

NOBLE ENERGY, INC



Location:	COLORADO	Slot:	SLOT#25 BISHOP A05-783 (1010°FNL & 441°FEL,SEC.07)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	BISHOP A05-783
Facility:	SEC.07-T06N-R64W	Wellbore:	BISHOP A05-783 PWB

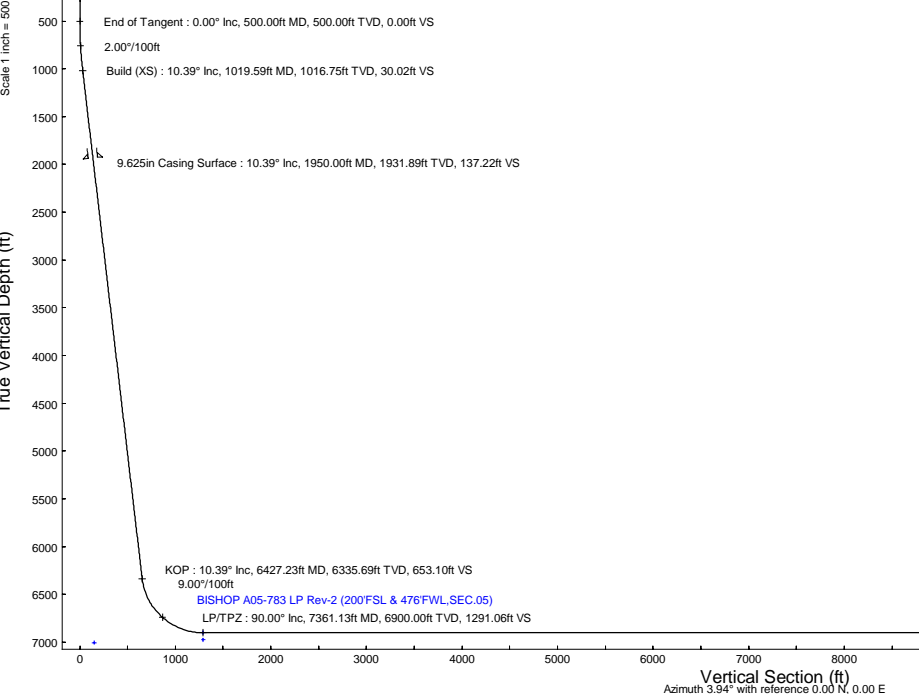
Plot reference wellpath is BISHOP A05-783 (REV-C.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (S01), US feet
True vertical depths are referenced to RIG (4744GL+30KB@4774RKB) (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to RIG (4744GL+30KB@4774RKB) (RKB)	Scale: True distance
RIG (4744GL+30KB@4774RKB) to Mean Sea Level: 4774 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOTH25 BISHOP A05-783 (1010°FNL & 441°FEL,SEC.07)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: mattsam01 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#25 BISHOP A05-783 (1010°FNL & 441°FEL,SEC.07)	-149.54	-15.96	3254364.739	1428113.073	40°30'17.8920"N
RIG (4744GL+30KB@4774RKB) to Ground level (At Slot: SLOTH25 BISHOP A05-783 (1010°FNL & 441°FEL,SEC.07))				4774ft	
Mean Sea Level to Ground level (At Slot: SLOTH25 BISHOP A05-783 (1010°FNL & 441°FEL,SEC.07))				0ft	
RIG (4744GL+30KB@4774RKB) to Mean Sea Level				4774ft	

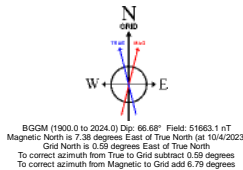
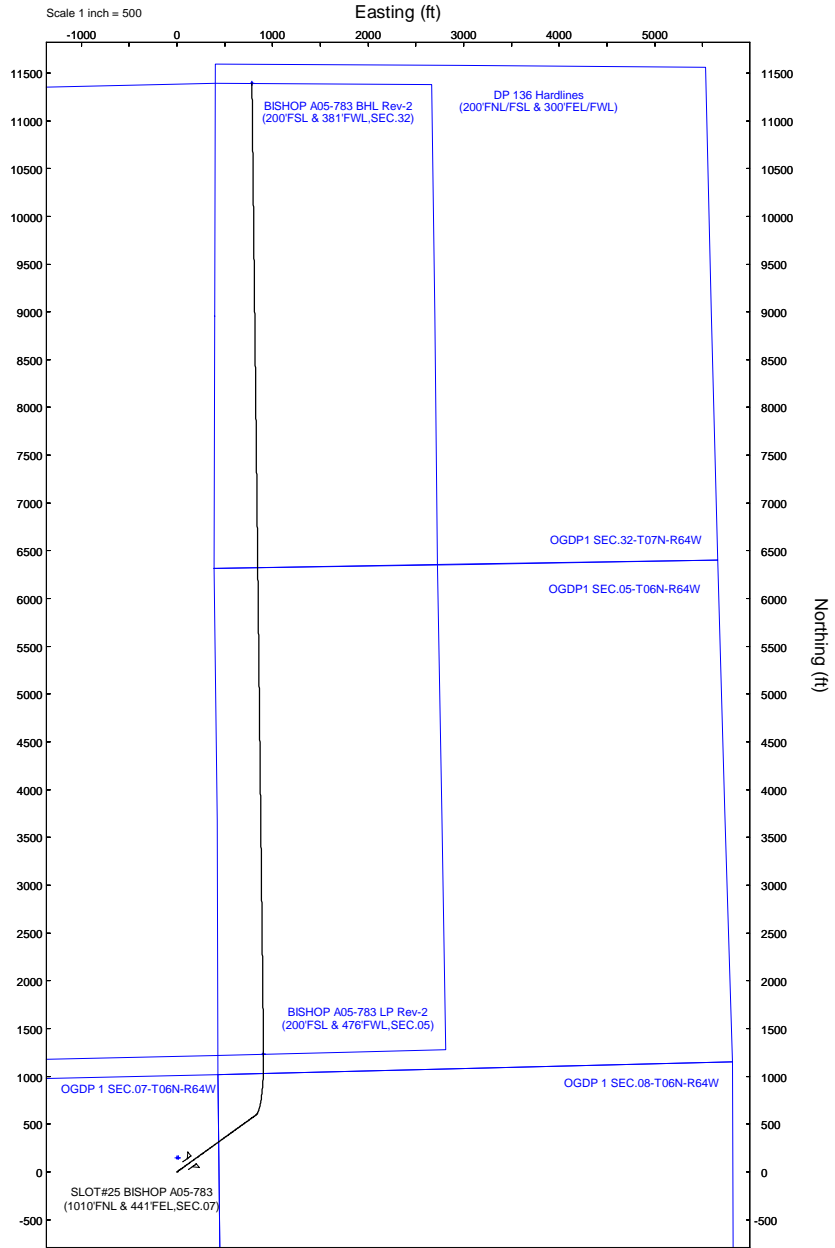
Well Profile Data							
Design Comment	MD (ft)	Inc (")	Az (")	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)
SHL	30.00	0.000	54.243	30.00	0.00	0.00	0.00
End of Tangent	500.00	0.000	54.243	500.00	0.00	0.00	0.00
Build (XS)	1019.59	10.392	54.243	1016.75	27.46	38.13	2.00
KOP	6427.23	10.392	54.243	6335.69	597.45	829.69	0.00
LP/TPZ	7361.13	90.000	359.315	6900.00	1231.61	906.81	9.00
BHL	17522.08	90.000	359.315	6900.00	11391.84	785.32	0.00

