

NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL, SEC. 12)
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: GABEL A12-678
 Facility: SEC.12-T06N-R64W Wellbore: GABEL A12-678 PWB

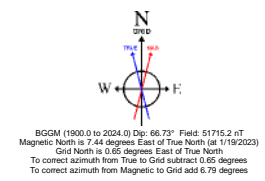
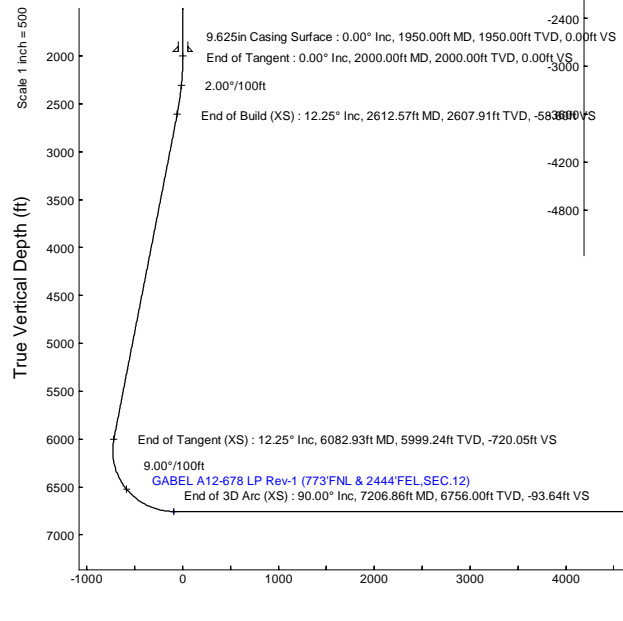
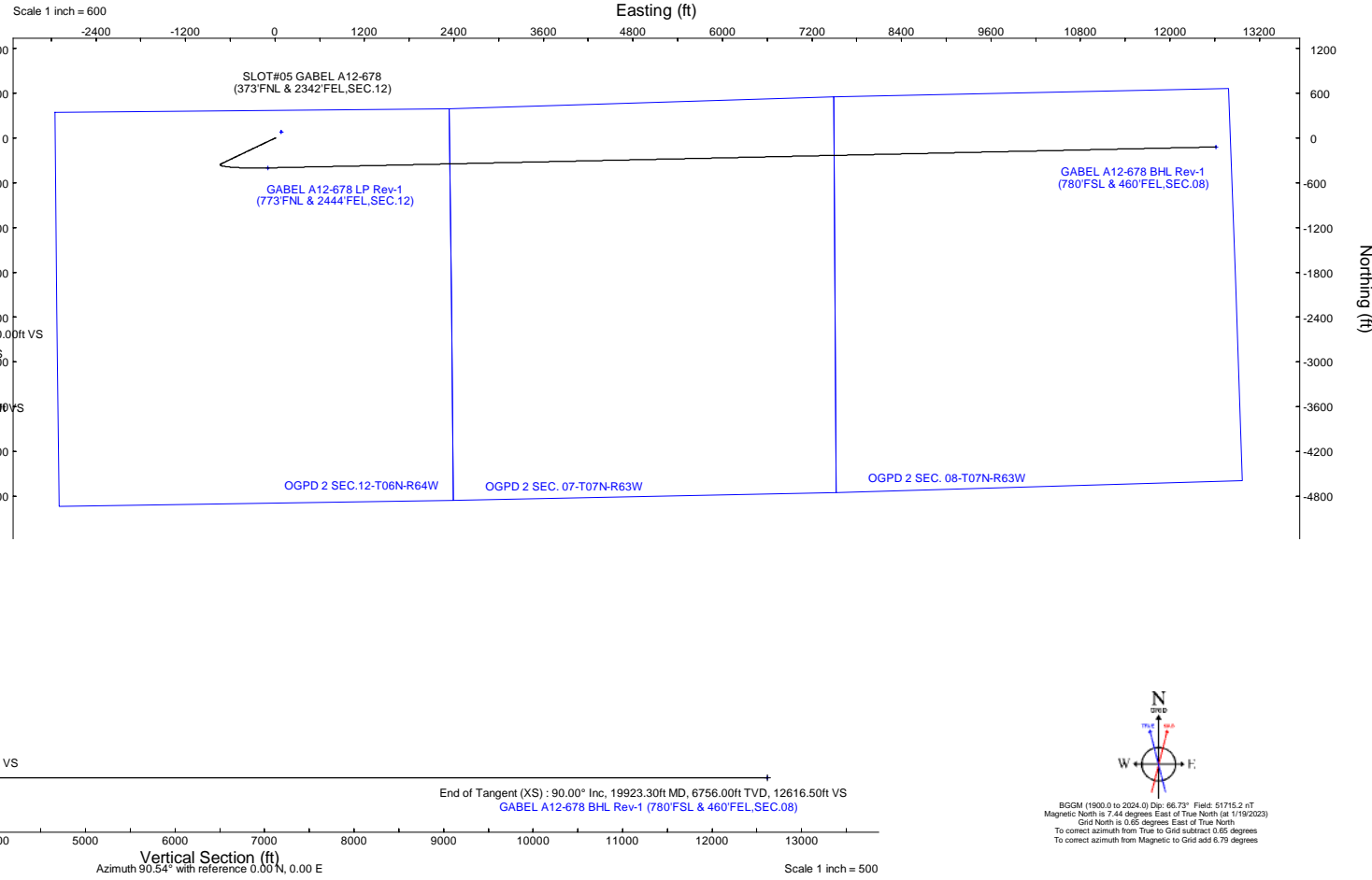
Plot reference wellpath is **GABEL A12-678 (REV-A.0) PWP**
 True vertical depths are referenced to (4721'GL+30'KB@4751'RKB) (RKB)
 Reference wellpath measured depths are referenced to (4721'GL+30'KB@4751'RKB) (RKB)
 (4721'GL+30'KB@4751'RKB) (RKB) to Mean Sea Level: 4751 feet
 Mean Sea Level to Ground level (At Slot: SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL, SEC. 12)): 0 feet
 Offset wellpath MDs are referenced to each path's default MD datum

