

APPENDIX I
GROUND WAVE FIELD STRENGTH MEASUREMENT DATA
JUNE 2008

This Appendix includes all measured soil conductivity data applied to distance to contour calculations.

For KXEN the measured soil conductivity BL-19981209AA was employed and that data appears in Appendix I, page 1.

For KCHI, WMVP, WPEO and WCIL groundwave field strength measurement data was obtained by Ron Krob, whose qualifications are known to the FCC Audio Division, under direction of this office. The tabulated data, and GWFI plots, appear in Appendix II-V while the summary conductivity data appears in Appendix I, page 2. Mr. Krob employed a Potomac Instruments FIM-21, Serial #495, calibrated on August 31, 2000 by Potomac Instruments. The meter calibration was checked prior to taking the readings with a meter calibrated within two years of the measurement date and found to be in agreement. The meter calibration was checked after completion of the measurement program and found to be in proper calibration.

APPENDIX I, TABLE I

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SUMMARY OF MEASURED SOIL CONDUCTIVITY DATA

KXEN 0.5 kW DA-D 1010 kHz St. Louis, MO – From BL-19981209AA

Azimuth	Conductivity – mS/m
4	10-37.4 kM
40.5	7-34.0 kM
58	8-30.8 kM
76	10-32.8 kM
100	10-34.7 kM
122	10-31.4 kM
145	7-32.5 kM
170	10-20 kM, 6-29.2
220	10-37.0 kM
247.5	10-22 kM, 5-36.0
283.5	8-38.3 kM
305	10-32.8 kM
328	10-17 kM, 5-29.0

APPENDIX I, TABLE I

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SUMMARY OF MEASURED SOIL CONDUCTIVITY DATA

KCHI 0.25 kW ND-D 1010 kHz Chillicothe, MO - Appendix II

Azimuth	Conductivity – mS/m
60	6-19.2 kM, 20-56.4, 15-96, 10-98.2
80	40-15.1 kM, 15-41.8, 10-104.0
100	20-24.9 kM, 10-71.6, 8-106.0
120	7-89.8 kM, 6-103.0
140	8-24.0 kM, 7-88, 6-107.0
160	6-29.6 kM, 8-89, 7-99.4
180	4-24.6 kM, 8-53.4, 10-99.2
200	7-23.0 kM, 10-99.7

WMVP 50 kW DA-D 1000 kHz Chicago, IL – Appendix III

Azimuth	Conductivity – mS/m
195	4-40.4 kM, 6-94.6, 8-150.0
215	6-78.1 kM, 10-157.0

WPEO 1 kW ND-D 1020 kHz Peoria, IL – Appendix IV

Azimuth	Conductivity – mS/m
160	5-24.4 kM, 7-57.5, 10-100.0
180	4-29.7 kM, 6-78.4, 8-98.8
200	5-39.5 kM, 6-88.7, 7-113.0

WCIL 1 kW ND-D 1020 kHz Carbondale, IL - Appendix V

Azimuth	Conductivity – mS/m
10	5-20.3 kM, 7-61.6, 6-90.1
30	6-57.1 kM, 5-83.3
250	2-35.8 kM, 3-79.9
270	2-40.1 kM, 3-59.3, 2-95.8

APPENDIX II, TABLE I
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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 60.0 E

Call: KCHI
Frequency: 1010.0 kHz
Power: 0.250 kW
Pattern: NDA

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-23-04	0742	2.16	0.650
2	9-23-04	0752	3.52	36.50
3	9-23-04	0757	5.43	24.50
4	9-23-04	0805	9.16	10.80
5	9-23-04	0811	11.00	10.70
6	9-23-04	0854	17.30	7.40
7	9-23-04	0901	19.20	3.25
8	9-23-04	0909	23.90	4.55
9	9-23-04	0914	25.90	4.15
10	9-23-04	0920	30.80	3.70
11	9-23-04	0933	38.80	2.37
12	9-23-04	0944	42.30	1.91
13	9-23-04	0949	49.80	1.50
14	9-23-04	1000	56.40	1.32
15	9-23-04	1020	58.40	1.32
16	9-23-04	1028	62.80	0.740
17	9-23-04	1032	64.70	0.860
18	9-23-04	1047	73.30	0.590
19	9-23-04	1058	76.70	0.450
20	9-23-04	1110	84.80	0.320
21	9-23-04	1131	96.00	0.160
22	9-23-04	1137	97.40	0.156
23	9-23-04	1141	98.20	0.190

APPENDIX II, TABLE I
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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 80.0 E

Call: KCHI
Frequency: 1010.0 kHz
Power: 0.250 kW
Pattern: NDA

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-23-04	1705	1.33	94.00
2	9-23-04	1702	1.39	90.00
3	9-23-04	1653	1.46	92.00
4	9-23-04	1657	1.55	87.00
5	9-23-04	1724	1.71	79.00
6	9-23-04	1636	3.13	41.00
7	9-23-04	1630	4.78	26.00
8	9-23-04	0837	7.49	17.50
9	9-23-04	1623	9.77	12.20
10	9-23-04	0847	15.10	11.50
11	9-23-04	1613	18.40	6.00
12	9-23-04	1600	22.10	4.95
13	9-23-04	1549	25.10	4.00
14	9-23-04	1525	32.70	2.15
15	9-23-04	1511	37.50	1.86
16	9-23-04	1504	39.90	2.35
17	9-23-04	1500	41.80	1.35
18	9-23-04	1429	60.00	0.860
19	9-23-04	1345	64.90	0.560
20	9-23-04	1322	71.60	0.410
21	9-23-04	1300	82.60	0.285
22	9-23-04	1253	86.10	0.310
23	9-23-04	1245	91.40	0.200
24	9-23-04	1237	94.20	0.205
25	9-23-04	1225	99.80	0.225
26	9-23-04	1218	104.00	0.168

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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 100.0 E

Call: KCHI
Frequency: 1010.0 kHz
Power: 0.250 kW
Pattern: NDA

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-23-04	1711	1.89	72.00
2	9-23-04	1713	2.02	65.00
3	9-23-04	1714	2.16	61.00
4	9-23-04	1716	2.32	59.00
5	9-23-04	1718	2.61	50.00
6	9-23-04	1641	3.14	44.00
7	9-24-04	0823	6.47	20.40
8	9-24-04	0830	9.76	12.80
9	9-24-04	0853	21.70	5.10
10	9-24-04	0902	24.90	4.30
11	9-24-04	0923	29.80	2.26
12	9-24-04	0928	33.00	2.15
13	9-24-04	0934	36.20	1.91
14	9-24-04	0940	37.90	1.72
15	9-24-04	1013	46.80	0.810
16	9-24-04	1029	52.60	0.990
17	9-24-04	1036	54.20	0.860
18	9-19-04	1720	67.00	0.520
19	9-19-04	1710	71.60	0.460
20	9-19-04	1655	77.60	0.350
21	9-19-04	1644	85.80	0.219
22	9-19-04	1635	88.90	0.152
23	9-19-04	1628	94.10	0.136
24	9-19-04	1616	103.00	0.149
25	9-19-04	1609	106.00	0.102

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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 120.0 E

Call: KCHI
Frequency: 1010.0 kHz
Power: 0.250 kW
Pattern: NDA

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-19-04	0800	0.20	550.00
2	9-19-04	0836	0.80	158.00
3	9-19-04	0833	0.83	150.00
4	9-19-04	0840	0.86	145.00
5	9-19-04	1013	7.60	10.80
6	9-19-04	1038	9.44	11.40
7	9-19-04	1031	10.80	9.10
8	9-19-04	1104	11.90	6.70
9	9-19-04	1124	17.20	4.10
10	9-19-04	1137	24.50	2.65
11	9-19-04	1144	27.20	2.92
12	9-19-04	1157	28.10	1.76
13	9-19-04	1205	31.30	1.31
14	9-19-04	1228	33.80	1.38
15	9-19-04	1244	40.20	0.800
16	9-19-04	1252	41.70	0.930
17	9-19-04	1313	46.30	0.780
18	9-19-04	1326	54.70	0.520
19	9-19-04	1335	58.60	0.405
20	9-19-04	1344	62.40	0.312
21	9-19-04	1357	69.90	0.227
22	9-19-04	1406	74.80	0.298
23	9-19-04	1416	80.90	0.228
24	9-19-04	1435	89.80	0.162
25	9-19-04	1454	101.00	0.078
26	9-19-04	1500	103.00	0.080

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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 140.0 E

Call: KCHI
Frequency: 1010.0 kHz
Power: 0.250 kW
Pattern: NDA

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-20-04	0827	0.99	350.00
2	9-20-04	0954	7.30	10.80
3	9-20-04	1004	9.00	8.40
4	9-20-04	1051	10.10	7.50
5	9-20-04	1054	11.10	7.30
6	9-20-04	1114	15.10	3.90
7	9-21-04	0806	15.40	4.20
8	9-21-04	0821	17.50	3.60
9	9-21-04	0832	21.80	3.25
10	9-21-04	0838	24.00	3.21
11	9-21-04	0850	27.60	2.23
12	9-21-04	0856	30.10	1.38
13	9-21-04	0930	34.50	1.10
14	9-21-04	0917	37.10	1.15
15	9-21-04	1008	50.30	0.470
16	9-21-04	1032	63.30	0.338
17	9-21-04	1037	64.50	0.360
18	9-21-04	1044	69.10	0.227
19	9-21-04	1052	73.90	0.182
20	9-21-04	1100	79.00	0.185
21	9-21-04	1120	88.00	0.182
22	9-21-04	1130	94.00	0.101
23	9-21-04	1142	98.50	0.099
24	9-21-04	1155	107.00	0.065

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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 160.0 E