Targets							
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
OGDP 1 SEC.07-T06N-R64W	N/A	2.00	149.54	15.96	3254380.72	1428262.61	40°30'19.3680"N
OGDP 1 SEC.08-T06N-R64W	N/A	2.00	149.54	15.96	3254380.72	1428262.61	40°30'19.3680"N
OGDP1 SEC.05-T06N-R64W	N/A	20.00	167.98	-4236.38	3250128.51	1428281.04	40°30'19.9800"N
OGDP1 SEC.32-T07N-R64W	N/A	20.00	167.98	-4236.38	3250128.51	1428281.04	40°30'19.9800"N
BISHOP A05-783 BHL Rev-2 (200°FSL & 381°FWL,SEC.32)	17522.08	6900.00	11391.84	785.32	3255150.03	1439504.51	40°32'10.3733"N
BISHOP A05-783 LP Rev-2 (200°FSL & 476°FWL,SEC.05)	7361.13	6900.00	1231.61	906.81	3255271.51	1429344.64	40°30'29.9689"N
BISHOP A05-783 BHL Rev-1 (200°FSL & 381°FWL,SEC.32)	N/A	6974.00	11391.84	785.32	3255150.03	1439504.51	40°32'10.3733"N
BISHOP A05-783 LP Rev-1 (200°FSL & 476°FWL,SEC.05)	N/A	6974.00	1231.61	906.81	3255271.51	1429344.64	40°30'29.9689"N
DP 136 Hardlines (200°FNL/FSL & 300°FEL/FWL)	N/A	7003.00	149.74	-0.15	3254364.58	1428262.81	40°30'19.3716"N

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 A05-783 PWB
1950.00	17555.29	OWSG MWD rev2	OWSG MWD rev2 (MS+IFR1)		BISHOP A05-783 PWB



BISHOP A05-783 BHL Rev-2 (200°FSL & 381°FWL,SEC.32)
BHL : 90.00° Inc, 17522.08ft MD, 6900.00ft TVD, 11418.87ft VS



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'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	Martsam01
Scale	0.999967	Report Generated	10/6/2023 at 5:58:18 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	-149.54	-15.98	3254364.74	1428113.07	40.5049700°	-104.5852630°
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 (4744'GL+30'KB@4774'RKB) (RKB) to Facility Vertical Datum	4774.00ft
Horizontal Reference Pt	Slot	RIG (4744'GL+30'KB@4774'RKB) (RKB) to Mean Sea Level	4774.00ft
Vertical Reference Pt	RIG (4744'GL+30'KB@4774'RKB) (RKB)	RIG (4744'GL+30'KB@4774'RKB) (RKB) to Ground Level at Slot (SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07))	4774.00ft
MD Reference Pt	RIG (4744'GL+30'KB@4774'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	3.94°



Planned Wellpath Report

BISHOP A05-783 (REV-C.0) PWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

WELLPATH DATA (181 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	54.243	0.00	0.00	0.00	0.00	40.5049700	-104.5852630	0.00	
30.00	0.000	54.243	30.00	0.00	0.00	0.00	40.5049700	-104.5852630	0.00	SHL
130.00†	0.000	54.243	130.00	0.00	0.00	0.00	40.5049700	-104.5852630	0.00	
230.00†	0.000	54.243	230.00	0.00	0.00	0.00	40.5049700	-104.5852630	0.00	
330.00†	0.000	54.243	330.00	0.00	0.00	0.00	40.5049700	-104.5852630	0.00	
430.00†	0.000	54.243	430.00	0.00	0.00	0.00	40.5049700	-104.5852630	0.00	
500.00	0.000	54.243	500.00	0.00	0.00	0.00	40.5049700	-104.5852630	0.00	End of Tangent
530.00†	0.600	54.243	530.00	0.10	0.09	0.13	40.5049702	-104.5852625	2.00	
630.00†	2.600	54.243	629.96	1.88	1.72	2.39	40.5049747	-104.5852543	2.00	
730.00†	4.600	54.243	729.75	5.89	5.39	7.49	40.5049846	-104.5852359	2.00	
830.00†	6.600	54.243	829.27	12.13	11.09	15.41	40.5050000	-104.5852072	2.00	
930.00†	8.600	54.243	928.39	20.58	18.82	26.14	40.5050209	-104.5851683	2.00	
1019.59	10.392	54.243	1016.75	30.02	27.46	38.13	40.5050443	-104.5851249	2.00	Build (XS)
1030.00†	10.392	54.243	1026.99	31.22	28.56	39.66	40.5050473	-104.5851193	0.00	
1130.00†	10.392	54.243	1125.34	42.74	39.10	54.29	40.5050758	-104.5850663	0.00	
1230.00†	10.392	54.243	1223.70	54.26	49.64	68.93	40.5051043	-104.5850133	0.00	
1330.00†	10.392	54.243	1322.06	65.78	60.18	83.57	40.5051328	-104.5849603	0.00	
1430.00†	10.392	54.243	1420.42	77.31	70.72	98.21	40.5051613	-104.5849072	0.00	
1530.00†	10.392	54.243	1518.78	88.83	81.26	112.84	40.5051898	-104.5848542	0.00	
1630.00†	10.392	54.243	1617.14	100.35	91.80	127.48	40.5052184	-104.5848012	0.00	
1730.00†	10.392	54.243	1715.50	111.87	102.34	142.12	40.5052469	-104.5847482	0.00	
1830.00†	10.392	54.243	1813.86	123.39	112.88	156.76	40.5052754	-104.5846951	0.00	
1930.00†	10.392	54.243	1912.22	134.92	123.42	171.40	40.5053039	-104.5846421	0.00	
2030.00†	10.392	54.243	2010.58	146.44	133.96	186.03	40.5053324	-104.5845891	0.00	
2130.00†	10.392	54.243	2108.94	157.96	144.50	200.67	40.5053609	-104.5845361	0.00	
2230.00†	10.392	54.243	2207.30	169.48	155.04	215.31	40.5053894	-104.5844830	0.00	
2330.00†	10.392	54.243	2305.66	181.01	165.58	229.95	40.5054180	-104.5844300	0.00	
2430.00†	10.392	54.243	2404.02	192.53	176.12	244.58	40.5054465	-104.5843770	0.00	
2530.00†	10.392	54.243	2502.38	204.05	186.66	259.22	40.5054750	-104.5843240	0.00	
2630.00†	10.392	54.243	2600.74	215.57	197.20	273.86	40.5055035	-104.5842709	0.00	
2730.00†	10.392	54.243	2699.10	227.09	207.75	288.50	40.5055320	-104.5842179	0.00	
2830.00†	10.392	54.243	2797.46	238.62	218.29	303.13	40.5055605	-104.5841649	0.00	
2930.00†	10.392	54.243	2895.82	250.14	228.83	317.77	40.5055891	-104.5841119	0.00	
3030.00†	10.392	54.243	2994.18	261.66	239.37	332.41	40.5056176	-104.5840588	0.00	
3130.00†	10.392	54.243	3092.54	273.18	249.91	347.05	40.5056461	-104.5840058	0.00	
3230.00†	10.392	54.243	3190.90	284.71	260.45	361.69	40.5056746	-104.5839528	0.00	
3330.00†	10.392	54.243	3289.26	296.23	270.99	376.32	40.5057031	-104.5838998	0.00	
3430.00†	10.392	54.243	3387.62	307.75	281.53	390.96	40.5057316	-104.5838467	0.00	
3530.00†	10.392	54.243	3485.98	319.27	292.07	405.60	40.5057602	-104.5837937	0.00	
3630.00†	10.392	54.243	3584.34	330.79	302.61	420.24	40.5057887	-104.5837407	0.00	
3730.00†	10.392	54.243	3682.70	342.32	313.15	434.87	40.5058172	-104.5836877	0.00	
3830.00†	10.392	54.243	3781.06	353.84	323.69	449.51	40.5058457	-104.5836346	0.00	
3930.00†	10.392	54.243	3879.42	365.36	334.23	464.15	40.5058742	-104.5835816	0.00	
4030.00†	10.392	54.243	3977.78	376.88	344.77	478.79	40.5059027	-104.5835286	0.00	
4130.00†	10.392	54.243	4076.14	388.41	355.31	493.42	40.5059312	-104.5834755	0.00	



