

# NOBLE ENERGY, INC



Location: COLORADO Slot: SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)  
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: Guttersen Y12-715  
 Facility: SEC.12-T02N-R64W Wellbore: Guttersen Y12-715 PWB

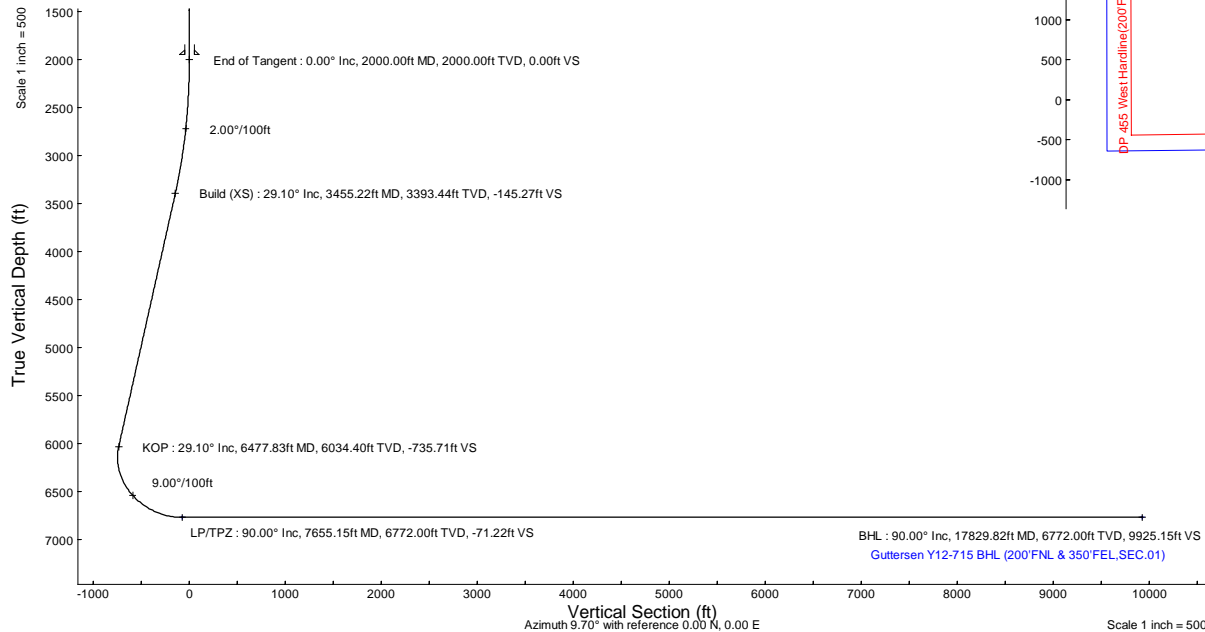
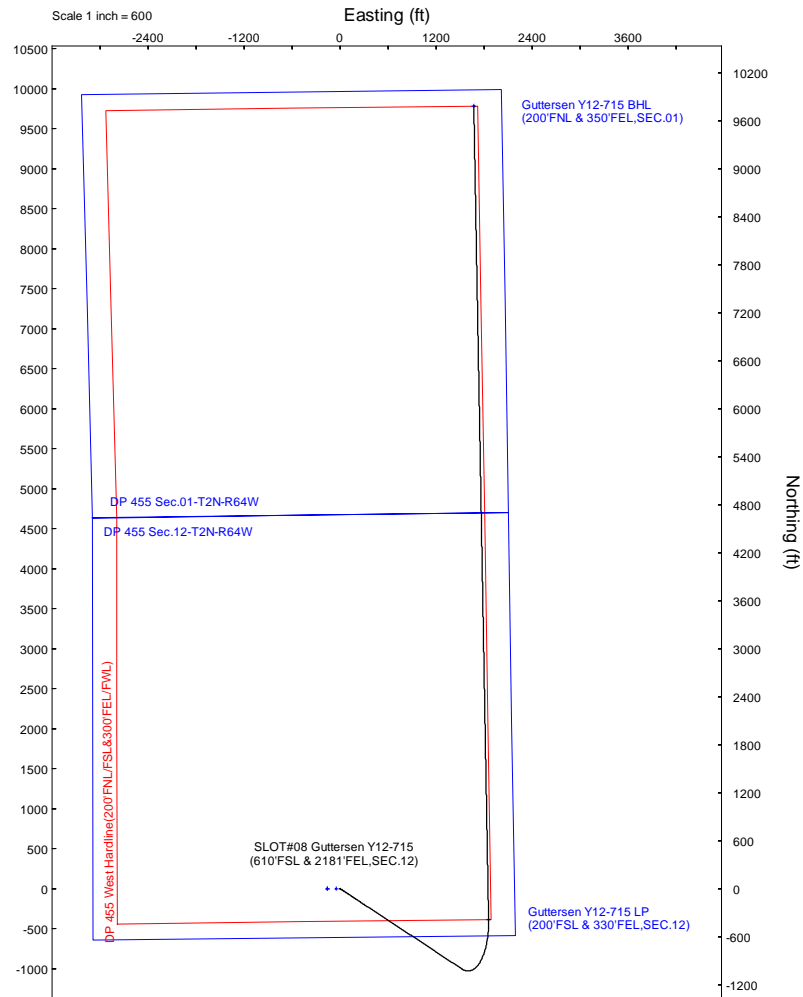
Plot reference wellpath is Guttersen Y12-715 (REV-B.0) PWP  
 Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet  
 True vertical depths are referenced to RIG (4866'GL+30'KB@4896'RKB) (RKB)  
 North Reference: Grid north  
 Reference wellpath measured depths are referenced to RIG (4866'GL+30'KB@4896'RKB) (RKB)  
 Scale: True distance  
 RIG (4866'GL+30'KB@4896'RKB) (RKB) to Mean Sea Level: 4894 feet  
 Coordinates are in feet referenced to Slot  
 Mean Sea Level to Ground level (At Slot: SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)): 0 feet  
 Depths are in feet  
 Offset wellpath MDs are referenced to each path's default MD datum  
 Created by: gumaral on 2023-12-05; Database: WA, Denver

