

# Exhibit 15.4f

## WMKT - 105.0° (day)

MUNN-REESE, INC.  
Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Figure  
Page 1 of 1

Tabulation of Field Strength Measurements									
Call: WMKT Frequency(kHz): 1270 Bearing: 105.0° Power(kW): 5.000									
Point ###	mV/m	Meas Con		mV/m	Time	Date	Distance km	Ratio	MP *
		Time	Date						

1	68.000	0942	10-04-01				4.64		
2	35.000	0926	10-04-01				6.65		
3	22.000	0922	10-04-01				9.14		
4	6.400	0916	10-04-01				11.80		
5	6.800	0859	10-04-01				15.60		
6	4.400	0855	10-04-01				17.10		
7	2.300	0848	10-04-01				19.70		
8	0.850	0841	10-04-01				23.00		
9	0.700	0817	10-04-01				26.50		
10	0.580	0827	10-04-01				29.30		
11	0.340	1657	10-03-01				39.10		
12	0.220	1637	10-03-01				48.60		
13	0.135	1618	10-03-01				59.90		
14	0.130	1557	10-03-01				68.40		
15	0.072	1526	10-03-01				80.90		
16	0.068	1515	10-03-01				88.20		
17	0.044	1451	10-03-01				99.70		
18	0.024	1419	10-03-01				122.00		
19	0.016	1338	10-03-01				146.00		

Average Arithmetic Ratio = 0.0000  
Average Logarithmic Ratio = 0.0000



# Exhibit 15.4f WMKT - 105.0° (day)

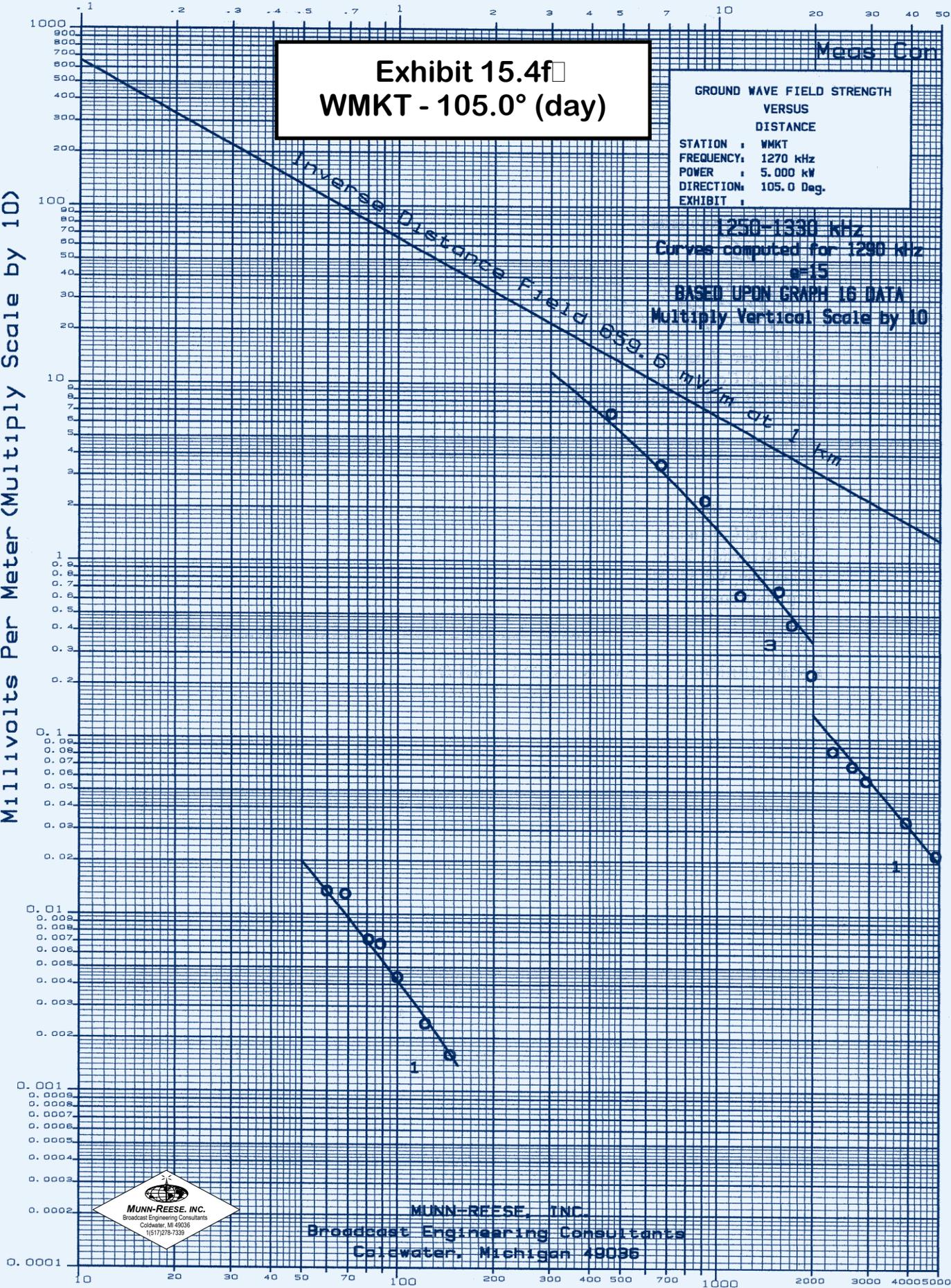
Meas. Con.