Planned Wellpath Report

BISHOP A05-783 (REV-C.0) PWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

WELLPATH DATA (181 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4230.00†	10.392	54.243	4174.50	399.93	365.85	508.06	40.5059598	-104.5834225	0.00	
4330.00†	10.392	54.243	4272.86	411.45	376.39	522.70	40.5059883	-104.5833695	0.00	
4430.00†	10.392	54.243	4371.22	422.97	386.93	537.34	40.5060168	-104.5833165	0.00	
4530.00†	10.392	54.243	4469.58	434.50	397.47	551.98	40.5060453	-104.5832634	0.00	
4630.00†	10.392	54.243	4567.94	446.02	408.02	566.61	40.5060738	-104.5832104	0.00	
4730.00†	10.392	54.243	4666.29	457.54	418.56	581.25	40.5061023	-104.5831574	0.00	
4830.00†	10.392	54.243	4764.65	469.06	429.10	595.89	40.5061309	-104.5831044	0.00	
4930.00†	10.392	54.243	4863.01	480.58	439.64	610.53	40.5061594	-104.5830513	0.00	
5030.00†	10.392	54.243	4961.37	492.11	450.18	625.16	40.5061879	-104.5829983	0.00	
5130.00†	10.392	54.243	5059.73	503.63	460.72	639.80	40.5062164	-104.5829453	0.00	
5230.00†	10.392	54.243	5158.09	515.15	471.26	654.44	40.5062449	-104.5828923	0.00	
5330.00†	10.392	54.243	5256.45	526.67	481.80	669.08	40.5062734	-104.5828392	0.00	
5430.00†	10.392	54.243	5354.81	538.20	492.34	683.71	40.5063019	-104.5827862	0.00	
5530.00†	10.392	54.243	5453.17	549.72	502.88	698.35	40.5063305	-104.5827332	0.00	
5630.00†	10.392	54.243	5551.53	561.24	513.42	712.99	40.5063590	-104.5826801	0.00	
5730.00†	10.392	54.243	5649.89	572.76	523.96	727.63	40.5063875	-104.5826271	0.00	
5830.00†	10.392	54.243	5748.25	584.28	534.50	742.27	40.5064160	-104.5825741	0.00	
5930.00†	10.392	54.243	5846.61	595.81	545.04	756.90	40.5064445	-104.5825211	0.00	
6030.00†	10.392	54.243	5944.97	607.33	555.58	771.54	40.5064730	-104.5824680	0.00	
6130.00†	10.392	54.243	6043.33	618.85	566.12	786.18	40.5065015	-104.5824150	0.00	
6230.00†	10.392	54.243	6141.69	630.37	576.66	800.82	40.5065301	-104.5823620	0.00	
6330.00†	10.392	54.243	6240.05	641.90	587.20	815.45	40.5065586	-104.5823090	0.00	
6427.23	10.392	54.243	6335.69	653.10	597.45	829.69	40.5065863	-104.5822574	0.00	KOP
6430.00†	10.535	53.120	6338.41	653.42	597.75	830.09	40.5065871	-104.5822559	9.00	
6530.00†	17.382	27.965	6435.48	673.08	616.47	844.44	40.5066381	-104.5822036	9.00	
6630.00†	25.574	17.593	6528.49	707.77	650.31	857.99	40.5067306	-104.5821536	9.00	
6730.00†	34.156	12.095	6615.15	756.64	698.43	870.43	40.5068623	-104.5821071	9.00	
6830.00†	42.894	8.612	6693.31	818.47	759.65	881.43	40.5070300	-104.5820653	9.00	
6930.00†	51.707	6.121	6761.07	891.76	832.47	890.73	40.5072296	-104.5820292	9.00	
7030.00†	60.561	4.174	6816.74	974.69	915.09	898.09	40.5074562	-104.5819996	9.00	
7130.00†	69.440	2.542	6858.96	1065.22	1005.47	903.35	40.5077041	-104.5819773	9.00	
7230.00†	78.331	1.091	6886.69	1161.12	1101.40	906.37	40.5079673	-104.5819629	9.00	
7330.00†	87.230	359.731	6899.25	1260.04	1200.50	907.07	40.5082393	-104.5819567	9.00	
7361.13	90.000	359.315	6900.00 ¹	1291.06	1231.61	906.81	40.5083247	-104.5819565	9.00	LP/TPZ
7430.00†	90.000	359.315	6900.00	1359.71	1300.48	905.98	40.5085137	-104.5819569	0.00	
7530.00†	90.000	359.315	6900.00	1459.38	1400.47	904.79	40.5087882	-104.5819574	0.00	
7630.00†	90.000	359.315	6900.00	1559.06	1500.47	903.59	40.5090627	-104.5819580	0.00	
7730.00†	90.000	359.315	6900.00	1658.73	1600.46	902.40	40.5093372	-104.5819586	0.00	
7830.00†	90.000	359.315	6900.00	1758.40	1700.45	901.20	40.5096117	-104.5819592	0.00	
7930.00†	90.000	359.315	6900.00	1858.08	1800.44	900.01	40.5098862	-104.5819598	0.00	
8030.00†	90.000	359.315	6900.00	1957.75	1900.44	898.81	40.5101606	-104.5819603	0.00	
8130.00†	90.000	359.315	6900.00	2057.43	2000.43	897.61	40.5104351	-104.5819609	0.00	
8230.00†	90.000	359.315	6900.00	2157.10	2100.42	896.42	40.5107096	-104.5819615	0.00	
8330.00†	90.000	359.315	6900.00	2256.77	2200.42	895.22	40.5109841	-104.5819621	0.00	
8430.00†	90.000	359.315	6900.00	2356.45	2300.41	894.03	40.5112586	-104.5819626	0.00	