Location Information							
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.12-T06N-R64W				3278923.071	1429205.676	40°30'26.0640"N	104°29'48.8760"W
Slot				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL, SEC. 12)				3278837.822	1429120.916	40°30'25.2360"N	104°29'49.9920"W
(4721'GL+30'KB@4751'RKB) (RKB) to Ground level (At Slot: SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL, SEC. 12))				4751ft			
Mean Sea Level to Ground level (At Slot: SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL, SEC. 12))				0ft			
(4721'GL+30'KB@4751'RKB) (RKB) to Mean Sea Level				4751ft			

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	30.00	0.000	244.462	30.00	0.00	0.00	0.00	0.00
End of Tangent	2000.00	0.000	244.462	2000.00	0.00	0.00	0.00	0.00
End of Build (XS)	2612.57	12.251	244.462	2607.91	-28.13	-58.87	2.00	-58.60
End of Tangent (XS)	6082.93	12.251	244.462	5999.24	-345.60	-723.33	0.00	-720.05
End of 3D Arc (XS)	7206.86	90.000	88.735	6756.00	-399.35	-97.40	9.00	-93.64
End of Tangent (XS)	19923.30	90.000	88.735	6756.00	-118.55	12615.94	0.00	12616.50

Targets									
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
OGPD 2 SEC. 07-T07N-R63W	N/A	-3.00	84.76	85.25	3278923.07	1429205.68	40°30'26.0640"N	104°29'48.8760"W	
OGPD 2 SEC. 08-T07N-R63W	N/A	-3.00	84.76	85.25	3278923.07	1429205.68	40°30'26.0640"N	104°29'48.8760"W	
OGPD 2 SEC. 12-T06N-R64W	N/A	-3.00	84.76	85.25	3278923.07	1429205.68	40°30'26.0640"N	104°29'48.8760"W	
GABEL A12-678 BHL Rev-1 (780'FSL & 460'FEL, SEC. 08)	19923.30	6756.00	-118.55	12615.94	3291453.32	1429002.37	40°30'22.6230"N	104°27'6.6969"W	
GABEL A12-678 LP Rev-1 (773'FNL & 2444'FEL, SEC. 12)	7206.86	6756.00	-399.35	-97.40	3278740.43	1428721.58	40°30'21.3010"N	104°29'51.3113"W	

Survey Program					
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	19923.30	OWSG MWD rev2	OWSG MWD rev2 (MS+IFR1)		GABEL A12-678 PWB





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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GABEL A12-678
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T06N-R64W	Wellbore	GABEL A12-678 PWB
Slot	SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL,SEC.12)		

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	0.999967	Report Generated	1/20/2023 at 1:31:33 PM
Convergence at slot	0.65° 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	-84.76	-85.25	3278837.82	1429120.92	40.5070100°	-104.4972200°
Facility Reference Pt			3278923.07	1429205.68	40.5072400°	-104.4969100°
Field Reference Pt			3000000.00	4454105.15	48.7761986°	-105.5000000°