Call: KCHI
Frequency: 1010.0 kHz
Power: 0.250 kW
Pattern: NDA

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-22-04	1622	0.46	265.00
2	9-22-04	1650	0.83	139.00
3	9-22-04	1653	0.87	141.00
4	9-20-04	0853	1.15	111.00
5	9-20-04	0855	1.16	81.00
6	9-22-04	1743	2.30	55.00
7	9-22-04	1740	2.40	43.00
8	9-20-04	0920	4.79	20.50
9	9-20-04	0930	6.59	14.80
10	9-20-04	0941	9.08	10.20
11	9-21-22	0753	9.51	7.80
12	9-21-04	1538	12.50	7.10
13	9-21-04	1528	16.00	2.40
14	9-21-04	1523	18.80	3.40
15	9-21-04	1517	21.20	2.95
16	9-21-04	1510	26.10	2.25
17	9-21-04	1502	29.60	1.63
18	9-21-04	1451	32.80	1.48
19	9-21-04	1438	39.90	1.09
20	9-21-04	1429	43.50	0.810
21	9-21-04	1422	47.00	0.840
22	9-21-04	1354	58.70	0.460
23	9-21-04	1344	65.70	0.440
24	9-21-04	1332	71.80	0.380
25	9-21-04	1322	80.10	0.290
26	9-21-04	1317	82.10	0.230
27	9-21-04	1305	89.00	0.205
28	9-21-04	1256	95.60	0.142
29	9-21-04	1239	99.40	0.090

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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 180.0 E

Call: KCHI
Frequency: 1010.0 kHz
Power: 0.250 kW
Pattern: NDA

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-22-04	1634	0.60	190.00
2	9-22-04	1638	0.71	159.00
3	9-22-04	1643	0.81	156.00
4	9-22-04	1645	0.87	137.00
5	9-22-04	1659	1.07	110.00
6	9-22-04	1701	1.11	119.00
7	9-22-04	1720	2.34	55.00
8	9-22-04	1722	2.81	44.00
9	9-21-04	1732	3.59	35.50
10	9-21-04	1722	5.35	20.50
11	9-22-04	0915	8.24	9.90
12	9-22-04	0920	11.20	9.80
13	9-22-04	0924	13.10	8.90
14	9-21-04	1558	15.10	0.200
15	9-21-04	1604	18.20	3.80
16	9-21-04	1610	21.40	2.70
17	9-21-04	1616	24.60	2.50
18	9-22-04	0940	27.90	1.77
19	9-22-04	0957	34.30	1.35
20	9-22-04	1005	37.40	1.26
21	9-22-04	1015	41.50	0.930
22	9-22-04	1020	43.00	0.780
23	9-22-04	1030	47.50	0.710
24	9-22-04	1046	53.40	0.560
25	9-22-04	1054	59.10	0.490
26	9-22-04	1110	63.90	0.480
27	9-22-04	1117	70.70	0.430
28	9-22-04	1127	80.00	0.335
29	9-22-04	1143	90.50	0.245
30	9-22-04	1155	96.70	0.155
31	9-22-04	1158	97.50	0.140
32	9-22-04	1204	99.20	0.155

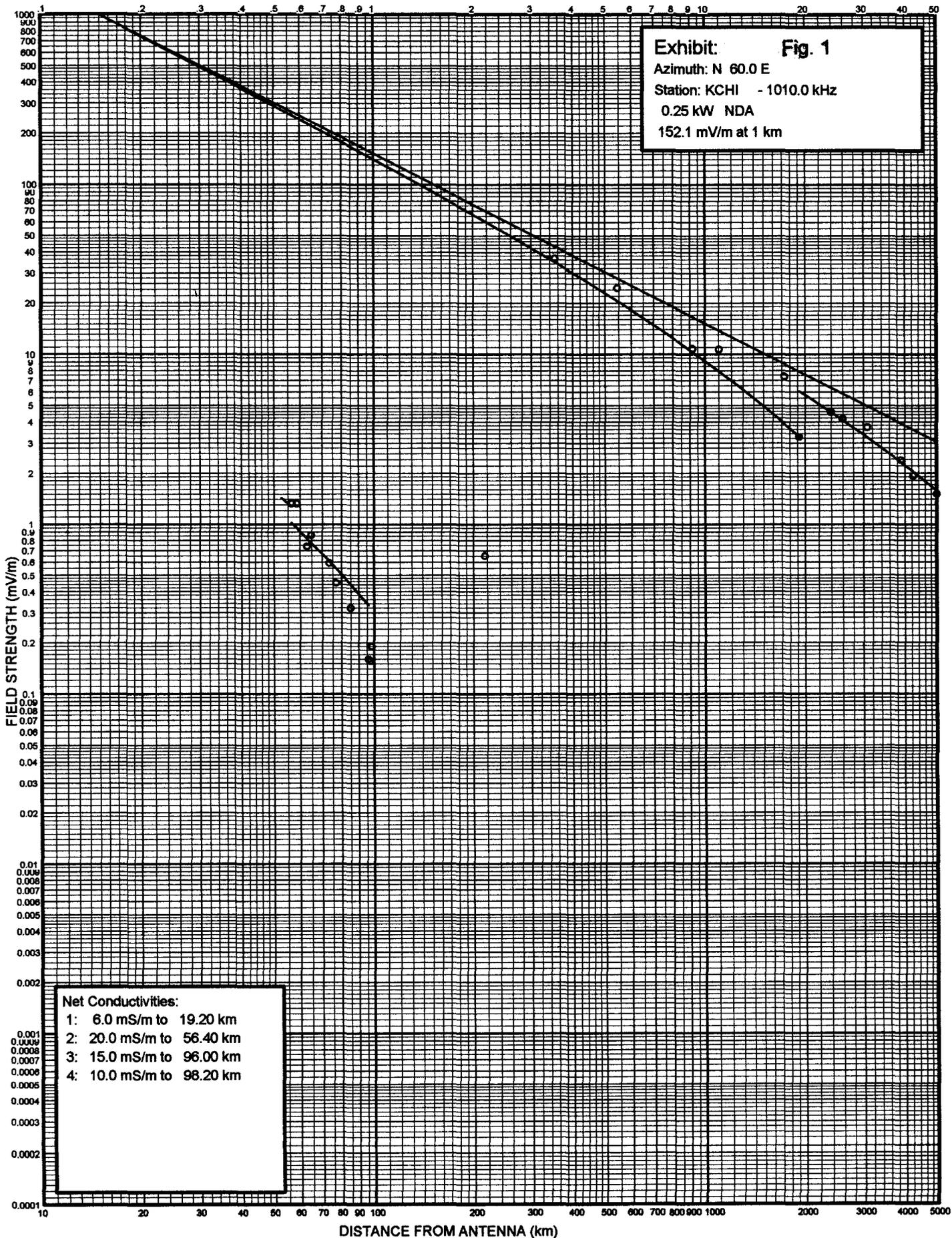
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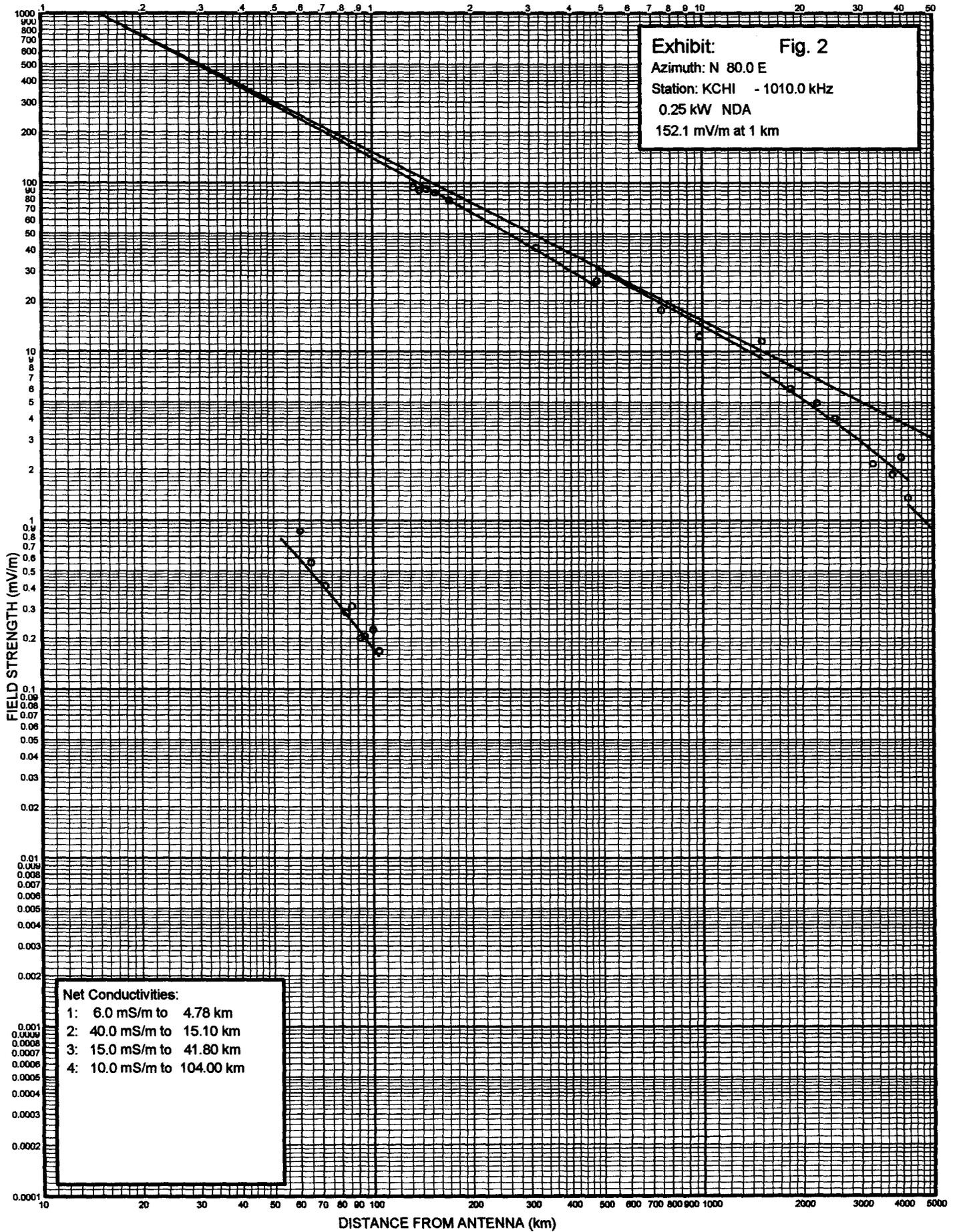
FIELD STRENGTH MEASUREMENT DATA