Planned Wellpath Report
BISHOP A05-783 (REV-C.0) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

WELLPATH DATA (181 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	359.315	6900.00	2456.12	2400.40	892.83	40.5115331	-104.5819632	0.00	
8630.00	†	90.000	359.315	6900.00	2555.80	2500.39	891.64	40.5118075	-104.5819638	0.00	
8730.00	†	90.000	359.315	6900.00	2655.47	2600.39	890.44	40.5120820	-104.5819644	0.00	
8830.00	†	90.000	359.315	6900.00	2755.14	2700.38	889.25	40.5123565	-104.5819649	0.00	
8930.00	†	90.000	359.315	6900.00	2854.82	2800.37	888.05	40.5126310	-104.5819655	0.00	
9030.00	†	90.000	359.315	6900.00	2954.49	2900.37	886.85	40.5129055	-104.5819661	0.00	
9130.00	†	90.000	359.315	6900.00	3054.16	3000.36	885.66	40.5131800	-104.5819667	0.00	
9230.00	†	90.000	359.315	6900.00	3153.84	3100.35	884.46	40.5134544	-104.5819672	0.00	
9330.00	†	90.000	359.315	6900.00	3253.51	3200.34	883.27	40.5137289	-104.5819678	0.00	
9430.00	†	90.000	359.315	6900.00	3353.19	3300.34	882.07	40.5140034	-104.5819684	0.00	
9530.00	†	90.000	359.315	6900.00	3452.86	3400.33	880.88	40.5142779	-104.5819690	0.00	
9630.00	†	90.000	359.315	6900.00	3552.53	3500.32	879.68	40.5145524	-104.5819696	0.00	
9730.00	†	90.000	359.315	6900.00	3652.21	3600.32	878.48	40.5148269	-104.5819701	0.00	
9830.00	†	90.000	359.315	6900.00	3751.88	3700.31	877.29	40.5151013	-104.5819707	0.00	
9930.00	†	90.000	359.315	6900.00	3851.56	3800.30	876.09	40.5153758	-104.5819713	0.00	
10030.00	†	90.000	359.315	6900.00	3951.23	3900.29	874.90	40.5156503	-104.5819719	0.00	
10130.00	†	90.000	359.315	6900.00	4050.90	4000.29	873.70	40.5159248	-104.5819724	0.00	
10230.00	†	90.000	359.315	6900.00	4150.58	4100.28	872.51	40.5161993	-104.5819730	0.00	
10330.00	†	90.000	359.315	6900.00	4250.25	4200.27	871.31	40.5164738	-104.5819736	0.00	
10430.00	†	90.000	359.315	6900.00	4349.93	4300.27	870.12	40.5167483	-104.5819742	0.00	
10530.00	†	90.000	359.315	6900.00	4449.60	4400.26	868.92	40.5170227	-104.5819747	0.00	
10630.00	†	90.000	359.315	6900.00	4549.27	4500.25	867.72	40.5172972	-104.5819753	0.00	
10730.00	†	90.000	359.315	6900.00	4648.95	4600.24	866.53	40.5175717	-104.5819759	0.00	
10830.00	†	90.000	359.315	6900.00	4748.62	4700.24	865.33	40.5178462	-104.5819765	0.00	
10930.00	†	90.000	359.315	6900.00	4848.29	4800.23	864.14	40.5181207	-104.5819771	0.00	
11030.00	†	90.000	359.315	6900.00	4947.97	4900.22	862.94	40.5183952	-104.5819776	0.00	
11130.00	†	90.000	359.315	6900.00	5047.64	5000.22	861.75	40.5186696	-104.5819782	0.00	
11230.00	†	90.000	359.315	6900.00	5147.32	5100.21	860.55	40.5189441	-104.5819788	0.00	
11330.00	†	90.000	359.315	6900.00	5246.99	5200.20	859.36	40.5192186	-104.5819794	0.00	
11430.00	†	90.000	359.315	6900.00	5346.66	5300.19	858.16	40.5194931	-104.5819799	0.00	
11530.00	†	90.000	359.315	6900.00	5446.34	5400.19	856.96	40.5197676	-104.5819805	0.00	
11630.00	†	90.000	359.315	6900.00	5546.01	5500.18	855.77	40.5200421	-104.5819811	0.00	
11730.00	†	90.000	359.315	6900.00	5645.69	5600.17	854.57	40.5203165	-104.5819817	0.00	
11830.00	†	90.000	359.315	6900.00	5745.36	5700.17	853.38	40.5205910	-104.5819822	0.00	
11930.00	†	90.000	359.315	6900.00	5845.03	5800.16	852.18	40.5208655	-104.5819828	0.00	
12030.00	†	90.000	359.315	6900.00	5944.71	5900.15	850.99	40.5211400	-104.5819834	0.00	
12130.00	†	90.000	359.315	6900.00	6044.38	6000.14	849.79	40.5214145	-104.5819840	0.00	
12230.00	†	90.000	359.315	6900.00	6144.05	6100.14	848.59	40.5216890	-104.5819846	0.00	
12330.00	†	90.000	359.315	6900.00	6243.73	6200.13	847.40	40.5219634	-104.5819851	0.00	
12430.00	†	90.000	359.315	6900.00	6343.40	6300.12	846.20	40.5222379	-104.5819857	0.00	
12530.00	†	90.000	359.315	6900.00	6443.08	6400.12	845.01	40.5225124	-104.5819863	0.00	
12630.00	†	90.000	359.315	6900.00	6542.75	6500.11	843.81	40.5227869	-104.5819869	0.00	
12730.00	†	90.000	359.315	6900.00	6642.42	6600.10	842.62	40.5230614	-104.5819874	0.00	
12830.00	†	90.000	359.315	6900.00	6742.10	6700.09	841.42	40.5233359	-104.5819880	0.00	
12930.00	†	90.000	359.315	6900.00	6841.77	6800.09	840.23	40.5236103	-104.5819886	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