GROUND WAVE FIELD STRENGTH  
VERSUS  
DISTANCE  
STATION : WMKT  
FREQUENCY: 1270 kHz  
POWER : 5.000 kW  
DIRECTION: 105.0 Deg.  
EXHIBIT :

1250-1330 kHz  
Curves computed for 1290 kHz  
 $\epsilon = 15$   
BASED UPON GRAPH 16 DATA  
Multiply Vertical Scale by 10

Millivolts Per Meter (Multiply Scale by 10)

Inverse Distance Field 659.6 mV/m at 1 km



MUNN-REESE, INC.  
Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Kilometers From Antenna

# Exhibit 15.4g

## WMKT - 125.0° (day)

Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Figure  
Page 1 of 1

Tabulation of Field Strength Measurements						
Call: WMKT Frequency(kHz): 1270 Bearing: 125.0° Power(kW): 5.000						
Point ###	mV/m	Meas Time	Con Date	mV/m	Time	Date

	mV/m	Time	Date		Time	Date	Distance km	Ratio	MP *
1	1565.000	1445	10-02-01				0.32		
2	1150.000	1440	10-02-01				0.41		
3	1080.000	1430	10-02-01				0.53		
4	780.000	1450	10-02-01				0.71		
5	570.000	1454	10-02-01				0.91		
6	250.000	1506	10-02-01				1.83		
7	235.000	1505	10-02-01				1.91		
8	218.000	1502	10-02-01				1.97		
9	195.000	1510	10-02-01				2.06		
10	135.000	1525	10-02-01				2.90		
11	149.000	1515	10-02-01				3.03		
12	118.000	1531	10-02-01				3.37		
13	80.000	1538	10-02-01				4.59		
14	72.000	1537	10-02-01				4.84		
15	32.000	1544	10-02-01				6.75		
16	25.200	1547	10-02-01				7.43		
17	12.500	1551	10-02-01				8.18		
18	18.500	1614	10-02-01				9.79		
19	12.100	1656	10-02-01				11.40		
20	11.500	1700	10-02-01				13.10		
21	4.600	1706	10-02-01				14.90		
22	3.200	1711	10-02-01				17.30		
23	2.400	1717	10-02-01				20.30		
24	1.350	0836	10-03-01				26.00		
25	0.410	0905	10-03-01				41.70		
26	0.310	0910	10-03-01				45.40		
27	0.155	0917	10-03-01				50.00		
28	0.141	0935	10-03-01				57.50		
29	0.112	0957	10-03-01				67.10		
30	0.090	1009	10-03-01				77.90		
31	0.058	1028	10-03-01				89.40		
32	0.056	1040	10-03-01				98.00		
33	0.037	1100	10-03-01				112.00		
34	0.028	1112	10-03-01				122.00		
35	0.023	1139	10-03-01				142.00		