Location Information						
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SEC.12-T02N-R64W		3279878.757	1298091.404	40°08'50.3448"N	104°29'55.6692"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)	1.41	157.39	3280036.137	1298092.818	40°08'50.3412"N	104°29'53.6424"W
RIG (4866'GL+30'KB@4896'RKB) (RKB) to Ground level (At Slot: SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12))				4894ft		
Mean Sea Level to Ground level (At Slot: SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12))				0ft		
RIG (4866'GL+30'KB@4896'RKB) (RKB) to Mean Sea Level				4894ft		

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	30.00	0.000	123.381	30.00	0.00	0.00	0.00	0.00
End of Tangent	2000.00	0.000	123.381	2000.00	0.00	0.00	0.00	0.00
Build (XS)	3455.22	29.104	123.381	3393.44	-199.02	302.05	2.00	-145.27
KOP	6477.83	29.104	123.381	6034.40	-1007.93	1529.71	0.00	-735.71
LP/TPZ	7655.15	90.000	358.961	6772.00	-389.81	1857.27	9.00	-71.22
BHL	17829.82	90.000	358.961	6772.00	9783.19	1672.69	0.00	9925.15

Targets								
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
DP 455 Sec.01-T2N-R64W	N/A	-2.00	-1.41	-157.39	3279878.76	1298091.40	40°08'50.3448"N	104°29'55.6692"W
DP 455 Sec.12-T2N-R64W	N/A	-2.00	-1.41	-157.39	3279878.76	1298091.40	40°08'50.3448"N	104°29'55.6692"W
Guttersen Y12-715 BHL (200'FNL & 350'FEL,SEC.01)	17829.82	6772.00	9783.19	1672.69	3281708.75	1307875.58	40°10'26.8256"N	104°29'30.6717"W
Guttersen Y12-715 LP (200'FSL & 330'FEL,SEC.12)	7655.15	6772.00	-389.81	1857.27	3281893.33	1297703.03	40°08'46.2813"N	104°29'29.7843"W
DP 455 West Hardline(200'FNL&300'FEL/FWL)	N/A	6850.00	-0.51	-45.01	3279991.13	1298092.31	40°08'50.3412"N	104°29'54.2220"W

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)		Guttersen Y12-715 PWB
1950.00	17829.82	OWSG MWD rev2	OWSG MWD rev2 (MS+IFR1)		Guttersen Y12-715 PWB



BGM (1900.0 to 2024.0) Dip: 66.38° Field: 51693.3 nT  
 Magnetic North is 7.63 degrees East of True North (at 3/31/2023)  
 Grid North is 0.65 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.65 degrees  
 To correct azimuth from Magnetic to Grid add 0.98 degrees



# Planned Wellpath Report

Guttersen Y12-715 (REV-B.1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Guttersen Y12-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T02N-R64W	Wellbore	Guttersen Y12-715 PWB
Slot	SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Guenaler
Scale	0.999958	Report Generated	2/12/2024 at 12:35:11 PM
Convergence at slot	0.65° East	Database	WA_Denver

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1.41	157.39	3280036.14	1298092.82	40.1473170°	-104.4982340°
Facility Reference Pt			3279878.76	1298091.40	40.1473180°	-104.4987970°
Field Reference Pt			3000000.00	4454105.15	48.7761986°	-105.5000000°

## WELLPATH DATUM

Calculation method	Minimum curvature	RIG (4866'GL+30'KB@4896'RKB) (RKB) to Facility Vertical Datum	4894.00ft
Horizontal Reference Pt	Slot	RIG (4866'GL+30'KB@4896'RKB) (RKB) to Mean Sea Level	4894.00ft
Vertical Reference Pt	RIG (4866'GL+30'KB@4896'RKB) (RKB)	RIG (4866'GL+30'KB@4896'RKB) (RKB) to Ground Level at Slot (SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12))	4894.00ft
MD Reference Pt	RIG (4866'GL+30'KB@4896'RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	9.70°



# Planned Wellpath Report

Guttersen Y12-715 (REV-B.1) PWP  
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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T02N-R64W	Wellbore	Guttersen Y12-715 PWB
Slot	SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)		

WELLPATH DATA (195 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	123.381	0.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
30.00	0.000	123.381	30.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	Tie On
130.00†	0.000	123.381	130.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
230.00†	0.000	123.381	230.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
330.00†	0.000	123.381	330.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
430.00†	0.000	123.381	430.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
530.00†	0.000	123.381	530.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
630.00†	0.000	123.381	630.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
730.00†	0.000	123.381	730.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
830.00†	0.000	123.381	830.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
922.33†	0.000	123.381	922.33	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	Upper Pierre Aquifer Top
930.00†	0.000	123.381	930.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1030.00†	0.000	123.381	1030.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1130.00†	0.000	123.381	1130.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1230.00†	0.000	123.381	1230.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1330.00†	0.000	123.381	1330.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1430.00†	0.000	123.381	1430.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1530.00†	0.000	123.381	1530.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1630.00†	0.000	123.381	1630.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1642.82†	0.000	123.381	1642.82	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	Upper Pierre Aquifer Base
1730.00†	0.000	123.381	1730.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1830.00†	0.000	123.381	1830.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
1930.00†	0.000	123.381	1930.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	
2000.00	0.000	123.381	2000.00	0.00	0.00	0.00	40.1473170	-104.4982340	0.00	End of Tangent
2030.00†	0.600	123.381	2030.00	-0.06	-0.09	0.13	40.1473168	-104.4982335	2.00	
2130.00†	2.600	123.381	2129.96	-1.18	-1.62	2.46	40.1473125	-104.4982253	2.00	
2230.00†	4.600	123.381	2229.75	-3.71	-5.08	7.71	40.1473028	-104.4982066	2.00	
2330.00†	6.600	123.381	2329.27	-7.62	-10.45	15.85	40.1472878	-104.4981777	2.00	
2430.00†	8.600	123.381	2428.39	-12.94	-17.72	26.90	40.1472675	-104.4981385	2.00	
2530.00†	10.600	123.381	2526.98	-19.63	-26.90	40.82	40.1472419	-104.4980891	2.00	
2630.00†	12.600	123.381	2624.93	-27.71	-37.96	57.61	40.1472110	-104.4980295	2.00	
2730.00†	14.600	123.381	2722.13	-37.15	-50.90	77.25	40.1471749	-104.4979598	2.00	
2830.00†	16.600	123.381	2818.44	-47.95	-65.69	99.70	40.1471336	-104.4978800	2.00	
2930.00†	18.600	123.381	2913.75	-60.09	-82.33	124.95	40.1470871	-104.4977904	2.00	
3030.00†	20.600	123.381	3007.95	-73.56	-100.78	152.96	40.1470356	-104.4976910	2.00	
3130.00†	22.600	123.381	3100.93	-88.35	-121.04	183.70	40.1469791	-104.4975819	2.00	
3230.00†	24.600	123.381	3192.56	-104.43	-143.06	217.12	40.1469176	-104.4974632	2.00	
3330.00†	26.600	123.381	3282.74	-121.78	-166.84	253.20	40.1468512	-104.4973351	2.00	
3430.00†	28.600	123.381	3371.35	-140.38	-192.33	291.89	40.1467800	-104.4971978	2.00	
3455.22	29.104	123.381	3393.44	-145.27	-199.02	302.05	40.1467613	-104.4971617	2.00	Build (XS)
3530.00†	29.104	123.381	3458.78	-159.88	-219.03	332.42	40.1467055	-104.4970539	0.00	
3630.00†	29.104	123.381	3546.15	-179.41	-245.80	373.04	40.1466308	-104.4969097	0.00	
3730.00†	29.104	123.381	3633.53	-198.95	-272.56	413.65	40.1465560	-104.4967655	0.00	
3830.00†	29.104	123.381	3720.90	-218.48	-299.32	454.27	40.1464813	-104.4966213	0.00	
3925.43†	29.104	123.381	3804.28	-237.12	-324.86	493.03	40.1464100	-104.4964837	0.00	Parkman

