

NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#04 BISHOP A08-655 (862 FNL & 372 FEL, SEC.07)
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: BISHOP A08-655
 Facility: SEC.07-T06N-R64W Wellbore: BISHOP A08-655 PWB

Plot reference wellpath is BISHOP A08-655 (REV-C.0) PWP
 True vertical depths are referenced to RIG (4742 GL+30KB@4772 RKB) (RKB)
 Reference wellpath measured depths are referenced to RIG (4742 GL+30KB@4772 RKB) (RKB)
 RIG (4742 GL+30KB@4772 RKB) (RKB) to Mean Sea Level: 4772 feet
 Mean Sea Level to Ground level (At Slot: SLOT#04 BISHOP A08-655 (862 FNL & 372 FEL, SEC.07)): 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: guenaler on 2023-10-06; Database: WA_Denver

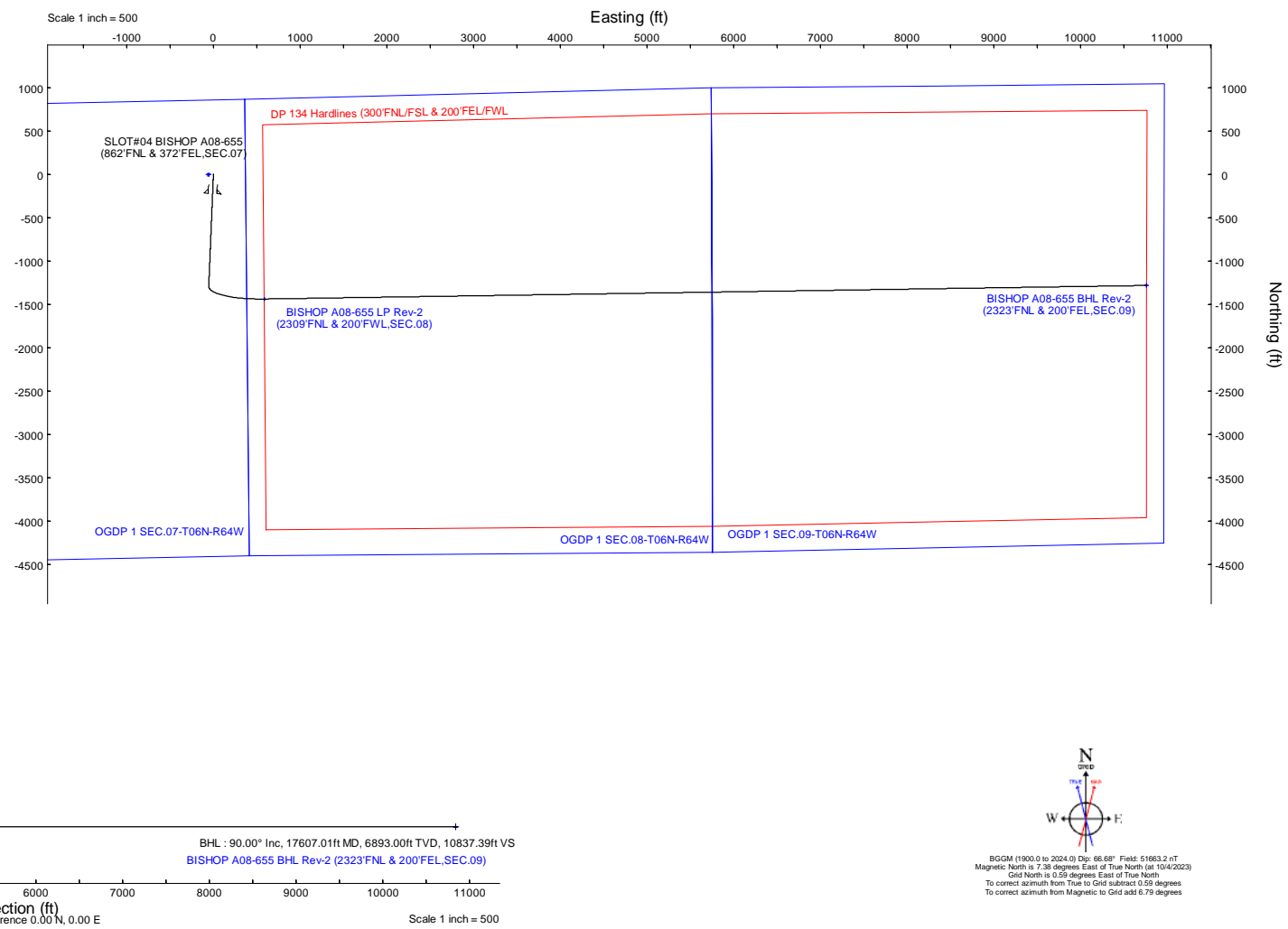
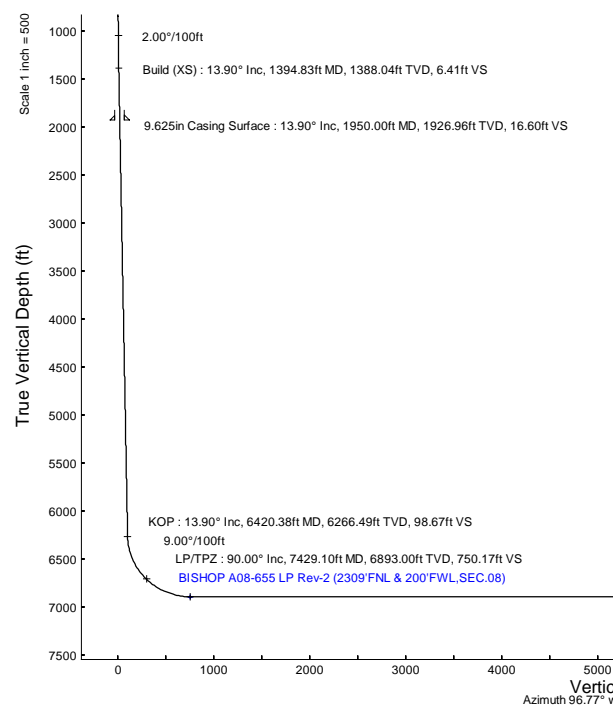
Location Information					
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.07-T06N-R64W		3254380.716	1428262.611	40°30'19.3680"N	104°35'6.7200"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
SLOT#04 BISHOP A08-655 (862 FNL & 372 FEL, SEC.07)	0.17	51.45	3254432.162	1428262.778	40°30'19.3644"N
RIG (4742 GL+30KB@4772 RKB) (RKB) to Ground level (At Slot: SLOT#04 BISHOP A08-655 (862 FNL & 372 FEL, SEC.07))					4772
Mean Sea Level to Ground level (At Slot: SLOT#04 BISHOP A08-655 (862 FNL & 372 FEL, SEC.07))					0
RIG (4742 GL+30KB@4772 RKB) (RKB) to Mean Sea Level					4772

Survey Program					
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	1950.00	OWSG MWD rev2	OWSG MWD rev2 (MS+IFR1)		BISHOP A08-655 PWB
1950.00	17607.01	OWSG MWD rev2	OWSG MWD rev2 (MS+IFR1)		BISHOP A08-655 PWB



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	182.391	30.00	0.00	0.00	0.00	0.00
End of Tangent	700.00	0.000	182.391	700.00	0.00	0.00	0.00	0.00
Build (XS)	1394.83	13.897	182.391	1388.04	-83.78	-3.50	2.00	6.41
KOP	6420.38	13.897	182.391	6266.49	-1289.72	-53.85	0.00	98.67
LP/TPZ	7429.10	90.000	89.120	6893.00	-1434.68	585.01	9.00	750.17
BHL	17607.01	90.000	89.120	6893.00	-1278.42	10761.72	0.00	10837.39

