

**EXHIBIT 29**  
**CONTOUR PROTECTION**  
**APPLICATION FOR CONSTRUCTION PERMIT**  
**RADIOACTIVE, LLC**  
**SARANAC LAKE, NEW YORK**  
**CH 296C3    11 KW (MAX-DA, H&V)    150 METERS**

By this one-step application for construction permit, RadioActive, LLC (hereinafter RadioActive) seeks authority to substitute channel 296C3 for channel 296A at Saranac Lake, New York. RadioActive proposes to construct a new commercial FM broadcast station at geographic coordinates 44° 22' 54" North Latitude, 74° 10' 04" West Longitude (NAD27), to operate on channel 296C3 (107.1 megahertz (MHz)) with a maximum effective radiated power (ERP) of 11 kilowatts (kW), circularly polarized, and antenna radiation center height above average terrain (HAAT) of 150 meters. The antenna radiation center height above ground level (AGL) will be 34 meters. This proposal has both domestic and international (Canada) allocation considerations.

**DOMESTIC ALLOCATION CONCERNS**

The use of channel 296C3 at the proposed site meets the minimum distance separation requirements set forth in Section 73.215(e) of the FCC rules with respect to FM stations WFFG-FM and WORK(FM) and Section 73.207(b)(1) of the FCC rules with respect to all other domestic assignments and allotments. Thus, RadioActive may be authorized to operate with maximum Class C3 facilities in all directions except those where such operation would cause prohibited contour overlap with WFFG-FM or WORK(FM).

WFFG-FM, Corinth, New York, operates on channel 296A with 2.85 kW ERP and 148 meters antenna radiation center HAAT at a site located at geographic coordinates 43° 14' 40" North Latitude, 73° 46' 18" West Longitude (NAD27). The proposed RadioActive site is located 130.31 kilometers from WFFG-FM. The minimum Class C3 to Class A co-channel distance separation requirement under Section 73.207(b)(2) of the FCC rules is 142 kilometers. Thus, the RadioActive site is short-spaced 11.7 kilometers

with respect to WFFG-FM. The minimum Class C3 to Class A co-channel distance separation requirement under Section 73.215(e) of the FCC rules is 119 kilometers. Thus the RadioActive site satisfies the minimum distance separation requirement of Section 73.215 of the rules by 11.3 kilometers with respect to WFFG-FM.

WORK(FM), Barre, Vermont operates on channel 296A with 3.9 kW ERP and 127 meters antenna radiation center HAAT at a site located at geographic coordinates 44° 09' 30" North Latitude, 72° 28' 46" West Longitude (NAD27). The proposed RadioActive site is located 137 kilometers from WORK(FM). The minimum Class C3 to Class A co-channel distance separation requirement under Section 73.207(b)(2) of the FCC rules is 142 kilometers. Thus the RadioActive site is short-spaced 5.0 kilometers with respect to WORK(FM). The minimum Class C3 to Class A co-channel distance separation requirement under Section 73.215(e) of the FCC rules is 119 kilometers. Thus the RadioActive site satisfies the minimum distance separation requirement of Section 73.215 of the rules by 18 kilometers with respect to WORK(FM).

In the case of the co-channel Class A WFFG-FM, Section 73.215(a) states that objectionable interference shall be considered to exist if the RadioActive 40 dBμ F(50,10) interfering contour overlaps the full Class A facility WFFG-FM 60 dBμ F(50,50) protected service contour or if the full Class A facility WFFG-FM 40 dBμ F(50,10) interfering contour overlaps the RadioActive 60 dBμ F(50,50) protected service contour. Figure 4 of this exhibit shows that the proposed RadioActive 40 dBμ F(50,10) interfering contour does not overlap the full Class A facility WFFG-FM 60 dBμ F(50,50) protected service contour nor does the full Class A facility WFFG-FM 40 dBμ F(50,10) interfering contour overlap the RadioActive 60 dBμ F(50,50) protected service contour.

