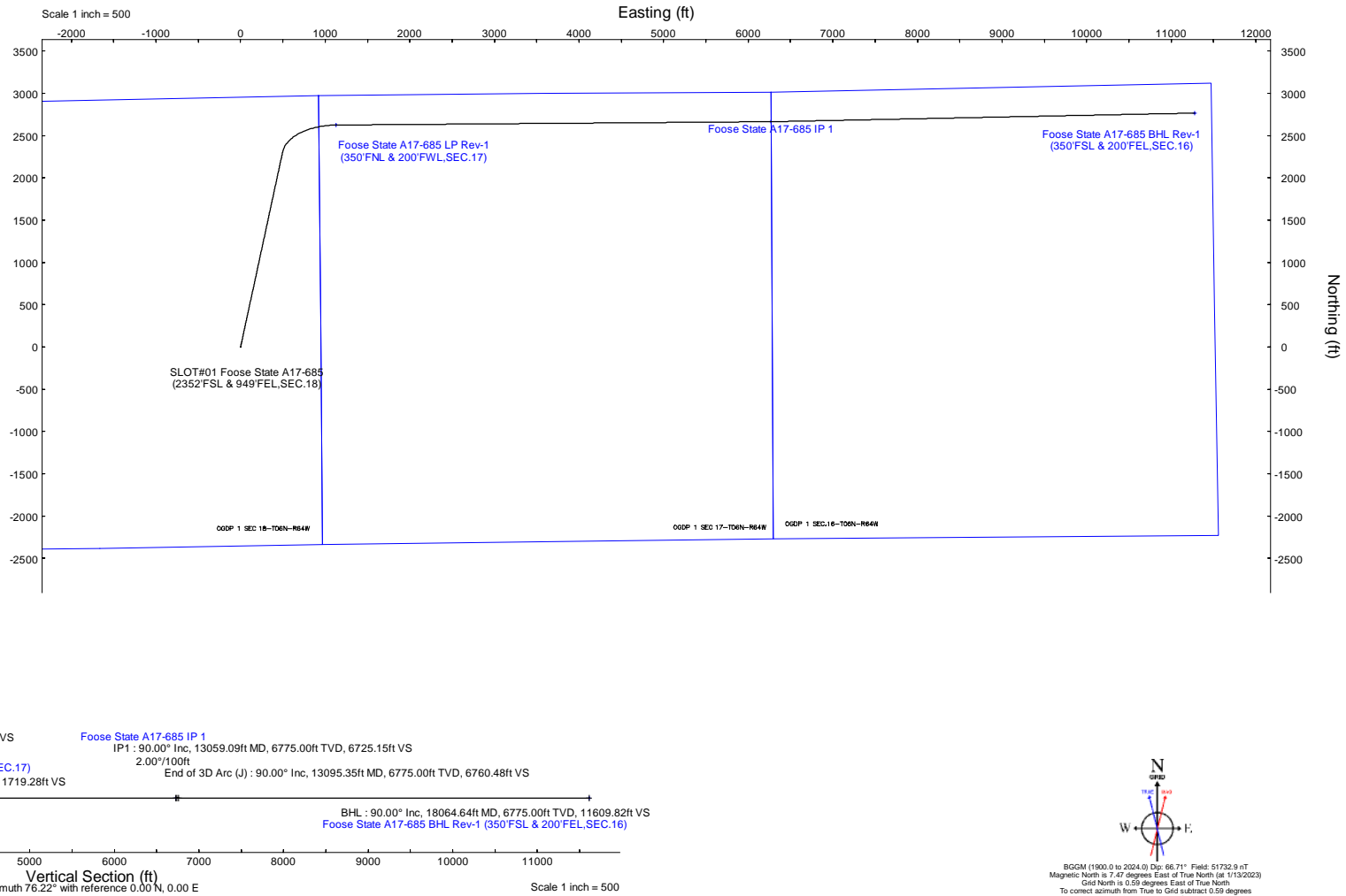
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
SHL	30.00	0.000	12.160	30.00	0.00	0.00	0.00	0.00
End of Tangent	2000.00	0.000	12.160	2000.00	0.00	0.00	0.00	0.00
End of Build (XS)	3730.95	34.619	12.160	3627.54	495.84	106.84	2.00	221.88
KOP	6993.53	34.619	12.160	6312.47	2307.78	497.26	0.00	1032.71
LP/TPZ	7914.42	90.000	89.558	6775.00	2624.27	1126.54	9.00	1719.28
IP1	13059.09	90.000	89.558	6775.00	2663.99	6271.06	0.00	6725.15
End of 3D Arc (J)	13095.35	90.000	88.832	6775.00	2664.50	6307.31	2.00	6760.48
BHL	18064.64	90.000	88.832	6775.00	2765.76	11275.58	0.00	11609.82