REFERENCE WELLPATH IDENTIFICATION			
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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T02N-R64W	Wellbore	Guttersen Y12-715 PWB
Slot	SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL, SEC.12)		

WELLPATH DATA (195 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3930.00†	29.104	123.381	3808.27	-238.02	-326.08	494.89	40.1464066	-104.4964771	0.00	
4030.00†	29.104	123.381	3895.65	-257.55	-352.84	535.50	40.1463319	-104.4963329	0.00	
4130.00†	29.104	123.381	3983.02	-277.08	-379.61	576.12	40.1462572	-104.4961887	0.00	
4230.00†	29.104	123.381	4070.39	-296.62	-406.37	616.73	40.1461824	-104.4960445	0.00	
4295.90†	29.104	123.381	4127.97	-309.49	-424.00	643.50	40.1461332	-104.4959495	0.00	Sussex
4330.00†	29.104	123.381	4157.77	-316.15	-433.13	657.35	40.1461077	-104.4959003	0.00	
4430.00†	29.104	123.381	4245.14	-335.69	-459.89	697.97	40.1460330	-104.4957561	0.00	
4530.00†	29.104	123.381	4332.51	-355.22	-486.66	738.58	40.1459583	-104.4956119	0.00	
4630.00†	29.104	123.381	4419.89	-374.76	-513.42	779.20	40.1458836	-104.4954678	0.00	
4730.00†	29.104	123.381	4507.26	-394.29	-540.18	819.81	40.1458088	-104.4953236	0.00	
4830.00†	29.104	123.381	4594.63	-413.82	-566.94	860.43	40.1457341	-104.4951794	0.00	
4930.00†	29.104	123.381	4682.01	-433.36	-593.70	901.05	40.1456594	-104.4950352	0.00	
5030.00†	29.104	123.381	4769.38	-452.89	-620.47	941.66	40.1455847	-104.4948910	0.00	
5130.00†	29.104	123.381	4856.76	-472.43	-647.23	982.28	40.1455099	-104.4947468	0.00	
5230.00†	29.104	123.381	4944.13	-491.96	-673.99	1022.89	40.1454352	-104.4946026	0.00	
5239.72†	29.104	123.381	4952.62	-493.86	-676.59	1026.84	40.1454280	-104.4945886	0.00	Shannon
5330.00†	29.104	123.381	5031.50	-511.49	-700.75	1063.51	40.1453605	-104.4944585	0.00	
5430.00†	29.104	123.381	5118.88	-531.03	-727.51	1104.13	40.1452858	-104.4943143	0.00	
5530.00†	29.104	123.381	5206.25	-550.56	-754.28	1144.74	40.1452111	-104.4941701	0.00	
5630.00†	29.104	123.381	5293.62	-570.10	-781.04	1185.36	40.1451363	-104.4940259	0.00	
5730.00†	29.104	123.381	5381.00	-589.63	-807.80	1225.97	40.1450616	-104.4938817	0.00	
5830.00†	29.104	123.381	5468.37	-609.17	-834.56	1266.59	40.1449869	-104.4937375	0.00	
5930.00†	29.104	123.381	5555.74	-628.70	-861.32	1307.20	40.1449122	-104.4935933	0.00	
6030.00†	29.104	123.381	5643.12	-648.23	-888.09	1347.82	40.1448374	-104.4934492	0.00	
6130.00†	29.104	123.381	5730.49	-667.77	-914.85	1388.44	40.1447627	-104.4933050	0.00	
6230.00†	29.104	123.381	5817.86	-687.30	-941.61	1429.05	40.1446880	-104.4931608	0.00	
6330.00†	29.104	123.381	5905.24	-706.84	-968.37	1469.67	40.1446133	-104.4930166	0.00	
6421.99†	29.104	123.381	5985.61	-724.81	-992.99	1507.03	40.1445445	-104.4928840	0.00	Teepee Buttes
6430.00†	29.104	123.381	5992.61	-726.37	-995.13	1510.28	40.1445386	-104.4928724	0.00	
6477.83	29.104	123.381	6034.40	-735.71	-1007.93	1529.71	40.1445028	-104.4928035	0.00	KOP
6530.00†	26.968	114.472	6080.47	-743.83	-1019.82	1551.08	40.1444695	-104.4927275	9.00	
6630.00†	24.763	94.371	6170.62	-747.67	-1030.83	1592.69	40.1444380	-104.4925791	9.00	
6730.00†	25.513	73.156	6261.33	-736.08	-1026.18	1634.27	40.1444495	-104.4924302	9.00	
6830.00†	28.991	54.933	6350.37	-709.33	-1005.98	1674.80	40.1445037	-104.4922844	9.00	
6930.00†	34.374	41.131	6435.55	-668.09	-970.72	1713.28	40.1445992	-104.4921454	9.00	
7030.00†	40.911	30.961	6514.77	-613.38	-921.27	1748.77	40.1447339	-104.4920164	9.00	
7130.00†	48.128	23.268	6586.08	-546.53	-858.86	1780.39	40.1449042	-104.4919008	9.00	
7170.51†	51.178	20.646	6612.30	-516.37	-830.23	1791.91	40.1449824	-104.4918584	9.00	Sharon Springs
7230.00†	55.752	17.179	6647.72	-469.20	-785.02	1807.36	40.1451060	-104.4918013	9.00	
7234.08†	56.069	16.956	6650.00	-465.85	-781.79	1808.35	40.1451148	-104.4917977	9.00	Top A Chalk, Top A Marl
7305.07†	61.646	13.309	6686.71	-405.39	-723.16	1824.15	40.1452753	-104.4917388	9.00	Top B Chalk
7330.00†	63.626	12.122	6698.17	-383.28	-701.56	1829.02	40.1453344	-104.4917205	9.00	
7408.09†	69.887	8.642	6728.98	-311.59	-631.03	1841.89	40.1455276	-104.4916716	9.00	Top B Marl
7430.00†	71.655	7.719	6736.19	-290.91	-610.55	1844.83	40.1455837	-104.4916602	9.00	
7530.00†	79.776	3.712	6760.86	-194.34	-514.22	1854.41	40.1458478	-104.4916220	9.00	