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.07-T06N-R64W	N/A	0.00	-0.17	-51.45	3254380.72	1428262.61	40°30'19.3680"N	104°35'6.7200"W	
OGDP 1 SEC.08-T06N-R64W	N/A	0.00	-0.17	-51.45	3254380.72	1428262.61	40°30'19.3680"N	104°35'6.7200"W	
OGDP 1 SEC.09-T06N-R64W	N/A	0.00	-0.17	-51.45	3254380.72	1428262.61	40°30'19.3680"N	104°35'6.7200"W	
BISHOP A08-655 BHL Rev-2 (2323 FNL & 200 FEL, SEC.09)	17607.01	6893.00	-1278.42	10761.72	3265193.51	1426984.41	40°30'5.6121"N	104°32'46.9233"W	
BISHOP A08-655 LP Rev-2 (2309 FNL & 200 FWL, SEC.08)	7429.10	6893.00	-1434.68	585.01	3255017.15	1426828.14	40°30'5.1287"N	104°34'58.6732"W	
BISHOP A08-655 BHL Rev-1 (2323 FSL & 200 FEL, SEC.09)	N/A	6897.00	-1278.42	10761.72	3265193.51	1426984.41	40°30'5.6121"N	104°32'46.9233"W	
BISHOP A08-655 LP Rev-1 (2309 FNL & 200 FWL, SEC.08)	N/A	6897.00	-1434.68	585.01	3255017.15	1426828.14	40°30'5.1287"N	104°34'58.6732"W	
DP 134 Hardlines (300 FNL/FSL & 200 FEL/FWL)	N/A	7001.00	0.03	-67.58	3254364.58	1428262.81	40°30'19.3716"N	104°35'6.9288"W	



N
 ↑
 True N
 ↓
 Grid N
 W ← → E

BGGM (1900.0 to 2024.0) Dip: 66.68° Field: 51663.2 nT
 Magnetic North is 7.38 degrees East of True North (at 10/4/2023)
 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 6.79 degrees



Planned Wellpath Report

BISHOP A08-655 (REV-C.0) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

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	10/6/2023 at 10:32:31 AM
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	0.17	51.45	3254432.16	1428262.78	40.5053790°	-104.5850150°
Facility Reference Pt			3254380.72	1428262.61	40.5053800°	-104.5852000°
Field Reference Pt			3000000.00	4454105.15	48.7761986°	-105.5000000°

WELLPATH DATUM

Calculation method	Minimum curvature	RIG (4742'GL+30'KB@4772'RKB) (RKB) to Facility Vertical Datum	4772.00ft
Horizontal Reference Pt	Slot	RIG (4742'GL+30'KB@4772'RKB) (RKB) to Mean Sea Level	4772.00ft
Vertical Reference Pt	RIG (4742'GL+30'KB@4772'RKB) (RKB)	RIG (4742'GL+30'KB@4772'RKB) (RKB) to Ground Level at Slot (SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07))	4772.00ft
MD Reference Pt	RIG (4742'GL+30'KB@4772'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	96.77°



Planned Wellpath Report

BISHOP A08-655 (REV-C.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

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
0.00†	0.000	182.391	0.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	
30.00	0.000	182.391	30.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	SHL
130.00†	0.000	182.391	130.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	
230.00†	0.000	182.391	230.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	
330.00†	0.000	182.391	330.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	
430.00†	0.000	182.391	430.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	
530.00†	0.000	182.391	530.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	
630.00†	0.000	182.391	630.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	
700.00	0.000	182.391	700.00	0.00	0.00	0.00	40.5053790	-104.5850150	0.00	End of Tangent
730.00†	0.600	182.391	730.00	0.01	-0.16	-0.01	40.5053786	-104.5850150	2.00	
830.00†	2.600	182.391	829.96	0.23	-2.95	-0.12	40.5053709	-104.5850156	2.00	
930.00†	4.600	182.391	929.75	0.71	-9.22	-0.38	40.5053537	-104.5850167	2.00	
1030.00†	6.600	182.391	1029.27	1.45	-18.97	-0.79	40.5053270	-104.5850186	2.00	
1130.00†	8.600	182.391	1128.39	2.46	-32.18	-1.34	40.5052907	-104.5850210	2.00	
1230.00†	10.600	182.391	1226.98	3.74	-48.84	-2.04	40.5052450	-104.5850241	2.00	
1330.00†	12.600	182.391	1324.93	5.27	-68.93	-2.88	40.5051899	-104.5850279	2.00	
1394.83	13.897	182.391	1388.04	6.41	-83.78	-3.50	40.5051492	-104.5850307	2.00	Build (XS)
1430.00†	13.897	182.391	1422.18	7.05	-92.22	-3.85	40.5051260	-104.5850323	0.00	
1530.00†	13.897	182.391	1519.25	8.89	-116.21	-4.85	40.5050602	-104.5850368	0.00	
1630.00†	13.897	182.391	1616.32	10.73	-140.21	-5.85	40.5049943	-104.5850413	0.00	
1730.00†	13.897	182.391	1713.40	12.56	-164.21	-6.86	40.5049285	-104.5850457	0.00	
1830.00†	13.897	182.391	1810.47	14.40	-188.20	-7.86	40.5048627	-104.5850502	0.00	
1930.00†	13.897	182.391	1907.54	16.23	-212.20	-8.86	40.5047968	-104.5850547	0.00	
2030.00†	13.897	182.391	2004.62	18.07	-236.19	-9.86	40.5047310	-104.5850592	0.00	
2130.00†	13.897	182.391	2101.69	19.91	-260.19	-10.86	40.5046652	-104.5850637	0.00	
2230.00†	13.897	182.391	2198.76	21.74	-284.19	-11.87	40.5045993	-104.5850682	0.00	
2330.00†	13.897	182.391	2295.84	23.58	-308.18	-12.87	40.5045335	-104.5850727	0.00	
2430.00†	13.897	182.391	2392.91	25.41	-332.18	-13.87	40.5044677	-104.5850772	0.00	
2530.00†	13.897	182.391	2489.98	27.25	-356.18	-14.87	40.5044018	-104.5850817	0.00	
2630.00†	13.897	182.391	2587.05	29.08	-380.17	-15.87	40.5043360	-104.5850862	0.00	
2730.00†	13.897	182.391	2684.13	30.92	-404.17	-16.88	40.5042702	-104.5850907	0.00	
2830.00†	13.897	182.391	2781.20	32.76	-428.16	-17.88	40.5042043	-104.5850952	0.00	
2930.00†	13.897	182.391	2878.27	34.59	-452.16	-18.88	40.5041385	-104.5850997	0.00	
3030.00†	13.897	182.391	2975.35	36.43	-476.16	-19.88	40.5040727	-104.5851042	0.00	
3130.00†	13.897	182.391	3072.42	38.26	-500.15	-20.88	40.5040068	-104.5851086	0.00	
3230.00†	13.897	182.391	3169.49	40.10	-524.15	-21.88	40.5039410	-104.5851131	0.00	
3330.00†	13.897	182.391	3266.57	41.93	-548.15	-22.89	40.5038751	-104.5851176	0.00	
3430.00†	13.897	182.391	3363.64	43.77	-572.14	-23.89	40.5038093	-104.5851221	0.00	
3530.00†	13.897	182.391	3460.71	45.61	-596.14	-24.89	40.5037435	-104.5851266	0.00	
3630.00†	13.897	182.391	3557.79	47.44	-620.13	-25.89	40.5036776	-104.5851311	0.00	
3730.00†	13.897	182.391	3654.86	49.28	-644.13	-26.89	40.5036118	-104.5851356	0.00	
3830.00†	13.897	182.391	3751.93	51.11	-668.13	-27.90	40.5035460	-104.5851401	0.00	
3930.00†	13.897	182.391	3849.00	52.95	-692.12	-28.90	40.5034801	-104.5851446	0.00	
4030.00†	13.897	182.391	3946.08	54.78	-716.12	-29.90	40.5034143	-104.5851491	0.00	
4130.00†	13.897	182.391	4043.15	56.62	-740.12	-30.90	40.5033485	-104.5851536	0.00	

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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