WELLPATH DATA (181 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	359.315	6900.00	6941.45	6900.08	839.03	40.5238848	-104.5819892	0.00		
13130.00†	90.000	359.315	6900.00	7041.12	7000.07	837.83	40.5241593	-104.5819897	0.00		
13230.00†	90.000	359.315	6900.00	7140.79	7100.07	836.64	40.5244338	-104.5819903	0.00		
13330.00†	90.000	359.315	6900.00	7240.47	7200.06	835.44	40.5247083	-104.5819909	0.00		
13430.00†	90.000	359.315	6900.00	7340.14	7300.05	834.25	40.5249828	-104.5819915	0.00		
13530.00†	90.000	359.315	6900.00	7439.81	7400.04	833.05	40.5252572	-104.5819920	0.00		
13630.00†	90.000	359.315	6900.00	7539.49	7500.04	831.86	40.5255317	-104.5819926	0.00		
13730.00†	90.000	359.315	6900.00	7639.16	7600.03	830.66	40.5258062	-104.5819932	0.00		
13830.00†	90.000	359.315	6900.00	7738.84	7700.02	829.47	40.5260807	-104.5819938	0.00		
13930.00†	90.000	359.315	6900.00	7838.51	7800.02	828.27	40.5263552	-104.5819944	0.00		
14030.00†	90.000	359.315	6900.00	7938.18	7900.01	827.07	40.5266297	-104.5819949	0.00		
14130.00†	90.000	359.315	6900.00	8037.86	8000.00	825.88	40.5269041	-104.5819955	0.00		
14230.00†	90.000	359.315	6900.00	8137.53	8099.99	824.68	40.5271786	-104.5819961	0.00		
14330.00†	90.000	359.315	6900.00	8237.21	8199.99	823.49	40.5274531	-104.5819967	0.00		
14430.00†	90.000	359.315	6900.00	8336.88	8299.98	822.29	40.5277276	-104.5819972	0.00		
14530.00†	90.000	359.315	6900.00	8436.55	8399.97	821.10	40.5280021	-104.5819978	0.00		
14630.00†	90.000	359.315	6900.00	8536.23	8499.97	819.90	40.5282766	-104.5819984	0.00		
14730.00†	90.000	359.315	6900.00	8635.90	8599.96	818.70	40.5285510	-104.5819990	0.00		
14830.00†	90.000	359.315	6900.00	8735.58	8699.95	817.51	40.5288255	-104.5819995	0.00		
14930.00†	90.000	359.315	6900.00	8835.25	8799.94	816.31	40.5291000	-104.5820001	0.00		
15030.00†	90.000	359.315	6900.00	8934.92	8899.94	815.12	40.5293745	-104.5820007	0.00		
15130.00†	90.000	359.315	6900.00	9034.60	8999.93	813.92	40.5296490	-104.5820013	0.00		
15230.00†	90.000	359.315	6900.00	9134.27	9099.92	812.73	40.5299234	-104.5820019	0.00		
15330.00†	90.000	359.315	6900.00	9233.94	9199.92	811.53	40.5301979	-104.5820024	0.00		
15430.00†	90.000	359.315	6900.00	9333.62	9299.91	810.34	40.5304724	-104.5820030	0.00		
15530.00†	90.000	359.315	6900.00	9433.29	9399.90	809.14	40.5307469	-104.5820036	0.00		
15630.00†	90.000	359.315	6900.00	9532.97	9499.89	807.94	40.5310214	-104.5820042	0.00		
15730.00†	90.000	359.315	6900.00	9632.64	9599.89	806.75	40.5312959	-104.5820047	0.00		
15830.00†	90.000	359.315	6900.00	9732.31	9699.88	805.55	40.5315703	-104.5820053	0.00		
15930.00†	90.000	359.315	6900.00	9831.99	9799.87	804.36	40.5318448	-104.5820059	0.00		
16030.00†	90.000	359.315	6900.00	9931.66	9899.87	803.16	40.5321193	-104.5820065	0.00		
16130.00†	90.000	359.315	6900.00	10031.34	9999.86	801.97	40.5323938	-104.5820071	0.00		
16230.00†	90.000	359.315	6900.00	10131.01	10099.85	800.77	40.5326683	-104.5820076	0.00		
16330.00†	90.000	359.315	6900.00	10230.68	10199.84	799.58	40.5329428	-104.5820082	0.00		
16430.00†	90.000	359.315	6900.00	10330.36	10299.84	798.38	40.5332172	-104.5820088	0.00		
16530.00†	90.000	359.315	6900.00	10430.03	10399.83	797.18	40.5334917	-104.5820094	0.00		
16630.00†	90.000	359.315	6900.00	10529.70	10499.82	795.99	40.5337662	-104.5820099	0.00		
16730.00†	90.000	359.315	6900.00	10629.38	10599.82	794.79	40.5340407	-104.5820105	0.00		
16830.00†	90.000	359.315	6900.00	10729.05	10699.81	793.60	40.5343152	-104.5820111	0.00		
16930.00†	90.000	359.315	6900.00	10828.73	10799.80	792.40	40.5345897	-104.5820117	0.00		
17030.00†	90.000	359.315	6900.00	10928.40	10899.79	791.21	40.5348641	-104.5820122	0.00		
17130.00†	90.000	359.315	6900.00	11028.07	10999.79	790.01	40.5351386	-104.5820128	0.00		
17230.00†	90.000	359.315	6900.00	11127.75	11099.78	788.81	40.5354131	-104.5820134	0.00		
17330.00†	90.000	359.315	6900.00	11227.42	11199.77	787.62	40.5356876	-104.5820140	0.00		
17430.00†	90.000	359.315	6900.00	11327.10	11299.77	786.42	40.5359621	-104.5820146	0.00		