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Guttersen Y12-715 (REV-B.1) PWP

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Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T02N-R64W	Wellbore	Guttersen Y12-715 PWB
Slot	SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7630.00†	87.943	359.905	6771.55	-95.96	-414.95	1857.52	40.1461202	-104.4916069	9.00	
7655.15	90.000	358.961	6772.00†	-71.22	-389.81	1857.27	40.1461893	-104.4916067	9.00	LP/TPZ
7730.00†	90.000	358.961	6772.00	2.32	-314.97	1855.91	40.1463947	-104.4916086	0.00	
7830.00†	90.000	358.961	6772.00	100.56	-214.98	1854.10	40.1466692	-104.4916110	0.00	
7930.00†	90.000	358.961	6772.00	198.81	-115.00	1852.29	40.1469437	-104.4916134	0.00	
8030.00†	90.000	358.961	6772.00	297.06	-15.02	1850.47	40.1472182	-104.4916158	0.00	
8130.00†	90.000	358.961	6772.00	395.31	84.97	1848.66	40.1474927	-104.4916182	0.00	
8230.00†	90.000	358.961	6772.00	493.56	184.95	1846.84	40.1477672	-104.4916207	0.00	
8330.00†	90.000	358.961	6772.00	591.80	284.94	1845.03	40.1480417	-104.4916231	0.00	
8430.00†	90.000	358.961	6772.00	690.05	384.92	1843.21	40.1483162	-104.4916255	0.00	
8530.00†	90.000	358.961	6772.00	788.30	484.90	1841.40	40.1485907	-104.4916279	0.00	
8630.00†	90.000	358.961	6772.00	886.55	584.89	1839.59	40.1488652	-104.4916304	0.00	
8730.00†	90.000	358.961	6772.00	984.79	684.87	1837.77	40.1491397	-104.4916328	0.00	
8830.00†	90.000	358.961	6772.00	1083.04	784.85	1835.96	40.1494142	-104.4916352	0.00	
8930.00†	90.000	358.961	6772.00	1181.29	884.84	1834.14	40.1496887	-104.4916376	0.00	
9030.00†	90.000	358.961	6772.00	1279.54	984.82	1832.33	40.1499632	-104.4916400	0.00	
9130.00†	90.000	358.961	6772.00	1377.78	1084.80	1830.52	40.1502377	-104.4916425	0.00	
9230.00†	90.000	358.961	6772.00	1476.03	1184.79	1828.70	40.1505122	-104.4916449	0.00	
9330.00†	90.000	358.961	6772.00	1574.28	1284.77	1826.89	40.1507867	-104.4916473	0.00	
9430.00†	90.000	358.961	6772.00	1672.53	1384.75	1825.07	40.1510612	-104.4916497	0.00	
9530.00†	90.000	358.961	6772.00	1770.78	1484.74	1823.26	40.1513356	-104.4916522	0.00	
9630.00†	90.000	358.961	6772.00	1869.02	1584.72	1821.45	40.1516101	-104.4916546	0.00	
9730.00†	90.000	358.961	6772.00	1967.27	1684.70	1819.63	40.1518846	-104.4916570	0.00	
9830.00†	90.000	358.961	6772.00	2065.52	1784.69	1817.82	40.1521591	-104.4916594	0.00	
9930.00†	90.000	358.961	6772.00	2163.77	1884.67	1816.00	40.1524336	-104.4916618	0.00	
10030.00†	90.000	358.961	6772.00	2262.01	1984.66	1814.19	40.1527081	-104.4916643	0.00	
10130.00†	90.000	358.961	6772.00	2360.26	2084.64	1812.37	40.1529826	-104.4916667	0.00	
10230.00†	90.000	358.961	6772.00	2458.51	2184.62	1810.56	40.1532571	-104.4916691	0.00	
10330.00†	90.000	358.961	6772.00	2556.76	2284.61	1808.75	40.1535316	-104.4916715	0.00	
10430.00†	90.000	358.961	6772.00	2655.00	2384.59	1806.93	40.1538061	-104.4916740	0.00	
10530.00†	90.000	358.961	6772.00	2753.25	2484.57	1805.12	40.1540806	-104.4916764	0.00	
10630.00†	90.000	358.961	6772.00	2851.50	2584.56	1803.30	40.1543551	-104.4916788	0.00	
10730.00†	90.000	358.961	6772.00	2949.75	2684.54	1801.49	40.1546296	-104.4916812	0.00	
10830.00†	90.000	358.961	6772.00	3048.00	2784.52	1799.68	40.1549041	-104.4916836	0.00	
10930.00†	90.000	358.961	6772.00	3146.24	2884.51	1797.86	40.1551786	-104.4916861	0.00	
11030.00†	90.000	358.961	6772.00	3244.49	2984.49	1796.05	40.1554531	-104.4916885	0.00	
11130.00†	90.000	358.961	6772.00	3342.74	3084.47	1794.23	40.1557276	-104.4916909	0.00	
11230.00†	90.000	358.961	6772.00	3440.99	3184.46	1792.42	40.1560021	-104.4916933	0.00	
11330.00†	90.000	358.961	6772.00	3539.23	3284.44	1790.61	40.1562766	-104.4916958	0.00	
11430.00†	90.000	358.961	6772.00	3637.48	3384.43	1788.79	40.1565511	-104.4916982	0.00	
11530.00†	90.000	358.961	6772.00	3735.73	3484.41	1786.98	40.1568256	-104.4917006	0.00	
11630.00†	90.000	358.961	6772.00	3833.98	3584.39	1785.16	40.1571000	-104.4917030	0.00	
11730.00†	90.000	358.961	6772.00	3932.22	3684.38	1783.35	40.1573745	-104.4917054	0.00	
11830.00†	90.000	358.961	6772.00	4030.47	3784.36	1781.53	40.1576490	-104.4917079	0.00	
11930.00†	90.000	358.961	6772.00	4128.72	3884.34	1779.72	40.1579235	-104.4917103	0.00	