WELLPATH DATUM

Calculation method	Minimum curvature	(4721'GL+30'KB@4751'RKB) (RKB) to Facility Vertical Datum	4751.00ft
Horizontal Reference Pt	Slot	(4721'GL+30'KB@4751'RKB) (RKB) to Mean Sea Level	4751.00ft
Vertical Reference Pt	(4721'GL+30'KB@4751'RKB) (RKB)	(4721'GL+30'KB@4751'RKB) (RKB) to Ground Level at Slot (SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL,SEC.12))	4751.00ft
MD Reference Pt	(4721'GL+30'KB@4751'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	90.54°



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T06N-R64W	Wellbore	GABEL A12-678 PWB
Slot	SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL,SEC.12)		

WELLPATH DATA (205 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	244.462	0.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
30.00	0.000	244.462	30.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	SHL
130.00†	0.000	244.462	130.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
230.00†	0.000	244.462	230.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
330.00†	0.000	244.462	330.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
430.00†	0.000	244.462	430.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
530.00†	0.000	244.462	530.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
630.00†	0.000	244.462	630.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
730.00†	0.000	244.462	730.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
830.00†	0.000	244.462	830.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
930.00†	0.000	244.462	930.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1030.00†	0.000	244.462	1030.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1130.00†	0.000	244.462	1130.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1230.00†	0.000	244.462	1230.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1330.00†	0.000	244.462	1330.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1430.00†	0.000	244.462	1430.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1530.00†	0.000	244.462	1530.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1630.00†	0.000	244.462	1630.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1730.00†	0.000	244.462	1730.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1830.00†	0.000	244.462	1830.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
1930.00†	0.000	244.462	1930.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	
2000.00	0.000	244.462	2000.00	0.00	0.00	0.00	40.5070100	-104.4972200	0.00	End of Tangent
2030.00†	0.600	244.462	2030.00	-0.14	-0.07	-0.14	40.5070098	-104.4972205	2.00	
2130.00†	2.600	244.462	2129.96	-2.65	-1.27	-2.66	40.5070066	-104.4972296	2.00	
2230.00†	4.600	244.462	2229.75	-8.29	-3.98	-8.33	40.5069993	-104.4972501	2.00	
2330.00†	6.600	244.462	2329.27	-17.05	-8.18	-17.13	40.5069881	-104.4972819	2.00	
2430.00†	8.600	244.462	2428.39	-28.93	-13.89	-29.06	40.5069728	-104.4973251	2.00	
2530.00†	10.600	244.462	2526.98	-43.91	-21.08	-44.11	40.5069535	-104.4973795	2.00	
2612.57	12.251	244.462	2607.91	-58.60	-28.13	-58.87	40.5069346	-104.4974328	2.00	Build (XS)
2630.00†	12.251	244.462	2624.95	-61.92	-29.72	-62.21	40.5069304	-104.4974449	0.00	
2730.00†	12.251	244.462	2722.67	-80.98	-38.87	-81.35	40.5069058	-104.4975141	0.00	
2830.00†	12.251	244.462	2820.39	-100.04	-48.02	-100.50	40.5068813	-104.4975833	0.00	
2930.00†	12.251	244.462	2918.11	-119.10	-57.17	-119.65	40.5068568	-104.4976526	0.00	
3030.00†	12.251	244.462	3015.84	-138.16	-66.31	-138.79	40.5068323	-104.4977218	0.00	
3130.00†	12.251	244.462	3113.56	-157.22	-75.46	-157.94	40.5068078	-104.4977910	0.00	
3230.00†	12.251	244.462	3211.28	-176.28	-84.61	-177.09	40.5067833	-104.4978602	0.00	
3330.00†	12.251	244.462	3309.00	-195.34	-93.76	-196.23	40.5067588	-104.4979294	0.00	
3430.00†	12.251	244.462	3406.73	-214.40	-102.91	-215.38	40.5067342	-104.4979987	0.00	
3530.00†	12.251	244.462	3504.45	-233.46	-112.06	-234.53	40.5067097	-104.4980679	0.00	
3630.00†	12.251	244.462	3602.17	-252.52	-121.20	-253.67	40.5066852	-104.4981371	0.00	
3730.00†	12.251	244.462	3699.89	-271.58	-130.35	-272.82	40.5066607	-104.4982063	0.00	
3830.00†	12.251	244.462	3797.62	-290.64	-139.50	-291.97	40.5066362	-104.4982755	0.00	
3930.00†	12.251	244.462	3895.34	-309.70	-148.65	-311.11	40.5066117	-104.4983448	0.00	
4030.00†	12.251	244.462	3993.06	-328.76	-157.80	-330.26	40.5065871	-104.4984140	0.00	
4130.00†	12.251	244.462	4090.78	-347.82	-166.94	-349.41	40.5065626	-104.4984832	0.00	



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REFERENCE WELLPATH IDENTIFICATION

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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T06N-R64W	Wellbore	GABEL A12-678 PWB
Slot	SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL,SEC.12)		