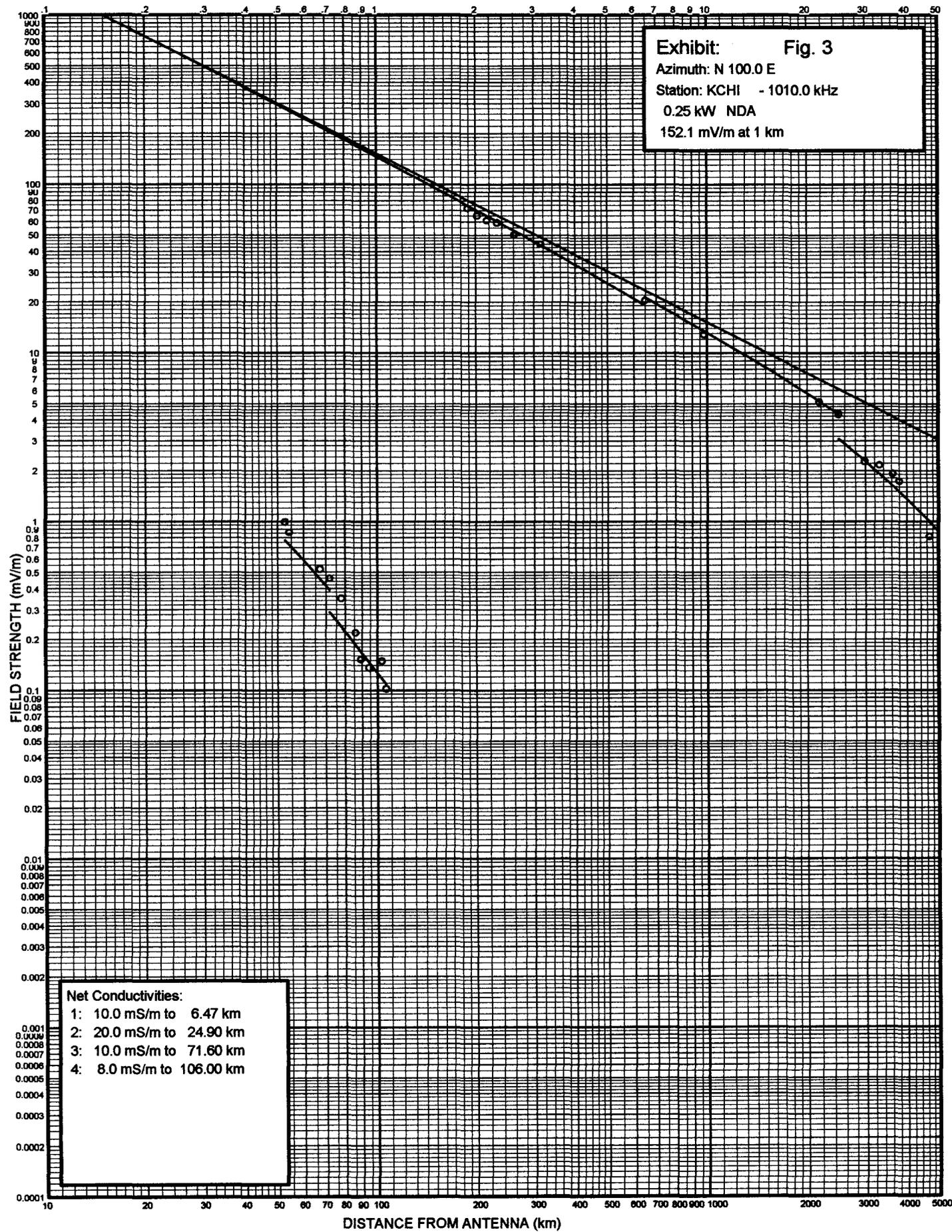
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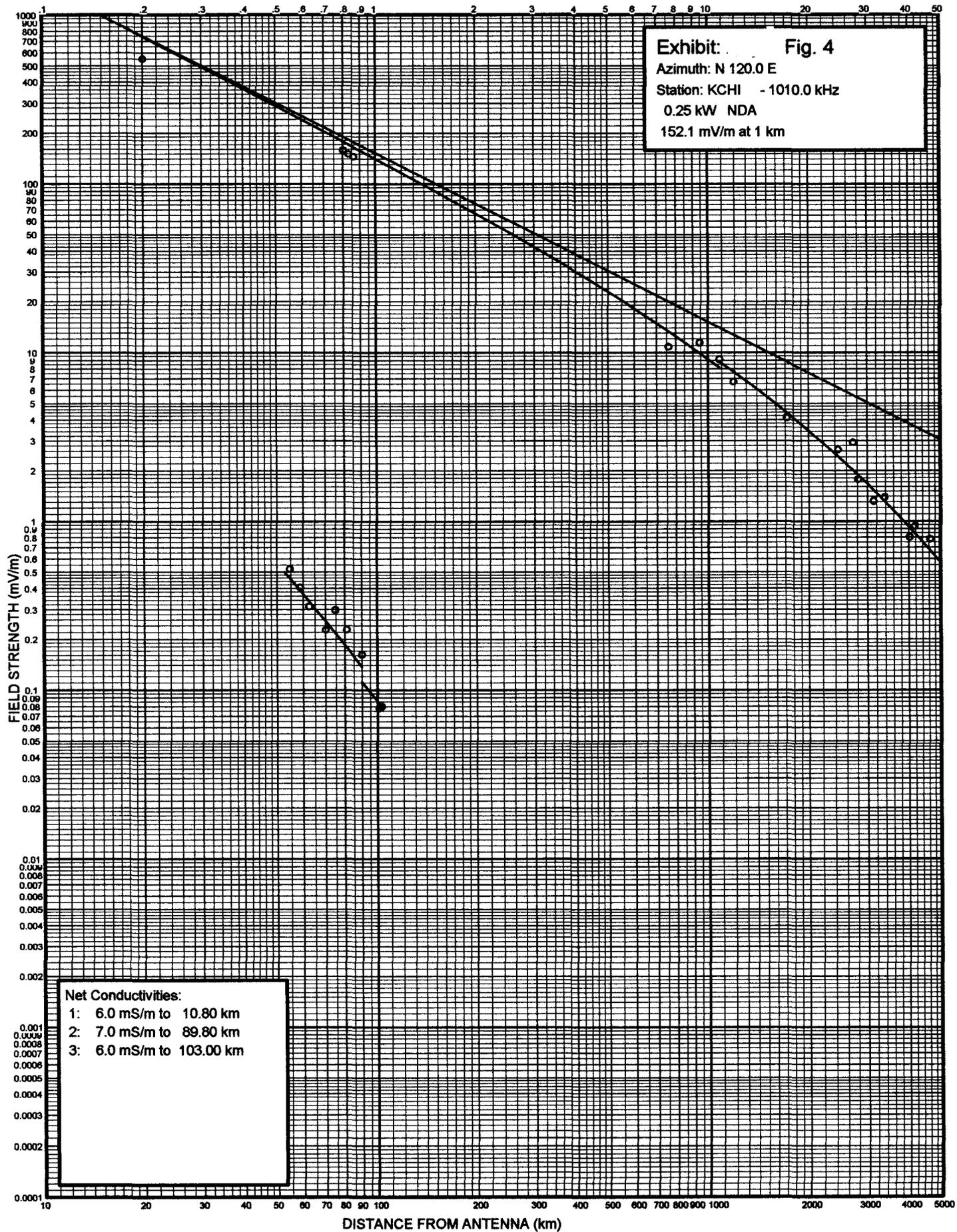
Call: KCHI
Frequency: 1010.0 kHz
Power: 0.250 kW
Pattern: NDA