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	
4230.00†	13.897	182.391	4140.22	58.46	-764.11	-31.90	40.5032826	-104.5851581	0.00		
4330.00†	13.897	182.391	4237.30	60.29	-788.11	-32.91	40.5032168	-104.5851626	0.00		
4430.00†	13.897	182.391	4334.37	62.13	-812.11	-33.91	40.5031510	-104.5851671	0.00		
4530.00†	13.897	182.391	4431.44	63.96	-836.10	-34.91	40.5030851	-104.5851715	0.00		
4630.00†	13.897	182.391	4528.52	65.80	-860.10	-35.91	40.5030193	-104.5851760	0.00		
4730.00†	13.897	182.391	4625.59	67.63	-884.09	-36.91	40.5029535	-104.5851805	0.00		
4830.00†	13.897	182.391	4722.66	69.47	-908.09	-37.92	40.5028876	-104.5851850	0.00		
4930.00†	13.897	182.391	4819.73	71.31	-932.09	-38.92	40.5028218	-104.5851895	0.00		
5030.00†	13.897	182.391	4916.81	73.14	-956.08	-39.92	40.5027560	-104.5851940	0.00		
5130.00†	13.897	182.391	5013.88	74.98	-980.08	-40.92	40.5026901	-104.5851985	0.00		
5230.00†	13.897	182.391	5110.95	76.81	-1004.08	-41.92	40.5026243	-104.5852030	0.00		
5330.00†	13.897	182.391	5208.03	78.65	-1028.07	-42.93	40.5025585	-104.5852075	0.00		
5430.00†	13.897	182.391	5305.10	80.49	-1052.07	-43.93	40.5024926	-104.5852120	0.00		
5530.00†	13.897	182.391	5402.17	82.32	-1076.06	-44.93	40.5024268	-104.5852165	0.00		
5630.00†	13.897	182.391	5499.25	84.16	-1100.06	-45.93	40.5023610	-104.5852210	0.00		
5730.00†	13.897	182.391	5596.32	85.99	-1124.06	-46.93	40.5022951	-104.5852255	0.00		
5830.00†	13.897	182.391	5693.39	87.83	-1148.05	-47.93	40.5022293	-104.5852300	0.00		
5930.00†	13.897	182.391	5790.46	89.66	-1172.05	-48.94	40.5021635	-104.5852344	0.00		
6030.00†	13.897	182.391	5887.54	91.50	-1196.05	-49.94	40.5020976	-104.5852389	0.00		
6130.00†	13.897	182.391	5984.61	93.34	-1220.04	-50.94	40.5020318	-104.5852434	0.00		
6230.00†	13.897	182.391	6081.68	95.17	-1244.04	-51.94	40.5019660	-104.5852479	0.00		
6330.00†	13.897	182.391	6178.76	97.01	-1268.03	-52.94	40.5019001	-104.5852524	0.00		
6420.38	13.897	182.391	6266.49	98.67	-1289.72	-53.85	40.5018406	-104.5852565	0.00		KOP
6430.00†	13.875	178.782	6275.83	98.91	-1292.03	-53.87	40.5018343	-104.5852566	9.00		
6530.00†	16.534	145.436	6372.50	110.00	-1315.78	-45.53	40.5017689	-104.5852275	9.00		
6630.00†	22.649	125.417	6466.77	136.35	-1338.71	-21.72	40.5017053	-104.5851428	9.00		
6730.00†	30.188	114.247	6556.32	177.32	-1360.23	16.98	40.5016451	-104.5850044	9.00		
6830.00†	38.316	107.336	6638.94	231.89	-1379.84	69.60	40.5015898	-104.5848159	9.00		
6930.00†	46.725	102.569	6712.60	298.72	-1397.03	134.86	40.5015407	-104.5845819	9.00		
7030.00†	55.283	98.975	6775.48	376.16	-1411.39	211.14	40.5014992	-104.5843082	9.00		
7130.00†	63.927	96.062	6826.03	462.32	-1422.57	296.58	40.5014661	-104.5840014	9.00		
7230.00†	72.621	93.554	6863.02	555.06	-1430.29	389.05	40.5014423	-104.5836692	9.00		
7330.00†	81.343	91.275	6885.53	652.10	-1434.35	486.30	40.5014283	-104.5833197	9.00		
7429.10	90.000	89.120	6893.00†	750.17	-1434.68	585.01	40.5014246	-104.5829648	9.00		LP/TPZ
7430.00†	90.000	89.120	6893.00	751.06	-1434.67	585.91	40.5014246	-104.5829615	0.00		
7530.00†	90.000	89.120	6893.00	850.17	-1433.14	685.90	40.5014260	-104.5826020	0.00		
7630.00†	90.000	89.120	6893.00	949.28	-1431.60	785.89	40.5014274	-104.5822424	0.00		
7730.00†	90.000	89.120	6893.00	1048.39	-1430.06	885.88	40.5014288	-104.5818828	0.00		
7830.00†	90.000	89.120	6893.00	1147.50	-1428.53	985.87	40.5014301	-104.5815232	0.00		
7930.00†	90.000	89.120	6893.00	1246.60	-1426.99	1085.85	40.5014315	-104.5811637	0.00		
8030.00†	90.000	89.120	6893.00	1345.71	-1425.46	1185.84	40.5014329	-104.5808041	0.00		
8130.00†	90.000	89.120	6893.00	1444.82	-1423.92	1285.83	40.5014342	-104.5804445	0.00		
8230.00†	90.000	89.120	6893.00	1543.93	-1422.39	1385.82	40.5014356	-104.5800849	0.00		
8330.00†	90.000	89.120	6893.00	1643.04	-1420.85	1485.81	40.5014370	-104.5797254	0.00		
8430.00†	90.000	89.120	6893.00	1742.15	-1419.32	1585.79	40.5014383	-104.5793658	0.00		



Planned Wellpath Report

BISHOP A08-655 (REV-C.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

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
8530.00†	90.000	89.120	6893.00	1841.26	-1417.78	1685.78	40.5014397	-104.5790062	0.00	
8630.00†	90.000	89.120	6893.00	1940.37	-1416.25	1785.77	40.5014411	-104.5786466	0.00	
8730.00†	90.000	89.120	6893.00	2039.48	-1414.71	1885.76	40.5014424	-104.5782871	0.00	
8830.00†	90.000	89.120	6893.00	2138.59	-1413.18	1985.75	40.5014438	-104.5779275	0.00	
8930.00†	90.000	89.120	6893.00	2237.69	-1411.64	2085.74	40.5014452	-104.5775679	0.00	
9030.00†	90.000	89.120	6893.00	2336.80	-1410.10	2185.72	40.5014465	-104.5772083	0.00	
9130.00†	90.000	89.120	6893.00	2435.91	-1408.57	2285.71	40.5014479	-104.5768488	0.00	
9230.00†	90.000	89.120	6893.00	2535.02	-1407.03	2385.70	40.5014492	-104.5764892	0.00	
9330.00†	90.000	89.120	6893.00	2634.13	-1405.50	2485.69	40.5014506	-104.5761296	0.00	
9430.00†	90.000	89.120	6893.00	2733.24	-1403.96	2585.68	40.5014519	-104.5757700	0.00	
9530.00†	90.000	89.120	6893.00	2832.35	-1402.43	2685.66	40.5014533	-104.5754105	0.00	
9630.00†	90.000	89.120	6893.00	2931.46	-1400.89	2785.65	40.5014546	-104.5750509	0.00	
9730.00†	90.000	89.120	6893.00	3030.57	-1399.36	2885.64	40.5014560	-104.5746913	0.00	
9830.00†	90.000	89.120	6893.00	3129.68	-1397.82	2985.63	40.5014573	-104.5743318	0.00	
9930.00†	90.000	89.120	6893.00	3228.78	-1396.29	3085.62	40.5014587	-104.5739722	0.00	
10030.00†	90.000	89.120	6893.00	3327.89	-1394.75	3185.61	40.5014600	-104.5736126	0.00	
10130.00†	90.000	89.120	6893.00	3427.00	-1393.22	3285.59	40.5014614	-104.5732530	0.00	
10230.00†	90.000	89.120	6893.00	3526.11	-1391.68	3385.58	40.5014627	-104.5728935	0.00	
10330.00†	90.000	89.120	6893.00	3625.22	-1390.14	3485.57	40.5014641	-104.5725339	0.00	
10430.00†	90.000	89.120	6893.00	3724.33	-1388.61	3585.56	40.5014654	-104.5721743	0.00	
10530.00†	90.000	89.120	6893.00	3823.44	-1387.07	3685.55	40.5014668	-104.5718147	0.00	
10630.00†	90.000	89.120	6893.00	3922.55	-1385.54	3785.54	40.5014681	-104.5714552	0.00	
10730.00†	90.000	89.120	6893.00	4021.66	-1384.00	3885.52	40.5014694	-104.5710956	0.00	
10830.00†	90.000	89.120	6893.00	4120.77	-1382.47	3985.51	40.5014708	-104.5707360	0.00	
10930.00†	90.000	89.120	6893.00	4219.87	-1380.93	4085.50	40.5014721	-104.5703764	0.00	
11030.00†	90.000	89.120	6893.00	4318.98	-1379.40	4185.49	40.5014735	-104.5700169	0.00	
11130.00†	90.000	89.120	6893.00	4418.09	-1377.86	4285.48	40.5014748	-104.5696573	0.00	
11230.00†	90.000	89.120	6893.00	4517.20	-1376.33	4385.46	40.5014761	-104.5692977	0.00	
11330.00†	90.000	89.120	6893.00	4616.31	-1374.79	4485.45	40.5014775	-104.5689381	0.00	
11430.00†	90.000	89.120	6893.00	4715.42	-1373.26	4585.44	40.5014788	-104.5685786	0.00	
11530.00†	90.000	89.120	6893.00	4814.53	-1371.72	4685.43	40.5014801	-104.5682190	0.00	
11630.00†	90.000	89.120	6893.00	4913.64	-1370.19	4785.42	40.5014814	-104.5678594	0.00	
11730.00†	90.000	89.120	6893.00	5012.75	-1368.65	4885.41	40.5014828	-104.5674998	0.00	
11830.00†	90.000	89.120	6893.00	5111.85	-1367.11	4985.39	40.5014841	-104.5671403	0.00	
11930.00†	90.000	89.120	6893.00	5210.96	-1365.58	5085.38	40.5014854	-104.5667807	0.00	
12030.00†	90.000	89.120	6893.00	5310.07	-1364.04	5185.37	40.5014868	-104.5664211	0.00	
12130.00†	90.000	89.120	6893.00	5409.18	-1362.51	5285.36	40.5014881	-104.5660615	0.00	
12230.00†	90.000	89.120	6893.00	5508.29	-1360.97	5385.35	40.5014894	-104.5657020	0.00	
12330.00†	90.000	89.120	6893.00	5607.40	-1359.44	5485.33	40.5014907	-104.5653424	0.00	
12430.00†	90.000	89.120	6893.00	5706.51	-1357.90	5585.32	40.5014920	-104.5649828	0.00	
12530.00†	90.000	89.120	6893.00	5805.62	-1356.37	5685.31	40.5014934	-104.5646232	0.00	
12630.00†	90.000	89.120	6893.00	5904.73	-1354.83	5785.30	40.5014947	-104.5642637	0.00	
12730.00†	90.000	89.120	6893.00	6003.84	-1353.30	5885.29	40.5014960	-104.5639041	0.00	
12830.00†	90.000	89.120	6893.00	6102.94	-1351.76	5985.28	40.5014973	-104.5635445	0.00	
12930.00†	90.000	89.120	6893.00	6202.05	-1350.23	6085.26	40.5014986	-104.5631849	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