In the case of the co-channel Class A WORK(FM), Section 73.215(a) states that objectionable interference shall be considered to exist if the RadioActive 40 dBμ F(50,10) interfering contour overlaps the full Class A facility WORK(FM) 60 dBμ F(50,50) protected service contour or if the full Class A facility WORK(FM) 40 dBμ F(50,10) interfering contour overlaps the RadioActive 60 dBμ F(50,50) protected service

contour. Figure 4 of this exhibit shows that the proposed RadioActive 40 dB $\mu$  F(50,10) interfering contour does not overlap the full Class A facility WORK(FM) 60 dB $\mu$  F(50,50) protected service contour nor does the full Class A facility WORK(FM) 40 dB $\mu$  F(50,10) interfering contour overlap the RadioActive 60 dB $\mu$  F(50,50) protected service contour.

RadioActive proposes to use a directional antenna for the purpose of limiting radiation toward domestic FM stations WFFG-FM and WORK(FM). To comport with Section 73.215(a)(2), use of a directional antenna with a maximum suppression of 1.5 dB is necessary. RadioActive's proposed use of a directional antenna for protection of domestic FM stations fully comports with Section 73.316(b).

### **INTERNATIONAL ALLOCATION CONCERNS**

The proposed RadioActive transmitter site is approximately 69 kilometers from the US-Canada border and is short-spaced with respect to one Canadian assignment: the Class C1 first adjacent channel operation of CITEFM, Montreal, Quebec.

While the proposed site does not meet the working minimum distance separation requirements with respect to CITEFM, no prohibited contour overlap with any of the Canadian facilities or allotments is created by the instant application. In compliance with the standards set forth in the 1991 *Working Agreement Between the Government of Canada and the Government of the United States of America* as amended in 1997 (Agreement) RadioActive proposes to use a directional antenna to limit radiation toward Canada.

CITEFM, Montreal, Quebec, operates on channel 297C1 with 43 kW ERP and 297 meters antenna radiation center HAAT at a site located at geographic coordinates 45° 30' 20" North Latitude, 73° 35' 22" West Longitude (NAD27). The proposed RadioActive site is located 133 kilometers from CITEFM. The minimum Class C3 to Class C1 first adjacent distance separation requirement under the working version of 73.207(b)(2)