# Planned Wellpath Report

Guttersen Y12-715 (REV-B.1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen Y12-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T02N-R64W	Wellbore	Guttersen Y12-715 PWB
Slot	SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)		

WELLPATH DATA (195 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12030.00†	90.000	358.961	6772.00	4226.97	3984.33	1777.91	40.1581980	-104.4917127	0.00	
12130.00†	90.000	358.961	6772.00	4325.22	4084.31	1776.09	40.1584725	-104.4917151	0.00	
12230.00†	90.000	358.961	6772.00	4423.46	4184.29	1774.28	40.1587470	-104.4917176	0.00	
12330.00†	90.000	358.961	6772.00	4521.71	4284.28	1772.46	40.1590215	-104.4917200	0.00	
12430.00†	90.000	358.961	6772.00	4619.96	4384.26	1770.65	40.1592960	-104.4917224	0.00	
12530.00†	90.000	358.961	6772.00	4718.21	4484.24	1768.84	40.1595705	-104.4917248	0.00	
12630.00†	90.000	358.961	6772.00	4816.45	4584.23	1767.02	40.1598450	-104.4917273	0.00	
12730.00†	90.000	358.961	6772.00	4914.70	4684.21	1765.21	40.1601195	-104.4917297	0.00	
12830.00†	90.000	358.961	6772.00	5012.95	4784.19	1763.39	40.1603940	-104.4917321	0.00	
12930.00†	90.000	358.961	6772.00	5111.20	4884.18	1761.58	40.1606685	-104.4917345	0.00	
13030.00†	90.000	358.961	6772.00	5209.44	4984.16	1759.76	40.1609430	-104.4917369	0.00	
13130.00†	90.000	358.961	6772.00	5307.69	5084.15	1757.95	40.1612175	-104.4917394	0.00	
13230.00†	90.000	358.961	6772.00	5405.94	5184.13	1756.14	40.1614920	-104.4917418	0.00	
13330.00†	90.000	358.961	6772.00	5504.19	5284.11	1754.32	40.1617665	-104.4917442	0.00	
13430.00†	90.000	358.961	6772.00	5602.44	5384.10	1752.51	40.1620410	-104.4917466	0.00	
13530.00†	90.000	358.961	6772.00	5700.68	5484.08	1750.69	40.1623155	-104.4917491	0.00	
13630.00†	90.000	358.961	6772.00	5798.93	5584.06	1748.88	40.1625900	-104.4917515	0.00	
13730.00†	90.000	358.961	6772.00	5897.18	5684.05	1747.07	40.1628644	-104.4917539	0.00	
13830.00†	90.000	358.961	6772.00	5995.43	5784.03	1745.25	40.1631389	-104.4917563	0.00	
13930.00†	90.000	358.961	6772.00	6093.67	5884.01	1743.44	40.1634134	-104.4917587	0.00	
14030.00†	90.000	358.961	6772.00	6191.92	5984.00	1741.62	40.1636879	-104.4917612	0.00	
14130.00†	90.000	358.961	6772.00	6290.17	6083.98	1739.81	40.1639624	-104.4917636	0.00	
14230.00†	90.000	358.961	6772.00	6388.42	6183.96	1738.00	40.1642369	-104.4917660	0.00	
14330.00†	90.000	358.961	6772.00	6486.66	6283.95	1736.18	40.1645114	-104.4917684	0.00	
14430.00†	90.000	358.961	6772.00	6584.91	6383.93	1734.37	40.1647859	-104.4917709	0.00	
14530.00†	90.000	358.961	6772.00	6683.16	6483.91	1732.55	40.1650604	-104.4917733	0.00	
14630.00†	90.000	358.961	6772.00	6781.41	6583.90	1730.74	40.1653349	-104.4917757	0.00	
14730.00†	90.000	358.961	6772.00	6879.66	6683.88	1728.92	40.1656094	-104.4917781	0.00	
14830.00†	90.000	358.961	6772.00	6977.90	6783.87	1727.11	40.1658839	-104.4917806	0.00	
14930.00†	90.000	358.961	6772.00	7076.15	6883.85	1725.30	40.1661584	-104.4917830	0.00	
15030.00†	90.000	358.961	6772.00	7174.40	6983.83	1723.48	40.1664329	-104.4917854	0.00	
15130.00†	90.000	358.961	6772.00	7272.65	7083.82	1721.67	40.1667074	-104.4917878	0.00	
15230.00†	90.000	358.961	6772.00	7370.89	7183.80	1719.85	40.1669819	-104.4917902	0.00	
15330.00†	90.000	358.961	6772.00	7469.14	7283.78	1718.04	40.1672564	-104.4917927	0.00	
15430.00†	90.000	358.961	6772.00	7567.39	7383.77	1716.23	40.1675309	-104.4917951	0.00	
15530.00†	90.000	358.961	6772.00	7665.64	7483.75	1714.41	40.1678054	-104.4917975	0.00	
15630.00†	90.000	358.961	6772.00	7763.88	7583.73	1712.60	40.1680799	-104.4917999	0.00	
15730.00†	90.000	358.961	6772.00	7862.13	7683.72	1710.78	40.1683543	-104.4918024	0.00	
15830.00†	90.000	358.961	6772.00	7960.38	7783.70	1708.97	40.1686288	-104.4918048	0.00	
15930.00†	90.000	358.961	6772.00	8058.63	7883.68	1707.16	40.1689033	-104.4918072	0.00	
16030.00†	90.000	358.961	6772.00	8156.88	7983.67	1705.34	40.1691778	-104.4918096	0.00	
16130.00†	90.000	358.961	6772.00	8255.12	8083.65	1703.53	40.1694523	-104.4918121	0.00	
16230.00†	90.000	358.961	6772.00	8353.37	8183.64	1701.71	40.1697268	-104.4918145	0.00	
16330.00†	90.000	358.961	6772.00	8451.62	8283.62	1699.90	40.1700013	-104.4918169	0.00	
16430.00†	90.000	358.961	6772.00	8549.87	8383.60	1698.08	40.1702758	-104.4918193	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen Y12-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T02N-R64W	Wellbore	Guttersen Y12-715 PWB
Slot	SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL, SEC.12)		