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
13030.00†	90.000	89.120	6893.00	6301.16	-1348.69	6185.25	40.5014999	-104.5628254	0.00	
13130.00†	90.000	89.120	6893.00	6400.27	-1347.15	6285.24	40.5015013	-104.5624658	0.00	
13230.00†	90.000	89.120	6893.00	6499.38	-1345.62	6385.23	40.5015026	-104.5621062	0.00	
13330.00†	90.000	89.120	6893.00	6598.49	-1344.08	6485.22	40.5015039	-104.5617466	0.00	
13430.00†	90.000	89.120	6893.00	6697.60	-1342.55	6585.20	40.5015052	-104.5613871	0.00	
13530.00†	90.000	89.120	6893.00	6796.71	-1341.01	6685.19	40.5015065	-104.5610275	0.00	
13630.00†	90.000	89.120	6893.00	6895.82	-1339.48	6785.18	40.5015078	-104.5606679	0.00	
13730.00†	90.000	89.120	6893.00	6994.93	-1337.94	6885.17	40.5015091	-104.5603083	0.00	
13830.00†	90.000	89.120	6893.00	7094.03	-1336.41	6985.16	40.5015104	-104.5599488	0.00	
13930.00†	90.000	89.120	6893.00	7193.14	-1334.87	7085.15	40.5015117	-104.5595892	0.00	
14030.00†	90.000	89.120	6893.00	7292.25	-1333.34	7185.13	40.5015130	-104.5592296	0.00	
14130.00†	90.000	89.120	6893.00	7391.36	-1331.80	7285.12	40.5015143	-104.5588700	0.00	
14230.00†	90.000	89.120	6893.00	7490.47	-1330.27	7385.11	40.5015156	-104.5585105	0.00	
14330.00†	90.000	89.120	6893.00	7589.58	-1328.73	7485.10	40.5015169	-104.5581509	0.00	
14430.00†	90.000	89.120	6893.00	7688.69	-1327.19	7585.09	40.5015182	-104.5577913	0.00	
14530.00†	90.000	89.120	6893.00	7787.80	-1325.66	7685.08	40.5015195	-104.5574317	0.00	
14630.00†	90.000	89.120	6893.00	7886.91	-1324.12	7785.06	40.5015208	-104.5570722	0.00	
14730.00†	90.000	89.120	6893.00	7986.01	-1322.59	7885.05	40.5015221	-104.5567126	0.00	
14830.00†	90.000	89.120	6893.00	8085.12	-1321.05	7985.04	40.5015234	-104.5563530	0.00	
14930.00†	90.000	89.120	6893.00	8184.23	-1319.52	8085.03	40.5015247	-104.5559934	0.00	
15030.00†	90.000	89.120	6893.00	8283.34	-1317.98	8185.02	40.5015260	-104.5556339	0.00	
15130.00†	90.000	89.120	6893.00	8382.45	-1316.45	8285.00	40.5015273	-104.5552743	0.00	
15230.00†	90.000	89.120	6893.00	8481.56	-1314.91	8384.99	40.5015286	-104.5549147	0.00	
15330.00†	90.000	89.120	6893.00	8580.67	-1313.38	8484.98	40.5015299	-104.5545551	0.00	
15430.00†	90.000	89.120	6893.00	8679.78	-1311.84	8584.97	40.5015312	-104.5541956	0.00	
15530.00†	90.000	89.120	6893.00	8778.89	-1310.31	8684.96	40.5015324	-104.5538360	0.00	
15630.00†	90.000	89.120	6893.00	8878.00	-1308.77	8784.95	40.5015337	-104.5534764	0.00	
15730.00†	90.000	89.120	6893.00	8977.10	-1307.24	8884.93	40.5015350	-104.5531168	0.00	
15830.00†	90.000	89.120	6893.00	9076.21	-1305.70	8984.92	40.5015363	-104.5527573	0.00	
15930.00†	90.000	89.120	6893.00	9175.32	-1304.16	9084.91	40.5015376	-104.5523977	0.00	
16030.00†	90.000	89.120	6893.00	9274.43	-1302.63	9184.90	40.5015389	-104.5520381	0.00	
16130.00†	90.000	89.120	6893.00	9373.54	-1301.09	9284.89	40.5015401	-104.5516785	0.00	
16230.00†	90.000	89.120	6893.00	9472.65	-1299.56	9384.87	40.5015414	-104.5513190	0.00	
16330.00†	90.000	89.120	6893.00	9571.76	-1298.02	9484.86	40.5015427	-104.5509594	0.00	
16430.00†	90.000	89.120	6893.00	9670.87	-1296.49	9584.85	40.5015440	-104.5505998	0.00	
16530.00†	90.000	89.120	6893.00	9769.98	-1294.95	9684.84	40.5015452	-104.5502402	0.00	
16630.00†	90.000	89.120	6893.00	9869.09	-1293.42	9784.83	40.5015465	-104.5498807	0.00	
16730.00†	90.000	89.120	6893.00	9968.19	-1291.88	9884.82	40.5015478	-104.5495211	0.00	
16830.00†	90.000	89.120	6893.00	10067.30	-1290.35	9984.80	40.5015491	-104.5491615	0.00	
16930.00†	90.000	89.120	6893.00	10166.41	-1288.81	10084.79	40.5015503	-104.5488019	0.00	
17030.00†	90.000	89.120	6893.00	10265.52	-1287.28	10184.78	40.5015516	-104.5484424	0.00	
17130.00†	90.000	89.120	6893.00	10364.63	-1285.74	10284.77	40.5015529	-104.5480828	0.00	
17230.00†	90.000	89.120	6893.00	10463.74	-1284.20	10384.76	40.5015541	-104.5477232	0.00	
17330.00†	90.000	89.120	6893.00	10562.85	-1282.67	10484.75	40.5015554	-104.5473636	0.00	
17430.00†	90.000	89.120	6893.00	10661.96	-1281.13	10584.73	40.5015567	-104.5470041	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