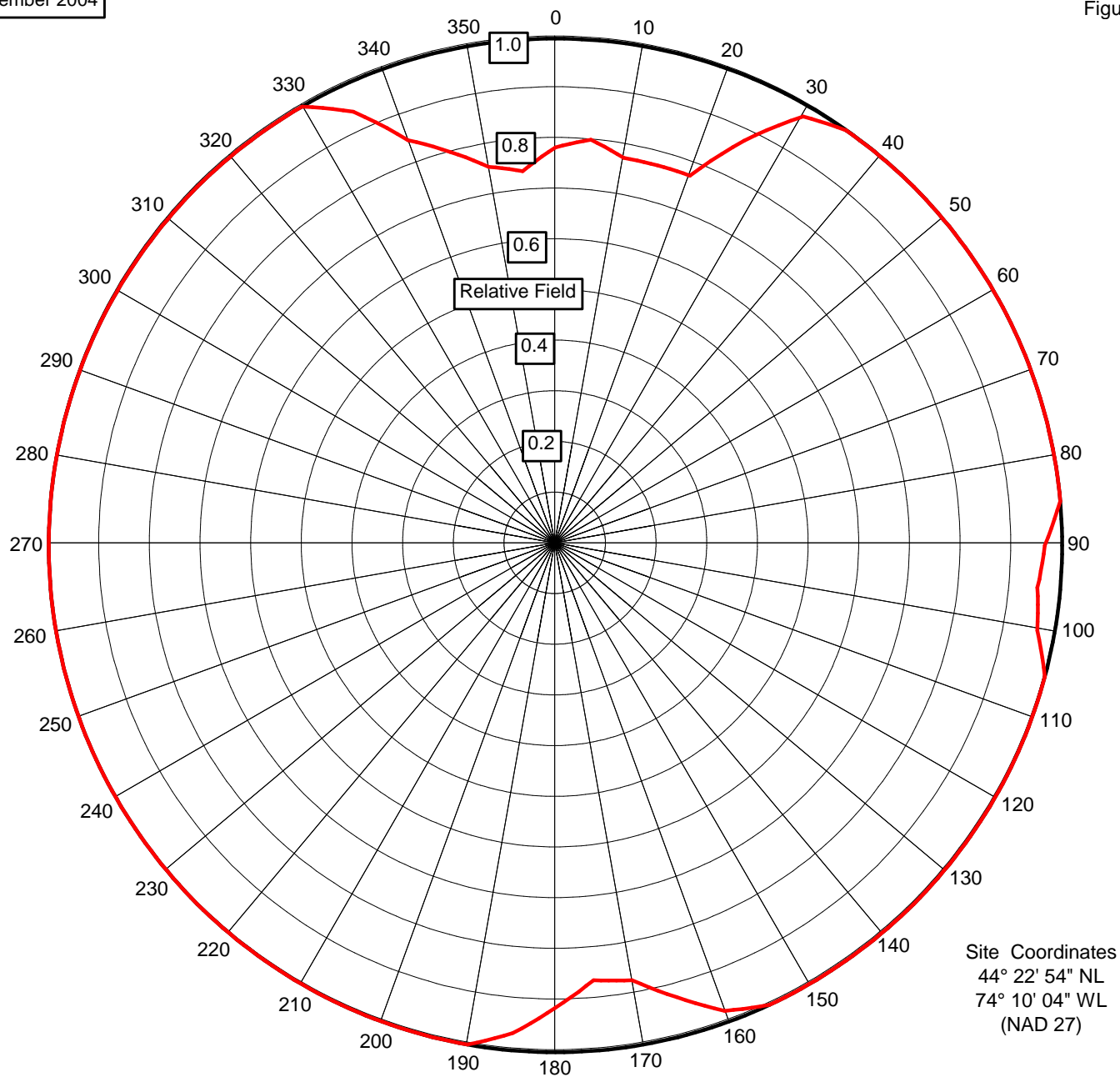
contained in the Agreement is 181 kilometers. Thus the RadioActive site is short-spaced 48.1 kilometers with respect to CITEFM.

In the case of the first adjacent channel Class C1 operation of CITEFM, the Agreement states that objectionable interference shall be considered to exist if the RadioActive 48 dB $\mu$  F(50,10) interfering contour overlaps the CITEFM 54 dB $\mu$  F(50,50) protected service contour. Figure 4 of this exhibit shows that the proposed RadioActive 48 dB $\mu$  F(50,10) interfering contour only overlaps the CITEFM 54 dB $\mu$  F(50,50) protected service contour within the United States.

RadioActive also proposes to use a directional antenna for the purpose of limiting radiation toward Canada for the arc from Azimuth 330 degrees True proceeding clockwise to an Azimuth of 35 degrees True. To comport with the requirements of the Agreement with respect to Canadian allotments and assignments, use of a directional antenna with maximum suppression of 2.7 dB is necessary. The proposed directional antenna comports fully with Section 73.316(b)(2) of the FCC Rules.