WELLPATH DATA (195 stations) † = interpolated, ‡ = extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16530.00†	90.000	358.961	6772.00	8648.11	8483.59	1696.27	40.1705503	-104.4918218	0.00	
16630.00†	90.000	358.961	6772.00	8746.36	8583.57	1694.46	40.1708248	-104.4918242	0.00	
16730.00†	90.000	358.961	6772.00	8844.61	8683.55	1692.64	40.1710993	-104.4918266	0.00	
16830.00†	90.000	358.961	6772.00	8942.86	8783.54	1690.83	40.1713738	-104.4918290	0.00	
16930.00†	90.000	358.961	6772.00	9041.10	8883.52	1689.01	40.1716483	-104.4918314	0.00	
17030.00†	90.000	358.961	6772.00	9139.35	8983.50	1687.20	40.1719228	-104.4918339	0.00	
17130.00†	90.000	358.961	6772.00	9237.60	9083.49	1685.39	40.1721973	-104.4918363	0.00	
17230.00†	90.000	358.961	6772.00	9335.85	9183.47	1683.57	40.1724718	-104.4918387	0.00	
17330.00†	90.000	358.961	6772.00	9434.10	9283.45	1681.76	40.1727463	-104.4918411	0.00	
17430.00†	90.000	358.961	6772.00	9532.34	9383.44	1679.94	40.1730208	-104.4918436	0.00	
17530.00†	90.000	358.961	6772.00	9630.59	9483.42	1678.13	40.1732953	-104.4918460	0.00	
17630.00†	90.000	358.961	6772.00	9728.84	9583.40	1676.31	40.1735697	-104.4918484	0.00	
17730.00†	90.000	358.961	6772.00	9827.09	9683.39	1674.50	40.1738442	-104.4918508	0.00	
17795.99†	90.000	358.961	6772.00	9891.92	9749.37	1673.30	40.1740254	-104.4918524	0.00	
17829.82	90.000	358.961	6772.00 <sup>‡</sup>	9925.15	9783.19	1672.69	40.1741182	-104.4918533	0.00	BHL

HOLE & CASING SECTIONS - Ref Wellbore: Guttersen Y12-715 PWB Ref Wellpath: Guttersen Y12-715 (REV-B.1) PWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	30.00	1950.00	1920.00	30.00	1950.00	0.00	0.00	0.00	0.00
8.5in Open Hole	1950.00	17829.00	15879.00	1950.00	6772.00	0.00	0.00	9782.37	1672.70



# Planned Wellpath Report

Guttersen Y12-715 (REV-B.1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen Y12-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T02N-R64W	Wellbore	Guttersen Y12-715 PWB
Slot	SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
DP 455 Sec.01-T2N-R64W	N/A	-2.00	-1.41	-157.39	3279878.76	1298091.40	40.1473180	-104.4987970	polygon
2D Polygon: dimensions not calculated									
DP 455 Sec.12-T2N-R64W	N/A	-2.00	-1.41	-157.39	3279878.76	1298091.40	40.1473180	-104.4987970	polygon
2D Polygon: dimensions not calculated									
2) Guttersen Y12-715 BHL (200'FNL & 350'FEL,SEC.01)	17829.82	6772.00	9783.19	1672.69	3281708.75	1307875.58	40.1741182	-104.4918533	point
Guttersen Y12-715 BPZ (200'FNL & 350'FEL,SEC.01)	N/A	6772.00	9783.19	1672.69	3281708.75	1307875.58	40.1741182	-104.4918533	point
1) Guttersen Y12-715 LP (200'FSL & 330'FEL,SEC.12)	7655.15	6772.00	-389.81	1857.27	3281893.33	1297703.03	40.1461893	-104.4916067	point
DP 455 West Hardline(200'FNL/FSL&300'FEL/FWL)	N/A	6850.00	-0.51	-45.01	3279991.13	1298092.31	40.1473170	-104.4983950	polygon
2D Polygon: dimensions not calculated									

SURVEY PROGRAM - Ref Wellbore: Guttersen Y12-715 PWB Ref Wellpath: Guttersen Y12-715 (REV-B.1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	1950.00	OWSG MWD rev2 (MS+IFR1)		Guttersen Y12-715 PWB
1950.00	17829.82	OWSG MWD rev2 (MS+IFR1)		Guttersen Y12-715 PWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen Y12-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.12-T02N-R64W	Wellbore	Guttersen Y12-715 PWB
Slot	SLOT#08 Guttersen Y12-715 (610'FSL & 2181'FEL,SEC.12)		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
922.33	0.000	123.381	922.33	Upper Pierre Aquifer Top
1642.82	0.000	123.381	1642.82	Upper Pierre Aquifer Base
3925.43	29.104	123.381	3804.28	Parkman
4295.90	29.104	123.381	4127.97	Sussex
5239.72	29.104	123.381	4952.62	Shannon
6421.99	29.104	123.381	5985.61	Teepee Buttes
7170.51	51.178	20.646	6612.30	Sharon Springs
7234.08	56.069	16.956	6650.00	Top A Chalk, Top A Marl
7305.07	61.646	13.309	6686.71	Top B Chalk
7408.09	69.887	8.642	6728.98	Top B Marl

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
30.00	0.000	123.381	30.00	Tie On
2000.00	0.000	123.381	2000.00	End of Tangent
3455.22	29.104	123.381	3393.44	Build (XS)
6477.83	29.104	123.381	6034.40	KOP
7655.15	90.000	358.961	6772.00	LP/TPZ
17829.82	90.000	358.961	6772.00	BHL



