

Exhibit 12
Terrain and Contour Data
AP283 Houghton, NY

ERP 0.010 kW
N. Lat. 42 27 41
W. Lon. 78 18 26
Center of Radiation 725.00 m AMSL

Azimuth Deg T.	Avg Elev 3-16 km Meters AMSL	Effective Antenna Ht Meters AAT	ERP Kilowatts	Distance to Contour (km) 34.0 dBu F(50,10)
0	579.4	145.6	0.0100	33.2
30	598.0	127.0	0.0100	30.9
60	541.4	183.6	0.0100	37.1
-->90	497.4	227.6	0.0100	41.4<--
120	508.4	216.6	0.0100	40.3
150	539.3	185.7	0.0100	37.3
180	542.4	182.6	0.0100	37.0
210	597.3	127.7	0.0100	31.0
240	566.1	158.9	0.0100	34.7
270	539.3	185.7	0.0100	37.3
300	514.1	210.9	0.0100	39.7
330	540.9	184.1	0.0100	37.1
Average	547.000	178.000	<--HAAT m	
Area	(sq. km.)			4198.19
2000 Grouped Population				82412