Average Arithmetic Ratio = 0.0000  
Average Logarithmic Ratio = 0.0000



Meas Con

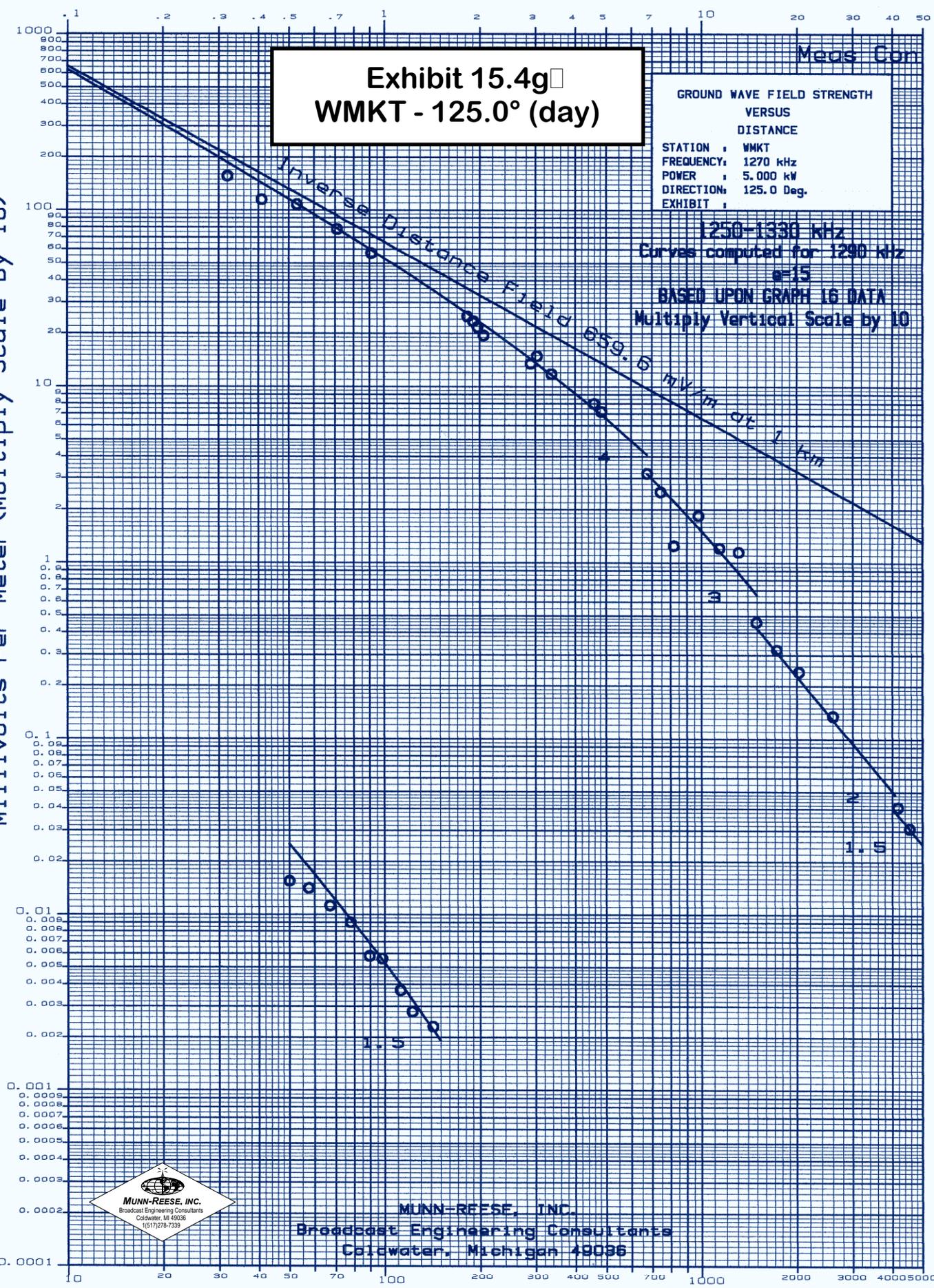
# Exhibit 15.4g WMKT - 125.0° (day)