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17522.08	90.000	359.315	6900.00 ²	11418.87	11391.84	785.32	40.5362148	-104.5820151	0.00	BHL

HOLE & CASING SECTIONS - Ref Wellbore: BISHOP A05-783 PWB Ref Wellpath: BISHOP A05-783 (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	1931.89	0.00	0.00	125.53	174.32

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	2.00	149.54	15.98	3254380.72	1428262.61	40.5053800	-104.5852000	polygon
	2D Polygon: dimensions not calculated								
OGDP 1 SEC.08-T06N-R64W	N/A	2.00	149.54	15.98	3254380.72	1428262.61	40.5053800	-104.5852000	polygon
	2D Polygon: dimensions not calculated								
OGDP1 SEC.05-T06N-R64W	N/A	20.00	167.98	-4236.38	3250128.51	1428281.04	40.5055500	-104.6004900	polygon
	2D Polygon: dimensions not calculated								
OGDP1 SEC.32-T07N-R64W	N/A	20.00	167.98	-4236.38	3250128.51	1428281.04	40.5055500	-104.6004900	polygon
	2D Polygon: dimensions not calculated								
2) BISHOP A05-783 BHL Rev-2 (200'FSL & 381'FWL,SEC.32)	17522.08	6900.00	11391.84	785.32	3255150.03	1439504.51	40.5362148	-104.5820151	point
1) BISHOP A05-783 LP Rev-2 (200'FSL & 476'FWL,SEC.05)	7361.13	6900.00	1231.61	906.81	3255271.51	1429344.64	40.5083247	-104.5819565	point
BISHOP A05-783 BHL Rev-1 (200'FSL & 381'FWL,SEC.32)	N/A	6974.00	11391.84	785.32	3255150.03	1439504.51	40.5362148	-104.5820151	point
BISHOP A05-783 LP Rev-1 (200'FSL & 476'FWL,SEC.05)	N/A	6974.00	1231.61	906.81	3255271.51	1429344.64	40.5083247	-104.5819565	point

SURVEY PROGRAM - Ref Wellbore: BISHOP A05-783 PWB Ref Wellpath: BISHOP A05-783 (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 A05-783 PWB
1950.00	17555.29	OWSG MWD rev2 (MS+IFR1)		BISHOP A05-783 PWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
30.00	0.000	54.243	30.00	SHL
500.00	0.000	54.243	500.00	End of Tangent
1019.59	10.392	54.243	1016.75	Build (XS)
6427.23	10.392	54.243	6335.69	KOP
7361.13	90.000	359.315	6900.00	LP/TPZ
17522.08	90.000	359.315	6900.00	BHL



Closest Approach Clearance Summary Report

BISHOP A05-783 (REV-C.0) PWP - SPE WPTS Stop Drilling HSE Risk (2017)

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'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	Martsam01
Scale	0.999967	Report Generated	10/6/2023 at 5:53:02 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	-149.54	-15.98	3254364.74	1428113.07	40°30'17.8920"N	104°35'6.9468"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 (4744'GL+30'KB@4774'RKB) (RKB) to Facility Vertical Datum	4774.00ft
Horizontal Reference Pt	Slot	RIG (4744'GL+30'KB@4774'RKB) (RKB) to Mean Sea Level	4774.00ft
Vertical Reference Pt	RIG (4744'GL+30'KB@4774'RKB) (RKB)	RIG (4744'GL+30'KB@4774'RKB) (RKB) to Ground Level at Slot (SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07))	4774.00ft
MD Reference Pt	RIG (4744'GL+30'KB@4774'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					

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'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 A05-783 PWB Ref Wellpath: BISHOP A05-783 (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	1931.89	0.00	0.00	125.53	174.32

SURVEY PROGRAM - Ref Wellbore: BISHOP A05-783 PWB Ref Wellpath: BISHOP A05-783 (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 A05-783 PWB
1950.00	17555.29	OWSG MWD rev2 (MS+IFR1)		BISHOP A05-783 PWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17522.08ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (91 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.05-T06N-R64W	SLOT#17 GRADY DYER #14-5 (05-123-21960)	GRADY DYER #14-5 (05-123-21960)	GRADY DYER #14-5 AWB	GRADY DYER #14-5 AWP	Drilling	7840.29	19.25	7840.29	7840.29	0.00	7840.29	FAIL
SEC.32-T07N-R64W	SLOT#09 LEY #1-32 (05-123-12561)	LEY #1-32 (05-123-12561)	LEY #1-32 AWB	LEY #1-32 AWP	Drilling	17022.30	223.82	17022.30	17022.31	0.03	17022.31	FAIL
SEC.05-T06N-R64W	SLOT#15 ROUSE USX A #05-05 (05-123-29403)	ROUSE USX A #05-05 (05-123-29403)	ROUSE USX A #05-05 AWB	ROUSE USX A #05-05 AWP	Drilling	10304.89	35.71	10304.89	10305.07	0.12	10305.07	FAIL
SEC.05-T06N-R64W	SLOT#04 GRADY DYER #23-5 (05-123-21959)	GRADY DYER #23-5 (05-123-21959)	GRADY DYER #23-5 AWB	GRADY DYER #23-5 AWP	Drilling	8993.05	1372.46	8993.05	8993.05	0.16	8993.05	FAIL
SEC.32-T07N-R64W	SLOT#08 LAW #1 (05-123-12001)	LAW #1 (05-123-12001)	LAW #1 AWB	LAW #1 AWP	Drilling	14411.74	1512.34	14411.74	14411.81	0.18	14411.81	FAIL
SEC.08-T06N-R64W	SLOT#15 GRADY #1 (05-123-14810)	GRADY #1 (05-123-14810)	GRADY #1 AWB	GRADY #1 AWP	Drilling	2166.83	1375.92	2166.83	6522.64	0.20	6522.64	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	30.00	1102.40	500.00	6544.42	0.27	6544.42	FAIL
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	6430.03	2230.75	6430.03	6679.56	0.28	6679.56	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	30.00	1773.46	500.00	6658.54	0.36	6658.54	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	130.00	2604.51	500.00	6697.30	0.46	6697.30	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	2925.27	500.00	7140.16	0.46	7140.16	FAIL
SEC.32-T07N-R64W	SLOT#07 WESTERMAN #32-11 (05-123-26380)	WESTERMAN #32-11 (05-123-26380)	WESTERMAN #32-11 AWB	WESTERMAN #32-11 AWP	Drilling	17197.38	3925.75	17197.38	17197.93	0.46	17197.93	FAIL
SEC.05-T06N-R64W	SLOT#03 OWL CREEK #7 (05-123-11929)	OWL CREEK #7 (05-123-11929)	OWL CREEK #7 AWB	OWL CREEK #7 AWP	Drilling	9240.23	4189.53	9240.23	9240.40	0.49	9240.40	FAIL
SEC.05-T06N-R64W	SLOT#12 OWL CREEK #7-5 (05-123-27175)	OWL CREEK #7-5 (05-123-27175)	OWL CREEK #7-5 AWB	OWL CREEK #7-5 AWP	Drilling	7863.05	4226.48	7863.05	7863.14	0.50	7863.14	FAIL
SEC.32-T07N-R64W	SLOT#11 SCOTT #32-14 (05-123-26379)	SCOTT #32-14 (05-123-26379)	SCOTT #32-14 AWB	SCOTT #32-14 AWP	Drilling	15892.54	4321.38	15892.54	15893.12	0.51	15893.12	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	6430.00	4235.75	6430.00	6856.46	0.52	6856.46	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	130.00	3472.51	500.00	6892.78	0.57	6892.78	FAIL
SEC.07-T06N-R64W	SLOT#32 EHRLICH #3 (05-123-12737)	EHRLICH #3 (05-123-12737)	EHRLICH #3 AWB	EHRLICH #3 AWP	Drilling	130.00	3609.31	500.00	6836.44	0.59	6836.44	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	4053.39	500.00	7209.69	0.60	7209.69	FAIL
SEC.07-T06N-R64W	SLOT#42 EHRLICH #4 (05-123-12738)	EHRLICH #4 (05-123-12738)	EHRLICH #4 AWB	EHRLICH #4 AWP	Drilling	30.00	4078.64	500.00	7024.90	0.63	7024.90	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	6495.59	5347.13	6495.59	6985.21	0.65	6985.21	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	5862.87	5300.93	5862.87	6873.19	0.66	6873.19	FAIL
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	6527.89	65.15	6527.89	6531.46	0.93	6531.46	FAIL
SEC.05-T06N-R64W	SLOT#08 DYER #13-5 (05-123-21187)	DYER #13-5 (05-123-21187)	DYER #13-5 AWB	DYER #13-5 AWP	Drilling	9316.33	95.47	9316.33	9320.25	1.14	9320.25	PASS
SEC.32-T07N-R64W	SLOT#06 MCCRORY #1 (05-123-07160)	MCCRORY #1 (05-123-07160)	MCCRORY #1 AWB	MCCRORY #1 AWP	Drilling	16306.04	4963.58	16306.04	16312.00	1.20	16312.00	PASS