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
OGDP 1 SEC.16-T06N-R64W	N/A	-40.00	7371.66	460.85	3254380.72	1428262.61	40°30'19.3680"N	104°35'6.7200"W
OGDP 1 SEC.17-T06N-R64W	N/A	-40.00	7371.66	460.85	3254380.72	1428262.61	40°30'19.3680"N	104°35'6.7200"W
OGDP 1 SEC.18-T06N-R64W	N/A	-40.00	7371.66	460.85	3254380.72	1428262.61	40°30'19.3680"N	104°35'6.7200"W
Foose State A17-685 BHL Rev-1 (350'FNL & 200'FEL,SEC.16)	18064.64	6775.00	2765.76	11275.58	3265195.05	1428656.88	40°29'32.7317"N	104°32'47.3665"W
Foose State A17-685 IP 1	13059.09	6775.00	2663.99	6271.06	3260190.72	1423555.12	40°29'32.2529"N	104°33'52.1507"W
Foose State A17-685 LP Rev-1 (350'FNL & 200'FEL,SEC.17)	7914.42	6775.00	2624.27	1126.54	3255046.39	1423515.39	40°29'32.3914"N	104°34'58.7382"W

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	18064.64	OWSG MWD rev2	OWSG MWD rev2 (MS+IFR1)		Foose State A17-685 PWB



N
 W E S
 BCGM (1900.0 to 2024.0) Dip: 68.71° Field: 51732.9 nT
 Magnetic North is 7.47 degrees East of True North (at 11/30/2023)
 Grid North is 0.59 degrees East of True North
 To correct azimuth from True to Grid subtract 0.59 degrees
 To correct azimuth from Magnetic to Grid add 6.88 degrees



Planned Wellpath Report

Foose State A17-685 (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Foose State A17-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T06N-R64W	Wellbore	Foose State A17-685 PWB
Slot	SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)		

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	0.999965	Report Generated	1/13/2023 at 5:41:15 PM
Convergence at slot	0.59° 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	0.00	0.00	3253919.89	1420891.22	40.4851600°	-104.5871300°
Facility Reference Pt			3253919.89	1420891.22	40.4851600°	-104.5871300°
Field Reference Pt			3000000.00	4454105.15	48.7761986°	-105.5000000°

WELLPATH DATUM

Calculation method	Minimum curvature	(4702'GL+30'KB@4732'RKB) (RKB) to Facility Vertical Datum	4732.00ft
Horizontal Reference Pt	Slot	(4702'GL+30'KB@4732'RKB) (RKB) to Mean Sea Level	4732.00ft
Vertical Reference Pt	(4702'GL+30'KB@4732'RKB) (RKB)	(4702'GL+30'KB@4732'RKB) (RKB) to Ground Level at Slot (SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18))	4732.00ft
MD Reference Pt	(4702'GL+30'KB@4732'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	76.22°



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T06N-R64W	Wellbore	Foose State A17-685 PWB
Slot	SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)		