# Closest Approach Clearance Summary Report

Guttersen YY18-715 (REV-B.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen YY18-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T02N-R63W	Wellbore	Guttersen YY18-715 PWB
Slot	SLOT#08 Guttersen YY18-715 (1583'FNL & 2453'FEL,SEC.18)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Guenaler
Scale	0.999959	Report Generated	2/5/2024 at 2:39:23 PM
Convergence at slot	0.66° 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	-0.01	157.42	3285269.77	1295942.63	40°08'28.5036"N	104°28'46.5672"W
Facility Reference Pt			3285112.36	1295942.64	40°08'28.5216"N	104°28'48.5940"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 on SLOT#08 Guttersen YY18-01 (1583'FNL & 2453'FEL,SEC.18) (RKB) to Facility Vertical Datum	4926.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#08 Guttersen YY18-01 (1583'FNL & 2453'FEL,SEC.18) (RKB) to Mean Sea Level	4926.00ft
Vertical Reference Pt	Rig on SLOT#08 Guttersen YY18-01 (1583'FNL & 2453'FEL,SEC.18) (RKB)	Rig on SLOT#08 Guttersen YY18-01 (1583'FNL & 2453'FEL,SEC.18) (RKB) to Ground Level at Slot (SLOT#08 Guttersen YY18-715 (1583'FNL & 2453'FEL,SEC.18))	4926.00ft
MD Reference Pt	Rig on SLOT#08 Guttersen YY18-01 (1583'FNL & 2453'FEL,SEC.18) (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	7.62° East of TN	Dip Angle	66.36°	Mag Field Strength	51733 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

Guttersen YY18-715 (REV-B.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen YY18-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T02N-R63W	Wellbore	Guttersen YY18-715 PWB
Slot	SLOT#08 Guttersen YY18-715 (1583'FNL & 2453'FEL, SEC.18)		

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: Guttersen YY18-715 PWB    Ref Wellpath: Guttersen YY18-715 (REV-B.1) PWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	30.00	1950.00	1920.00	30.00	1950.00	0.00	0.00	0.00	0.00

SURVEY PROGRAM - Ref Wellbore: Guttersen YY18-715 PWB    Ref Wellpath: Guttersen YY18-715 (REV-B.1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	1950.00	OWSG MWD rev2 (MS+IFR1)		Guttersen YY18-715 PWB
1950.00	15413.56	OWSG MWD rev2 (MS+IFR1)		Guttersen YY18-715 PWB



# Closest Approach Clearance Summary Report

Guttersen YY18-715 (REV-B.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen YY18-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T02N-R63W	Wellbore	Guttersen YY18-715 PWB
Slot	SLOT#08 Guttersen YY18-715 (1583'FNL & 2453'FEL,SEC.18)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 15413.56ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (30 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
YY Section 18	ELMER KAUFMAN #3	ELMER KAUFMAN #3 (05-123-07865)	ELMER KAUFMAN #3	ELMER KAUFMAN #3\No Surveys	Drilling	8394.70	294.87	8394.70	8394.70	0.04	8394.70	FAIL
YY Section 18	ELMER KAUFMAN #1	ELMER KAUFMAN #1 (05-123-40000)	ELMER KAUFMAN #1	ELMER KAUFMAN #1\No Surveys	Drilling	5347.89	994.24	5347.89	5844.60	0.16	5844.60	FAIL
YY Section 18	CUYKENDALL-LAUCK #1	CUYKENDALL-LAUCK #1 (05-123-07705)	CUYKENDALL-LAUCK #1	CUYKENDALL-LAUCK #1\No Surveys	Drilling	30.00	1048.88	9672.52	9672.52	0.19	9672.52	FAIL
YY Section 07	J.H. CUYKENDALL B #1	J.H. CUYKENDALL B #1 (05-123-09705)	J.H. CUYKENDALL B #1	J.H. CUYKENDALL B #1\No Surveys	Drilling	12313.79	1609.01	12313.79	12309.30	0.19	12309.30	FAIL
YY Section 18	KAUFMAN #4	KAUFMAN #4 (05-123-07952)	KAUFMAN #4	KAUFMAN #4\No Surveys	Drilling	6930.00	1588.60	6930.00	7055.75	0.21	7055.75	FAIL
YY Section 18	ELMER KAUFMAN #2	ELMER KAUFMAN #2 (05-123-07611)	ELMER KAUFMAN #2	ELMER KAUFMAN #2\No Surveys	Drilling	6725.05	2043.05	6725.05	6925.77	0.27	6925.77	FAIL
YY Section 18	CUYKENDALL-LAUCK #2	CUYKENDALL-LAUCK #2 (05-123-07973)	CUYKENDALL-LAUCK #2	CUYKENDALL-LAUCK #2\No Surveys	Drilling	30.00	982.52	8330.00	3404.29	0.29	8330.00	FAIL
YY Section 18	CUYKENDALL-LAUCK #3	CUYKENDALL-LAUCK #3 (05-123-08387)	CUYKENDALL-LAUCK #3	CUYKENDALL-LAUCK #3\No Surveys	Drilling	30.00	1100.14	8130.00	3615.30	0.30	8130.00	FAIL
YY Section 07	CUYKENDALL #24-7	CUYKENDALL #24-7 (05-123-10357)	CUYKENDALL #24-7	CUYKENDALL #24-7\No Surveys	Drilling	30.00	2460.96	10966.85	10966.85	0.38	10966.85	FAIL
SEC.18-T02N-R63W	SLOT#07 Guttersen YY18-726 (1583'FNL & 2476'FEL,SEC.18)	Guttersen YY18-726	Guttersen YY18-726 PWB	Guttersen YY18-726 (REV-B.1) PWP	Planned	30.00	22.37	2000.00	2003.49	1.02	15413.56	WARN
YY Section 18	EWS #4	EWS #4 (05-123-44167)	EWS #4	EWS #4\MWD	Drilling	7007.97	86.48	7007.97	7020.17	1.23	7020.17	PASS
SEC.18-T02N-R63W	SLOT#06 Guttersen YY18-736 (1582'FNL & 2498'FEL,SEC.18)	Guttersen YY18-736	Guttersen YY18-736 PWB	Guttersen YY18-736 (REV-B.1) PWP	Planned	30.00	45.01	2000.00	2003.06	2.27	15413.56	PASS
SEC.18-T02N-R63W	SLOT#05 Guttersen YY18-746(1582'FNL & 2521'FEL,SEC.18)	Guttersen YY18-746	Guttersen YY18-746 PWB	Guttersen YY18-746 (REV-B.1) PWP	Planned	30.00	67.38	2000.00	2002.51	3.50	15413.56	PASS
SEC.18-T02N-R63W	SLOT#04 Guttersen YY18-754 (1582'FNL & 2543'FEL,SEC.18)	Guttersen YY18-754	Guttersen YY18-754 PWB	Guttersen YY18-754 (REV-B.1) PWP	Planned	30.00	90.03	2000.00	2057.43	4.68	15413.56	PASS
SEC.18-T02N-R63W	SLOT#03 Guttersen YY18-764 (1582'FNL & 2566'FEL,SEC.18)	Guttersen YY18-764	Guttersen YY18-764 PWB	Guttersen YY18-764 (REV-B.1) PWP	Planned	30.00	112.40	2000.00	2002.26	5.99	15413.56	PASS
SEC.06-T02N-R63W	SLOT#03 Guttersen #6R-323 (05-123-38275)	Guttersen #6R-323	Guttersen #6R-323 AWB	Guttersen #6R-323 AWP	Drilling	15413.56	888.39	15413.56	15413.56	6.26	15413.56	PASS
SEC.18-T02N-R63W	SLOT#02 Guttersen YY18-775 (1582'FNL & 2588'FEL,SEC.18)	Guttersen YY18-775	Guttersen YY18-775 PWB	Guttersen YY18-775 (REV-B.1) PWP	Planned	30.00	135.05	2000.00	2060.77	7.13	15413.56	PASS
SEC.06-T02N-R63W	SLOT#02 Guttersen #6U-443 (05-123-38274)	Guttersen #6U-443 (05-123-38274)	Guttersen #6U-443 AWB	Guttersen #6U-443 AWP	Drilling	15413.56	764.63	15413.56	15413.56	7.20	15413.56	PASS
SEC.06-T02N-R63W	SLOT#04 Guttersen #6R-403 (05-123-39169)	Guttersen #6R-403	Guttersen #6R-403 AWB	Guttersen #6R-403 AWP	Drilling	15413.56	1388.47	15413.56	15413.56	7.96	15413.56	PASS
SEC.18-T02N-R63W	SLOT#01 Guttersen YY18-785 (1582'FNL & 2611'FEL,SEC.18)	Guttersen YY18-785	Guttersen YY18-785 PWB	Guttersen YY18-785 (REV-B.1) PWP	Planned	30.00	157.42	8030.00	2002.67	8.47	15413.56	PASS
SEC.06-T02N-R63W	SLOT#01 Guttersen 6U-203(75'FNL&414'FEL,SEC.06)	Guttersen 6U-203 (05-123-38279)	Guttersen 6U-203 AWB	Guttersen 6U-203 AWP	Drilling	15413.56	734.00	15413.56	15413.56	9.12	15413.56	PASS
SEC.06-T02N-R63W	SLOT#05 Guttersen #6R-243 (05-123-38272)	Guttersen #6R-243	Guttersen #6R-243 AWB	Guttersen #6R-243 AWP	Drilling	15413.56	1649.87	15413.56	15413.56	9.18	15413.56	PASS
SEC.06-T02N-R63W	SLOT#06 Guttersen #6M-423 (05-123-38271)	Guttersen #6M-423	Guttersen #6M-423 AWB	Guttersen #6M-423 AWP	Drilling	15413.56	1948.48	15413.56	15413.56	10.31	15413.56	PASS
SEC.06-T02N-R63W	SLOT#07 Guttersen #6M-303 (05-123-38273)	Guttersen #6M-303	Guttersen #6M-303 AWB	Guttersen #6M-303 AWP	Drilling	15413.56	2280.50	15413.56	15413.56	11.87	15413.56	PASS
SEC.30-T03N-R63W	SLOT#12 GUTTERSEN YY06 -756 (600'FSL & 2615'FWL,SEC.30)	GUTTERSEN YY06 -756 (05-123-48641)	GUTTERSEN YY06 -756 AWB	GUTTERSEN YY06 -756 AWP	Drilling	15413.56	2931.51	15413.56	15413.56	14.47	15413.56	PASS