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
17530.00†	90.000	89.120	6893.00	10761.07	-1279.60	10684.72	40.5015579	-104.5466445	0.00	
17607.01	90.000	89.120	6893.00‡	10837.39	-1278.42	10761.72	40.5015589	-104.5463676	0.00	BHL

HOLE & CASING SECTIONS - Ref Wellbore: BISHOP A08-655 PWB Ref Wellpath: BISHOP A08-655 (REV-C.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	1926.96	0.00	0.00	-217.00	-9.06

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
OGDP 1 SEC.07-T06N-R64W	N/A	0.00	-0.17	-51.45	3254380.72	1428262.61	40.5053800	-104.5852000	polygon
2D Polygon: dimensions not calculated									
OGDP 1 SEC.08-T06N-R64W	N/A	0.00	-0.17	-51.45	3254380.72	1428262.61	40.5053800	-104.5852000	polygon
2D Polygon: dimensions not calculated									
OGDP 1 SEC.09-T06N-R64W	N/A	0.00	-0.17	-51.45	3254380.72	1428262.61	40.5053800	-104.5852000	polygon
2D Polygon: dimensions not calculated									
2) BISHOP A08-655 BHL Rev-2 (2323'FNL & 200'FEL,SEC.09)	17607.01	6893.00	-1278.42	10761.72	3265193.51	1426984.41	40.5015589	-104.5463676	point
1) BISHOP A08-655 LP Rev-2 (2309'FNL & 200'FWL,SEC.08)	7429.10	6893.00	-1434.68	585.01	3255017.15	1426828.14	40.5014246	-104.5829648	point
BISHOP A08-655 BHL Rev-1 (2323'FSL & 200'FEL,SEC.09)	N/A	6897.00	-1278.42	10761.72	3265193.51	1426984.41	40.5015589	-104.5463676	point
BISHOP A08-655 LP Rev-1 (2309'FNL & 200'FWL,SEC.08)	N/A	6897.00	-1434.68	585.01	3255017.15	1426828.14	40.5014246	-104.5829648	point
DP 134 Hardlines (300'FNL/FSL & 200'FEL/FWL)	N/A	7001.00	0.03	-67.58	3254364.58	1428262.81	40.5053810	-104.5852580	polygon
2D Polygon: dimensions not calculated									



Planned Wellpath Report

BISHOP A08-655 (REV-C.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

SURVEY PROGRAM - Ref Wellbore: BISHOP A08-655 PWB Ref Wellpath: BISHOP A08-655 (REV-C.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	1950.00	OWSG MWD rev2 (MS+IFR1)		BISHOP A08-655 PWB
1950.00	17607.01	OWSG MWD rev2 (MS+IFR1)		BISHOP A08-655 PWB



Planned Wellpath Report
 BISHOP A08-655 (REV-C.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
30.00	0.000	182.391	30.00	SHL
700.00	0.000	182.391	700.00	End of Tangent
1394.83	13.897	182.391	1388.04	Build (XS)
6420.38	13.897	182.391	6266.49	KOP
7429.10	90.000	89.120	6893.00	LP/TPZ
17607.01	90.000	89.120	6893.00	BHL



Closest Approach Clearance Summary Report

BISHOP A08-655 (REV-C.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

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	10/6/2023 at 10:46:22 AM
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	0.17	51.45	3254432.16	1428262.78	40°30'19.3644"N	104°35'6.0540"W
Facility Reference Pt			3254380.72	1428262.61	40°30'19.3680"N	104°35'6.7200"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.3150"N	105°30'0.0000"W

WELLPATH DATUM			
Calculation method	Minimum Curvature	RIG (4742'GL+30'KB@4772'RKB) (RKB) to Facility Vertical Datum	4772.00ft
Horizontal Reference Pt	Slot	RIG (4742'GL+30'KB@4772'RKB) (RKB) to Mean Sea Level	4772.00ft
Vertical Reference Pt	RIG (4742'GL+30'KB@4772'RKB) (RKB)	RIG (4742'GL+30'KB@4772'RKB) (RKB) to Ground Level at Slot (SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07))	4772.00ft
MD Reference Pt	RIG (4742'GL+30'KB@4772'RKB) (RKB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS					
Ellipse Confidence Limit	3.50 Std Dev	Ellipse Start MD	30.00ft	Surface Position Uncertainty	included
Declination	7.38° East of TN	Dip Angle	66.68°	Mag Field Strength	51663 nT
Slot Surface Uncertainty @1SD		Horizontal	0.100ft	Vertical	1.000ft
Facility Surface Uncertainty @1SD		Horizontal	8.200ft	Vertical	3.000ft
Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes					



Closest Approach Clearance Summary Report

BISHOP A08-655 (REV-C.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

PROXIMITY-SCAN RULE			
Rule Name	SPE WPTS Stop Drilling HSE Risk (2017)	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Include Casing & Hole Size	yes	Apply Cone of Safety	no

HOLE & CASING SECTIONS - Ref Wellbore: BISHOP A08-655 PWB Ref Wellpath: BISHOP A08-655 (REV-C.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	1926.96	0.00	0.00	-217.00	-9.06

SURVEY PROGRAM - Ref Wellbore: BISHOP A08-655 PWB Ref Wellpath: BISHOP A08-655 (REV-C.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	1950.00	OWSG MWD rev2 (MS+IFR1)		BISHOP A08-655 PWB
1950.00	17607.01	OWSG MWD rev2 (MS+IFR1)		BISHOP A08-655 PWB