WELLPATH DATA (189 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	12.160	0.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
30.00	0.000	12.160	30.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	SHL
130.00†	0.000	12.160	130.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
230.00†	0.000	12.160	230.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
330.00†	0.000	12.160	330.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
430.00†	0.000	12.160	430.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
530.00†	0.000	12.160	530.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
630.00†	0.000	12.160	630.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
730.00†	0.000	12.160	730.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
830.00†	0.000	12.160	830.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
930.00†	0.000	12.160	930.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1030.00†	0.000	12.160	1030.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1130.00†	0.000	12.160	1130.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1230.00†	0.000	12.160	1230.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1330.00†	0.000	12.160	1330.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1430.00†	0.000	12.160	1430.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1530.00†	0.000	12.160	1530.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1630.00†	0.000	12.160	1630.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1730.00†	0.000	12.160	1730.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1830.00†	0.000	12.160	1830.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
1930.00†	0.000	12.160	1930.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	
2000.00	0.000	12.160	2000.00	0.00	0.00	0.00	40.4851600	-104.5871300	0.00	End of Tangent
2030.00†	0.600	12.160	2030.00	0.07	0.15	0.03	40.4851604	-104.5871299	2.00	
2130.00†	2.600	12.160	2129.96	1.29	2.88	0.62	40.4851679	-104.5871277	2.00	
2230.00†	4.600	12.160	2229.75	4.04	9.02	1.94	40.4851847	-104.5871227	2.00	
2330.00†	6.600	12.160	2329.27	8.31	18.56	4.00	40.4852108	-104.5871149	2.00	
2430.00†	8.600	12.160	2428.39	14.09	31.49	6.78	40.4852462	-104.5871044	2.00	
2530.00†	10.600	12.160	2526.98	21.39	47.79	10.30	40.4852909	-104.5870912	2.00	
2630.00†	12.600	12.160	2624.93	30.18	67.45	14.53	40.4853447	-104.5870753	2.00	
2730.00†	14.600	12.160	2722.13	40.47	90.43	19.49	40.4854077	-104.5870566	2.00	
2830.00†	16.600	12.160	2818.44	52.23	116.72	25.15	40.4854796	-104.5870353	2.00	
2930.00†	18.600	12.160	2913.75	65.46	146.28	31.52	40.4855606	-104.5870113	2.00	
3030.00†	20.600	12.160	3007.95	80.13	179.07	38.58	40.4856504	-104.5869847	2.00	
3130.00†	22.600	12.160	3100.93	96.23	215.05	46.34	40.4857489	-104.5869555	2.00	
3230.00†	24.600	12.160	3192.56	113.75	254.19	54.77	40.4858561	-104.5869237	2.00	
3330.00†	26.600	12.160	3282.74	132.65	296.42	63.87	40.4859718	-104.5868894	2.00	
3430.00†	28.600	12.160	3371.35	152.91	341.71	73.63	40.4860958	-104.5868527	2.00	
3530.00†	30.600	12.160	3458.30	174.52	389.99	84.03	40.4862280	-104.5868135	2.00	
3630.00†	32.600	12.160	3543.46	197.44	441.21	95.07	40.4863683	-104.5867719	2.00	
3730.00†	34.600	12.160	3626.75	221.65	495.31	106.72	40.4865165	-104.5867280	2.00	
3730.95	34.619	12.160	3627.54	221.88	495.84	106.84	40.4865179	-104.5867276	2.00	Build (XS)
3830.00†	34.619	12.160	3709.05	246.50	550.85	118.69	40.4866686	-104.5866829	0.00	
3930.00†	34.619	12.160	3791.34	271.35	606.38	130.66	40.4868207	-104.5866379	0.00	
4030.00†	34.619	12.160	3873.64	296.20	661.92	142.62	40.4869728	-104.5865928	0.00	
4130.00†	34.619	12.160	3955.93	321.06	717.46	154.59	40.4871248	-104.5865477	0.00	