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17522.08ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (91 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.05-T06N-R64W	SLOT#06 ROUSE USX A #05-04 (05-123-29404)	ROUSE USX A #05-04 (05-123-29404)	ROUSE USX A #05-04 AWB	ROUSE USX A #05-04 AWP	Drilling	11651.35	147.43	11651.35	11657.84	1.40	11657.84	PASS
SEC.07-T06N-R64W	SLOT#04 BISHOP A08-655 (862'FNL & 372'FEL,SEC.07)	BISHOP A08-655	BISHOP A08-655 PWB	BISHOP A08-655 (REV-C.0) PWP	Planned	1360.64	26.32	1360.64	1363.57	1.86	6730.00	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	30.00	22.53	17430.00	933.17	2.49	17522.08	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	30.00	22.53	17522.08	17522.08	2.61	17522.08	PASS
SEC.05-T06N-R64W	SLOT#07 ROUSE-USX A #5-19 (05-123-24697)	ROUSE-USX A #5-19 (05-123-24697)	ROUSE-USX A #5-19 AWB	ROUSE-USX A #5-19 AWP	Drilling	11139.80	791.91	11139.80	11151.83	2.78	11151.83	PASS
SEC.32-T07N-R64W	SLOT#10 CECIL #32-32 (05-123-23810)	CECIL #32-32 (05-123-23810)	CECIL #32-32 AWB	CECIL #32-32 AWP	Drilling	14295.62	400.29	14295.62	14315.69	2.97	14315.69	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	893.20	141.67	6918.34	6918.34	3.43	6918.34	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	1364.97	55.67	6530.00	1388.66	4.05	6730.00	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	30.00	45.06	17430.00	1031.59	4.88	17522.08	PASS
SEC.05-T06N-R64W	SLOT#13 DYER USX A #05-14 (05-123-33405)	DYER USX A #05-14 (05-123-33405)	DYER USX A #05-14 AWB	DYER USX A #05-14 AWP	Drilling	7841.57	1523.61	7841.57	7852.07	5.20	7852.07	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	30.00	45.05	17522.08	17522.08	5.23	17522.08	PASS
SEC.05-T06N-R64W	SLOT#02 ROUSE USX A #05-03 (05-123-30349)	ROUSE USX A #05-03 (05-123-30349)	ROUSE USX A #05-03 AWB	ROUSE USX A #05-03 AWP	Drilling	11633.55	1671.25	11633.55	11672.09	5.30	11672.09	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	30.00	67.58	17430.00	1063.13	7.06	17522.08	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	1345.57	108.63	6630.00	1570.02	7.71	6730.00	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	30.00	67.58	17522.08	17522.08	7.80	17522.08	PASS
SEC.05-T06N-R64W	SLOT#14 ROUSE USX A #05-07 (05-123-29422)	ROUSE USX A #05-07 (05-123-29422)	ROUSE USX A #05-07 AWB	ROUSE USX A #05-07 AWP	Drilling	10304.16	2865.35	10304.16	10401.72	10.13	10401.72	PASS
SEC.05-T06N-R64W	SLOT#05 ROUSE USX A #05-02 (05-123-29636)	ROUSE USX A #05-02 (05-123-29636)	ROUSE USX A #05-02 AWB	ROUSE USX A #05-02 AWP	Drilling	11648.38	2946.31	11648.38	11778.61	10.25	11778.61	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	30.00	90.10	17522.08	17522.08	10.45	17522.08	PASS
SEC.32-T07N-R64W	SLOT#17 CECIL #32-34 (05-123-23809)	CECIL #32-34 (05-123-23809)	CECIL #32-34 AWB	CECIL #32-34 AWP	Drilling	13068.50	1303.55	13068.50	13213.21	10.86	13213.21	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	6887.22	2857.70	6887.22	7127.77	11.26	7127.77	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	17497.16	3056.20	17497.16	17522.08	13.14	17522.08	PASS
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	6552.12	3426.87	6552.12	6957.18	14.15	6957.18	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	691.21	150.02	7030.00	7092.52	14.17	7092.52	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	6699.38	3882.87	6699.38	7088.68	15.35	7088.68	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	17489.94	3669.02	17489.94	17522.08	15.76	17522.08	PASS