WELLPATH DATA (205 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4230.00†	12.251	244.462	4188.51	-366.88	-176.09	-368.55	40.5065381	-104.4985524	0.00	
4330.00†	12.251	244.462	4286.23	-385.94	-185.24	-387.70	40.5065136	-104.4986216	0.00	
4430.00†	12.251	244.462	4383.95	-405.00	-194.39	-406.85	40.5064891	-104.4986909	0.00	
4530.00†	12.251	244.462	4481.68	-424.06	-203.54	-426.00	40.5064646	-104.4987601	0.00	
4630.00†	12.251	244.462	4579.40	-443.12	-212.69	-445.14	40.5064401	-104.4988293	0.00	
4730.00†	12.251	244.462	4677.12	-462.18	-221.83	-464.29	40.5064155	-104.4988985	0.00	
4830.00†	12.251	244.462	4774.84	-481.24	-230.98	-483.44	40.5063910	-104.4989677	0.00	
4930.00†	12.251	244.462	4872.57	-500.30	-240.13	-502.58	40.5063665	-104.4990370	0.00	
5030.00†	12.251	244.462	4970.29	-519.36	-249.28	-521.73	40.5063420	-104.4991062	0.00	
5130.00†	12.251	244.462	5068.01	-538.42	-258.43	-540.88	40.5063175	-104.4991754	0.00	
5230.00†	12.251	244.462	5165.73	-557.48	-267.58	-560.02	40.5062930	-104.4992446	0.00	
5330.00†	12.251	244.462	5263.46	-576.54	-276.72	-579.17	40.5062684	-104.4993138	0.00	
5430.00†	12.251	244.462	5361.18	-595.60	-285.87	-598.32	40.5062439	-104.4993831	0.00	
5530.00†	12.251	244.462	5458.90	-614.66	-295.02	-617.46	40.5062194	-104.4994523	0.00	
5630.00†	12.251	244.462	5556.62	-633.72	-304.17	-636.61	40.5061949	-104.4995215	0.00	
5730.00†	12.251	244.462	5654.35	-652.78	-313.32	-655.76	40.5061704	-104.4995907	0.00	
5830.00†	12.251	244.462	5752.07	-671.84	-322.46	-674.90	40.5061459	-104.4996599	0.00	
5930.00†	12.251	244.462	5849.79	-690.90	-331.61	-694.05	40.5061213	-104.4997292	0.00	
6030.00†	12.251	244.462	5947.51	-709.96	-340.76	-713.20	40.5060968	-104.4997984	0.00	
6082.93	12.251	244.462	5999.24	-720.05	-345.60	-723.33	40.5060839	-104.4998350	0.00	KOP
6130.00†	8.588	232.499	6045.53	-727.31	-349.90	-730.63	40.5060723	-104.4998614	9.00	
6230.00†	5.509	156.492	6144.94	-731.24	-358.86	-734.65	40.5060478	-104.4998762	9.00	
6330.00†	12.187	113.149	6243.79	-719.52	-367.43	-723.00	40.5060239	-104.4998347	9.00	
6430.00†	20.694	102.403	6339.63	-692.43	-375.39	-695.99	40.5060012	-104.4997379	9.00	
6530.00†	29.488	97.817	6430.12	-650.64	-382.55	-654.26	40.5059803	-104.4995881	9.00	
6630.00†	38.371	95.208	6513.01	-595.17	-388.73	-598.85	40.5059616	-104.4993892	9.00	
6730.00†	47.293	93.461	6586.27	-527.41	-393.77	-531.13	40.5059457	-104.4991458	9.00	
6830.00†	56.235	92.156	6648.10	-449.00	-397.56	-452.76	40.5059329	-104.4988642	9.00	
6930.00†	65.188	91.100	6696.98	-361.89	-400.00	-365.66	40.5059235	-104.4985511	9.00	
7030.00†	74.147	90.187	6731.69	-268.22	-401.03	-272.00	40.5059177	-104.4982144	9.00	
7130.00†	83.110	89.353	6751.38	-170.29	-400.63	-174.06	40.5059158	-104.4978622	9.00	
7206.86	90.000	88.735	6756.00	-93.64	-399.35	-97.40	40.5059169	-104.4975865	9.00	LP/TPZ
7230.00†	90.000	88.735	6756.00	-70.51	-398.84	-74.26	40.5059176	-104.4975033	0.00	
7330.00†	90.000	88.735	6756.00	29.44	-396.63	25.71	40.5059206	-104.4971437	0.00	
7430.00†	90.000	88.735	6756.00	129.39	-394.42	125.69	40.5059235	-104.4967841	0.00	
7530.00†	90.000	88.735	6756.00	229.34	-392.21	225.66	40.5059265	-104.4964245	0.00	
7630.00†	90.000	88.735	6756.00	329.29	-390.00	325.64	40.5059295	-104.4960649	0.00	
7730.00†	90.000	88.735	6756.00	429.24	-387.80	425.61	40.5059324	-104.4957054	0.00	
7830.00†	90.000	88.735	6756.00	529.19	-385.59	525.59	40.5059354	-104.4953458	0.00	
7930.00†	90.000	88.735	6756.00	629.14	-383.38	625.57	40.5059383	-104.4949862	0.00	
8030.00†	90.000	88.735	6756.00	729.09	-381.17	725.54	40.5059413	-104.4946266	0.00	
8130.00†	90.000	88.735	6756.00	829.04	-378.96	825.52	40.5059442	-104.4942670	0.00	
8230.00†	90.000	88.735	6756.00	928.99	-376.75	925.49	40.5059472	-104.4939074	0.00	
8330.00†	90.000	88.735	6756.00	1028.94	-374.55	1025.47	40.5059501	-104.4935479	0.00	
8430.00†	90.000	88.735	6756.00	1128.89	-372.34	1125.44	40.5059531	-104.4931883	0.00	