Closest Approach Clearance Summary Report

BISHOP A08-655 (REV-C.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17607.01ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (80 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
SEC.08-T06N-R64W	SLOT#11 FRANCIS #22-8 (05-123-22515)	FRANCIS #22-8 (05-123-22515)	FRANCIS #22-8 AWB	FRANCIS #22-8 AWP	Drilling	9058.15	161.43	9058.15	9058.15	0.02	9058.15	FAIL
SEC.09-T06N-R64W	SLOT#07 HOWARD LAKE #42-9	HOWARD LAKE #42-9 (05-123-23063)	HOWARD LAKE #42-9 AWB	HOWARD LAKE #42-9 AWP (05-123-23063)	Drilling	17301.46	224.04	17301.46	17301.46	0.03	17301.46	FAIL
SEC.08-T06N-R64W	SLOT#15 GRADY #1 (05-123-14810)	GRADY #1 (05-123-14810)	GRADY #1 AWB	GRADY #1 AWP	Drilling	7791.57	311.27	7791.57	7791.57	0.04	7791.57	FAIL
SEC.09-T06N-R64W	SLOT#18 HOWARD LAKE #12-9	HOWARD LAKE #12-9 (05-123-22344)	HOWARD LAKE #12-9 AWB	HOWARD LAKE #12-9 AWP (05-123-22344)	Drilling	13161.27	385.57	13161.27	13161.27	0.04	13161.27	FAIL
SEC.07-T06N-R64W	SLOT#37 DYER #42-7 (05-123-13959)	DYER #42-7 (05-123-13959)	DYER #42-7 AWB	DYER #42-7 AWP (05-123-13959)	Drilling	5886.25	502.52	5886.25	6433.43	0.07	6433.43	FAIL
SEC.08-T06N-R64W	SLOT#04 UHRICH #43-8 (05-123-21656)	UHRICH #43-8 (05-123-21656)	UHRICH #43-8 AWB	UHRICH #43-8 AWP	Drilling	12031.35	1168.30	12031.35	12031.41	0.14	12031.41	FAIL
SEC.08-T06N-R64W	SLOT#08 UHRICH #33-8 (05-123-20467)	UHRICH #33-8 (05-123-20467)	UHRICH #33-8 AWB	UHRICH #33-8 AWP	Drilling	10572.87	1172.15	10572.87	10572.91	0.14	10572.91	FAIL
SEC.09-T06N-R64W	SLOT#05 HOWARD LAKE #11-9	HOWARD LAKE #11-9 (05-123-22890)	HOWARD LAKE #11-9 AWB	HOWARD LAKE #11-9 AWP (05-123-22890)	Drilling	13144.14	1456.76	13144.14	13144.14	0.17	13144.14	FAIL
SEC.09-T06N-R64W	SLOT#02 HOWARD LAKE #41-9	HOWARD LAKE #41-9 (05-123-23074)	HOWARD LAKE #41-9 AWB	HOWARD LAKE #41-9 AWP (05-123-23074)	Drilling	17329.43	1466.25	17329.43	17329.54	0.17	17329.54	FAIL
SEC.07-T06N-R64W	SLOT#41 Ehrlich #32-7 (05-123-20196)	Ehrlich #32-7 (05-123-20196)	Ehrlich #32-7 AWB	Ehrlich #32-7 AWP	Drilling	6430.10	1341.53	6430.10	6556.99	0.17	6556.99	FAIL
SEC.09-T06N-R64W	SLOT#03 HOWARD LAKE #21-9	HOWARD LAKE #21-9 (05-123-23073)	HOWARD LAKE #21-9 AWB	HOWARD LAKE #21-9 AWP (05-123-23073)	Drilling	14440.44	1541.68	14440.44	14440.52	0.18	14440.52	FAIL
SEC.09-T06N-R64W	SLOT#01 OWL CREEK #5	OWL CREEK #5 (05-123-11930)	OWL CREEK #5 AWB	OWL CREEK #5 AWP (05-123-11930)	Drilling	17114.68	1632.65	17114.68	17114.68	0.19	17114.68	FAIL
SEC.07-T06N-R64W	SLOT#35 CARLSON #33-7 (05-123-19548)	CARLSON #33-7 (05-123-19548)	CARLSON #33-7 AWB	CARLSON #33-7 AWP	Drilling	6547.35	1718.10	6547.35	6721.71	0.22	6721.71	FAIL
SEC.09-T06N-R64W	SLOT#09 HOWARD USX A #9-16	HOWARD USX A #9-16 (05-123-24493)	HOWARD USX A #9-16 AWB	HOWARD USX A #9-16 AWP (05-123-24493)	Drilling	17108.46	2423.69	17108.46	17108.92	0.28	17108.92	FAIL
SEC.08-T06N-R64W	SLOT#16 UHRICH #34-8 (05-123-14446)	UHRICH #34-8 (05-123-14446)	UHRICH #34-8 AWB	UHRICH #34-8 AWP	Drilling	10582.93	2527.48	10582.93	10583.12	0.30	10583.12	FAIL
SEC.07-T06N-R64W	SLOT#32 EHRLICH #3 (05-123-12737)	EHRLICH #3 (05-123-12737)	EHRLICH #3 AWB	EHRLICH #3 AWP	Drilling	6493.58	2996.05	6493.58	6763.82	0.38	6763.82	FAIL
SEC.07-T06N-R64W	SLOT#38 EHRLICH #22-7 (05-123-14184)	EHRLICH #22-7 (05-123-14184)	EHRLICH #22-7 AWB	EHRLICH #22-7 AWP	Drilling	6430.00	3132.44	6430.00	6726.54	0.40	6726.54	FAIL
SEC.07-T06N-R64W	SLOT#30 KREPS #21-7 (05-123-20207)	KREPS #21-7 (05-123-20207)	KREPS #21-7 AWB	KREPS #21-7 AWP	Drilling	30.00	2975.95	700.00	6694.79	0.42	6694.79	FAIL
SEC.07-T06N-R64W	SLOT#42 EHRLICH #4 (05-123-12738)	EHRLICH #4 (05-123-12738)	EHRLICH #4 AWB	EHRLICH #4 AWP	Drilling	6423.37	3954.84	6423.37	6767.65	0.51	6767.65	FAIL
SEC.07-T06N-R64W	SLOT#34 KREPS #11-7 (05-123-14166)	KREPS #11-7 (05-123-14166)	KREPS #11-7 AWB	KREPS #11-7 AWP	Drilling	30.00	4111.58	700.00	6777.66	0.55	6777.66	FAIL
SEC.09-T06N-R64W	SLOT#17 HOWARD USX A #09-06D	HOWARD USX A #09-06D (05-123-33532)	HOWARD USX A #09-06D AWB	HOWARD USX A #09-06D AWP (05-123-33532)	Drilling	14612.80	321.65	14612.80	14687.45	0.94	14687.45	FAIL
SEC.08-T06N-R64W	SLOT#14 ERICKSON A #8-7 (05-123-23750)	ERICKSON A #8-7 (05-123-23750)	ERICKSON A #8-7 AWB	ERICKSON A #8-7 AWP	Drilling	10716.66	368.24	10716.66	10716.26	1.38	10716.26	PASS
SEC.09-T06N-R64W	SLOT#08 HOWARD USX A #9-7	HOWARD USX A #9-7 (05-123-25283)	HOWARD USX A #9-7 AWB	HOWARD USX A #9-7 AWP (05-123-25283)	Drilling	16050.90	363.90	16050.90	16048.67	1.64	16048.67	PASS
SEC.07-T06N-R64W	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)	BISHOP A05-783	BISHOP A05-783 PWB	BISHOP A05-783 (REV-C.0) PWP	Planned	1358.33	26.32	7630.00	1360.70	1.86	8130.00	PASS
SEC.07-T06N-R64W	SLOT#03 BISHOP A08-665 (861'FNL & 394'FEL,SEC.07)	BISHOP A08-665	BISHOP A08-665 PWB	BISHOP A08-665 (REV-C.0) PWP	Planned	767.07	22.51	7430.00	1199.50	1.89	17607.01	PASS