GROUND WAVE FIELD STRENGTH  
VERSUS  
DISTANCE

STATION : WMKT  
FREQUENCY: 1270 kHz  
POWER : 5.000 kW  
DIRECTION: 125.0 Deg.  
EXHIBIT :

1250-1330 kHz  
Curves computed for 1290 kHz  
n=15  
BASED UPON GRAPH 16 DATA  
Multiply Vertical Scale by 10

Millivolts Per Meter (Multiply Scale by 10)



MUNN-REESE, INC.  
Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Kilometers From Antenna

# Exhibit 15.4h

## WMKT - 145.0° (day)

Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Figure  
Page 1 of 1

Tabulation of Field Strength Measurements									
Call: WMKT Frequency(kHz): 1270 Bearing: 145.0° Power(kW): 5.000									
Point ###	mV/m	Meas Con		mV/m	Time	Date	Distance km	Ratio	MP *
		Time	Date						

1	29.500	0950	10-04-01				6.89		
2	33.000	0952	10-04-01				7.22		
3	13.800	0956	10-04-01				9.56		
4	10.300	1001	10-04-01				11.70		
5	8.900	1011	10-04-01				16.40		
6	6.200	1016	10-04-01				18.00		
7	5.100	1022	10-04-01				19.90		
8	1.850	1030	10-04-01				24.60		
9	0.940	1041	10-04-01				29.10		
10	0.950	1047	10-04-01				31.10		
11	0.360	1113	10-04-01				34.80		
12	0.330	1138	10-04-01				40.90		
13	0.170	1211	10-04-01				46.60		
14	0.180	1153	10-04-01				50.70		
15	0.120	1241	10-04-01				62.60		
16	0.140	1250	10-04-01				68.20		
17	0.070	1306	10-04-01				80.70		
18	0.035	1445	10-04-01				110.00		
19	0.022	1515	10-04-01				129.00		

