

# Exhibit #13

## R.E. Spence

### Vertical Radiation Data

2-bay Full Wave Spaced Circularly Polarized FM Antenna

Frequency = 

98.7
101

 Mhz  
Interfering Contour 

250
30

 ERP Watts =  
HAGL (m)=

Degrees	Rel. Field	Power	Distance to Contour	Degrees	Rel. Field	Power	Distance to Contour
1	1.000	250.0	988.4848	46	0.242	14.6	239.2133
2	0.995	247.5	983.5424	47	0.258	16.6	255.0291
3	0.989	244.5	977.6115	48	0.273	18.6	269.8564
4	0.980	240.1	968.7151	49	0.287	20.6	283.6951
5	0.969	234.7	957.8418	50	0.299	22.4	295.5570
6	0.956	228.5	944.9915	51	0.310	24.0	306.4303
7	0.941	221.4	930.1642	52	0.319	25.4	315.3267
8	0.974	237.2	962.7842	53	0.327	26.7	323.2345
9	0.923	213.0	912.3715	54	0.334	27.9	330.1539
10	0.881	194.0	870.8551	55	0.339	28.7	335.0964
11	0.858	184.0	848.1200	56	0.343	29.4	339.0503
12	0.832	173.1	822.4194	57	0.346	29.9	342.0157
13	0.805	162.0	795.7303	58	0.348	30.3	343.9927
14	0.776	150.5	767.0642	59	0.348	30.3	343.9927
15	0.745	138.8	736.4212	60	0.347	30.1	343.0042
16	0.714	127.4	705.7782	61	0.345	29.8	341.0273
17	0.681	115.9	673.1582	62	0.343	29.4	339.0503
18	0.647	104.7	639.5497	63	0.339	28.7	335.0964
19	0.612	93.6	604.9527	64	0.334	27.9	330.1539
20	0.576	82.9	569.3673	65	0.328	26.9	324.2230
21	0.539	72.6	532.7933	66	0.322	25.9	318.2921
22	0.502	63.0	496.2194	67	0.315	24.8	311.3727
23	0.465	54.1	459.6454	68	0.306	23.4	302.4764
24	0.427	45.6	422.0830	69	0.298	22.2	294.5685
25	0.387	37.4	382.5436	70	0.288	20.7	284.6836
26	0.352	31.0	347.9467	71	0.278	19.3	274.7988
27	0.314	24.6	310.3842	72	0.267	17.8	263.9254
28	0.277	19.2	273.8103	73	0.256	16.4	253.0521
29	0.240	14.4	237.2364	74	0.244	14.9	241.1903
30	0.203	10.3	200.6624	75	0.231	13.3	228.3400
31	0.168	7.1	166.0654	76	0.218	11.9	215.4897
32	0.132	4.4	130.4800	77	0.205	10.5	202.6394
33	0.098	2.4	96.8715	78	0.191	9.1	188.8006
34	0.065	1.1	64.2515	79	0.177	7.8	174.9618
35	0.032	0.3	31.6315	80	0.162	6.6	160.1345
36	0.001	0.0	0.9885	81	0.148	5.5	146.2958
37	0.029	0.2	28.6661	82	0.132	4.4	130.4800
38	0.058	0.8	57.3321	83	0.117	3.4	115.6527
39	0.086	1.8	85.0097	84	0.101	2.6	99.8370
40	0.112	3.1	110.7103	85	0.085	1.8	84.0212
41	0.137	4.7	135.4224	86	0.069	1.2	68.2055
42	0.161	6.5	159.1461	87	0.052	0.7	51.4012
43	0.183	8.4	180.8927	88	0.036	0.3	35.5855
44	0.204	10.4	201.6509	89	0.018	0.1	17.7927
45	0.224	12.5	221.4206	90	0.000	0.0	0.0000