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Facility	SEC.12-T06N-R64W	Wellbore	GABEL A12-678 PWB
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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	88.735	6756.00	1228.84	-370.13	1225.42	40.5059560	-104.4928287	0.00		
8630.00†	90.000	88.735	6756.00	1328.79	-367.92	1325.39	40.5059589	-104.4924691	0.00		
8730.00†	90.000	88.735	6756.00	1428.74	-365.71	1425.37	40.5059619	-104.4921095	0.00		
8830.00†	90.000	88.735	6756.00	1528.69	-363.51	1525.35	40.5059648	-104.4917500	0.00		
8930.00†	90.000	88.735	6756.00	1628.64	-361.30	1625.32	40.5059678	-104.4913904	0.00		
9030.00†	90.000	88.735	6756.00	1728.59	-359.09	1725.30	40.5059707	-104.4910308	0.00		
9130.00†	90.000	88.735	6756.00	1828.55	-356.88	1825.27	40.5059736	-104.4906712	0.00		
9230.00†	90.000	88.735	6756.00	1928.50	-354.67	1925.25	40.5059766	-104.4903116	0.00		
9330.00†	90.000	88.735	6756.00	2028.45	-352.46	2025.22	40.5059795	-104.4899520	0.00		
9430.00†	90.000	88.735	6756.00	2128.40	-350.26	2125.20	40.5059824	-104.4895925	0.00		
9530.00†	90.000	88.735	6756.00	2228.35	-348.05	2225.17	40.5059854	-104.4892329	0.00		
9630.00†	90.000	88.735	6756.00	2328.30	-345.84	2325.15	40.5059883	-104.4888733	0.00		
9730.00†	90.000	88.735	6756.00	2428.25	-343.63	2425.13	40.5059912	-104.4885137	0.00		
9830.00†	90.000	88.735	6756.00	2528.20	-341.42	2525.10	40.5059942	-104.4881541	0.00		
9930.00†	90.000	88.735	6756.00	2628.15	-339.22	2625.08	40.5059971	-104.4877945	0.00		
10030.00†	90.000	88.735	6756.00	2728.10	-337.01	2725.05	40.5060000	-104.4874350	0.00		
10130.00†	90.000	88.735	6756.00	2828.05	-334.80	2825.03	40.5060030	-104.4870754	0.00		
10230.00†	90.000	88.735	6756.00	2928.00	-332.59	2925.00	40.5060059	-104.4867158	0.00		
10330.00†	90.000	88.735	6756.00	3027.95	-330.38	3024.98	40.5060088	-104.4863562	0.00		
10430.00†	90.000	88.735	6756.00	3127.90	-328.18	3124.96	40.5060117	-104.4859966	0.00		
10530.00†	90.000	88.735	6756.00	3227.85	-325.97	3224.93	40.5060146	-104.4856371	0.00		
10630.00†	90.000	88.735	6756.00	3327.80	-323.76	3324.91	40.5060176	-104.4852775	0.00		
10730.00†	90.000	88.735	6756.00	3427.75	-321.55	3424.88	40.5060205	-104.4849179	0.00		
10830.00†	90.000	88.735	6756.00	3527.70	-319.34	3524.86	40.5060234	-104.4845583	0.00		
10930.00†	90.000	88.735	6756.00	3627.65	-317.13	3624.83	40.5060263	-104.4841987	0.00		
11030.00†	90.000	88.735	6756.00	3727.60	-314.93	3724.81	40.5060292	-104.4838391	0.00		
11130.00†	90.000	88.735	6756.00	3827.55	-312.72	3824.78	40.5060322	-104.4834796	0.00		
11230.00†	90.000	88.735	6756.00	3927.50	-310.51	3924.76	40.5060351	-104.4831200	0.00		
11330.00†	90.000	88.735	6756.00	4027.46	-308.30	4024.74	40.5060380	-104.4827604	0.00		
11430.00†	90.000	88.735	6756.00	4127.41	-306.09	4124.71	40.5060409	-104.4824008	0.00		
11530.00†	90.000	88.735	6756.00	4227.36	-303.89	4224.69	40.5060438	-104.4820412	0.00		
11630.00†	90.000	88.735	6756.00	4327.31	-301.68	4324.66	40.5060467	-104.4816816	0.00		
11730.00†	90.000	88.735	6756.00	4427.26	-299.47	4424.64	40.5060496	-104.4813221	0.00		
11830.00†	90.000	88.735	6756.00	4527.21	-297.26	4524.61	40.5060525	-104.4809625	0.00		
11930.00†	90.000	88.735	6756.00	4627.16	-295.05	4624.59	40.5060554	-104.4806029	0.00		
12030.00†	90.000	88.735	6756.00	4727.11	-292.85	4724.57	40.5060583	-104.4802433	0.00		
12130.00†	90.000	88.735	6756.00	4827.06	-290.64	4824.54	40.5060613	-104.4798837	0.00		
12230.00†	90.000	88.735	6756.00	4927.01	-288.43	4924.52	40.5060642	-104.4795241	0.00		
12330.00†	90.000	88.735	6756.00	5026.96	-286.22	5024.49	40.5060671	-104.4791646	0.00		
12430.00†	90.000	88.735	6756.00	5126.91	-284.01	5124.47	40.5060700	-104.4788050	0.00		
12530.00†	90.000	88.735	6756.00	5226.86	-281.80	5224.44	40.5060729	-104.4784454	0.00		
12630.00†	90.000	88.735	6756.00	5326.81	-279.60	5324.42	40.5060758	-104.4780858	0.00		
12730.00†	90.000	88.735	6756.00	5426.76	-277.39	5424.39	40.5060787	-104.4777262	0.00		
12830.00†	90.000	88.735	6756.00	5526.71	-275.18	5524.37	40.5060816	-104.4773667	0.00		
12930.00†	90.000	88.735	6756.00	5626.66	-272.97	5624.35	40.5060844	-104.4770071	0.00		