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Foose State A17-685 (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Foose State A17-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T06N-R64W	Wellbore	Foose State A17-685 PWB
Slot	SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4230.00†	34.619	12.160	4038.23	345.91	773.00	166.56	40.4872769	-104.5865026	0.00	
4330.00†	34.619	12.160	4120.52	370.76	828.53	178.52	40.4874290	-104.5864576	0.00	
4430.00†	34.619	12.160	4202.82	395.61	884.07	190.49	40.4875811	-104.5864125	0.00	
4530.00†	34.619	12.160	4285.11	420.47	939.61	202.46	40.4877332	-104.5863674	0.00	
4630.00†	34.619	12.160	4367.41	445.32	995.14	214.42	40.4878853	-104.5863223	0.00	
4730.00†	34.619	12.160	4449.70	470.17	1050.68	226.39	40.4880374	-104.5862773	0.00	
4830.00†	34.619	12.160	4531.99	495.02	1106.22	238.36	40.4881895	-104.5862322	0.00	
4930.00†	34.619	12.160	4614.29	519.88	1161.76	250.32	40.4883416	-104.5861871	0.00	
5030.00†	34.619	12.160	4696.58	544.73	1217.29	262.29	40.4884937	-104.5861420	0.00	
5130.00†	34.619	12.160	4778.88	569.58	1272.83	274.26	40.4886458	-104.5860970	0.00	
5230.00†	34.619	12.160	4861.17	594.43	1328.37	286.22	40.4887979	-104.5860519	0.00	
5330.00†	34.619	12.160	4943.47	619.29	1383.90	298.19	40.4889500	-104.5860068	0.00	
5430.00†	34.619	12.160	5025.76	644.14	1439.44	310.16	40.4891021	-104.5859617	0.00	
5530.00†	34.619	12.160	5108.06	668.99	1494.98	322.12	40.4892542	-104.5859167	0.00	
5630.00†	34.619	12.160	5190.35	693.84	1550.52	334.09	40.4894063	-104.5858716	0.00	
5730.00†	34.619	12.160	5272.65	718.70	1606.05	346.06	40.4895584	-104.5858265	0.00	
5830.00†	34.619	12.160	5354.94	743.55	1661.59	358.02	40.4897105	-104.5857814	0.00	
5930.00†	34.619	12.160	5437.24	768.40	1717.13	369.99	40.4898626	-104.5857363	0.00	
6030.00†	34.619	12.160	5519.53	793.25	1772.66	381.96	40.4900147	-104.5856913	0.00	
6130.00†	34.619	12.160	5601.83	818.11	1828.20	393.92	40.4901667	-104.5856462	0.00	
6230.00†	34.619	12.160	5684.12	842.96	1883.74	405.89	40.4903188	-104.5856011	0.00	
6330.00†	34.619	12.160	5766.42	867.81	1939.28	417.86	40.4904709	-104.5855560	0.00	
6430.00†	34.619	12.160	5848.71	892.66	1994.81	429.82	40.4906230	-104.5855110	0.00	
6530.00†	34.619	12.160	5931.01	917.52	2050.35	441.79	40.4907751	-104.5854659	0.00	
6630.00†	34.619	12.160	6013.30	942.37	2105.89	453.76	40.4909272	-104.5854208	0.00	
6730.00†	34.619	12.160	6095.59	967.22	2161.42	465.72	40.4910793	-104.5853757	0.00	
6830.00†	34.619	12.160	6177.89	992.07	2216.96	477.69	40.4912314	-104.5853306	0.00	
6930.00†	34.619	12.160	6260.18	1016.93	2272.50	489.66	40.4913835	-104.5852856	0.00	
6993.53	34.619	12.160	6312.47	1032.71	2307.78	497.26	40.4914801	-104.5852569	0.00	KOP
7030.00†	35.342	17.746	6342.36	1042.76	2327.96	502.66	40.4915354	-104.5852368	9.00	
7130.00†	38.534	31.783	6422.42	1080.21	2382.10	527.93	40.4916832	-104.5851439	9.00	
7230.00†	43.154	43.620	6498.16	1131.36	2433.44	568.01	40.4918230	-104.5849979	9.00	
7330.00†	48.790	53.401	6567.72	1194.98	2480.72	621.91	40.4919513	-104.5848024	9.00	
7430.00†	55.117	61.543	6629.38	1269.48	2522.78	688.31	40.4920648	-104.5845621	9.00	
7530.00†	61.907	68.480	6681.63	1353.04	2558.57	765.56	40.4921609	-104.5842830	9.00	
7630.00†	69.003	74.572	6723.18	1443.59	2587.23	851.77	40.4922371	-104.5839720	9.00	
7730.00†	76.296	80.102	6753.00	1538.91	2608.04	944.81	40.4922916	-104.5836368	9.00	
7830.00†	83.705	85.295	6770.36	1636.66	2620.49	1042.40	40.4923230	-104.5832855	9.00	
7914.42	90.000	89.558	6775.00†	1719.28	2624.27	1126.54	40.4923309	-104.5829828	9.00	LP/TPZ
7930.00†	90.000	89.558	6775.00	1734.44	2624.39	1142.12	40.4923308	-104.5829268	0.00	
8030.00†	90.000	89.558	6775.00	1831.74	2625.16	1242.12	40.4923301	-104.5825673	0.00	
8130.00†	90.000	89.558	6775.00	1929.04	2625.93	1342.12	40.4923294	-104.5822078	0.00	
8230.00†	90.000	89.558	6775.00	2026.34	2626.70	1442.12	40.4923287	-104.5818482	0.00	
8330.00†	90.000	89.558	6775.00	2123.65	2627.47	1542.11	40.4923279	-104.5814887	0.00	
8430.00†	90.000	89.558	6775.00	2220.95	2628.25	1642.11	40.4923272	-104.5811292	0.00	