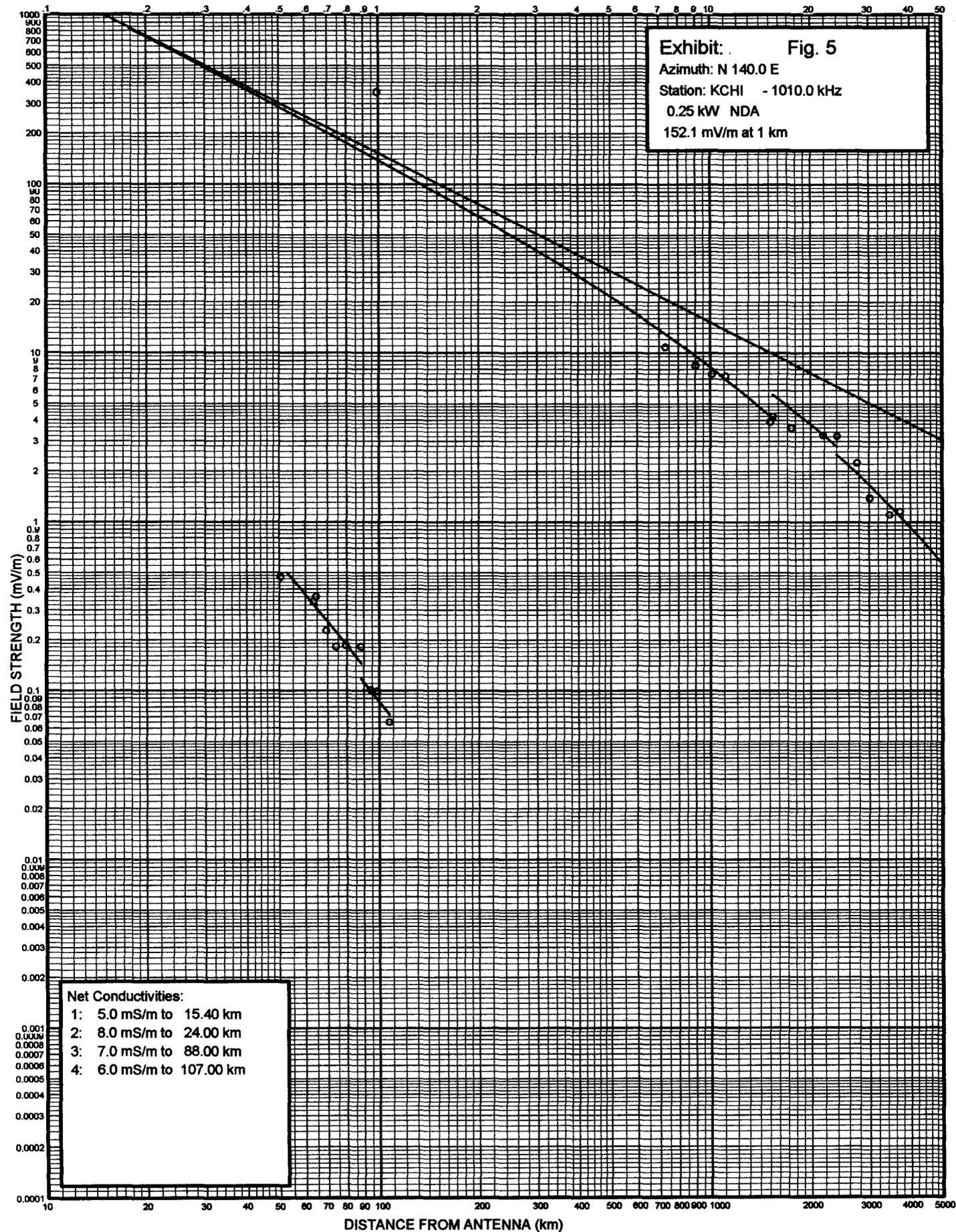
Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-21-04	1726	5.76	13.40
2	9-21-04	1710	7.51	12.50
3	9-21-04	1705	9.10	11.80
4	9-21-04	1658	11.80	11.00
5	9-21-04	1645	12.60	7.20
6	9-21-04	1640	19.70	3.30
7	9-21-04	1634	23.00	3.10
8	9-21-04	1626	26.60	2.35
9	9-22-04	1526	35.00	1.50
10	9-22-04	1514	40.10	1.51
11	9-22-04	1507	48.80	0.950
12	9-22-04	1456	53.30	0.830
13	9-22-04	1432	58.70	0.740
14	9-22-04	1407	72.60	0.530
15	9-22-04	1355	77.50	0.400
16	9-22-04	1344	85.10	0.360
17	9-22-04	1311	95.40	0.265
18	9-22-04	1303	97.10	0.245
19	9-22-04	1251	98.80	0.155
20	9-22-04	1257	99.70	0.225