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Figure 1



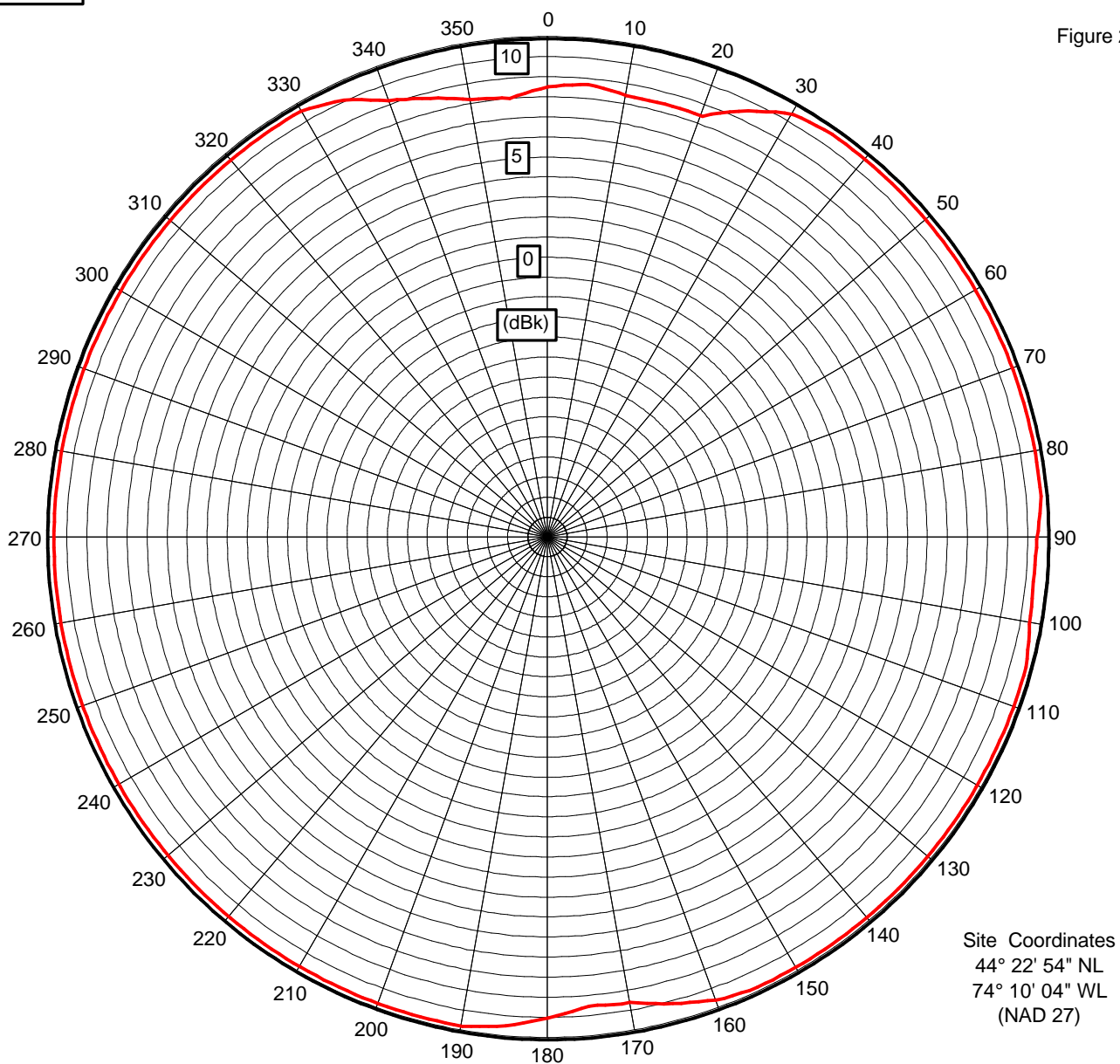
### ANTENNA HORIZONTAL PLANE RADIATION PATTERN (RELATIVE FIELD)

SARANAC LAKE, NEW YORK  
CH 296C3 11 KW 150 METERS AAT

Denny & Associates, P.C. Consulting Engineers

December 2004

Figure 2



ANTENNA THEORETICAL HORIZONTAL PLANE RADIATION PATTERN  
(dBk)

SARANAC LAKE, NEW YORK  
CH 296C3 11 KW (MAX-DA) 150 METERS

Denny & Associates, P.C. Consulting Engineers

Proposed FM Directional Antenna  
Horizontal Plane Tabulated Pattern Data  
Saranac Lake, New York  
Channel 296C3