Planned Wellpath Report

GABEL A12-678 (REV-A.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GABEL A12-678
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T06N-R64W	Wellbore	GABEL A12-678 PWB
Slot	SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL,SEC.12)		

WELLPATH DATA (205 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	88.735	6756.00	5726.61	-270.76	5724.32	40.5060873	-104.4766475	0.00	
13130.00†	90.000	88.735	6756.00	5826.56	-268.56	5824.30	40.5060902	-104.4762879	0.00	
13230.00†	90.000	88.735	6756.00	5926.51	-266.35	5924.27	40.5060931	-104.4759283	0.00	
13330.00†	90.000	88.735	6756.00	6026.46	-264.14	6024.25	40.5060960	-104.4755687	0.00	
13430.00†	90.000	88.735	6756.00	6126.41	-261.93	6124.22	40.5060989	-104.4752092	0.00	
13530.00†	90.000	88.735	6756.00	6226.37	-259.72	6224.20	40.5061018	-104.4748496	0.00	
13630.00†	90.000	88.735	6756.00	6326.32	-257.51	6324.18	40.5061047	-104.4744900	0.00	
13730.00†	90.000	88.735	6756.00	6426.27	-255.31	6424.15	40.5061076	-104.4741304	0.00	
13830.00†	90.000	88.735	6756.00	6526.22	-253.10	6524.13	40.5061105	-104.4737708	0.00	
13930.00†	90.000	88.735	6756.00	6626.17	-250.89	6624.10	40.5061133	-104.4734112	0.00	
14030.00†	90.000	88.735	6756.00	6726.12	-248.68	6724.08	40.5061162	-104.4730517	0.00	
14130.00†	90.000	88.735	6756.00	6826.07	-246.47	6824.05	40.5061191	-104.4726921	0.00	
14230.00†	90.000	88.735	6756.00	6926.02	-244.27	6924.03	40.5061220	-104.4723325	0.00	
14330.00†	90.000	88.735	6756.00	7025.97	-242.06	7024.00	40.5061249	-104.4719729	0.00	
14430.00†	90.000	88.735	6756.00	7125.92	-239.85	7123.98	40.5061277	-104.4716133	0.00	
14530.00†	90.000	88.735	6756.00	7225.87	-237.64	7223.96	40.5061306	-104.4712537	0.00	
14630.00†	90.000	88.735	6756.00	7325.82	-235.43	7323.93	40.5061335	-104.4708941	0.00	
14730.00†	90.000	88.735	6756.00	7425.77	-233.23	7423.91	40.5061364	-104.4705346	0.00	
14830.00†	90.000	88.735	6756.00	7525.72	-231.02	7523.88	40.5061392	-104.4701750	0.00	
14930.00†	90.000	88.735	6756.00	7625.67	-228.81	7623.86	40.5061421	-104.4698154	0.00	
15030.00†	90.000	88.735	6756.00	7725.62	-226.60	7723.83	40.5061450	-104.4694558	0.00	
15130.00†	90.000	88.735	6756.00	7825.57	-224.39	7823.81	40.5061479	-104.4690962	0.00	