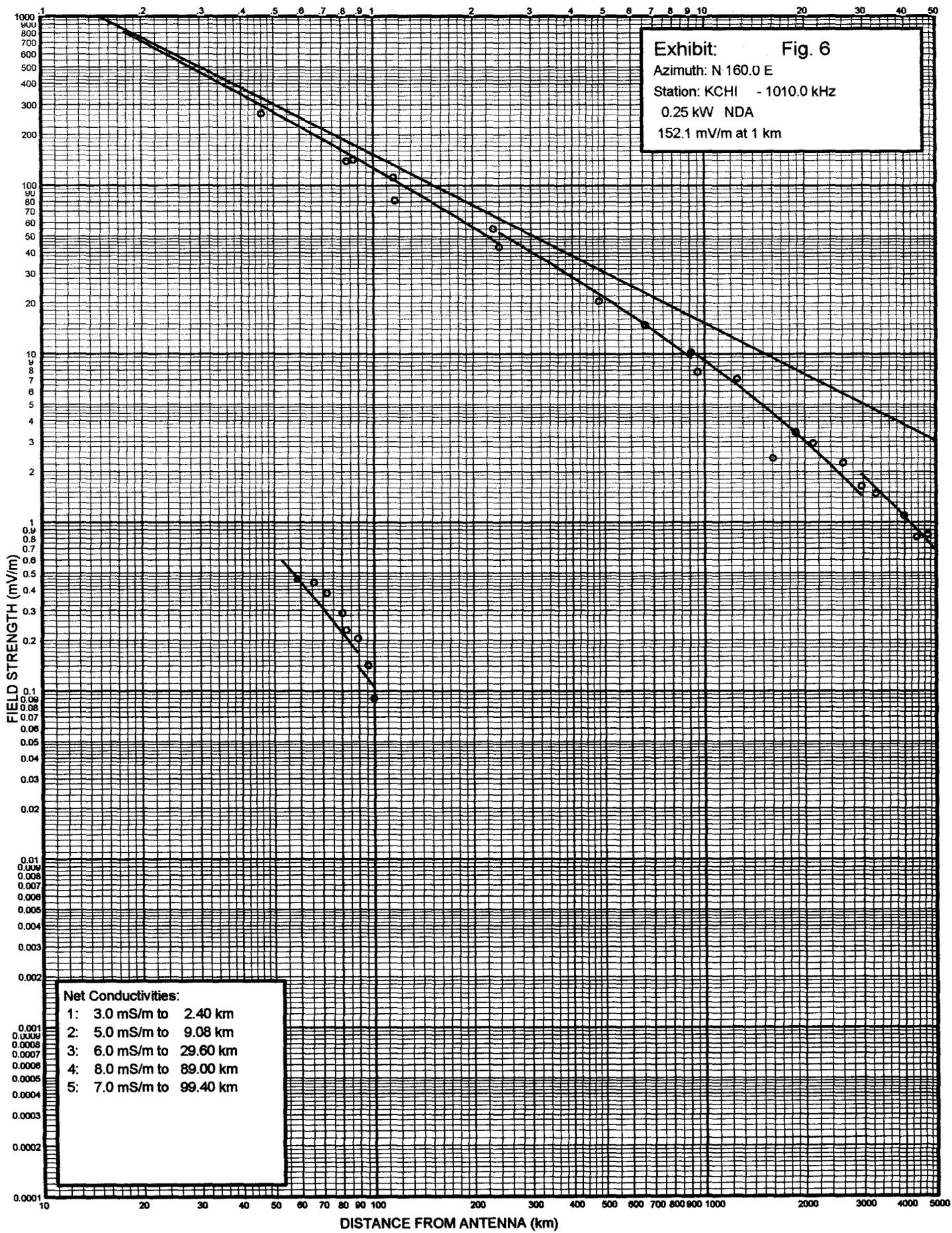






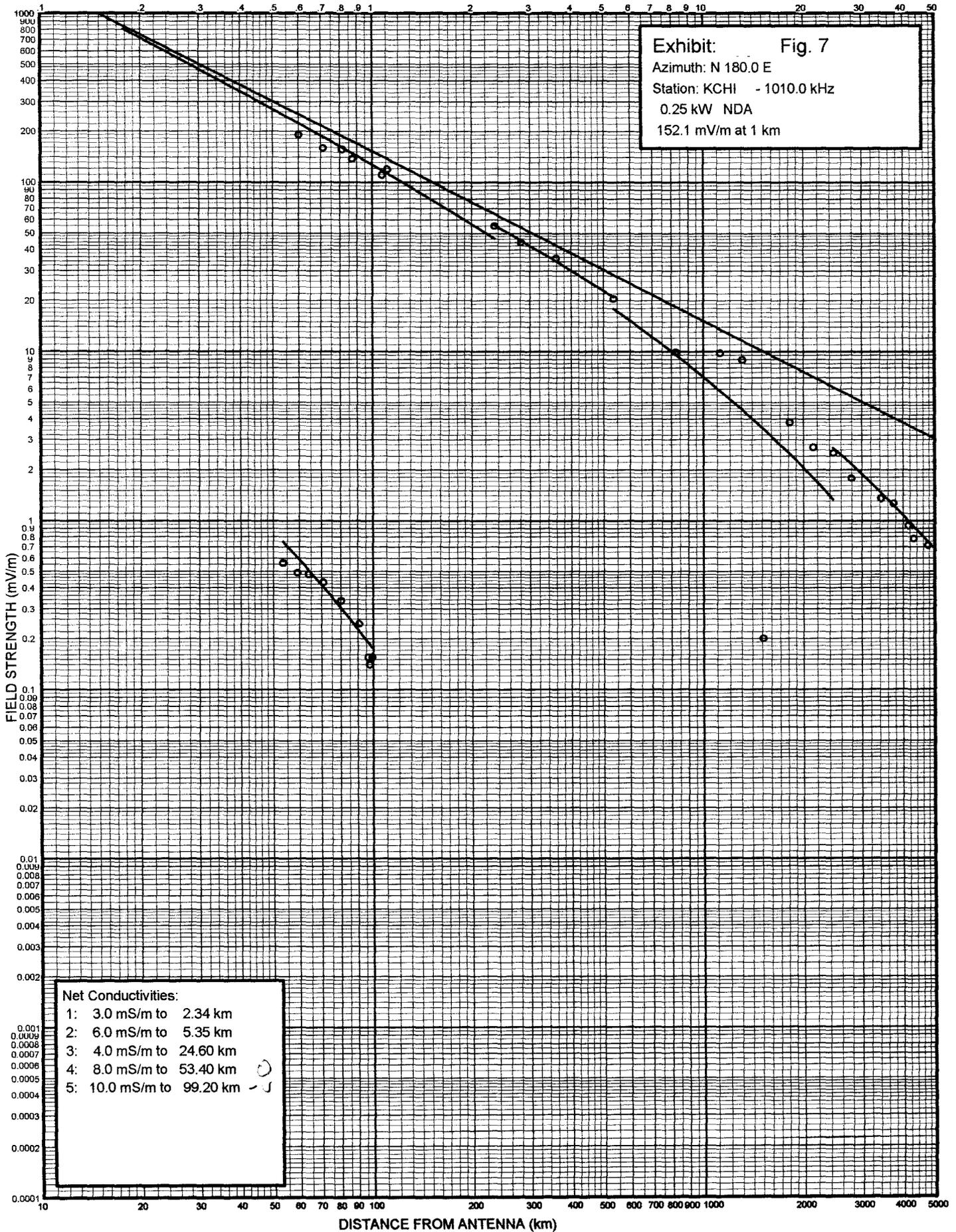


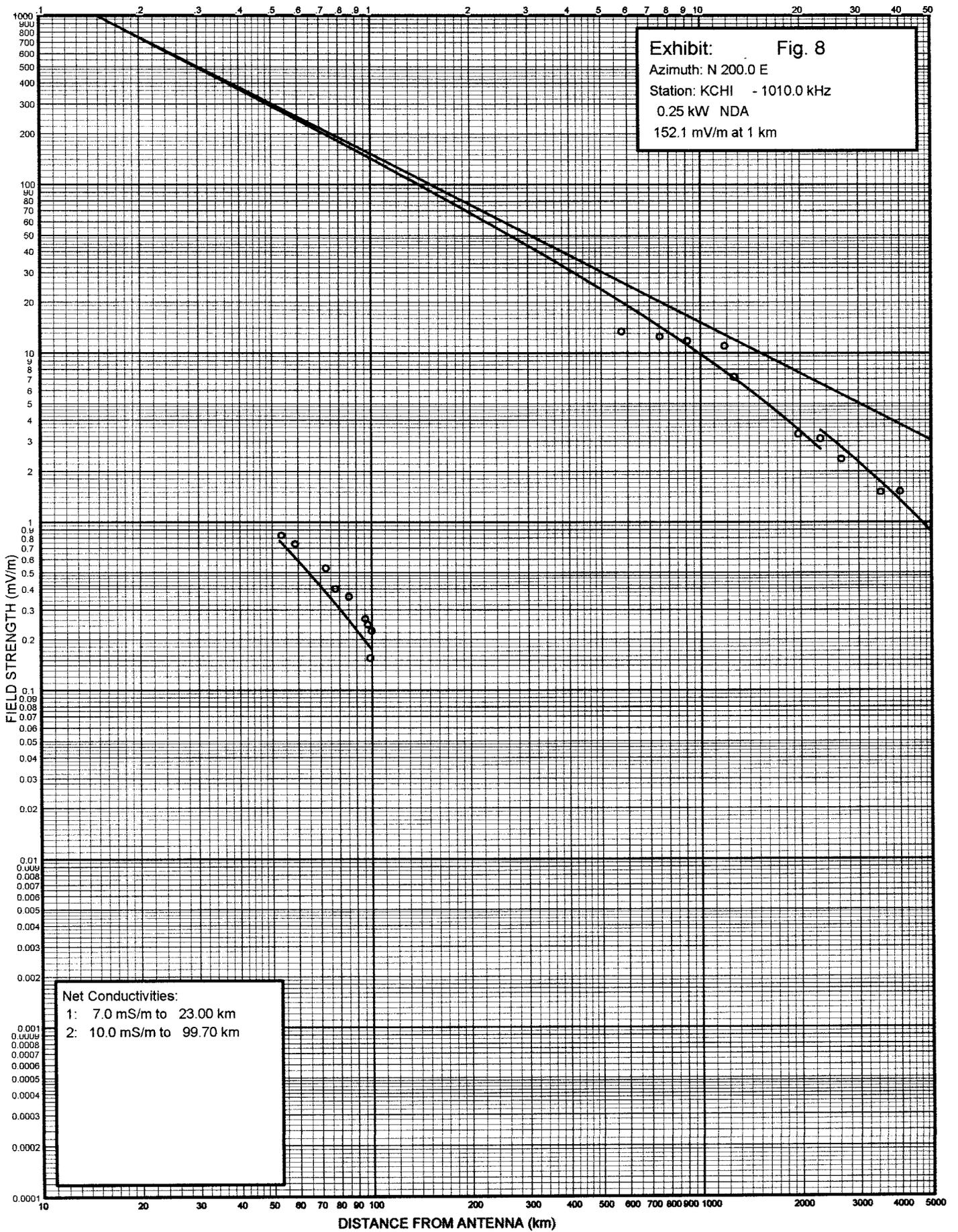




FIELD STRENGTH (mV/m)

DISTANCE FROM ANTENNA (km)





APPENDIX III, TABLE I
PAGE 1 of 2

FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 195.0 E

Call: WMVP
Frequency: 1000.0 kHz
Power: 50.000 kW
Pattern: DA-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-25-04	1513	0.66	1980.00
2	9-25-04	1623	0.73	1840.00
3	9-25-04	1622	0.79	1220.00
4	9-25-04	1617	0.94	1500.00
5	9-25-04	1609	1.32	860.00
6	9-25-04	1604	1.55	970.00
7	9-25-04	1601	1.68	780.00
8	9-25-04	1429	1.78	810.00
9	9-25-04	1425	2.47	415.00
10	9-25-04	1659	2.99	440.00
11	9-25-04	1708	6.06	205.00
12	9-25-04	1721	8.10	73.00
13	9-25-04	1736	18.50	15.00
14	9-25-04	1744	20.30	24.00
15	9-25-04	1755	25.80	22.40
16	9-25-04	1807	31.30	9.20
17	9-25-04	1814	33.00	9.90
18	9-26-04	0848	36.90	9.30
19	9-26-04	0855	40.40	7.90
20	9-26-04	0903	44.50	8.10
21	9-26-04	0919	53.60	3.60
22	9-26-04	0926	55.20	3.90
23	9-26-04	0946	66.50	2.05
24	9-26-04	1000	77.40	1.63
25	9-26-04	1010	83.00	1.38
26	9-26-04	1023	94.60	1.36
27	9-26-04	1033	105.00	1.14
28	9-26-04	1043	111.00	0.960
29	9-26-04	1055	122.00	0.880
30	9-26-04	1110	134.00	0.700
31	9-26-04	1124	148.00	0.710
32	9-26-04	1128	150.00	0.610

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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 215.0 E

Call: WMVP
Frequency: 1000.0 kHz
Power: 50.000 kW
Pattern: DA-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-25-04	1518	0.81	1750.00
2	9-25-04	1523	1.00	880.00
3	9-25-04	1526	1.09	1220.00
4	9-25-04	1533	1.35	900.00
5	9-25-04	1537	1.45	800.00
6	9-25-04	1540	1.61	780.00
7	9-25-04	1542	1.67	760.00
8	9-25-04	1550	1.87	710.00
9	9-25-04	1433	2.13	580.00
10	9-25-04	1418	3.09	385.00
11	9-25-04	1408	4.41	300.00
12	9-25-04	1355	6.65	175.00
13	9-25-04	1345	9.10	129.00
14	9-25-04	1335	11.00	74.00
15	9-25-04	1313	16.10	41.00
16	9-25-04	1257	19.20	34.50
17	9-25-04	1240	22.10	26.90
18	9-25-04	1224	28.00	19.10
19	9-25-04	1210	30.00	14.00
20	9-25-04	1200	34.10	5.70
21	9-25-04	1145	41.40	8.00
22	9-25-04	1128	53.90	6.10
23	9-25-04	1114	64.60	2.70
24	9-25-04	1055	78.10	2.80
25	9-25-04	1044	86.40	2.60
26	9-25-04	1030	95.90	2.20
27	9-25-04	1015	106.00	2.08
28	9-25-04	1002	114.00	1.46
29	9-25-04	0945	126.00	1.19
30	9-25-04	0929	138.00	1.00
31	9-25-04	0914	146.00	0.830
32	9-25-04	0905	152.00	0.820
33	9-25-04	0854	157.00	0.680