Figure 3  
Sheet 1

Azimuth (Deg. T)	Relative Field		ERP (dBk)	Attenuation (dB)
0	0.7852		8.3	-2.10
5	0.8035		8.5	-1.90
10	0.7762		8.2	-2.20
15	0.7762		8.2	-2.20
20	0.7762		8.2	-2.20
25	0.8810		9.3	-1.10
30	0.9772		10.2	-0.20
35	1.0000	#	10.4	0.00
40	1.0000	#	10.4	0.00
45	1.0000	#	10.4	0.00
50	1.0000	#	10.4	0.00
55	1.0000	#	10.4	0.00
60	1.0000	#	10.4	0.00
65	1.0000	#	10.4	0.00
70	1.0000	#	10.4	0.00
75	1.0000	#	10.4	0.00
80	1.0000	#	10.4	0.00
85	1.0000	#	10.4	0.00
90	0.9661		10.1	-0.30
95	0.9550	**	10.0	-0.40
100	0.9661		10.1	-0.30
105	1.0000	#	10.4	0.00
110	1.0000	#	10.4	0.00
115	1.0000	#	10.4	0.00
120	1.0000	#	10.4	0.00
125	1.0000	#	10.4	0.00
130	1.0000	#	10.4	0.00
135	1.0000	#	10.4	0.00
140	1.0000	#	10.4	0.00
145	1.0000	#	10.4	0.00
150	1.0000	#	10.4	0.00
155	1.0000	#	10.4	0.00
160	0.9772		10.2	-0.20
165	0.9226		9.7	-0.70
170	0.8710		9.2	-1.20
175	0.8610	**	9.1	-1.30
180	0.9120		9.6	-0.80
185	0.9661		10.1	-0.30
190	1.0000	#	10.4	0.00
195	1.0000	#	10.4	0.00
200	1.0000	#	10.4	0.00
205	1.0000	#	10.4	0.00
210	1.0000	#	10.4	0.00
215	1.0000	#	10.4	0.00
220	1.0000	#	10.4	0.00
225	1.0000	#	10.4	0.00

# Pattern Maximum

\* Pattern Minimum

\*\* Local Pattern Minimum

Denny & Associates, PC  
Consulting Engineers

Proposed FM Directional Antenna  
Horizontal Plane Tabulated Pattern Data  
Saranac Lake, New York  
Channel 296C3