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T06N-R64W	Wellbore	Foose State A17-685 PWB
Slot	SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8530.00†	90.000	89.558	6775.00	2318.25	2629.02	1742.11	40.4923265	-104.5807696	0.00	
8630.00†	90.000	89.558	6775.00	2415.55	2629.79	1842.10	40.4923258	-104.5804101	0.00	
8730.00†	90.000	89.558	6775.00	2512.85	2630.56	1942.10	40.4923250	-104.5800506	0.00	
8830.00†	90.000	89.558	6775.00	2610.16	2631.34	2042.10	40.4923243	-104.5796911	0.00	
8930.00†	90.000	89.558	6775.00	2707.46	2632.11	2142.09	40.4923236	-104.5793315	0.00	
9030.00†	90.000	89.558	6775.00	2804.76	2632.88	2242.09	40.4923229	-104.5789720	0.00	
9130.00†	90.000	89.558	6775.00	2902.06	2633.65	2342.09	40.4923221	-104.5786125	0.00	
9230.00†	90.000	89.558	6775.00	2999.36	2634.42	2442.09	40.4923214	-104.5782529	0.00	
9330.00†	90.000	89.558	6775.00	3096.67	2635.20	2542.08	40.4923207	-104.5778934	0.00	
9430.00†	90.000	89.558	6775.00	3193.97	2635.97	2642.08	40.4923199	-104.5775339	0.00	
9530.00†	90.000	89.558	6775.00	3291.27	2636.74	2742.08	40.4923192	-104.5771744	0.00	
9630.00†	90.000	89.558	6775.00	3388.57	2637.51	2842.07	40.4923184	-104.5768148	0.00	
9730.00†	90.000	89.558	6775.00	3485.88	2638.28	2942.07	40.4923177	-104.5764553	0.00	
9830.00†	90.000	89.558	6775.00	3583.18	2639.06	3042.07	40.4923170	-104.5760958	0.00	
9930.00†	90.000	89.558	6775.00	3680.48	2639.83	3142.06	40.4923162	-104.5757362	0.00	
10030.00†	90.000	89.558	6775.00	3777.78	2640.60	3242.06	40.4923155	-104.5753767	0.00	
10130.00†	90.000	89.558	6775.00	3875.08	2641.37	3342.06	40.4923147	-104.5750172	0.00	
10230.00†	90.000	89.558	6775.00	3972.39	2642.15	3442.06	40.4923140	-104.5746577	0.00	
10330.00†	90.000	89.558	6775.00	4069.69	2642.92	3542.05	40.4923132	-104.5742981	0.00	
10430.00†	90.000	89.558	6775.00	4166.99	2643.69	3642.05	40.4923125	-104.5739386	0.00	
10530.00†	90.000	89.558	6775.00	4264.29	2644.46	3742.05	40.4923118	-104.5735791	0.00	
10630.00†	90.000	89.558	6775.00	4361.59	2645.23	3842.04	40.4923110	-104.5732195	0.00	
10730.00†	90.000	89.558	6775.00	4458.90	2646.01	3942.04	40.4923103	-104.5728600	0.00	
10830.00†	90.000	89.558	6775.00	4556.20	2646.78	4042.04	40.4923095	-104.5725005	0.00	
10930.00†	90.000	89.558	6775.00	4653.50	2647.55	4142.04	40.4923088	-104.5721410	0.00	
11030.00†	90.000	89.558	6775.00	4750.80	2648.32	4242.03	40.4923080	-104.5717814	0.00	
11130.00†	90.000	89.558	6775.00	4848.10	2649.09	4342.03	40.4923072	-104.5714219	0.00	
11230.00†	90.000	89.558	6775.00	4945.41	2649.87	4442.03	40.4923065	-104.5710624	0.00	
11330.00†	90.000	89.558	6775.00	5042.71	2650.64	4542.02	40.4923057	-104.5707029	0.00	
11430.00†	90.000	89.558	6775.00	5140.01	2651.41	4642.02	40.4923050	-104.5703433	0.00	
11530.00†	90.000	89.558	6775.00	5237.31	2652.18	4742.02	40.4923042	-104.5699838	0.00	
11630.00†	90.000	89.558	6775.00	5334.61	2652.96	4842.01	40.4923035	-104.5696243	0.00	
11730.00†	90.000	89.558	6775.00	5431.92	2653.73	4942.01	40.4923027	-104.5692647	0.00	
11830.00†	90.000	89.558	6775.00	5529.22	2654.50	5042.01	40.4923019	-104.5689052	0.00	
11930.00†	90.000	89.558	6775.00	5626.52	2655.27	5142.01	40.4923012	-104.5685457	0.00	
12030.00†	90.000	89.558	6775.00	5723.82	2656.04	5242.00	40.4923004	-104.5681862	0.00	
12130.00†	90.000	89.558	6775.00	5821.12	2656.82	5342.00	40.4922996	-104.5678266	0.00	
12230.00†	90.000	89.558	6775.00	5918.43	2657.59	5442.00	40.4922989	-104.5674671	0.00	
12330.00†	90.000	89.558	6775.00	6015.73	2658.36	5541.99	40.4922981	-104.5671076	0.00	
12430.00†	90.000	89.558	6775.00	6113.03	2659.13	5641.99	40.4922973	-104.5667480	0.00	
12530.00†	90.000	89.558	6775.00	6210.33	2659.90	5741.99	40.4922966	-104.5663885	0.00	
12630.00†	90.000	89.558	6775.00	6307.63	2660.68	5841.98	40.4922958	-104.5660290	0.00	
12730.00†	90.000	89.558	6775.00	6404.94	2661.45	5941.98	40.4922950	-104.5656695	0.00	
12830.00†	90.000	89.558	6775.00	6502.24	2662.22	6041.98	40.4922943	-104.5653099	0.00	
12930.00†	90.000	89.558	6775.00	6599.54	2662.99	6141.98	40.4922935	-104.5649504	0.00	