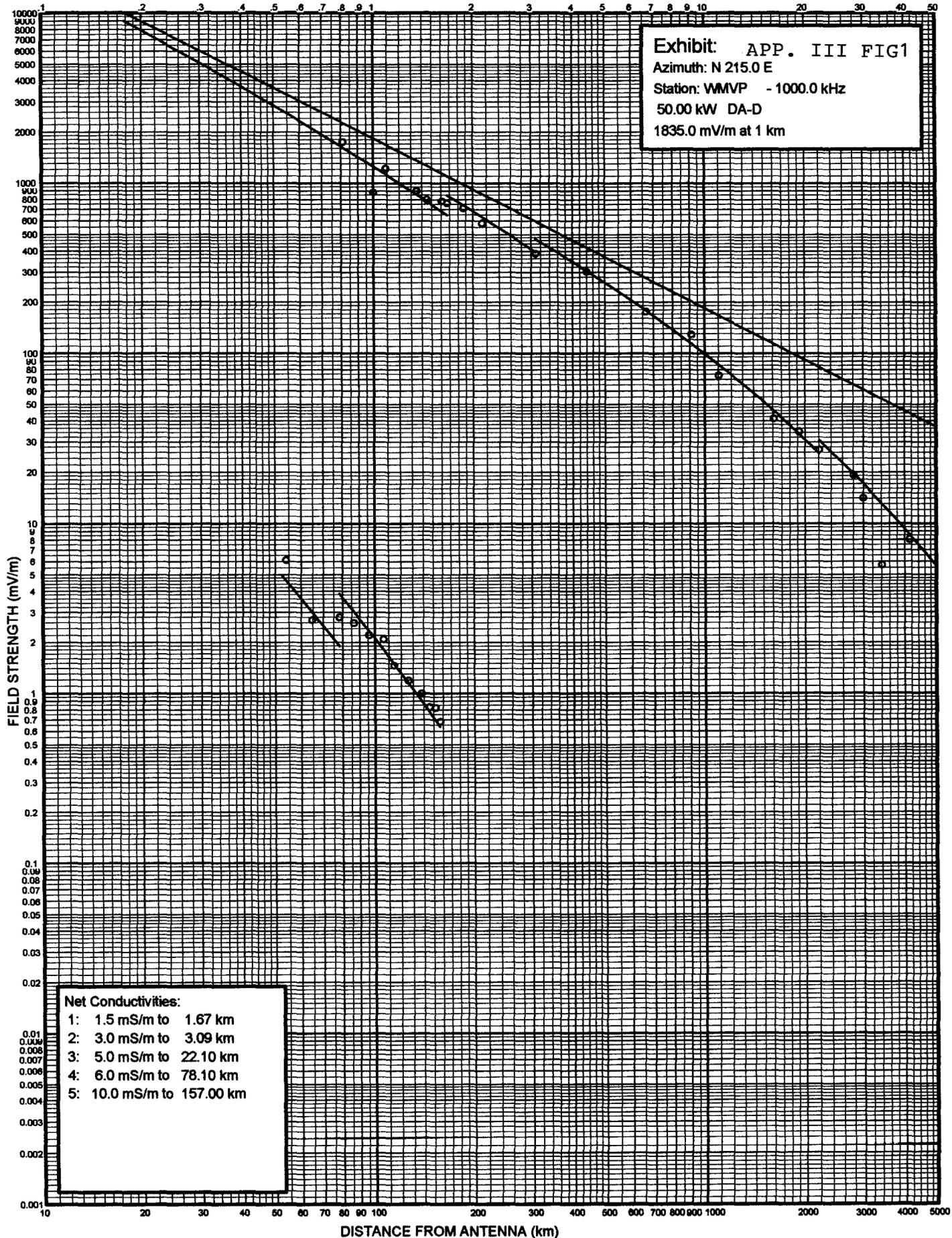
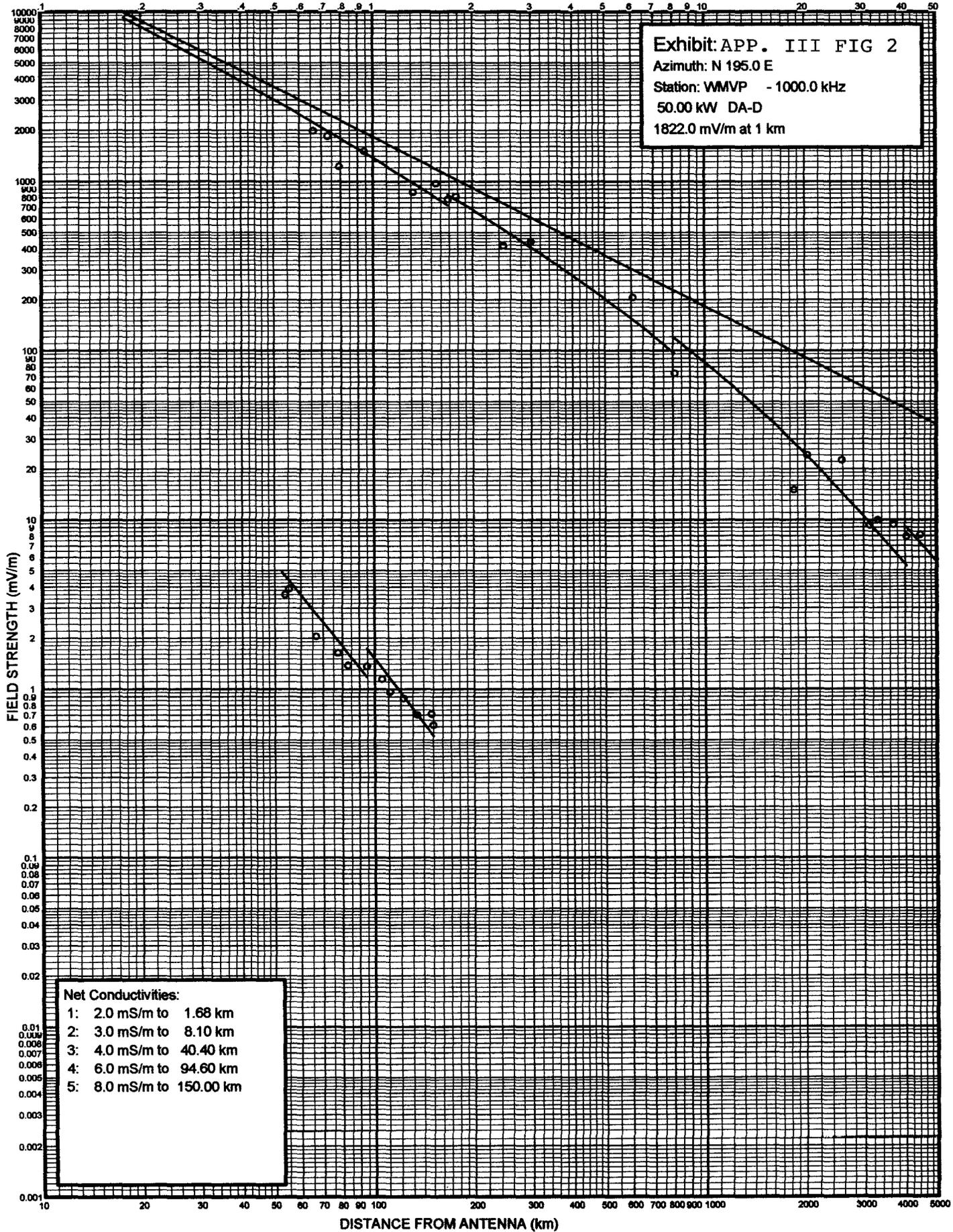


Exhibit: APP. III FIG1
 Azimuth: N 215.0 E
 Station: WMVP - 1000.0 kHz
 50.00 kW DA-D
 1835.0 mV/m at 1 km

Net Conductivities:

1:	1.5 mS/m to 1.67 km
2:	3.0 mS/m to 3.09 km
3:	5.0 mS/m to 22.10 km
4:	6.0 mS/m to 78.10 km
5:	10.0 mS/m to 157.00 km

Exhibit: APP. III FIG 2
 Azimuth: N 195.0 E
 Station: WMVP - 1000.0 kHz
 50.00 kW DA-D
 1822.0 mV/m at 1 km



Net Conductivities:
 1: 2.0 mS/m to 1.68 km
 2: 3.0 mS/m to 8.10 km
 3: 4.0 mS/m to 40.40 km
 4: 6.0 mS/m to 94.60 km
 5: 8.0 mS/m to 150.00 km

APPENDIX IV, TABLE I
PAGE 1 of 3

FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 160.0 E

Call: WPEO
Frequency: 1020.0 kHz
Power: 1.000 kW
Pattern: ND-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-26-04	1354	0.63	490.00
2	9-26-04	1346	0.70	340.00
3	9-26-04	1349	0.80	285.00
4	9-26-04	1443	1.08	235.00
5	9-26-04	1446	1.14	202.00
6	9-26-04	1450	1.21	196.00
7	9-26-04	1453	1.28	168.00
8	9-26-04	1501	1.97	84.00
9	9-26-04	1532	3.78	41.00
10	9-27-04	1547	7.28	18.30
11	9-27-04	0800	10.40	13.20
12	9-27-04	0807	12.70	10.20
13	9-27-04	0815	15.30	8.70
14	9-27-04	0820	17.10	7.90
15	9-27-04	0830	21.50	4.90
16	9-27-04	0834	24.40	2.90
17	9-27-04	0841	28.10	3.68
18	9-27-04	0850	30.60	2.88
19	9-27-04	0858	35.80	3.05
20	9-27-04	0907	42.00	1.50
21	9-27-04	0914	46.10	1.47
22	9-27-04	0923	51.20	1.15
23	9-27-04	0932	57.50	0.840
24	9-27-04	0950	66.90	0.790
25	9-27-04	0959	73.70	0.620
26	9-27-04	1010	82.40	0.460
27	9-27-04	1020	90.90	0.470
28	9-27-04	1030	97.70	0.340
29	9-27-04	1037	100.00	0.370

APPENDIX IV, TABLE I
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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 180.0 E