Figure 3  
Sheet 2

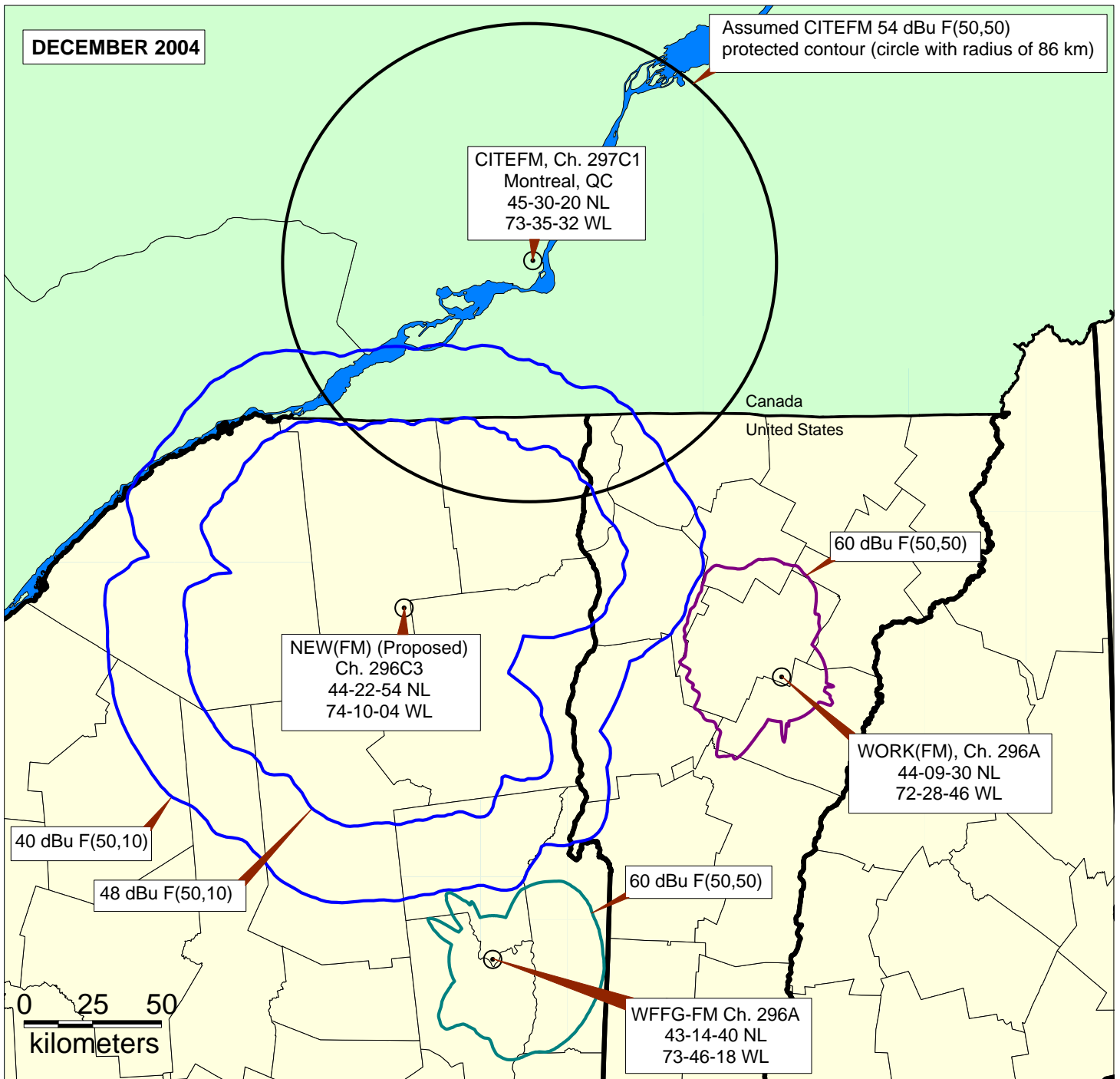
Azimuth (Deg. T)	Relative Field		ERP (dBk)	Attenuation (dB)
230	1.0000	#	10.4	0.00
235	1.0000	#	10.4	0.00
240	1.0000	#	10.4	0.00
245	1.0000	#	10.4	0.00
250	1.0000	#	10.4	0.00
255	1.0000	#	10.4	0.00
260	1.0000	#	10.4	0.00
265	1.0000	#	10.4	0.00
270	1.0000	#	10.4	0.00
275	1.0000	#	10.4	0.00
280	1.0000	#	10.4	0.00
285	1.0000	#	10.4	0.00
290	1.0000	#	10.4	0.00
295	1.0000	#	10.4	0.00
300	1.0000	#	10.4	0.00
305	1.0000	#	10.4	0.00
310	1.0000	#	10.4	0.00
315	1.0000	#	10.4	0.00
320	1.0000	#	10.4	0.00
325	1.0000	#	10.4	0.00
330	1.0000	#	10.4	0.00
335	0.9441		9.9	-0.50
340	0.8511		9.0	-1.40
345	0.8035		8.5	-1.90
350	0.7586		8.0	-2.40
355	0.7413	*	7.8	-2.60

# Pattern Maximum  
\* Pattern Minimum  
\*\* Local Pattern Minimum

Denny & Associates, PC  
Consulting Engineers



Figure 4



## CANADA-UNITED STATES CONTOUR PROTECTION STUDY

Prepared for  
RADIOACTIVE, LLC.  
STATION NEW(FM) (PROPOSED) SARANAC LAKE, NEW YORK  
CH 296C3 11 KW (MAX-DA, H&V) 150 METERS

Denny & Associates, P.C. Consulting Engineers