Average Arithmetic Ratio = 0.0000  
Average Logarithmic Ratio = 0.0000



**Exhibit 15.4h**  
**WMKT - 145.0° (day)**

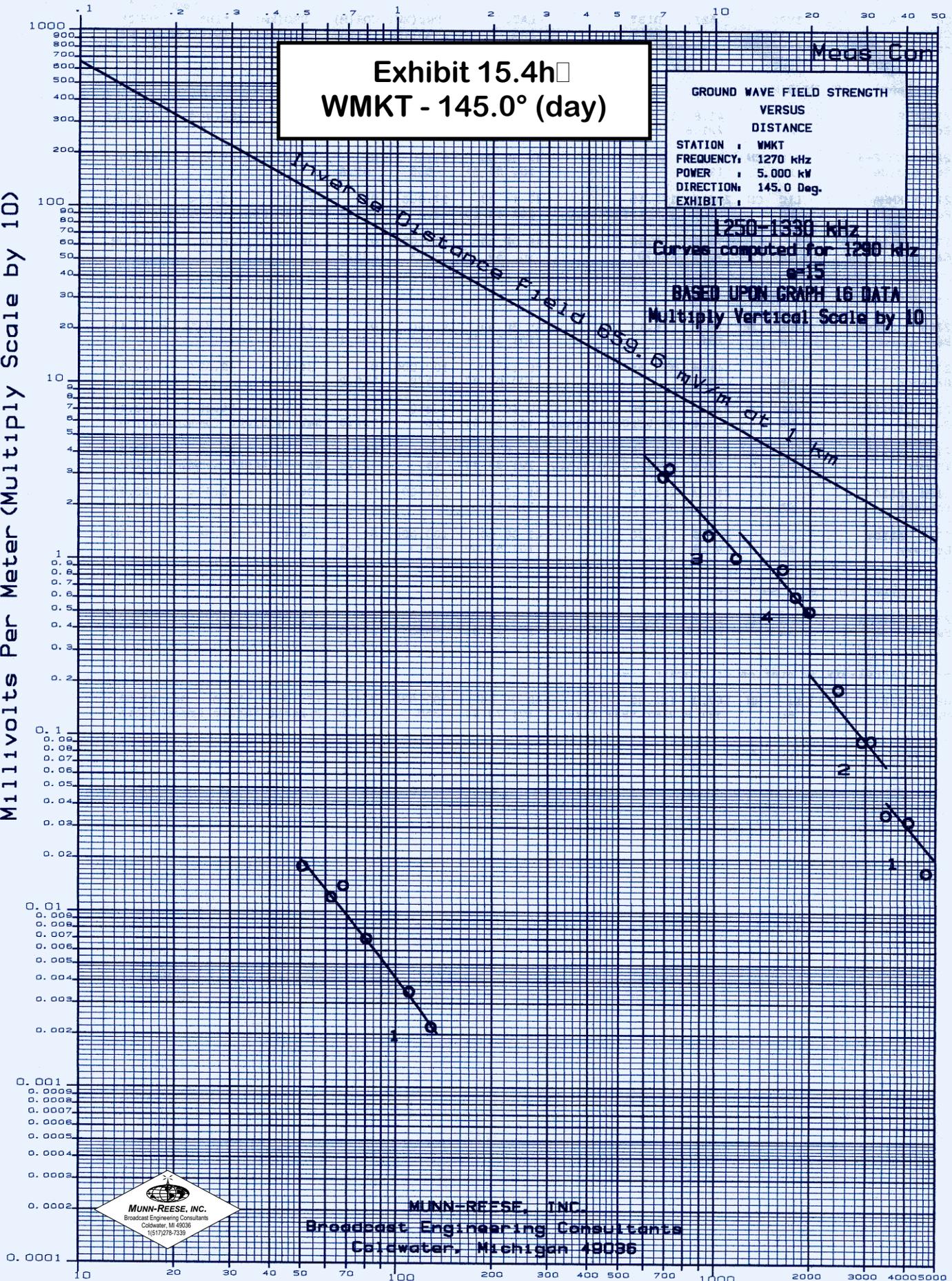
Meas Cor

**GROUND WAVE FIELD STRENGTH  
 VERSUS  
 DISTANCE**  
 STATION : WMKT  
 FREQUENCY: 1270 kHz  
 POWER : 5.000 kW  
 DIRECTION: 145.0 Deg.  
 EXHIBIT :

1250-1330 kHz  
 Curves computed for 1280 kHz  
 $\sigma_{15}$   
 BASED UPON GRAPH 16 DATA  
 Multiply Vertical Scale by 10

Inverse Distance Field Strength  
 659.6 mV/m at 1 km

Millivolts Per Meter (Multiply Scale by 10)



**MUNN-REESE, INC.**  
 Broadcast Engineering Consultants  
 Colowater, Michigan 49036

Kilometers From Antenna

**Exhibit 15.4i**  
**WMKT - 165.0° (day)**

Broadcast Engineering Consultants  
Coldwater, Michigan 49036

Figure  
Page 1 of 1

Tabulation of Field Strength Measurements  
Call: WMKT Frequency(kHz): 1270 Bearing: 165.0° Power(kW): 5.0 NDA