Call: WPEO
Frequency: 1020.0 kHz
Power: 1.000 kW
Pattern: ND-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-26-04	1324	3.51	51.00
2	9-27-04	1428	5.63	16.00
3	9-27-04	1422	7.93	14.50
4	9-27-04	1413	12.00	8.20
5	9-27-04	1407	14.50	6.60
6	9-27-04	1400	16.90	5.30
7	9-27-04	1355	19.70	4.10
8	9-27-04	1347	24.80	2.78
9	9-27-04	1341	26.50	2.90
10	9-27-04	1335	29.70	1.90
11	9-27-04	1328	35.40	1.78
12	9-27-04	1320	41.80	1.37
13	9-27-04	1311	46.70	1.14
14	9-27-04	1300	53.20	0.840
15	9-27-04	1255	57.50	0.550
16	9-27-04	1228	68.80	0.390
17	9-27-04	1210	78.40	0.490
18	9-27-04	1202	84.20	0.410
19	9-27-04	1146	92.30	0.320
20	9-27-04	1142	94.00	0.320
21	9-27-04	1142	95.90	0.330
22	9-27-04	1129	98.80	0.140

APPENDIX IV, TABLE I
PAGE 3 of 3

FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 200.0 E

Call: WPEO
Frequency: 1020.0 kHz
Power: 1.000 kW
Pattern: ND-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-26-04	1404	0.23	1930.00
2	9-26-04	1406	0.64	500.00
3	9-26-04	1412	0.77	440.00
4	9-26-04	1415	0.85	375.00
5	9-26-04	1417	0.99	349.00
6	9-26-04	1424	1.10	286.00
7	9-26-04	1426	1.20	273.00
8	9-26-04	1428	1.27	263.00
9	9-26-04	1232	1.66	178.00
10	9-24-04	1729	3.83	65.00
11	9-24-04	1716	8.38	17.80
12	9-24-04	1710	11.10	13.70
13	9-24-04	1650	15.40	7.90
14	9-24-04	1644	18.80	5.50
15	9-24-04	1634	24.90	3.25
16	9-24-04	1628	26.90	2.39
17	9-24-04	1617	34.30	1.74
18	9-24-04	1608	39.50	1.33
19	9-24-04	1601	43.10	1.22
20	9-24-04	1555	47.60	0.820
21	9-24-04	1548	52.30	1.00
22	9-24-04	1532	59.10	0.710
23	9-24-04	1526	63.00	0.640
24	9-24-04	1506	73.90	0.320
25	9-24-04	1451	81.30	0.260
26	9-24-04	1441	88.70	0.233
27	9-24-04	1427	97.40	0.210
28	9-24-04	1421	99.00	0.198
29	9-24-04	1402	113.00	0.165

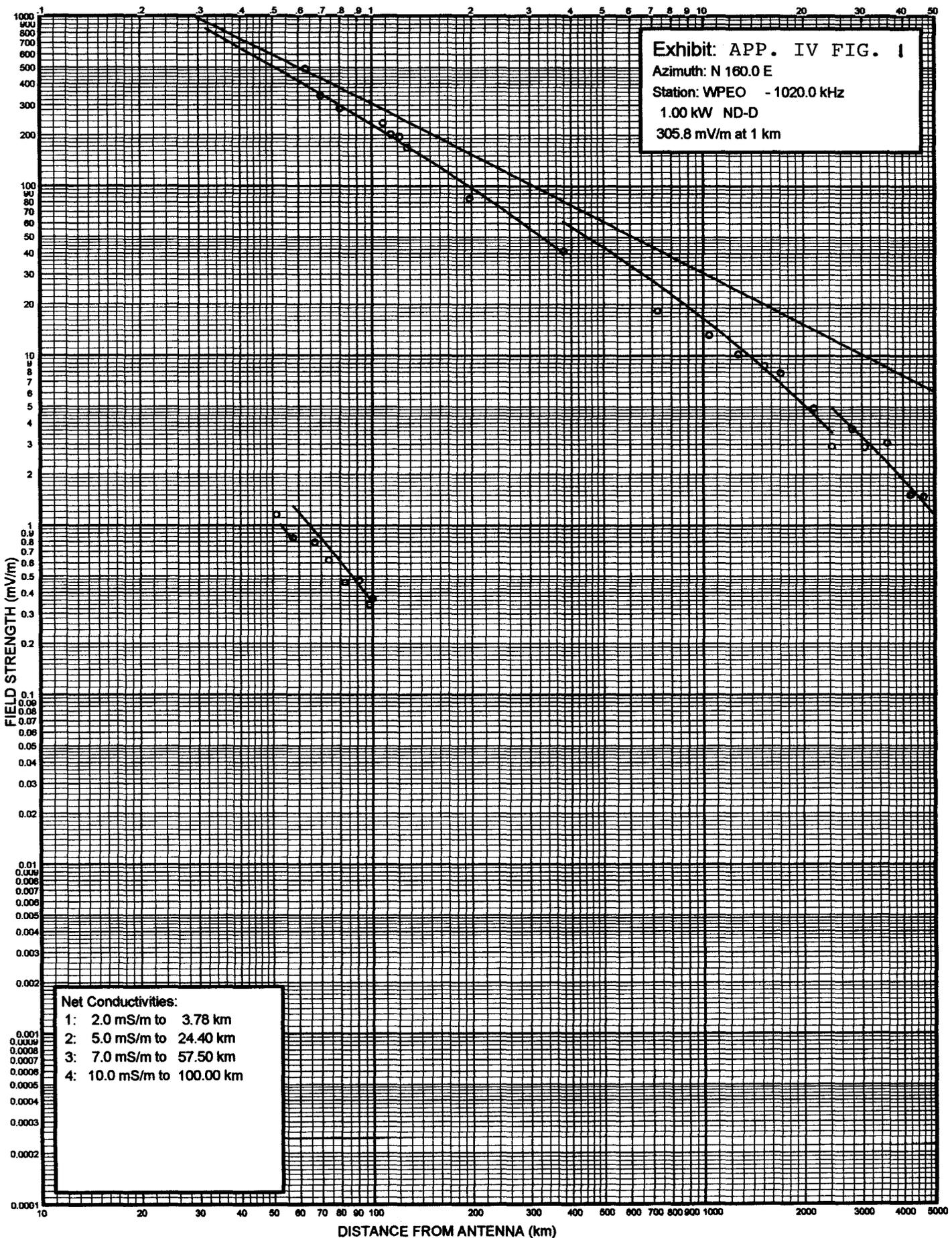


Exhibit: APP. IV FIG. 1
 Azimuth: N 160.0 E
 Station: WPEO - 1020.0 kHz
 1.00 kW ND-D
 305.8 mV/m at 1 km

Net Conductivities:
 1: 2.0 mS/m to 3.78 km
 2: 5.0 mS/m to 24.40 km
 3: 7.0 mS/m to 57.50 km
 4: 10.0 mS/m to 100.00 km

FIELD STRENGTH (mV/m)

DISTANCE FROM ANTENNA (km)