15230.00†	90.000	88.735	6756.00	7925.52	-222.18	7923.79	40.5061507	-104.4687366	0.00	
15330.00†	90.000	88.735	6756.00	8025.47	-219.98	8023.76	40.5061536	-104.4683771	0.00	
15430.00†	90.000	88.735	6756.00	8125.42	-217.77	8123.74	40.5061565	-104.4680175	0.00	
15530.00†	90.000	88.735	6756.00	8225.37	-215.56	8223.71	40.5061593	-104.4676579	0.00	
15630.00†	90.000	88.735	6756.00	8325.32	-213.35	8323.69	40.5061622	-104.4672983	0.00	
15730.00†	90.000	88.735	6756.00	8425.28	-211.14	8423.66	40.5061651	-104.4669387	0.00	
15830.00†	90.000	88.735	6756.00	8525.23	-208.94	8523.64	40.5061679	-104.4665791	0.00	
15930.00†	90.000	88.735	6756.00	8625.18	-206.73	8623.61	40.5061708	-104.4662196	0.00	
16030.00†	90.000	88.735	6756.00	8725.13	-204.52	8723.59	40.5061737	-104.4658600	0.00	
16130.00†	90.000	88.735	6756.00	8825.08	-202.31	8823.57	40.5061765	-104.4655004	0.00	
16230.00†	90.000	88.735	6756.00	8925.03	-200.10	8923.54	40.5061794	-104.4651408	0.00	
16330.00†	90.000	88.735	6756.00	9024.98	-197.89	9023.52	40.5061822	-104.4647812	0.00	
16430.00†	90.000	88.735	6756.00	9124.93	-195.69	9123.49	40.5061851	-104.4644216	0.00	
16530.00†	90.000	88.735	6756.00	9224.88	-193.48	9223.47	40.5061879	-104.4640621	0.00	
16630.00†	90.000	88.735	6756.00	9324.83	-191.27	9323.44	40.5061908	-104.4637025	0.00	
16730.00†	90.000	88.735	6756.00	9424.78	-189.06	9423.42	40.5061936	-104.4633429	0.00	
16830.00†	90.000	88.735	6756.00	9524.73	-186.85	9523.40	40.5061965	-104.4629833	0.00	
16930.00†	90.000	88.735	6756.00	9624.68	-184.65	9623.37	40.5061994	-104.4626237	0.00	
17030.00†	90.000	88.735	6756.00	9724.63	-182.44	9723.35	40.5062022	-104.4622641	0.00	
17130.00†	90.000	88.735	6756.00	9824.58	-180.23	9823.32	40.5062050	-104.4619045	0.00	
17230.00†	90.000	88.735	6756.00	9924.53	-178.02	9923.30	40.5062079	-104.4615450	0.00	
17330.00†	90.000	88.735	6756.00	10024.48	-175.81	10023.27	40.5062107	-104.4611854	0.00	
17430.00†	90.000	88.735	6756.00	10124.43	-173.61	10123.25	40.5062136	-104.4608258	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GABEL A12-678
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T06N-R64W	Wellbore	GABEL A12-678 PWB
Slot	SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL,SEC.12)		