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17522.08ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (91 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.05-T06N-R64W	SLOT#10 ROUSE USX A #05-08 (05-123-29423)	ROUSE USX A #05-08 (05-123-29423)	ROUSE USX A #05-08 AWB	ROUSE USX A #05-08 AWP	Drilling	10317.53	4188.57	10317.53	10550.09	15.77	10550.09	PASS
SEC.05-T06N-R64W	SLOT#01 ROUSE USX A #05-01 (05-123-29487)	ROUSE USX A #05-01 (05-123-29487)	ROUSE USX A #05-01 AWB	ROUSE USX A #05-01 AWP	Drilling	11996.47	4340.28	11996.47	12353.72	16.82	12353.72	PASS
SEC.32-T07N-R64W	SLOT#18 SCOTT #32-13 (05-123-25475)	SCOTT #32-13 (05-123-25475)	SCOTT #32-13 AWB	SCOTT #32-13 AWP	Drilling	15554.51	2634.76	15554.51	15955.81	17.29	15955.81	PASS
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	504.58	156.59	6830.00	960.09	18.13	7330.00	PASS
SEC.32-T07N-R64W	SLOT#13 NC Farms #10-32 (05-123-34785)	NC Farms #10-32 (05-123-34785)	NC Farms #10-32 AWB	NC Farms #10-32 AWP	Drilling	14547.06	2753.81	14547.06	14811.42	18.25	14811.42	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	30.00	4243.69	17522.08	17522.08	18.43	17522.08	PASS
SEC.05-T06N-R64W	SLOT#11 ROUSE USX A #05-06 (05-123-29405)	ROUSE USX A #05-06 (05-123-29405)	ROUSE USX A #05-06 AWB	ROUSE USX A #05-06 AWP	Drilling	10281.69	1702.76	10281.69	10561.26	18.81	10561.26	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	505.09	164.26	7530.00	963.60	19.43	7630.00	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	6837.89	1410.33	6837.89	6986.48	20.60	6986.48	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	504.41	174.84	7530.00	965.82	20.90	7930.00	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	30.00	4242.56	17430.00	17522.08	21.09	17522.08	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	401.83	30.00	6487.79	22.85	6487.79	PASS
SEC.32-T07N-R64W	SLOT#14 NC Farms #15-32 (05-123-34789)	NC Farms #15-32 (05-123-34789)	NC Farms #15-32 AWB	NC Farms #15-32 AWP	Drilling	13121.03	2847.34	13121.03	13654.22	22.90	13654.22	PASS
SEC.32-T07N-R64W	SLOT#16 NC Farms #20-32 (05-123-34793)	NC Farms #20-32 (05-123-34793)	NC Farms #20-32 AWB	NC Farms #20-32 AWP	Drilling	13768.01	3527.30	13768.01	14464.16	25.97	14464.16	PASS
SEC.32-T07N-R64W	SLOT#15 NC Farms #9-32 (05-123-34790)	NC Farms #9-32 (05-123-34790)	NC Farms #9-32 AWB	NC Farms #9-32 AWP	Drilling	14409.91	4153.76	14409.91	15307.48	27.59	15307.48	PASS
SEC.32-T07N-R64W	SLOT#12 NC Farms #16-32 (05-123-34782)	NC Farms #16-32 (05-123-34782)	NC Farms #16-32 AWB	NC Farms #16-32 AWP	Drilling	13144.66	4176.00	13144.66	14257.75	32.67	14257.75	PASS
SEC.05-T06N-R64W	SLOT#09 ROUSE-USX A #5-17 (05-123-24696)	ROUSE-USX A #5-17 (05-123-24696)	ROUSE-USX A #5-17 AWB	ROUSE-USX A #5-17 AWP	Drilling	11118.28	3724.38	11118.28	12205.86	36.04	12205.86	PASS
SEC.05-T06N-R64W	SLOT#16 ERICKSON #5-43 (05-123-18513)	ERICKSON #5-43 (05-123-18513)	ERICKSON #5-43 AWB	ERICKSON #5-43 AWP	Drilling	7801.78	2667.97	7801.78	8377.61	36.55	8377.61	PASS
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	6473.17	2579.62	6473.17	6572.34	42.89	6572.34	PASS
SEC.07-T06N-R64W	SLOT#33 KREPS #1 (05-123-12736)	KREPS #1 (05-123-12736)	KREPS #1 AWB	KREPS #1 AWP	Drilling	514.92	1496.03	514.92	7085.12	43.35	7085.12	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	30.00	2625.12	530.00	6542.23	46.46	6542.23	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	4584.21	3337.01	4584.21	6641.94	50.91	6641.94	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	618.04	3289.82	618.04	6592.38	54.72	6592.38	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	30.00	2872.58	6430.00	6625.03	54.86	6625.03	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	6518.34	3096.51	6518.34	6486.05	56.64	7630.00	PASS

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	BISHOP A05-783
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.07-T06N-R64W	Wellbore	BISHOP A05-783 PWB
Slot	SLOT#25 BISHOP A05-783 (1010'FNL & 441'FEL,SEC.07)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 17522.08ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (91 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#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	6930.00	4102.37	6930.00	7337.94	58.69	7337.94	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	249.94	3549.97	500.00	6593.30	61.23	6593.30	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	30.00	2295.20	30.00	6667.22	62.21	6667.22	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	30.00	2867.21	500.00	6662.33	66.40	6662.33	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	6494.03	3680.62	6494.03	8417.01	67.37	8417.01	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	6612.37	4705.18	6612.37	7094.64	68.55	7094.64	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	30.00	4560.70	30.00	6663.38	71.18	6663.38	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	30.00	4239.55	6427.23	9235.40	77.18	9235.40	PASS
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	30.00	4238.89	6330.00	9955.82	84.75	9955.82	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	30.00	3513.65	30.00	6730.00	85.43	6730.00	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	30.00	2861.93	500.00	6683.94	90.25	6683.94	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	6430.00	6141.98	6430.00	6823.36	91.27	6823.36	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	407.20	3927.08	407.20	6819.72	92.83	6819.72	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	315.78	4595.88	315.78	6897.21	106.53	6897.21	PASS
SEC.07-T06N-R64W	SLOT#36 EHRLICH #1 (05-123-12382)	EHRLICH #1 (05-123-12382)	EHRLICH #1 AWB	EHRLICH #1 AWP	Drilling	71.00	4588.30	71.00	7081.05	107.42	7081.05	PASS
SEC.07-T06N-R64W	SLOT#44 EHRLICH #2 (05-123-12460)	EHRLICH #2 (05-123-12460)	EHRLICH #2 AWB	EHRLICH #2 AWP	Drilling	513.67	5417.80	513.67	7078.04	120.44	7078.04	PASS