Point ###	mV/m	Meas Time	Con Date	mV/m	Time	Date	Distance km	Ratio	MP *
1	95.000	1109	08/24/04				3.54		
2	28.000	1102	08/24/04				6.05		
3	24.500	1058	08/24/04				6.85		
4	12.500	1052	08/24/04				8.90		
5	9.250	1047	08/24/04				9.51		
6	8.500	1041	08/24/04				11.20		
7	5.000	1035	08/24/04				12.80		
8	1.000	1019	08/24/04				19.70		
9	0.950	1004	08/24/04				25.10		
10	0.750	0952	08/24/04				30.20		
11	0.460	0934	08/24/04				34.80		
12	0.380	0927	08/24/04				39.50		
13	0.195	0909	08/24/04				44.30		
14	0.130	0901	08/24/04				48.90		
15	0.175	0842	08/24/04				54.50		
16	0.170	0833	08/24/04				57.60		
17	0.160	0822	08/24/04				62.60		
18	0.175	1856	08/23/04				69.30		
19	0.160	1838	08/23/04				74.90		
20	0.150	1833	08/23/04				76.60		
21	0.135	1818	08/23/04				78.80		
22	0.070	1515	08/23/04				84.30		
23	0.060	1506	08/23/04				91.90		
24	0.055	1457	08/23/04				97.80		
25	0.075	1437	08/23/04				108.00		
26	0.035	1337	08/23/04				129.00		
27	0.022	1316	08/23/04				141.00		
28	0.015	1310	08/23/04				143.00		
29	0.020	1238	08/23/04				161.00		

Average Arithmetic Ratio = 0.0000  
Average Logarithmic Ratio = 0.0000



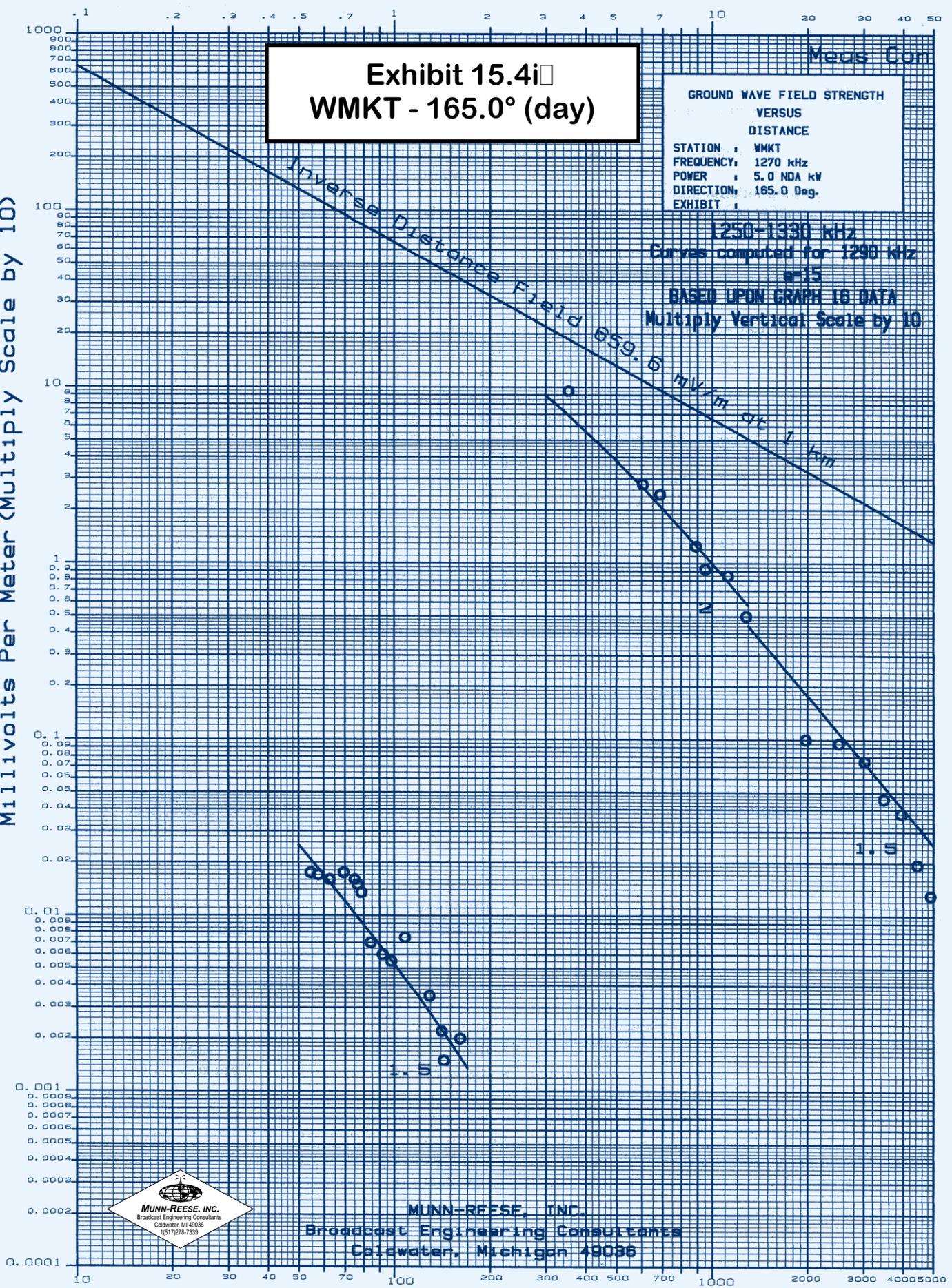
**Exhibit 15.4i**  
**WMKT - 165.0° (day)**