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Foose State A17-685 (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Foose State A17-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T06N-R64W	Wellbore	Foose State A17-685 PWB
Slot	SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13030.00†	90.000	89.558	6775.00	6696.84	2663.77	6241.97	40.4922927	-104.5645909	0.00	
13059.09	90.000	89.558	6775.00‡	6725.15	2663.99	6271.06	40.4922925	-104.5644863	0.00	IP1
13095.35	90.000	88.832	6775.00	6760.48	2664.50	6307.31	40.4922928	-104.5643559	2.00	3D Arc (J)
13130.00†	90.000	88.832	6775.00	6794.29	2665.21	6341.96	40.4922938	-104.5642314	0.00	
13230.00†	90.000	88.832	6775.00	6891.88	2667.24	6441.94	40.4922965	-104.5638718	0.00	
13330.00†	90.000	88.832	6775.00	6989.47	2669.28	6541.92	40.4922992	-104.5635123	0.00	
13430.00†	90.000	88.832	6775.00	7087.05	2671.32	6641.90	40.4923018	-104.5631528	0.00	
13530.00†	90.000	88.832	6775.00	7184.64	2673.36	6741.88	40.4923045	-104.5627933	0.00	
13630.00†	90.000	88.832	6775.00	7282.23	2675.39	6841.86	40.4923072	-104.5624338	0.00	
13730.00†	90.000	88.832	6775.00	7379.81	2677.43	6941.84	40.4923099	-104.5620743	0.00	
13830.00†	90.000	88.832	6775.00	7477.40	2679.47	7041.82	40.4923126	-104.5617148	0.00	
13930.00†	90.000	88.832	6775.00	7574.98	2681.51	7141.79	40.4923153	-104.5613553	0.00	
14030.00†	90.000	88.832	6775.00	7672.57	2683.54	7241.77	40.4923180	-104.5609957	0.00	
14130.00†	90.000	88.832	6775.00	7770.16	2685.58	7341.75	40.4923207	-104.5606362	0.00	
14230.00†	90.000	88.832	6775.00	7867.74	2687.62	7441.73	40.4923234	-104.5602767	0.00	
14330.00†	90.000	88.832	6775.00	7965.33	2689.66	7541.71	40.4923260	-104.5599172	0.00	
14430.00†	90.000	88.832	6775.00	8062.92	2691.70	7641.69	40.4923287	-104.5595577	0.00	
14530.00†	90.000	88.832	6775.00	8160.50	2693.73	7741.67	40.4923314	-104.5591982	0.00	
14630.00†	90.000	88.832	6775.00	8258.09	2695.77	7841.65	40.4923341	-104.5588387	0.00	
14730.00†	90.000	88.832	6775.00	8355.67	2697.81	7941.63	40.4923368	-104.5584792	0.00	
14830.00†	90.000	88.832	6775.00	8453.26	2699.85	8041.61	40.4923394	-104.5581196	0.00	