# Closest Approach Clearance Summary Report

Guttersen YY18-715 (REV-B.1) PWP - SPE WPTS Stop Drilling HSE Risk (2017)



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen YY18-715
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.18-T02N-R63W	Wellbore	Guttersen YY18-715 PWB
Slot	SLOT#08 Guttersen YY18-715 (1583'FNL & 2453'FEL,SEC.18)		

CALCULATION RANGE & CUTOFF		
From: 30.00ft MD	To: 15413.56ft MD	C-C Cutoff: (none)

OFFSET WELL CLEARANCE SUMMARY (30 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.30-T03N-R63W	SLOT#11 GUTTERSEN YY06 -766 (600'FSL & 2577'FWL,SEC.30)	GUTTERSEN YY06 -766 (05-123-48643)	GUTTERSEN YY06 -766 AWB	GUTTERSEN YY06 -766 AWP	Drilling	15413.56	3567.20	15413.56	15413.56	17.53	15413.56	PASS
SEC.30-T03N-R63W	SLOT#10 GUTTERSEN YY06 -775 (601'FSL & 2540'FWL,SEC.30)	GUTTERSEN YY06 -775 (05-123-48642)	GUTTERSEN YY06 -775 AWB	GUTTERSEN YY06 -775 AWP	Drilling	15413.56	4184.74	15413.56	15413.56	20.50	15413.56	PASS
SEC.30-T03N-R63W	SLOT#09 GUTTERSEN YY06 -785 (601'FSL & 2502'FWL,SEC.30)	GUTTERSEN YY06 -785 (05-123-48640)	GUTTERSEN YY06 -785 AWB	GUTTERSEN YY06 -785 AWP	Drilling	15413.56	4823.24	15413.56	15413.56	23.87	15413.56	PASS
YY Section 18	EWS #4B	EWS #4B ( (05-123-48766)	Wellbore #1	Wellbore #1\As-Drilled	Drilling	206.59	2464.53	6830.00	7134.37	37.20	7134.37	PASS
YY Section 18	JOHN CUYKENDALL UNIT #2	JOHN CUYKENDALL UNIT #2 (05-123-08083)	JOHN CUYKENDALL UNIT #2	JOHN CUYKENDALL UNIT #2\As-Drilled	Drilling	308.74	2545.48	9630.00	11005.21	58.31	11005.21	PASS