Closest Approach Clearance Summary Report

BISHOP A08-655 (REV-C.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17607.01ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (80 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
SEC.07-T06N-R64W	SLOT#05 CARLSON A08-645 (1424'FSL & 919'FEL,SEC.07)	CARLSON A08-645	CARLSON A08-645 PWB	CARLSON A08-645 (REV-C.0) PWP	Planned	7429.10	655.89	7429.10	17606.99	1.93	17606.99	PASS
SEC.08-T06N-R64W	SLOT#10 ERICKSON A #8-8 (05-123-23752)	ERICKSON A #8-8 (05-123-23752)	ERICKSON A #8-8 AWB	ERICKSON A #8-8 AWP	Drilling	12102.21	366.31	12102.21	12100.55	2.72	12100.55	PASS
SEC.07-T06N-R64W	SLOT#16 BISHOP A18-715 (860'FNL & 462'FEL,SEC.07)	BISHOP A18-715	BISHOP A18-715 PWB	BISHOP A18-715 (REV-C.0) PWP	Planned	762.36	89.94	7015.56	7015.56	3.49	7015.56	PASS
SEC.08-T06N-R64W	SLOT#01 ERICKSON A #8-17 (05-123-23751)	ERICKSON A #8-17 (05-123-23751)	ERICKSON A #8-17 AWB	ERICKSON A #8-17 AWP	Drilling	11435.01	1000.12	11435.01	11449.70	3.61	11449.70	PASS
SEC.07-T06N-R64W	SLOT#24 BISHOP A06-712 (1010'FNL & 463'FEL,SEC.07)	BISHOP A06-712	BISHOP A06-712 PWB	BISHOP A06-712 (REV-C.0) PWP	Planned	1474.06	54.53	1474.06	1488.94	3.72	6630.00	PASS
SEC.07-T06N-R64W	SLOT#06 CARLSON A08-635 (1423'FSL & 882'FEL,SEC.07)	CARLSON A08-635	CARLSON A08-635 PWB	CARLSON A08-635 (REV-C.0) PWP	Planned	7429.10	1306.48	7429.10	17607.01	3.87	17607.01	PASS
SEC.07-T06N-R64W	SLOT#02 BISHOP A08-675 (861'FNL & 417'FEL,SEC.07)	BISHOP A08-675	BISHOP A08-675 PWB	BISHOP A08-675 (REV-C.0) PWP	Planned	796.23	45.03	796.23	17607.01	3.92	17607.01	PASS
SEC.09-T06N-R64W	SLOT#04 HOWARD USX A #9-11	HOWARD USX A #9-11 (05-123-24496)	HOWARD USX A #9-11 AWB	HOWARD USX A #9-11 AWP (05-123-24496)	Drilling	14590.36	845.49	14590.36	14654.35	4.60	14654.35	PASS
SEC.09-T06N-R64W	SLOT#13 Howard USX #A09-09D	Howard USX #A09-09D (05-123-33527)	Howard USX #A09-09D AWB	Howard USX #A09-09D AWP (05-123-33527)	Drilling	17105.44	1094.71	17105.44	17180.46	4.64	17180.46	PASS
SEC.09-T06N-R64W	SLOT#06 HOWARD USX A #9-10	HOWARD USX A #9-10 (05-123-24495)	HOWARD USX A #9-10 AWB	HOWARD USX A #9-10 AWP (05-123-24495)	Drilling	15750.14	990.04	15750.14	15824.68	4.77	15824.68	PASS
SEC.09-T06N-R64W	SLOT#14 HOWARD USX A #09-19	HOWARD USX A #09-19 (05-123-33520)	HOWARD USX A #09-19 AWB	HOWARD USX A #09-19 AWP (05-123-33520)	Drilling	13837.48	868.69	13837.48	13862.71	5.19	13862.71	PASS
SEC.07-T06N-R64W	SLOT#26 BISHOP A05-773 (1011'FNL & 418'FEL,SEC.07)	BISHOP A05-773	BISHOP A05-773 PWB	BISHOP A05-773 (REV-C.0) PWP	Planned	1290.62	72.75	8230.00	1311.80	5.60	8730.00	PASS
SEC.07-T06N-R64W	SLOT#07 CARLSON A08-625 (1423'FSL & 844'FEL,SEC.07)	CARLSON A08-625	CARLSON A08-625 PWB	CARLSON A08-625 (REV-C.0) PWP	Planned	7429.10	1959.71	7429.10	17607.01	5.82	17607.01	PASS
SEC.07-T06N-R64W	SLOT#01 BISHOP A08-685 (860'FNL & 439'FEL,SEC.07)	BISHOP A08-685	BISHOP A08-685 PWB	BISHOP A08-685 (REV-C.0) PWP	Planned	762.03	67.57	762.03	17607.01	5.90	17607.01	PASS
SEC.08-T06N-R64W	SLOT#06 ERICKSON A #8-2 (05-123-23853)	ERICKSON A #8-2 (05-123-23853)	ERICKSON A #8-2 AWB	ERICKSON A #8-2 AWP	Drilling	10525.64	1684.37	10525.64	10573.29	6.27	10573.29	PASS
SEC.07-T06N-R64W	SLOT#23 BISHOP A06-722 (1009'FNL & 486'FEL,SEC.07)	BISHOP A06-722	BISHOP A06-722 PWB	BISHOP A06-722 (REV-C.0) PWP	Planned	1688.46	106.13	1688.46	1790.68	6.38	1790.68	PASS
SEC.09-T06N-R64W	SLOT#15 HOWARD USX A #09-02D	HOWARD USX A #09-02D (05-123-33521)	HOWARD USX A #09-02D AWB	HOWARD USX A #09-02D AWP (05-123-33521)	Drilling	15783.76	1561.31	15783.76	15891.60	7.18	15891.60	PASS
SEC.09-T06N-R64W	SLOT#12 Howard USX #A09-23	Howard USX #A09-23 (05-123-33526)	Howard USX #A09-23 AWB	Howard USX #A09-23 AWP (05-123-33526)	Drilling	16689.94	1672.23	16689.94	16859.47	7.36	16859.47	PASS
SEC.07-T06N-R64W	SLOT#22 BISHOP A06-731 (1009'FNL & 508'FEL,SEC.07)	BISHOP A06-731	BISHOP A06-731 PWB	BISHOP A06-731 (REV-B.0) PWP	Planned	1693.34	128.62	1693.34	1844.17	7.65	1844.17	PASS
SEC.07-T06N-R64W	SLOT#08 CARLSON A08-615 (1422'FSL & 807'FEL,SEC.07)	CARLSON A08-615	CARLSON A08-615 PWB	CARLSON A08-615 (REV-C.0) PWP	Planned	6636.36	2551.02	6636.36	17607.01	7.77	17607.01	PASS
SEC.07-T06N-R64W	SLOT#27 BISHOP A05-764 (1011'FNL & 396'FEL,SEC.07)	BISHOP A05-764	BISHOP A05-764 PWB	BISHOP A05-764 (REV-C.0) PWP	Planned	1249.95	99.07	8830.00	1291.52	7.84	9230.00	PASS
SEC.07-T06N-R64W	SLOT#21 BISHOP A06-740 (1008'FNL & 531'FEL,SEC.07)	BISHOP A06-740	BISHOP A06-740 PWB	BISHOP A06-740 (REV-C.0) PWP	Planned	1696.70	151.14	1696.70	1972.71	8.85	1972.71	PASS
SEC.07-T06N-R64W	SLOT#28 BISHOP A05-755 (1012'FNL & 373'FEL,SEC.07)	BISHOP A05-755	BISHOP A05-755 PWB	BISHOP A05-755 (REV-C.0) PWP	Planned	1199.81	119.64	9330.00	1273.69	9.71	9830.00	PASS
SEC.09-T06N-R64W	SLOT#10 Howard USX #A09-15D	Howard USX #A09-15D (05-123-33522)	Howard USX #A09-15D AWB	Howard USX #A09-15D AWP (05-123-33522)	Drilling	15761.08	2332.34	15761.08	16081.68	11.02	16081.68	PASS
SEC.09-T06N-R64W	SLOT#11 Howard USX #A09-14D	Howard USX #A09-14D (05-123-33524)	Howard USX #A09-14D AWB	Howard USX #A09-14D AWP (05-123-33524)	Drilling	14625.08	2214.87	14625.08	14899.21	11.22	14899.21	PASS