14930.00†	90.000	88.832	6775.00	8550.85	2701.88	8141.59	40.4923421	-104.5577601	0.00	
15030.00†	90.000	88.832	6775.00	8648.43	2703.92	8241.57	40.4923448	-104.5574006	0.00	
15130.00†	90.000	88.832	6775.00	8746.02	2705.96	8341.55	40.4923475	-104.5570411	0.00	
15230.00†	90.000	88.832	6775.00	8843.61	2708.00	8441.52	40.4923501	-104.5566816	0.00	
15330.00†	90.000	88.832	6775.00	8941.19	2710.03	8541.50	40.4923528	-104.5563221	0.00	
15430.00†	90.000	88.832	6775.00	9038.78	2712.07	8641.48	40.4923555	-104.5559626	0.00	
15530.00†	90.000	88.832	6775.00	9136.36	2714.11	8741.46	40.4923582	-104.5556031	0.00	
15630.00†	90.000	88.832	6775.00	9233.95	2716.15	8841.44	40.4923608	-104.5552435	0.00	
15730.00†	90.000	88.832	6775.00	9331.54	2718.19	8941.42	40.4923635	-104.5548840	0.00	
15830.00†	90.000	88.832	6775.00	9429.12	2720.22	9041.40	40.4923662	-104.5545245	0.00	
15930.00†	90.000	88.832	6775.00	9526.71	2722.26	9141.38	40.4923688	-104.5541650	0.00	
16030.00†	90.000	88.832	6775.00	9624.30	2724.30	9241.36	40.4923715	-104.5538055	0.00	
16130.00†	90.000	88.832	6775.00	9721.88	2726.34	9341.34	40.4923742	-104.5534460	0.00	
16230.00†	90.000	88.832	6775.00	9819.47	2728.37	9441.32	40.4923768	-104.5530865	0.00	
16330.00†	90.000	88.832	6775.00	9917.05	2730.41	9541.30	40.4923795	-104.5527270	0.00	
16430.00†	90.000	88.832	6775.00	10014.64	2732.45	9641.28	40.4923821	-104.5523674	0.00	
16530.00†	90.000	88.832	6775.00	10112.23	2734.49	9741.25	40.4923848	-104.5520079	0.00	
16630.00†	90.000	88.832	6775.00	10209.81	2736.52	9841.23	40.4923875	-104.5516484	0.00	
16730.00†	90.000	88.832	6775.00	10307.40	2738.56	9941.21	40.4923901	-104.5512889	0.00	
16830.00†	90.000	88.832	6775.00	10404.99	2740.60	10041.19	40.4923928	-104.5509294	0.00	
16930.00†	90.000	88.832	6775.00	10502.57	2742.64	10141.17	40.4923954	-104.5505699	0.00	
17030.00†	90.000	88.832	6775.00	10600.16	2744.68	10241.15	40.4923981	-104.5502104	0.00	
17130.00†	90.000	88.832	6775.00	10697.74	2746.71	10341.13	40.4924007	-104.5498509	0.00	
17230.00†	90.000	88.832	6775.00	10795.33	2748.75	10441.11	40.4924034	-104.5494913	0.00	