**GROUND WAVE FIELD STRENGTH  
 VERSUS  
 DISTANCE**  
 STATION : WMKT  
 FREQUENCY: 1270 kHz  
 POWER : 5.0 NDA kW  
 DIRECTION: 165.0 Deg.  
 EXHIBIT :

1250-1330 kHz  
 Curves computed for 1290 kHz  
 $n=15$   
 BASED UPON GRAPH 16 DATA  
 Multiply Vertical Scale by 10

Millivolts Per Meter (Multiply Scale by 10)

Inverse Distance Field Strength  
 0.59 dB/km  
 1 km



**MUNN-REESE, INC.**  
 Broadcast Engineering Consultants  
 Coldwater, Michigan 49036

Kilometers From Antenna

## Exhibit 15.4j WMKT - 174.0° (night)

### TABULATION OF FIELD INTENSITY MEASUREMENTS

174° T. RADIAL - WVOY

<u>POINT</u>	<u>NON-DIRECTIONAL</u>		<u>DIRECTIONAL</u>		<u>RATIO</u>	<u>MILES</u>
	<u>mV/m</u>	<u>TIME (EST)</u>	<u>mV/m</u>	<u>TIME (EST)</u>		
1	3700	11:42 a	--	--	--	.125
2	1540	11:47	--	--	--	.23
3	880	11:52	92	6:59 p	.1045	.35
4	620	11:56	75	6:57	.1210	.46
5	600	12:02	53	6:55	.0883	.56
6	620	12:08	38.5	6:53	.0621	.68
7	360	12:14	25	6:49	.0694	.78
8	370	12:18	24.75	6:46	.0669	.89
9	288	12:22	19.90	6:43	.0691	.99
10	57	4:12 p	3.5	5:55	.0614	2.12
11	40	4:04	2.8	5:51	.0700	3.10
12 - MP	24.75	3:56	1.55	5:47	.0626	3.63
13	10.8	3:42	.60	5:38	.0556	5.18
14	6.6	3:31	.40	5:31	.0606	7.03
15	7.1	3:20	.42	5:28	.0592	7.36
16	5.6	3:16	.36	5:25	.0643	7.64
17	4.0	3:08	.19	5:21	.0475	8.93
18	5.6	3:03	.26	5:18	.0464	9.71
19	3.05	2:55	.155	5:12	.0508	10.72
20	1.73	2:36	.064	4:59	.0370	12.96
21	1.50	2:30	.062	4:50	.0413	13.92
22	1.80	2:24	.070	4:48	.0389	14.82
23	0.58	2:06	.021	4:37	.0362	16.88
24	0.97	12:55	.035	4:12	.0361	17.60
25	0.94	1:03	.033	4:16	.0351	18.33
26	0.56	1:10	.025	4:20	.0446	20.00

Avg. = .0595

**Exhibit 15.4j**  
**WMKT - 174.0° (night)**

**GROUND WAVE FIELD INTENSITY**

STATION WVOY  
 FREQUENCY 1270 kHz  
 POWER 5 kW  
 DIRECTION 174° T.  
 EXHIBIT FIGURE 14A