Closest Approach Clearance Summary Report

BISHOP A08-655 (REV-C.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17607.01ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (80 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
SEC.07-T06N-R64W	SLOT#15 BISHOP A18-724 (859'FNL & 484'FEL,SEC.07)	BISHOP A18-724	BISHOP A18-724 PWB	BISHOP A18-724 (REV-C.0) PWP	Planned	30.00	112.36	6730.00	6815.25	11.41	6815.25	PASS
SEC.09-T06N-R64W	SLOT#16 HOWARD USX A #09-12D	HOWARD USX A #09-12D (05-123-33531)	HOWARD USX A #09-12D AWB	HOWARD USX A #09-12D AWP (05-123-33531)	Drilling	13331.36	1546.90	13331.36	13541.54	12.12	13541.54	PASS
SEC.08-T06N-R64W	SLOT#02 ERICKSON A #8-1 (05-123-23826)	ERICKSON A #8-1 (05-123-23826)	ERICKSON A #8-1 AWB	ERICKSON A #8-1 AWP	Drilling	11771.63	1619.05	11771.63	11935.68	12.60	11935.68	PASS
SEC.08-T06N-R64W	SLOT#05 FRANCEN #23-8 (05-123-21958)	FRANCEN #23-8 (05-123-21958)	FRANCEN #23-8 AWB	FRANCEN #23-8 AWP	Drilling	9088.14	1164.45	9088.14	9295.61	13.49	9295.61	PASS
SEC.09-T06N-R64W	SLOT#19 HOWARD USX A #9-13	HOWARD USX A #9-13 (05-123-24494)	HOWARD USX A #9-13 AWB	HOWARD USX A #9-13 AWP (05-123-24494)	Drilling	13217.11	2339.77	13217.11	13674.94	15.09	13674.94	PASS
SEC.07-T06N-R64W	SLOT#14 BISHOP A18-733 (859'FNL & 507'FEL,SEC.07)	BISHOP A18-733	BISHOP A18-733 PWB	BISHOP A18-733 (REV-C.0) PWP	Planned	30.00	134.88	6630.00	948.45	15.78	6730.00	PASS
SEC.08-T06N-R64W	SLOT#09 MILE HIGH SHEEP #8-32 (05-123-23451)	MILE HIGH SHEEP #8-32 (05-123-23451)	MILE HIGH SHEEP #8-32 AWB	MILE HIGH SHEEP #8-32 AWP	Drilling	7679.58	1179.68	7679.58	7834.72	16.33	7834.72	PASS
SEC.08-T06N-R64W	SLOT#12 UHRICH #44-8 (05-123-14418)	UHRICH #44-8 (05-123-14418)	UHRICH #44-8 AWB	UHRICH #44-8 AWP	Drilling	11947.76	2497.61	11947.76	12528.52	18.26	12528.52	PASS
SEC.07-T06N-R64W	SLOT#13 BISHOP A18-742 (858'FNL & 529'FEL,SEC.07)	BISHOP A18-742	BISHOP A18-742 PWB	BISHOP A18-742 (REV-C.0) PWP	Planned	30.00	157.41	6630.00	954.24	18.46	6830.00	PASS
SEC.08-T06N-R64W	SLOT#03 FRANCIS #21-8 (05-123-27380)	FRANCIS #21-8 (05-123-27380)	FRANCIS #21-8 AWB	FRANCIS #21-8 AWP	Drilling	9083.21	1822.04	9083.21	9375.77	21.17	9375.77	PASS
SEC.08-T06N-R64W	SLOT#18 MILE-HI SHEEP #8-35 (05-123-24252)	MILE-HI SHEEP #8-35 (05-123-24252)	MILE-HI SHEEP #8-35 AWB	MILE-HI SHEEP #8-35 AWP	Drilling	8296.39	1663.03	8296.39	8683.70	21.26	8683.70	PASS
SEC.08-T06N-R64W	SLOT#07 FRANCIS #11-8 (05-123-22517)	FRANCIS #11-8 (05-123-22517)	FRANCIS #11-8 AWB	FRANCIS #11-8 AWP	Drilling	721.59	929.28	7730.00	900.63	22.00	7930.00	PASS
SEC.07-T06N-R64W	SLOT#31 ROY CARLSON #43-7 (05-123-21867)	ROY CARLSON #43-7 (05-123-21867)	ROY CARLSON #43-7 AWB	ROY CARLSON #43-7 AWP	Drilling	6870.26	1277.58	6870.26	7081.48	22.76	7081.48	PASS
SEC.08-T06N-R64W	SLOT#13 FRANCEN #24-8 (05-123-14232)	FRANCEN #24-8 (05-123-14232)	FRANCEN #24-8 AWB	FRANCEN #24-8 AWP	Drilling	9411.85	2491.16	9411.85	10205.40	26.18	10205.40	PASS
SEC.07-T06N-R64W	SLOT#29 DYER #41-7 (05-123-20669)	DYER #41-7 (05-123-20669)	DYER #41-7 AWB	DYER #41-7 AWP	Drilling	30.00	345.12	30.00	1950.00	27.90	6530.00	PASS
SEC.08-T06N-R64W	SLOT#17 MILE HIGH SHEEP #8-33 (05-123-23128)	MILE HIGH SHEEP #8-33 (05-123-23128)	MILE HIGH SHEEP #8-33 AWB	MILE HIGH SHEEP #8-33 AWP	Drilling	7893.35	2141.36	7893.35	8497.76	28.42	8497.76	PASS
SEC.07-T06N-R64W	SLOT#12 BRASKALAND A18-755 (800'FNL & 319'FWL,SEC.07)	BRASKALAND A18-755	BRASKALAND A18-755 PWB	BRASKALAND A18-755 (REV-C.0) PWP	Planned	6530.00	2297.27	6530.00	6519.59	35.28	6519.59	PASS
SEC.07-T06N-R64W	SLOT#33 KREPS #1 (05-123-12736)	KREPS #1 (05-123-12736)	KREPS #1 AWB	KREPS #1 AWP	Drilling	643.23	1532.49	643.23	6584.68	39.72	6584.68	PASS
SEC.07-T06N-R64W	SLOT#39 CARLSON #44-7 (05-123-14171)	CARLSON #44-7 (05-123-14171)	CARLSON #44-7 AWB	CARLSON #44-7 AWP (05-123-14171)	Drilling	6955.10	2527.41	6955.10	7081.08	44.62	7330.00	PASS
SEC.07-T06N-R64W	SLOT#11 BRASKALAND A18-764 (777'FNL & 319'FWL,SEC.07)	BRASKALAND A18-764	BRASKALAND A18-764 PWB	BRASKALAND A18-764 (REV-C.0) PWP	Planned	6530.00	2881.77	6530.00	6574.96	46.49	6574.96	PASS
SEC.07-T06N-R64W	SLOT#20 BRASKALAND A06-756 (642'FNL & 320'FWL,SEC.07)	BRASKALAND A06-756	BRASKALAND A06-756 PWB	BRASKALAND A06-756 (REV-C.0) PWP	Planned	6318.93	3031.37	6318.93	6527.02	51.41	6527.02	PASS
SEC.07-T06N-R64W	SLOT#43 CARLSON #34-7 (05-123-14251)	CARLSON #34-7 (05-123-14251)	CARLSON #34-7 AWB	CARLSON #34-7 AWP	Drilling	6646.93	2886.20	6646.93	7082.67	52.68	7082.67	PASS
SEC.07-T06N-R64W	SLOT#10 BRASKALAND A18-773 (755'FNL & 319'FWL,SEC.07)	BRASKALAND A18-773	BRASKALAND A18-773 PWB	BRASKALAND A18-773 (REV-C.0) PWP	Planned	6530.00	3454.49	6530.00	6630.00	58.20	6630.00	PASS
SEC.07-T06N-R64W	SLOT#19 BRASKALAND A06-765 (665'FNL & 319'FWL,SEC.07)	BRASKALAND A06-765	BRASKALAND A06-765 PWB	BRASKALAND A06-765 (REV-C.0) PWP	Planned	6345.88	3478.69	6345.88	6572.93	61.52	6572.93	PASS
SEC.07-T06N-R64W	SLOT#40 EHRLICH #24-7 (05-123-20469)	EHRLICH #24-7 (05-123-20469)	EHRLICH #24-7 AWB	EHRLICH #24-7 AWP	Drilling	6570.27	3780.18	6570.27	7084.30	69.32	7084.30	PASS



Closest Approach Clearance Summary Report

BISHOP A08-655 (REV-C.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A08-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A08-655 PWB
Slot	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17607.01ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (80 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane												
Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	Wellbore Status	C-C Clearance Distance			Rule Separation Ratio			
						Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	Rule Status
SEC.07-T06N-R64W	SLOT#09 BRASKALAND A18-782 (732'FNL & 319'FWL,SEC.07)	BRASKALAND A18-782	BRASKALAND A18-782 PWB	BRASKALAND A18-782 (REV-C.0) PWP	Planned	6530.00	4033.73	6530.00	6702.59	69.59	6702.59	PASS
SEC.07-T06N-R64W	SLOT#18 BRASKALAND A06-773 (687'FNL & 319'FWL,SEC.07)	BRASKALAND A06-773	BRASKALAND A06-773 PWB	BRASKALAND A06-773 (REV-C.0) PWP	Planned	6208.39	3930.17	6208.39	6598.38	72.20	6598.38	PASS
SEC.07-T06N-R64W	SLOT#36 EHRLICH #1 (05-123-12382)	EHRLICH #1 (05-123-12382)	EHRLICH #1 AWB	EHRLICH #1 AWP	Drilling	6466.15	4201.07	6466.15	6872.44	77.57	6872.44	PASS
SEC.07-T06N-R64W	SLOT#17 BRASKALAND A06-782 (710'FNL & 319'FWL,SEC.07)	BRASKALAND A06-782	BRASKALAND A06-782 PWB	BRASKALAND A06-782 (REV-C.0) PWP	Planned	3235.71	4291.06	3235.71	6630.00	81.93	6630.00	PASS
SEC.07-T06N-R64W	SLOT#44 EHRLICH #2 (05-123-12460)	EHRLICH #2 (05-123-12460)	EHRLICH #2 AWB	EHRLICH #2 AWP	Drilling	6530.00	4705.70	6530.00	7085.67	85.91	7085.67	PASS