Planned Wellpath Report

Foose State A17-685 (REV-A.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Foose State A17-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T06N-R64W	Wellbore	Foose State A17-685 PWB
Slot	SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)		

WELLPATH DATA (189 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17330.00†	90.000	88.832	6775.00	10892.92	2750.79	10541.09	40.4924060	-104.5491318	0.00	
17430.00†	90.000	88.832	6775.00	10990.50	2752.83	10641.07	40.4924087	-104.5487723	0.00	
17530.00†	90.000	88.832	6775.00	11088.09	2754.86	10741.05	40.4924113	-104.5484128	0.00	
17630.00†	90.000	88.832	6775.00	11185.68	2756.90	10841.03	40.4924140	-104.5480533	0.00	
17730.00†	90.000	88.832	6775.00	11283.26	2758.94	10941.01	40.4924166	-104.5476938	0.00	
17830.00†	90.000	88.832	6775.00	11380.85	2760.98	11040.98	40.4924193	-104.5473343	0.00	
17930.00†	90.000	88.832	6775.00	11478.43	2763.01	11140.96	40.4924219	-104.5469747	0.00	
18030.00†	90.000	88.832	6775.00	11576.02	2765.05	11240.94	40.4924246	-104.5466152	0.00	
18064.64	90.000	88.832	6775.00‡	11609.82	2765.76	11275.58	40.4924255	-104.5464907	0.00	BHL

HOLE & CASING SECTIONS - Ref Wellbore: Foose State A17-685 PWB Ref Wellpath: Foose State A17-685 (REV-A.0) PWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	30.00	1950.00	1920.00	30.00	1950.00	0.00	0.00	0.00	0.00

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
OGDP 1 SEC.16-T06N-R64W	N/A	-40.00	7371.66	460.85	3254380.72	1428262.61	40.5053800	-104.5852000	polygon
2D Polygon: dimensions not calculated									
OGDP 1 SEC.17-T06N-R64W	N/A	-40.00	7371.66	460.85	3254380.72	1428262.61	40.5053800	-104.5852000	polygon
2D Polygon: dimensions not calculated									
OGDP 1 SEC.18-T06N-R64W	N/A	-40.00	7371.66	460.85	3254380.72	1428262.61	40.5053800	-104.5852000	polygon
2D Polygon: dimensions not calculated									
3) Foose State A17-685 BHL Rev-1 (350'FSL & 200'FEL,SEC.16)	18064.64	6775.00	2765.76	11275.58	3265195.05	1423656.88	40.4924255	-104.5464907	point
2) Foose State A17-685 IP 1	13059.09	6775.00	2663.99	6271.06	3260190.72	1423555.12	40.4922925	-104.5644863	point
1) Foose State A17-685 LP Rev-1 (350'FNL & 200'FWL,SEC.17)	7914.42	6775.00	2624.27	1126.54	3255046.39	1423515.39	40.4923309	-104.5829828	point



Planned Wellpath Report

Foose State A17-685 (REV-A.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Foose State A17-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T06N-R64W	Wellbore	Foose State A17-685 PWB
Slot	SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)		

SURVEY PROGRAM - Ref Wellbore: Foose State A17-685 PWB Ref Wellpath: Foose State A17-685 (REV-A.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	18064.64	OWSG MWD rev2 (MS+IFR1)		Foose State A17-685 PWB



Planned Wellpath Report

Foose State A17-685 (REV-A.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Foose State A17-685
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T06N-R64W	Wellbore	Foose State A17-685 PWB
Slot	SLOT#01 Foose State A17-685 (2352'FSL & 949'FEL,SEC.18)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
30.00	0.000	12.160	30.00	SHL
2000.00	0.000	12.160	2000.00	End of Tangent
3730.95	34.619	12.160	3627.54	Build (XS)
6993.53	34.619	12.160	6312.47	KOP
7914.42	90.000	89.558	6775.00	LP/TPZ
13059.09	90.000	89.558	6775.00	IP1
13095.35	90.000	88.832	6775.00	3D Arc (J)
18064.64	90.000	88.832	6775.00	BHL