WELLPATH DATA (205 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17530.00†	90.000	88.735	6756.00	10224.38	-171.40	10223.22	40.5062164	-104.4604662	0.00	
17630.00†	90.000	88.735	6756.00	10324.33	-169.19	10323.20	40.5062193	-104.4601066	0.00	
17730.00†	90.000	88.735	6756.00	10424.28	-166.98	10423.18	40.5062221	-104.4597470	0.00	
17830.00†	90.000	88.735	6756.00	10524.23	-164.77	10523.15	40.5062250	-104.4593875	0.00	
17930.00†	90.000	88.735	6756.00	10624.19	-162.56	10623.13	40.5062278	-104.4590279	0.00	
18030.00†	90.000	88.735	6756.00	10724.14	-160.36	10723.10	40.5062306	-104.4586683	0.00	
18130.00†	90.000	88.735	6756.00	10824.09	-158.15	10823.08	40.5062335	-104.4583087	0.00	
18230.00†	90.000	88.735	6756.00	10924.04	-155.94	10923.05	40.5062363	-104.4579491	0.00	
18330.00†	90.000	88.735	6756.00	11023.99	-153.73	11023.03	40.5062391	-104.4575895	0.00	
18430.00†	90.000	88.735	6756.00	11123.94	-151.52	11123.00	40.5062420	-104.4572299	0.00	
18530.00†	90.000	88.735	6756.00	11223.89	-149.32	11222.98	40.5062448	-104.4568704	0.00	
18630.00†	90.000	88.735	6756.00	11323.84	-147.11	11322.96	40.5062476	-104.4565108	0.00	
18730.00†	90.000	88.735	6756.00	11423.79	-144.90	11422.93	40.5062505	-104.4561512	0.00	
18830.00†	90.000	88.735	6756.00	11523.74	-142.69	11522.91	40.5062533	-104.4557916	0.00	
18930.00†	90.000	88.735	6756.00	11623.69	-140.48	11622.88	40.5062561	-104.4554320	0.00	
19030.00†	90.000	88.735	6756.00	11723.64	-138.28	11722.86	40.5062590	-104.4550724	0.00	
19130.00†	90.000	88.735	6756.00	11823.59	-136.07	11822.83	40.5062618	-104.4547129	0.00	
19230.00†	90.000	88.735	6756.00	11923.54	-133.86	11922.81	40.5062646	-104.4543533	0.00	
19330.00†	90.000	88.735	6756.00	12023.49	-131.65	12022.79	40.5062674	-104.4539937	0.00	
19430.00†	90.000	88.735	6756.00	12123.44	-129.44	12122.76	40.5062703	-104.4536341	0.00	
19530.00†	90.000	88.735	6756.00	12223.39	-127.23	12222.74	40.5062731	-104.4532745	0.00	
19630.00†	90.000	88.735	6756.00	12323.34	-125.03	12322.71	40.5062759	-104.4529149	0.00	
19730.00†	90.000	88.735	6756.00	12423.29	-122.82	12422.69	40.5062787	-104.4525553	0.00	
19830.00†	90.000	88.735	6756.00	12523.24	-120.61	12522.66	40.5062815	-104.4521958	0.00	
19923.30	90.000	88.735	6756.00 [‡]	12616.50	-118.55	12615.94	40.5062842	-104.4518603	0.00	BHL

HOLE & CASING SECTIONS - Ref Wellbore: GABEL A12-678 PWB Ref Wellpath: GABEL A12-678 (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



Planned Wellpath Report

GABEL A12-678 (REV-A.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GABEL A12-678
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T06N-R64W	Wellbore	GABEL A12-678 PWB
Slot	SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL,SEC.12)		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
OGPD 2 SEC. 07-T07N-R63W	N/A	-3.00	84.76	85.25	3278923.07	1429205.68	40.5072400	-104.4969100	polygon
	2D Polygon: dimensions not calculated								
OGPD 2 SEC. 08-T07N-R63W	N/A	-3.00	84.76	85.25	3278923.07	1429205.68	40.5072400	-104.4969100	polygon
	2D Polygon: dimensions not calculated								
OGPD 2 SEC.12-T06N-R64W	N/A	-3.00	84.76	85.25	3278923.07	1429205.68	40.5072400	-104.4969100	polygon
	2D Polygon: dimensions not calculated								
2) GABEL A12-678 BHL Rev-1 (780'FSL & 200'FEL,SEC.08)	19923.30	6756.00	-118.55	12615.94	3291453.32	1429002.37	40.5062842	-104.4518603	point
1) GABEL A12-678 LP Rev-1 (773'FNL & 2444'FEL,SEC.12)	7206.86	6756.00	-399.35	-97.40	3278740.43	1428721.58	40.5059169	-104.4975865	point

SURVEY PROGRAM - Ref Wellbore: GABEL A12-678 PWB Ref Wellpath: GABEL A12-678 (REV-A.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	19923.30	OWSG MWD rev2 (MS+IFR1)		GABEL A12-678 PWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	GABEL A12-678
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T06N-R64W	Wellbore	GABEL A12-678 PWB
Slot	SLOT#05 GABEL A12-678 (373'FNL & 2342'FEL,SEC.12)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
30.00	0.000	244.462	30.00	SHL
2000.00	0.000	244.462	2000.00	End of Tangent
2612.57	12.251	244.462	2607.91	Build (XS)
6082.93	12.251	244.462	5999.24	KOP
7206.86	90.000	88.735	6756.00	LP/TPZ
19923.30	90.000	88.735	6756.00	BHL