

Job Number:	State/Country:
Company:	Declination:
Lease/Well:	Grid:
Location:	File name: C:\WINSERVE\MFM20-7.SVY
Rig Name:	Date/Time: 23-Dec-18 / 18:27
RKB:	Curve Name: MT FED MAPLEWOOD 8W-20-7
G.L. or M.S.L.:	

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 271.14
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

<i>Measured Depth FT</i>	<i>Incl Angle Deg</i>	<i>Drift Direction Deg</i>	<i>True Vertical Depth</i>	<i>N-S FT</i>	<i>E-W FT</i>	<i>Vertical Section FT</i>	<i>C L O S U R E Distance FT</i>	<i>Direction Deg</i>	<i>Dogleg Severity Deg/100</i>
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
104.00	1.45	163.59	103.99	-1.26	.37	-.40	1.32	163.59	1.39
198.00	.26	178.26	197.98	-2.62	.71	-.77	2.71	164.73	1.28
294.00	.40	135.29	293.98	-3.07	.96	-1.02	3.22	162.70	.29
389.00	.57	308.61	388.97	-3.01	.82	-.88	3.12	164.76	1.02
484.00	1.19	357.12	483.96	-1.73	.40	-.44	1.78	166.94	.97
578.00	.31	32.54	577.95	-.54	.49	-.50	.73	138.00	1.02
673.00	.40	229.86	672.95	-.54	.37	-.38	.66	145.31	.74
768.00	.31	278.02	767.95	-.72	-.13	.12	.73	190.54	.32
863.00	.31	215.18	862.95	-.89	-.54	.52	1.04	210.99	.34
958.00	.35	228.10	957.95	-1.30	-.90	.87	1.58	214.77	.09
1054.00	.35	302.63	1053.95	-1.33	-1.37	1.34	1.91	225.66	.44
1149.00	.48	268.44	1148.95	-1.19	-2.01	1.98	2.33	239.37	.29
1244.00	.40	278.02	1243.94	-1.15	-2.73	2.71	2.97	247.12	.11
1339.00	.57	310.72	1338.94	-.80	-3.42	3.40	3.51	256.85	.33
1434.00	1.40	23.49	1433.93	.57	-3.32	3.33	3.37	279.82	1.42
1529.00	1.01	113.67	1528.91	1.30	-2.09	2.11	2.46	301.97	1.82
PROJECTION TO BIT									
1584.00	1.01	113.67	1583.91	.91	-1.20	1.22	1.51	307.30	.00