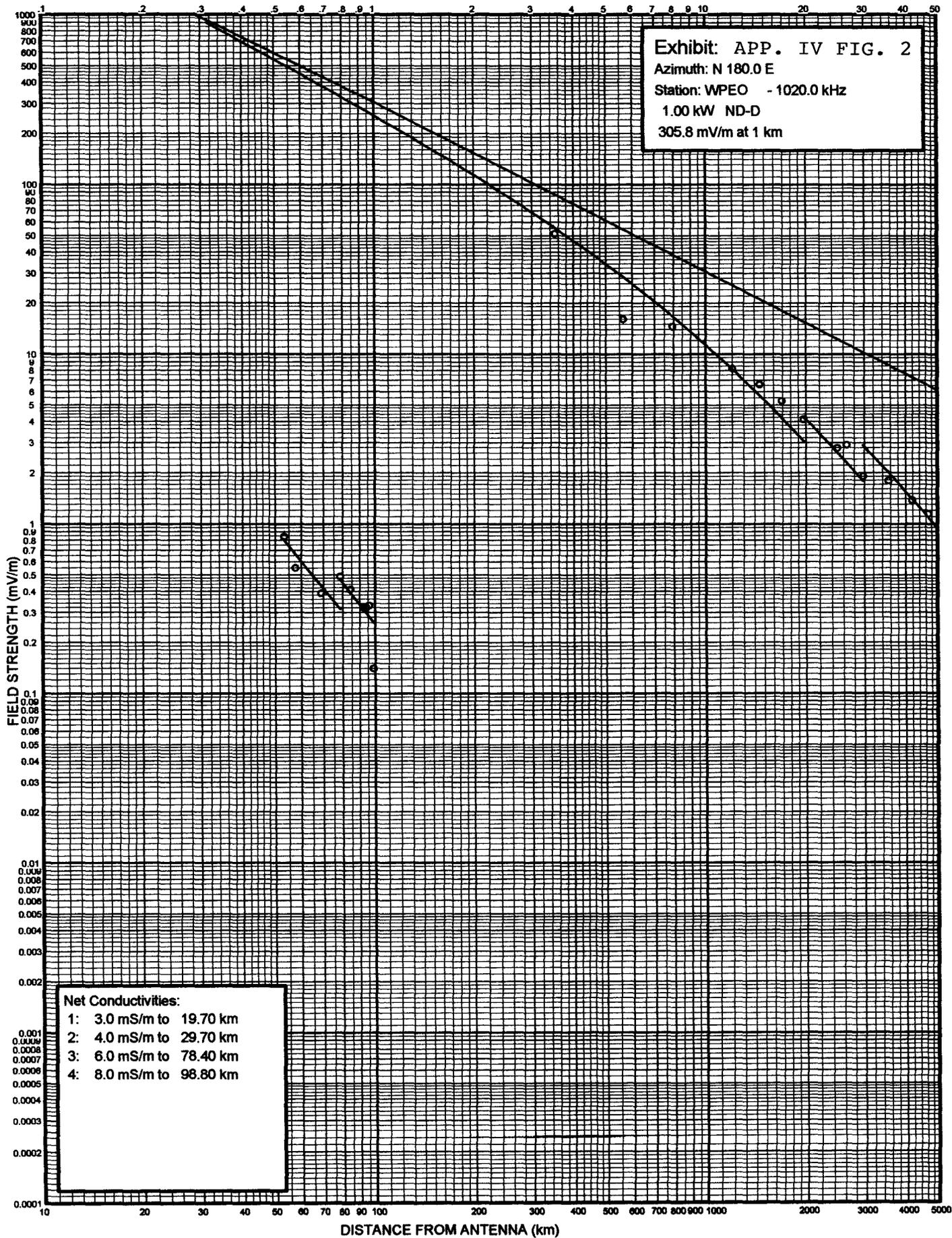
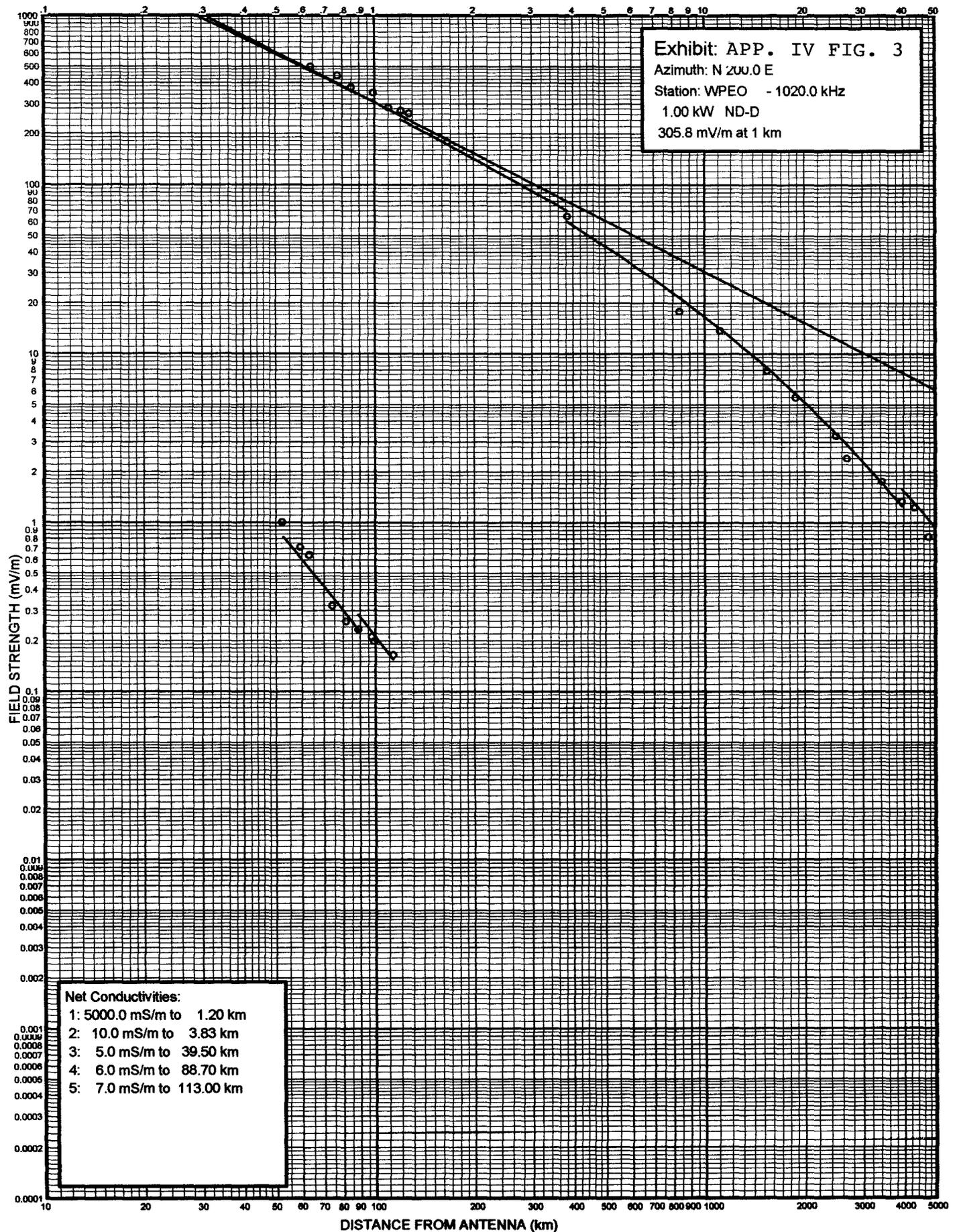


Exhibit: APP. IV FIG. 3
 Azimuth: N 200.0 E
 Station: WPEO - 1020.0 kHz
 1.00 kW ND-D
 305.8 mV/m at 1 km



Net Conductivities:
 1: 5000.0 mS/m to 1.20 km
 2: 10.0 mS/m to 3.83 km
 3: 5.0 mS/m to 39.50 km
 4: 6.0 mS/m to 88.70 km
 5: 7.0 mS/m to 113.00 km

APPENDIX V, TABLE I
PAGE 1 of 4

FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 10.0 E

Call: WCIL
Frequency: 1020.0 kHz
Power: 1.000 kW
Pattern: ND-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-28-04	1205	3.92	66.00
2	9-28-04	1200	4.75	50.00
3	9-28-04	1152	7.55	29.00
4	9-28-04	1141	10.30	15.80
5	9-28-04	1136	12.30	13.00
6	9-28-04	1126	16.30	7.80
7	9-28-04	1120	20.30	6.00
8	9-28-04	1112	23.70	4.05
9	9-28-04	1106	27.50	4.00
10	9-28-04	1057	32.40	3.16
11	9-28-04	1045	35.30	1.99
12	9-28-04	1035	40.10	1.97
13	9-28-04	1024	46.60	1.38
14	9-28-04	1015	51.20	1.12
15	9-28-04	1006	54.90	1.07
16	9-28-04	0955	61.60	0.760
17	9-28-04	0940	70.80	0.580
18	9-28-04	0916	77.70	0.270
19	9-28-04	0909	82.00	0.330
20	9-28-04	0905	84.30	0.305
21	9-28-04	0848	90.10	0.260

APPENDIX V, TABLE I
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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 30.0 E

Call: WCIL
Frequency: 1020.0 kHz
Power: 1.000 kW
Pattern: ND-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-29-04	1135	0.67	360.00
2	9-29-04	1138	0.78	315.00
3	9-29-04	1148	1.00	247.00
4	9-29-04	1151	1.10	191.00
5	9-29-04	1154	1.20	195.00
6	9-29-04	1156	1.30	182.00
7	9-29-04	1209	1.48	145.00
8	9-29-04	1206	1.62	98.00
9	9-29-04	1212	1.93	81.00
10	9-29-04	1216	3.61	56.00
11	9-29-04	1221	6.24	32.50
12	9-29-04	1234	13.60	11.20
13	9-29-04	1245	20.00	6.70
14	9-29-04	1247	20.80	6.20
15	9-29-04	1258	22.90	4.25
16	9-29-04	1303	27.00	4.80
17	9-29-04	1315	32.10	3.25
18	9-29-04	1326	38.30	1.48
19	9-29-04	1331	41.20	1.65
20	9-29-04	1339	43.30	1.43
21	9-29-04	1349	46.60	1.00
22	9-29-04	1415	57.10	0.900
23	9-29-04	1422	60.40	0.760
24	9-29-04	1432	68.10	0.450
25	9-29-04	1512	81.20	0.170
26	9-29-04	1518	83.30	0.210

APPENDIX V, TABLE I
PAGE 3 of 4

FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 250.0 E

Call: WCIL
Frequency: 1020.0 kHz
Power: 1.000 kW
Pattern: ND-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-28-04	1215	0.44	525.00
2	9-28-04	1217	0.64	370.00
3	9-28-04	1222	0.89	265.00
4	9-28-04	1231	1.16	175.00
5	9-28-04	1238	1.51	156.00
6	9-28-04	1244	2.38	73.00
7	9-28-04	1247	2.61	66.00
8	9-28-04	1250	2.85	56.00
9	9-28-04	1254	3.73	40.50
10	9-28-04	1256	4.11	44.00
11	9-28-04	1300	5.27	23.50
12	9-28-04	1315	9.52	11.30
13	9-28-04	1355	20.90	1.08
14	9-28-04	1350	21.10	1.12
15	9-28-04	1540	31.80	0.810
16	9-28-04	1536	32.20	0.870
17	9-28-04	1552	35.80	0.550
18	9-28-04	1605	42.60	0.405
19	9-28-04	1625	54.70	0.295
20	9-28-04	1638	62.00	0.225
21	9-28-04	1646	68.10	0.165
22	9-28-04	1656	74.20	0.121
23	9-28-04	1702	79.90	0.110

APPENDIX V, TABLE I
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FIELD STRENGTH MEASUREMENT DATA

Azimuth: N 270.0 E

Call: WCIL
Frequency: 1020.0 kHz
Power: 1.000 kW
Pattern: ND-D

Point Number	Date	Time	Distance (km)	Field Strength (mV/m)
1	9-29-04	1126	2.16	98.00
2	9-29-04	1115	5.76	20.30
3	9-28-04	1322	10.30	8.20
4	9-28-04	1335	15.30	3.30
5	9-28-04	1343	18.20	2.90
6	9-28-04	1407	25.50	1.79
7	9-28-04	1516	40.10	0.400
8	9-28-04	1513	40.60	0.540
9	9-29-04	1012	53.30	0.360
10	9-29-04	1016	55.10	0.272
11	9-29-04	1005	55.90	0.310
12	9-29-04	0957	59.30	0.268
13	9-29-04	0954	60.40	0.235
14	9-29-04	0910	75.50	0.107
15	9-29-04	0855	85.30	0.051
16	9-29-04	0840	95.80	0.045

